



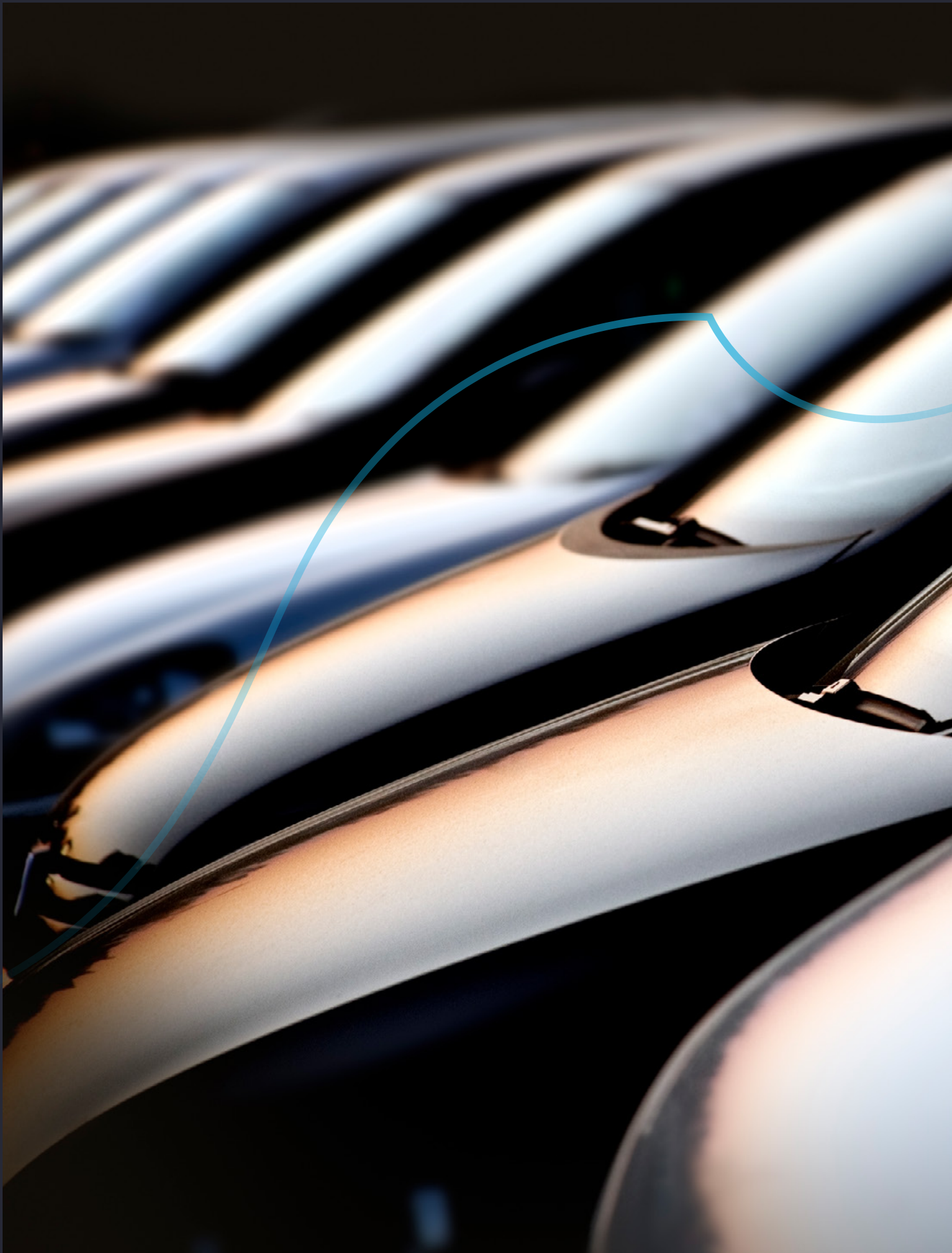
Navigating the Aftermarket

Examining the routes to
aftersales value creation

Capgemini  invent

Contents

- Executive Summary..... 4
- Introduction..... 6
 - Current market landscape..... 7
 - How market dynamics impact aftersales..... 8
 - The impact of market dynamics on profit pools..... 10
- What OEMs need to address to shape their future aftersales market..... 12
 - 1. CX in aftersales: A must-win battle for traditional OEMs..... 13
 - 2. Leveraging customers’ full potential with stronger integration of sales and aftersales..... 16
 - 3. New mobility services challenges and opportunities: The shift from product to experience..... 18
 - 4. Moving beyond data collection to data crunching and its monetization..... 20
 - 5. Proficient workshop management needs integrated data..... 22
 - 6. Charging offers require disruptions, not status quo..... 24
 - 7. Best-in-class battery management will become a non-negotiable for OEMs..... 26
 - 8. Residual value-oriented offers: The key to second and third market loyalization..... 28
 - 9. Warranty: Why goodwill is as important as profit..... 32
 - 10. How Generative AI is improving business performance..... 34
- Actions for success..... 36
- A checklist for OEMs..... 38
 - Today: Fixing the basics..... 38
 - Tomorrow: Investing in new and prospering profit pools..... 39



Executive Summary

Amidst a shifting automotive landscape driven by the imperatives of digitalization and sustainability, the industry finds itself at a transformative crossroad. Electric vehicles (EVs) are taking center stage in an emission-reducing revolution. Meanwhile, cutting-edge technologies, such as autonomous driving and vehicle connectivity, are reshaping how we define mobility. And with changing consumer preferences towards shared transportation, rapid innovation in vehicle experience is more pronounced than ever.

These changes are not confined to vehicle manufacturing; they exert a profound influence on the aftersales market.

The increased complexity of EVs requires dedicated maintenance and repair services, creating opportunities for specialized aftersales providers. On the other hand, because they lack a combustion engine, EVs also lead to fewer repairs per vehicle. Additionally, the emergence of software-defined and autonomous vehicles enables proactive maintenance, reduces breakdowns, and transforms the traditional reactive repair model into a more predictive approach, to mention but a few of the many opportunities. This substantial change is reshaping the landscape of aftersales services. Thus, a customer-centric aftersales strategy for 2030 has never been more vital in this evolving paradigm.

Five core dynamics will shape the future of automotive aftersales and their influence of associated profit pools:¹

The threat

– New market players

Emerging market entrants, such as Polestar and NIO, are introducing competition and disrupting the market. Collaborations with energy service providers and established tech service providers, such as Google, are further propelling the industry's transformation.

The big hope

– Rising customer expectations

Prioritizing interactions and reducing waiting times are vital for enhancing loyalty and satisfaction. Notably, over 70% of customers express dissatisfaction with the current service and would not recommend it, while a striking 91% of customers are eager to invest more for an enhanced service experience.

The game changer

– Electrification

Ongoing electrification reduces demand for traditional maintenance services by approximately 20%, due to the simplicity of electric vehicles. However, it paves the way for new services, such as mobile solutions and tire wear management, making adaptation crucial for OEMs.

The innovator

– Software-defined vehicles

Technological advancements in software-defined vehicles, driven by AI, IoT, and telematics, offer opportunities for improved efficiency and transparency. Transitioning to predictive technologies can optimize the customer experience, with 88% of customers willing to pay for mobile service anytime and anywhere.

The rational

– Sustainability

Sustainability takes center stage in a climate-conscious era. OEMs must address sustainability and resource constraints. Remanufacturing, especially in spare parts, plays a vital role in environmental preservation, with 85% of customers expressing their willingness to use refurbished parts in the name of sustainability. Regulatory influences need to be integrated into aftersales strategies to align with these changes.

¹ Basis: Capgemini Invent comprehensive analysis, including a Capgemini Invent Aftersales Study with a customer survey involving over 2,500 premium OEM customers

These trends will significantly affect aftersales profit pools by 2035, which can be categorized into three groups based on their expected revenue potential:



The winners

Connected services, such as remote services, and new business models (e.g., around refurbished parts or battery farming) show substantial potential to quadruple revenues as customers are willing to pay for them. This impact is compounded by ongoing software implementation. Despite potential pressure from new market players, valuable collaboration opportunities abound in this sector poised for significant growth and prosperity.



The keepers

In the context of wheels and tires, the revenue potential remains stable, largely thanks to the increased wear from more prevalent heavier EV vehicles. This effectively offsets potential negative influences stemming from sustainability-related price increases and heightened competition from specialized wheel providers, maintaining the stability of this profit pool.



The losers

Revenues from service and maintenance, spare parts, and repairs are expected to take a downturn. This is because EVs have fewer components and improved Advanced Driver Assistance Systems (ADAS), resulting in fewer anticipated breakdown and repair workshop visits.

Based on our findings, we do not foresee a big impact on the aftersales profit size until 2030, primarily due to the growing market. From 2030 onwards, disruption will be attributed to such factors as market saturation, the widespread adoption of predictive technologies, and the impact of electrification. In light of these challenges, OEMs need to adapt by investing in promising sectors and fostering innovation in bolder areas.

So, what does the roadmap for OEMs look like in response to these changes? In the short-term, OEMs must address

fundamental issues before defining their aftersales approach and achieving swift results. These measures encompass the development of a B2B aftersales strategy, launching profitability programs to harness today's profit pools, and more. To ensure competitiveness in the long-run, OEMs must proactively create strategies that secure immediate prospects and invest in emerging profit pools. These future-ready actions include establishing mobile service options, and building progressive connected services portfolios.

Ten aftersales profit pool focus areas for OEMs

| Hypotheses |
|---|
| H1 CX in aftersales: A must-win battle for traditional OEMs |
| H2 Leveraging customers' full potential with stronger integration of sales and aftersales |
| H3 New mobility services challenges and opportunities: The shift from product to experience |
| H4 Moving beyond data collection to data crunching and its monetization |
| H5 Proficient workshop management needs integrated data |
| H6 Charging offers require disruptions, not status quo |
| H7 Best-in-class battery management will become non-negotiable for OEMs |
| H8 Residual value-oriented offers: The key to second and third market loyalization |
| H9 Warranty: Why goodwill is as important as profit |
| H10 How Generative AI is improving business performance |

Figure 1: Overview of the 10 hypotheses

Introduction

In recent years, the automotive industry has witnessed a profound transformation, underpinned by three pivotal drivers. First, the rapid evolution of new technologies within the realm of Connected, Autonomous, Shared, and Electric driving (CASE) has reshaped the industry. Concurrently, agency sales models (or even direct-to-consumer sales) continue to disrupt traditional sales channels. Third, the industry is still grappling with broader macro-political dependencies in our increasingly globalized world, epitomized by such challenges as chip shortages. While technologies, innovations, and sales are undeniably significant, the journey does not conclude with the vehicle purchase. Instead, maintaining a strong focus on the customer and vehicle ownership remains paramount long after the initial purchase. It is within this context that the aftersales market takes center stage as a critical component of the industry's evolution.

Imagine repair shops becoming obsolete because advanced vehicle diagnostics enable vehicles to not only self-diagnose but also self-repair. And what if in the future, spare parts could be 3D-printed on demand and on-site? Also, think of the consequences if OEMs establish platforms for vehicle owners to create community-based repairs and support each other in a more affordable way. There are many possibilities on the horizon.

To explore these emerging services and get deeper insights in the aftersales market, we surveyed 2,500 customers in five key automotive markets: Germany, US, UK, China, and Sweden. Moreover, we have interviewed several aftersales experts. This enabled us to pinpoint the five core dynamics changing aftersales profit pools and formulate measures that can keep OEMs competitive in the short and long term.

Current market landscape

Before we dive into the details, let us first examine the current main developments in the aftersales market. Our research revealed market growth until 2030, driven by an increase in registered vehicles, the push for sustainability, and new emerging technologies. As a result, the global market share of Battery Electric Vehicles (BEVs) is increasing, with an anticipated 36% more BEV registrations in the US market and an expected 21%² increase in registrations in the German

market. Nevertheless, these growth trends also usher in a set of challenges, culminating in a projected stagnation from the year 2030 onward. This stagnation is primarily attributed to the saturation of vehicles in the market, reduced repair needs in the EV realm, and the enhanced performance of ADAS. Thus, the automotive industry faces a turning point driven by EVs and assistance systems, one that requires rapid adaption to remain profitable.

Revenue potential in the respective aftersales markets from 2017 to 2035 *

Revenue potential in billions of Euros



Key tendencies

- Increase in registered vehicles will drive aftersales profits until 2030
- Growing share of EVs and ADAS technology inhibits further growth
- Profit stagnation by 2030+ due to saturation of vehicles in markets and improved ADAS
- China as the only growth market after 2030, driven by smart vehicles and connected services

* Calculation and prognosis based on market research conducted by Capgemini Invent in August 2023

Figure 2: Key tendencies of revenue potential in the aftersales market of Germany, UK, US, Sweden, and China from 2017 to 2035

² Capgemini Research Analysis 2023

EVs have fewer parts and are less susceptible to service needs, which could lead to the demise of the aftersales market. For example, an Internal Combustion Engine (ICE) may have more than 1,400 components while a BEV generally has only a few hundred (not counting each individual battery cell separately). But do not worry, there is also potential for growth and emerging opportunities. With new profit pools, such as connected services and new business, we expect an increase of 29% for the aftersales turnover.³ When it comes to connected services, OEMs are currently facing challenges in generating profits, particularly concerning offer packaging, marketing, and features. Addressing this situation should be a priority for OEMs to ensure profitability in this domain. Furthermore, new business refers to profits from innovative and non-traditional approaches, such as subscription-based services, shared mobility solutions, and



other novel revenue streams. For example, EVs introduce fresh charging opportunities, a driving experience significantly shaped by the entire ecosystem, and advanced technology integration like infotainment systems.

These strong dynamics uncover valuable customer, product, and environment opportunities for the aftersales business. To maintain a competitive edge in the long run, OEMs must define their aftersales strategy TODAY to be prepared for unforeseeable changes TOMORROW.

How market dynamics impact aftersales

Based on our analysis, we have pinpointed five core dynamics fueling the transition of the automotive aftersales industry. In the following, we explain what to expect and how to understand these dynamics:








|  New market players |  Rising customer expectations |  Electrification |  Software-defined vehicles |  Sustainability |
|---|--|---|---|--|
|  Collaborative partnerships for new ecosystem services | Growing willingness to pay for service and experience | Increased EV tire abrasion leads to growing tires business | Predictive tech enables efficiencies and safety | Parts remanufacturing opens-up 2nd/3rd markets |
|  New players conquer customers (e.g., BEV start-ups) | Dissatisfaction increases risk of customer migration | EV technologies reduce profit due to less parts | “Tech x human” duo takes time and ADAS reduces damages | Stronger regulations influence business intentions |

Figure 3: Core dynamics in the upcoming year

³ Fryzel, M. (2022) Components - what are the differences between electric car and combustion engine exactly?

The threat

– New market players

New market players are changing the sector enormously. New global OEMs, tech players, and intermediaries paired with new businesses offer new possibilities for collaborations and strategic partnerships. However, they clearly shape new visions for aftersales. We currently observe the emergence of new BEV OEMs in the Chinese market and growth ambitions in European markets, including a strong commitment to digitalization and building connected ecosystems. This indicates a robust market with strong competitors. These new players are challenging traditional OEMs' competitive position in the market and should not be underestimated.

The big hope

– Rising customer expectations

Rising customer expectations promise potential as a vast amount of customers are willing to pay more for a higher convenience in service. By offering premium aftersales packages focusing on a digital, convenient, personalized, connected, and omnipresent experience, a direct impact on customer satisfaction is expected. OEMs should act on customers' increased willingness to pay for services and experiences while at the same time preventing customer churn due to dissatisfaction.

The game changer

– Electrification

With the ongoing electrification of the automotive market, traditional service and maintenance experience a decline in demand. With EVs having fewer components and thus requiring less service (approximately 20%), traditional services become less profitable. This shift also creates space for new service offerings, such as mobile services, loyalty use cases, live tracking of service processes, and more. Additionally, the increased tire wear caused by EVs represents an interesting growth opportunity. Electrification not only lowers emissions but also drives innovations, paving new ways for technologies that can improve vehicle performance and customer convenience. OEMs need to stay up to date.

The innovator

– Software-defined vehicles

With rapid developments of AI, IoT, and telematics, there are numerous opportunities (e.g., real-time diagnostics, comprehensive data analysis, insights into vehicle performance and usage) to increase efficiency, transparency, and predictability while providing an optimized customer experience. OEMs need to understand that while the transition from human to technological solutions may take time, predictive technologies are key to enabling new efficiencies, bringing the potential to reduce breakdowns by almost 70%.

The rational

– Sustainability

In today's climate-conscious era, sustainability must take center stage. The ever-increasing relevance of sustainable practices and growing resource bottlenecks require an essential rethinking of mobility concepts. In the process, new aftersales opportunities will be revealed. Regulatory influences on business decisions must be reflected in aftersales strategies and measures. In terms of sustainability, OEMs can use remanufacturing to contribute to environmental preservation – utilizing refurbished parts, especially for the spare parts business.

These five core dynamics strongly affect current profitability structures in aftersales, but also uncover valuable opportunities for customer, product, and environment. In the next chapter we will analyze how these dynamics affect the main profit pools of the aftersales market.



The impact of market dynamics on profit pools

The most relevant profit pools for OEMs within the aftersales market are:

Wheels and tires

Profits generated from services related to tires and wheels, such as wear-related tire changes. Furthermore, this profit pool includes tire change and installation services.

Spare parts

Profits generated from selling, servicing, and integrating original replacement components, but also accessories, consumables (e.g., oil, brake fluid, etc.), mechanical spare parts (e.g., ranging from an entire engine block to just a single part, such as a turbocharger), and wear and tear.

Service and maintenance

Profits earned through offering routine vehicle servicing and maintenance to ensure optimal performance and vehicle longevity.

Repair

Profits derived from providing specialized repairs and fixes for issues and damages, with a strong focus on specialized labor.

Connected service

Digital solutions, such as connected services, represent an additional

profit source by offering features that enhance the vehicle's connectivity, entertainment, and convenient usage. Moreover, connected services facilitate remote maintenance, potentially eliminating the need for on-site repair shop visits and thereby optimizing spare parts logistics by identifying defects in advance.

New business

The profit pool resulting from innovative and non-traditional business approaches, such as subscription-based services, shared mobility solutions, and other novel profit streams (e.g., battery farming).

The previously mentioned market dynamics have positive and negative impacts on profit pools like the ones listed above. To name one example, the rise of software-defined vehicles aligns with the increasing demand within the profit pool of connected services and new business.

So, how can OEMs manage the shift to new revenue drivers in the aftersales market? This will be clarified in the following section.

The promising impacts

We have identified several promising impacts – those profit pools for which

we anticipate a positive, higher profit potential by 2035 compared to today.

For connected services, there is an increased revenue share from 4% in 2022 to 17% until 2035.⁴ This is mainly caused by the high positive influence of rising customer expectations. Customers want digital services to connect to the vehicle and to improve their experience. Competitive new market players prompt OEMs to deliver this experience (e.g., improved connected services and enhanced infotainment systems). OEM collaborations are enabling remote monitoring and diagnostics for improved maintenance for their customers. Moreover, the new standard of software-defined vehicles increases

the possibilities of offering connected services and has a strong positive impact, with OEMs realizing cross-selling potentials due to vehicle data.

Additionally, the profit pool of new business is expected to develop in a promising way. This includes areas such as home charging, battery leasing, and second-life battery solutions, but also battery farming approaches, subscription-based services, and shared mobility solutions.

The potential revenue share of new businesses is expected to hit 4% in 2035 instead of only 1% in 2022.

⁴ Capgemini Research Analysis 2023

The negative impacts

The negative impacts must be examined. We expect they will lead to a decreasing profit potential by 2035 compared to today. Such traditional areas as spare parts sales and service and maintenance are expected to decline with the adoption of EVs and ADAS.

We believe OEMs should exploit these shrinking profit pools now before they become a marginal source of profit.

The share of service and maintenance is projected to drop from 21% in 2022 to 16% in 2035, and spare parts from 47% to 39% between 2022 and 2035.

The neutral impacts

An example of a neutral impact might be the wheels and tires profit pool, which shows a rather mixed/neutral profit potential.

Based on our research, it is expected to maintain a steady or similar profit potential by 2035 in comparison to today.

OEMs must keep an eye on the development of the neutrals and maintain current plans.

In conclusion, different market dynamics influence various profit pools differently. Fundamentally, there is usually not only one but a combination of positive, negative, and neutral impacts. Overall, predominantly negative impacts are observed in service and maintenance, spare parts, and repairs while there is strong growth potential for connected services and new businesses. However, it is vital to refrain from oversimplification. It is important to analyze the profit pools and all their nuances in great detail

In the following chapters, we outline a long-term aftersales strategy for OEMs, establishing 10 hypotheses for the future of the aftersales market.

How aftersales market changes affect the six main profit pools for OEMs

| Main impact of market dynamics on profit pools until 2035 | New market players | Rising customer expectations | Electrification | Software-defined vehicles | Sustainability |
|---|--|------------------------------|------------------|---------------------------|----------------|
| Wheels & tires | - | ○ | ++ | - | - |
| Spare parts | - | ○ | - | - | - |
| Service & maintenance | - | + | - | + | - |
| Repair | - | ○ | - | - | ○ |
| Connected services | - | ++ | ○ | ++ | + |
| New business | + | ++ | ++ | ++ | + |
| | The threat | The big hope | The game changer | The innovator | The rational |
| | + Positive impact on profit pool - Negative impact on profit pool ○ No impact on profit pool | | | | |

Figure 4: How market dynamics influence profit pools



What OEMs need to address to shape their future aftersales market

Having analyzed the dynamic shifts in profit pools, we have derived 10 key hypotheses with specific measures and recommendations for OEMs in aftersales. To stay competitive, OEMs need to act now.

H1.

CX in aftersales: A must-win battle for traditional OEMs

Despite emerging changes in aftersales bringing enormous potential, many OEMs continue to struggle. Based on our Aftersales Study with 2,500 premium customers across five markets, we identified key insights and fields of actions for OEMs to improve the current customer experience.

For example, over 70% of customers are dissatisfied with the current service offered. The struggle manifests itself in common pain points, one of the most pressing for customers being long waiting times for service appointments. In a digitally connected world, customers no longer have any patience for complicated

and lengthy appointment-making processes. If OEMs do not offer a convenient solution for this, they will lose many customers. Correcting this could result in a valuable quick win.

Another pain point is the long duration of the actual service performance. In a world where needs are met within minutes in many other industries, customers find it difficult to wait for paid services. Offering each customer fast, high-quality, and uncomplicated service and repair is critical. Like the consequences of complicated appointment making, this can lead to customers migrating to competitors. OEMs must not only investigate

new technologies, such as predictive maintenance, but also increase the quality of customer service.

Non-transparent pricing and charged repairs are additional pain points. While customers in many other industries enjoy a high level of price transparency, this is lacking in automotive aftersales. Customers have no understanding of costs that are added over the course of the process. OEMs urgently need to create a high level of transparency and provide price explanation to keep customers satisfied. Moreover, explanations and service processes must be clearly defined because customers want to know and understand what has been done to their vehicle.

Capgemini Aftersales Study*

Key Insights (excerpt)

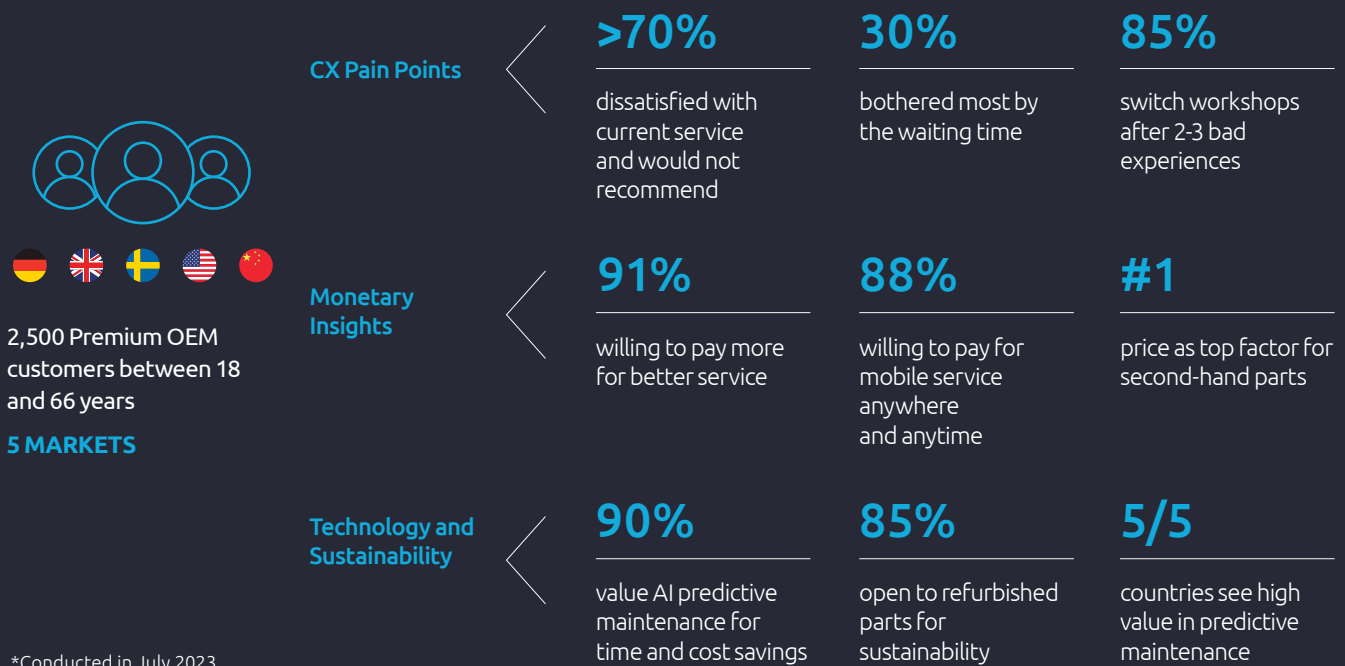


Figure 5: Research demographics and results for Capgemini Invent Aftersales Study 2023

For OEMs to remain competitive, they must negate the customer experience pain points outlined in the previous section. This can be achieved by focusing on the following measures:

Dealer management system (DMS) harmonization

Countless different DMS solutions exist – not only per OEM but often even per market. This leads to an unnecessary complexity for implementing new technical solutions such as proper online appointment scheduling tools. A harmonization of DMS would pave the way for easier introduction of these kind of systems and enable app integrated service offerings or even AI-predicted offers.

Over-the-air (OTA) updates

OTA updates need to be introduced to enable faster, more precise service appointments (e.g., by enabling real-time vehicle diagnostics and a proactive approach) and a 4% reduction in diagnostic costs at the workshop. New BEV players such as NIO and Polestar are already offering OTA updates as a standard and free service.

Remote services

Remote services need to be introduced to reduce the number of on-site workshop visits and enable a focus on parts repair, potentially yielding a 5% increase in upselling at the workshop.

Live tracking

Live tracking will enable advanced transparency and predictability for the customer as well as the possibility to request additional services.



These measures directly play into the profit pools and enhance processes in maintenance and services as well as repairs at the workshop. They also incorporate connected services and new business in aftersales.

Some competitors are already making quick progress and beginning to show best practices. For example, predictive maintenance forecasts system failures before they happen by monitoring data, which leads to customers being proactively contacted by workshops. BMW, General Motors, and Tesla already utilize this functionality. Another best practice is assistance anywhere, where on-site repairs, maintenance, or support happens at customers' locations, offering high

convenience and timesaving. Tesla and NIO are two of the forward-thinking players providing this solution. This aligns seamlessly with the findings in our Aftersales Survey 2023, in which we found 90% of customers appreciate the time and cost savings that come with predictive AI maintenance. Moreover, 88% of customers indicate a willingness to invest in mobile services anytime and anywhere.

However, new and especially Direct-to-Consumer (D2C) OEMs entering the market face the challenge of not having an established and area-wide network. Therefore, this is a great chance for traditional OEMs to secure a competitive advantage in aftersales.

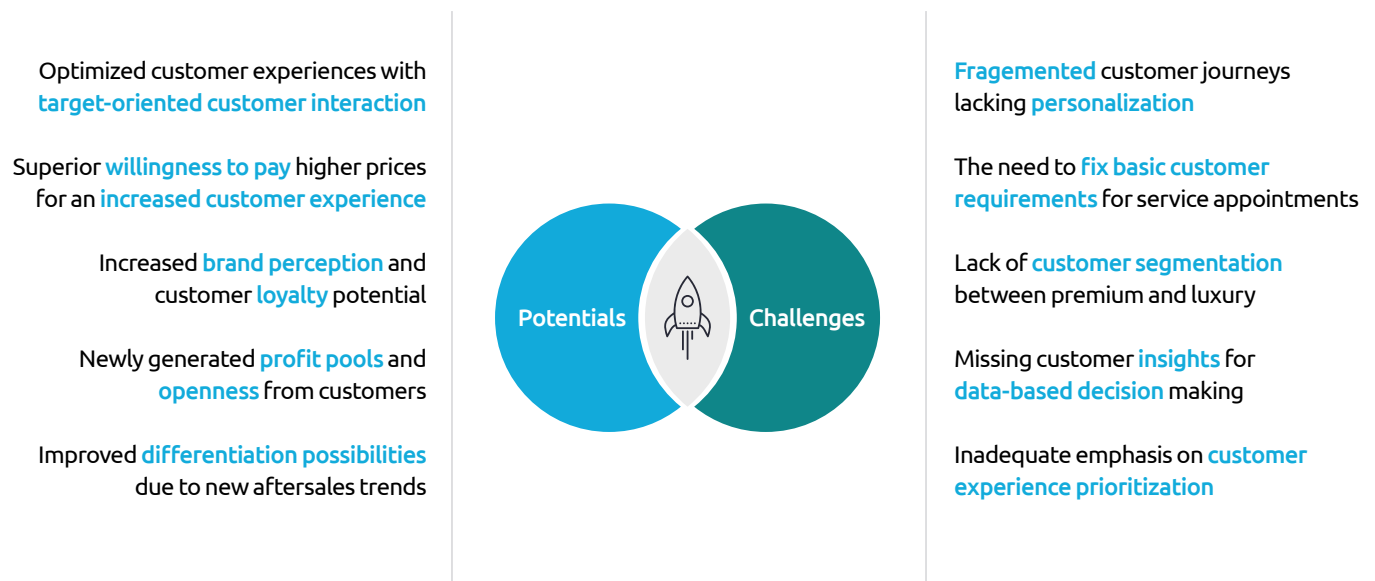


Figure 6: How emerging changes in aftersales leverage potentials and establish challenges

H2.

Leveraging customers' full potential with stronger integration of sales and aftersales

When talking about aftersales, sales should not be neglected. Like a pilot and co-pilot, they should always go hand in hand. However, in practice, we find this to not be the case. Many companies experience great difficulty integrating sales and aftersales.

When making a purchase decision, customers not only consider sales-related facts but also judge the product based on their experience across all touchpoints throughout the lifecycle. In fact, 78% of customers will back out of a purchase due to a poor customer experience.⁵ This not only impacts immediate sales but also carries far-reaching consequences. A surprising fact about customer satisfaction is that it takes eight positive customer experiences to make up for just one negative experience. In such cases, the voice of the customer becomes bitter, with such complaints as: "I just received a marketing offer for a new vehicle, even though I bought a vehicle just two months ago!" or "Why are you suggesting I try out the voice assistant while my vehicle is being repaired?" Correcting this takes significant effort – be advised that only 15% of those who gave the company a "very poor" CX rating would later forgive the company.⁶

Unwanted overlaps reveal a disconnect between sales and aftersales, severely harming profits and customer experience. As such, it is entirely necessary to bring both teams closer together and transmit a united, harmonious front to customers. Let's have a look at the most common challenges that can prevent this achievement:

Siloed communication

Sales and aftersales teams do not communicate sufficiently with each other, leading to a lack of information about customers, misunderstandings, or even doubled workload. There is no optimal handover of information and processes from one entity to the other, which reflects internal boundaries and external connections with customers.

Limited cross- and up-selling opportunities

Without a clear understanding of the other teams' roles, both sales and aftersales miss out on opportunities for cross- and up-selling and resulting additional profit. In fact, since cross-selling can drive up to 30% of the revenue,⁷ this is a pain point that requires a timely solution. End-of-term offers represent one promising field of action for up-selling potential.

Difficulty in addressing complex issues

Aftersales teams frequently rely on various stakeholders, such as sales, finances, legal, and many others. Given the necessity of collaboration and due to existing dependencies, it is essential not to view the teams in isolation. Coordinating the working methods and organizational structure of the teams is crucial. This does not only apply to internal considerations but also to the broader ecosystem. For instance, if a BEV OEM provides home charging solutions and the customer encounters complicated on-site charging issues, the collective effort of not just one team but of the entire charging ecosystem is required. Failure to do so leads to the pain point of a multitude of offers and customer communications.

⁵ Gröger, H. (2023) [Data-Driven Enterprise? Why?](#)

⁶ Qualtrics XM Institute (2020) [Insight Report of Customer Experience](#)

⁷ Bernazzani, S. (2022) [Cross-Selling and Upselling: The Ultimate Guide](#)



Profit pools per customer along the customer journey

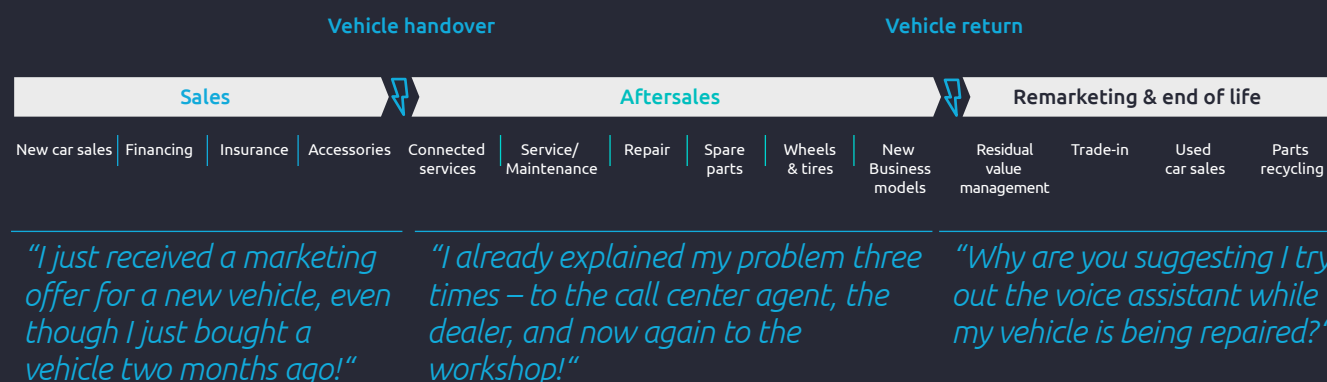


Figure 7: The disconnect between sales and aftersales and the resulting pain points

Fortunately, there are specific recommendations to bring both departments closer together and strengthen their efficient cooperation:

Enablement through integrated systems

Having shared systems enables access and editability by sales and aftersales. It also encourages tracking and an understanding of all relevant interactions. A single source of truth in customer data is essential, resulting in a highly professional image facing the customer. This ensures consistency in responses to customers and removes the need to restate their issues to each new point of contact.

Shared goals and teamwork

It is necessary to establish shared goals and aligned incentives. The benefit is in encouraging cooperation, stimulating continuous improvement, and establishing potential cooperation contracts. When sharing common goals, alignment naturally brings employees closer together, fostering a sense of unity and teamwork.

Making use of customer feedback

It is enormously important to draw on suggested improvements found in customer feedback. Both sales and aftersales need to be involved in identifying joint pain points and new opportunities. Focusing on additional revenue potential from feedback improves customer satisfaction and profitability in both departments. Furthermore, many customer insights affect

both sales and aftersales, making it advantageous for both teams to collaborate on the feedback received.

While this may just be theory for some companies, pioneers have already been taking large steps forward. For example, at the Ritz-Carlton hotel brand, sales and aftersales collaborate closely, resulting in unified customer profiles accessible to both departments. With one shared customer profile containing all relevant information and high transparency among the teams, an aftersales employee can expertly evaluate various situations. It is precisely this transparency as well as the importance of goodwill that empower employees to spend up to \$2,000 per guest to resolve issues without approval. At Walt Disney, customer feedback is used in a very special way. Employees are trained to prioritize guest happiness; valuable customer feedback is collected, and insights are shared across teams and departments.

For some OEMs, there is still a long way to go. But the journey will be worth it in the long run. With more and more OEMs deciding to sell vehicles via the agency sales model, it has never been more important to strengthen the sales-aftersales bond. By 2026, we expect more than 66% of vehicles to be sold via the agency model.⁸ However, when looking at the transformation projects of OEMs, most of them end with the sales conversion without end-to-end (E2E) support, aftersales processes, and a comprehensive customer journey. Future agency sales times will definitely be challenging, but also critical for a long-term success.

⁸ Capgemini Invent (2020) Agency Sales Model

H3.

New mobility services challenges and opportunities: The shift from product to experience

Customer demand for convenience is the new normal. Additionally, the tendency to move towards new technologies leads to an increased desire for mobility as a service. Rising interest rates on new vehicles, long waiting periods, and high responsibilities stimulate a switch from vehicle ownership to mobility services. Thus, the global vehicle subscription market size grows from \$3.8 billion in 2022 to \$11.7 billion by 2028.⁹ This trend is underlined by the finding that leading subscription-based dealerships

expect to double their revenues in the upcoming year.

With the rise of new mobility services, such as subscription, rental, or shared mobility, the responsibility and workload are shifting from the customer to the OEM. For example, when renting a vehicle, the customer does not need to worry about maintenance, repairs, and warranty coverage anymore. This is especially true for BEVs, where the OEM unloads and loads the batteries. Furthermore, vehicle rental is provided

by an American company called Turo. They excel in the class of peer-to-peer rental, simplifying the claims process for both vehicle owners and renters, facilitating efficient aftersales. Another player for peer-to-peer car sharing is Getaround. Their job is to enable proactive maintenance of vehicles, utilizing telematics and IoT technology. At Cazoo, a digital used-vehicle retailer and subscription service is proposing comprehensive warranty with a servicing package for their subscription vehicles.

With the rise of new mobility services, maintenance responsibility and workload is shifting from the customer to the OEM

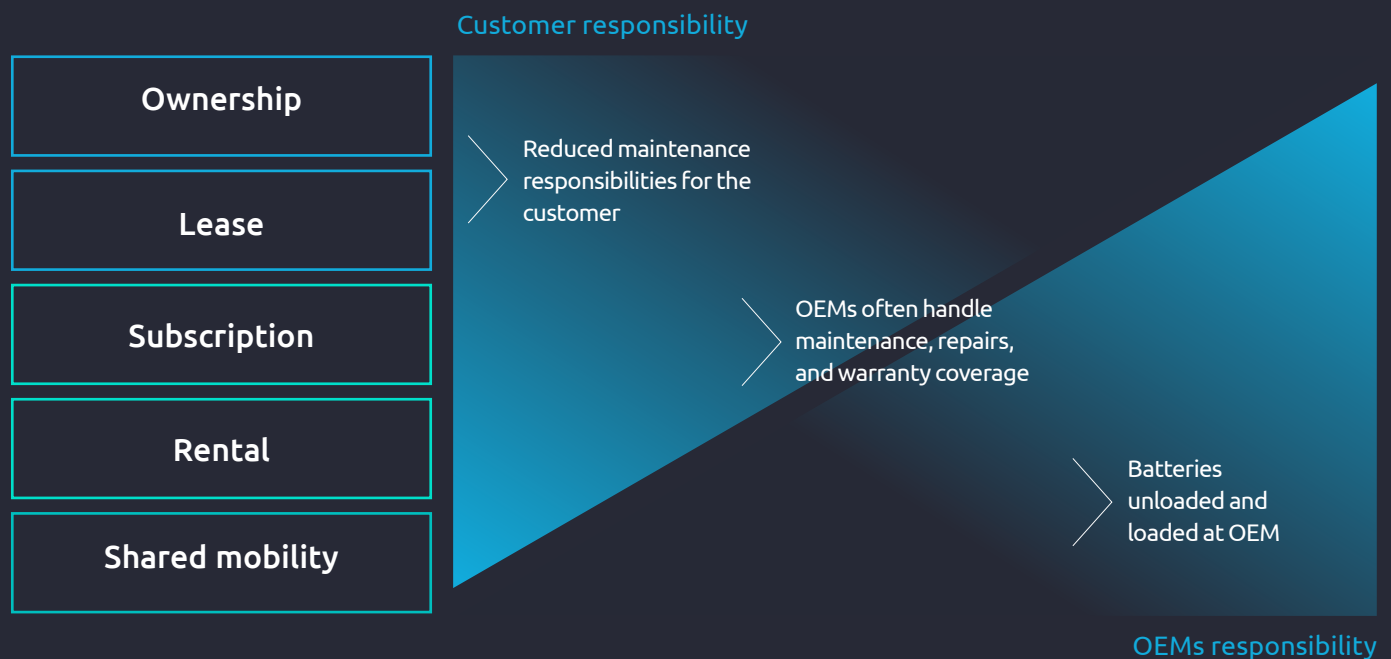


Figure 8: The shift of responsibility

⁹ Capgemini Research Analysis 2023

In the course of our research, we identified three OEM challenges:

Independent workshop network primarily used

Providers of subscription models prefer their own network of dealers. For warranty work, OEM owned workshops must be used, but for service and maintenance, independent and chain workshops are also partly used.

Lack of capabilities to maintain fleets

Car subscription models often include routine maintenance and servicing as part of the subscription package. This can lead to more predictable service schedules, as vehicles are regularly maintained according to a set plan. Dealerships and service centers may need to adapt to and invest in higher volume of scheduled maintenance tasks.

Limited customer interaction and declining loyalty

New mobility providers either buy or rent vehicles from OEMs and take over all operations and costs that occur during the subscription period. As a result, OEMs are losing more and more direct contact with their customers.



Our recommendations for solving these problems include the following approaches:

Strategic partnerships

The foundation for a successful future aftersales service for mobility providers consists of strategic partnerships. This includes contracts in which the necessary points can be fixed to a win/win situation for all relevant parties, such as routing in the OEM dealer network, pricing for tailor-made maintenance plans, service frequency agreements and refurbishments.

For better planning and generating further revenue, it is necessary to define standardized processes. This includes a tailor-made maintenance plan for mobility providers' vehicles, as the degree of wear and tear is many times higher than, for example, in the B2C segment.

Fleet maintenance enablement in retail

Mobility car providers are particularly focused on ensuring their vehicles have short workshop

turnaround times. This makes it possible to quickly rent the vehicles out again to new customers. Therefore, capacities in the dealer network, such as a specified lifting platform and separately assigned personnel, must be guaranteed.

Customer engagement

The preceding points are necessary to sustainably increase customer loyalty. In this way, the OEM ensures contact with customers whose vehicles are initially outside of the OEM's radar. Moreover, the vehicles can be specifically routed to the OEM dealers by connecting to the preferred dealer (during delivery). On site, the touchpoint provides the opportunity to talk to the customer and respond to their needs in a personalized manner (e.g., by renting out a roof box, dog cage, or snow chains for winter vacations).

H4.

Moving beyond data collection to data crunching and its monetization



Currently, data monetization potential is not exploited, and money is lost – every single day.

Tons of data points are collected in OEMs' ecosystems every day, fueling improved analytics. But our analysis reveals that 73% of this data is not crunched, which is leading to untapped business potential. This is especially true for aftersales, where

there is a big opportunity to convert data into a loyalisation engine. For example, unlocking the full potential of analytics-based offerings would result in the following gains: \$2.5 billion turnover and \$150 million Earnings Before Interest and Taxes

(EBIT) by 2025. This is expected from data-driven parts trading and \$19 million in savings per annum from AI-driven claims assessments. But why are OEMs and automotive players struggling to realize this potential?

We see four major pain points within the aftersales sector and propose specific measures to counteract these:

Fragmented customer identities

In order to avoid an uncoordinated customer dialogue from stakeholders (e.g., financial services, call center agents, dealers/agents, workshop staff), which is currently negatively impacting the customer care experience, it is important to establish a unified customer identity shared across the organization. In the quest to offer a first-class experience across all touchpoints and leverage loyalisation potentials, OEMs must maximize transparency and build a consistent information base about the customer.

Limited addressability of active users

Besides having a unified customer identity, contact with customers for personalized up-selling purposes is also success-critical. Key success factors to uplift the customer lifetime value include a high ratio of addressable customers through up-to-date and consistent data and the relevant consents. If this is not given, OEMs can still develop remarkable products and services, but will struggle offering them to customers.

Missed opportunities within older segments

Having analyzed the available data, it is obvious that vehicle owners from the first segment (traditional older buyers) are more loyal to OEM workshops and aftersales services than within older segments. By having a clear customer segmentation strategy and addressing these older segments with smart pricing, untapped opportunities and loyalisation mechanisms can be reached. This is especially true within spare parts and services, where we believe data-driven and targeted pricing will have a positive impact on revenue streams and support the exploitation of mature profit pools.

Upcoming obligations for data sharing (EU Data Act)

With new legislations and regulations affecting the data environment, OEMs will be obliged to share vehicle and driving data across the industry. Deciding who owns the data is not crucial to success in this field, but rather the ability to leverage it. For this purpose, we see big potential for OEMs to monetize data insights and exploit connected services and new business profit pools. But in order to do this, a clear data-driven mindset, including a semantic data landscape and interoperability of technologies, needs to be tackled first.



H5.

Proficient workshop management needs integrated data

Service and maintenance are major elements in the aftersales journey. In emergencies, customers want the comfort of knowing they will be taken care of long after the initial vehicle purchase. Here, workshop management plays a crucial role in offering a superior customer experience and turning a negative occurrence into a delightful moment to remember.

Satisfying workshop management needs predictive maintenance. This is an area with established foundations but as yet largely untapped potential. As competitors advance, seizing this potential becomes a clear priority. Equally vital is staff expertise, particularly for service advisors and technicians. Practical, adaptable training is essential to navigate the ongoing digital shift. While competitors are already integrating digital tools and chatbots, OEMs need to be ready to follow the developments quickly.

The rise of EVs adds to the landscape’s complexity. For example, fundamentally different propulsion technology

now necessitates upskilling in traditional repair shops in order to service EVs. Also, customers used to seamless digital experiences in other industries now question why workshop processes are opaque, time-consuming, and confusingly priced. IT system integration poses another pressing challenge. The integration of systems needs to be accelerated to secure higher efficiencies within workshop processes.

Another sizable hurdle is the streamlining of end-to-end parts management, where it is crucial to provide an efficient workshop process flow. However, dealerships seek efficiency in stock levels due to high-cost implications. This is a dilemma that requires transparency in the end-to-end process. Service core process digitalization is another challenge, necessary to gain top-line revenue potential and increase customer convenience. Amid these challenges and prospects, the need for action is clear – it is time to break with convention, embrace innovation, and provoke transformation.

The results of our study show that while 60% of customers remain loyal to their OEMs workshop, an astonishing 40% of premium OEM customers have visited a non-OEM workshop in their last visit.

What are the respective reasons for so many premium customers visiting non-OEM workshops? While both locations have been primarily visited for routine and maintenance services, a closer examination reveals differences. Our analysis found that for 35% of premium OEM customers, warranty services were a deciding factor. On the other hand, for 36% of premium OEM customers, such repairs as car breakdown services were pivotal. To realize elevated revenue and gross profit potential per workshop, OEMs must effectively tap into identified profit pools and maintain competitiveness over non-OEM workshops. To give them the best possible chance of success, we recommend the five strategic initiatives in Figure 9.

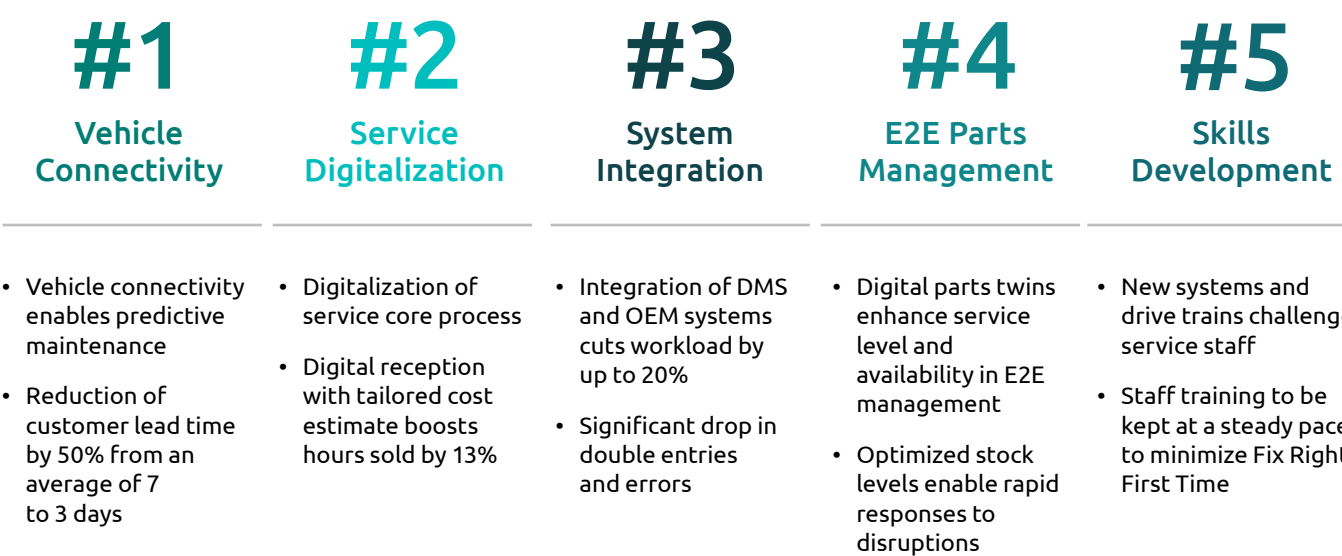


Figure 9: The top 5 recommendations to raise revenue potential per workshop



By implementing these recommendations, we predict an average workshop can increase their gross profit by 13%, reduce customer lead time by 50%, and improve workload by 20%.

This is not a hypothetical vision of the future. Right now, forward-thinking companies are making progress and developing best practices. Louis Vuitton's system integration is done with high expertise. A centralized CRM system facilitates a customer view across countries and enables staff to access customer data from all over the world. As a result, customers enjoy a unified experience independent of their current location. Unilever is another pioneer, where the E2E supply chain has

been mastered by improving visibility and service levels through a global logistics control. This results in reduced stock shortages, improved data quality, and optimal use of data in an efficient and effective manner.

As e-mobility progresses rapidly, the associated charging infrastructure is becoming indispensable. Charging influences our previously identified profit pools of connected services (e.g., connectivity, entertainment, convenience features) and new business (e.g., subscription-based services, shared mobility solutions). It has the potential to become a game changer for the profitable aftersales business of the future.

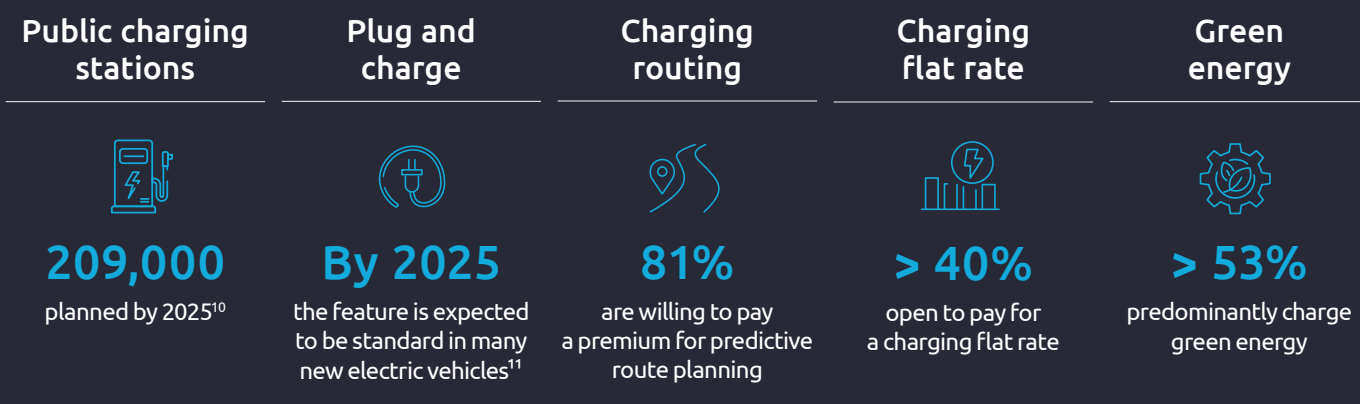


Figure 10: Charging Data showing development and opportunities

¹⁰ [Nationale Plattform Elektromobilität \(NPE\) \(2018\)](#)

¹¹ [Now-gmbh \(2023\)](#)

H6.

Charging offers require disruptions, not status quo

Contrary to popular belief, it is not the overlooked pace of technical developments and sensitivity to new customer preferences that are driving the challenges of charging. The truth is that the real catalyst here is the competitiveness of the market. For instance, a challenge lies in investigating charging infrastructure and fostering the adoption of e-mobility, which involves bolstering the acceptance of EVs and addressing customer fears. A better expansion and function of public charging stations will become increasingly important in the future for all OEMs wanting to stay relevant in e-mobility.

Furthermore, climate change concerns and the fast-paced automotive market

make it imperative for OEMs to excel in sustainability and remain at the forefront of charging technologies. We observe several primary pain points of the customers, where OEMs still struggle to find long-lasting and satisfying solutions.

For many customers, the charging experience is far from optimal. In fact, many do not even get to have the experience because it can be exceptionally difficult to find charging stations. For those lucky enough to pull up to one, malfunctions are not uncommon. The extent of this issue was exposed in a recent study by UC Berkley, which found that customers reported experiencing broken plugs (9%), unexpected shut off during charging

(6%), charging station not functioning (22%), payment problems (18%), and the need to contact customer service via cell phone (53%).¹²

No OEM has achieved above average market dominance in this domain, resulting in wildly different customer experiences with different providers. For example, the tedious nature of the everyday charging experience is due to different processes, customers cards, and regional charging differences – some well-developed and some not. Customer satisfaction is below par, which results in loyalty and retention pain points. Moreover, while data is collected, it is not sufficiently utilized to improve the quality of charging standards, which are not being met.



¹² [Rempel, D. \(2022\) UC Berkeley Study on DCFC](#)

We have derived specific recommendations to address these issues:

Charging areas

OEMs need to take a deeper look into charging areas, such as home, public, and work. Ideally, all services will come from a single source, which demonstrates expertise in all areas and offers an all-round solution to the customers.

Hardware partnerships

OEMs can consider cooperating and forming hardware partnerships, which would give them access to wide-ranging networks of charging options, negating hardware competition.

Additional services

OEMs can consider offering additional services, such as discounts or bidirectional charging, which increases loyalty and additional revenues.

Repair and maintenance

OEMs can more thoroughly examine the area of repair and maintenance of their charging solutions. By incorporating data more analytically, broken charging stations could be avoided, personal quality standards can be met, and complaints can be prevented.

It's worth pointing out, though, that all four of these recommendations involve strong investment efforts in an already highly competitive and saturated market. With this in mind, our overall and nuanced recommendation is to offer integrated solutions, create a seamless customer experience, and ensure high quality in the charging process. This is how OEMs can participate in the most relevant charging areas while avoiding high investment costs.



H7.

Best-in-class battery management will become a non-negotiable for OEMs

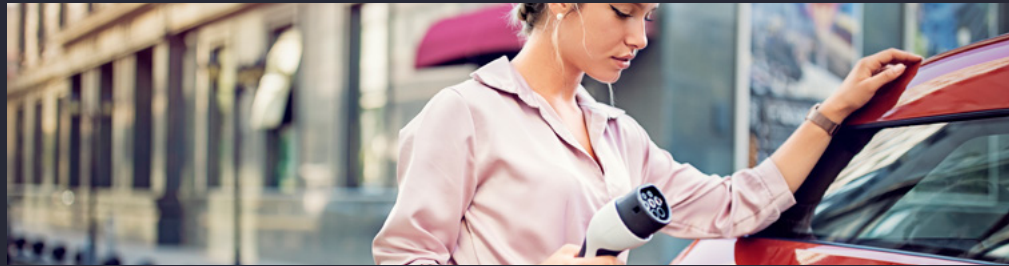
As the relevance of e-mobility steadily increases, so does the issue of battery management. The battery is both one of the most important and expensive parts of an electric vehicle.

Current trends in the battery market signal many new opportunities to become a relevant player in one of the developing areas. The projected growth in demand, value, and capacity underline substantial opportunities for OEMs. The global lithium-ion battery market is anticipated to grow to \$91.9 billion¹³ by 2026, reflecting an impressive increase of 49% from 2023, coupled with a remarkable demand of 2028 GWh¹⁴ for lithium-ion batteries by 2030. Moreover, the battery energy storage market's projected value of \$17.5 billion¹⁵ in 2028 emphasizes the potential for diversification and revenue generation.

In an exciting development, we observe cross-industry innovative business models, such as those related to energy feed-in tariffs. Here, customers receive payments for feeding their unused solar power back into the public power grid (e.g., at such rates as ~8 ct/KWh¹⁶ in Germany).

Battery discussions must always include the issue of sustainability. By 2030, second-life battery capacity is expected to hit over 275 GWh¹⁷ per year. As a result, there is significant storage potential and opportunity for OEMs to position themselves as leaders in new transformative solutions. The increasing number of BEVs poses many challenges across various lifecycle phases for the aftersales sector.

Aftersales departments and workshops need to have new batteries in stock to



renew the vehicles. This is because new batteries are specified to be no more than two years old and need to be stored in a cool environment and regularly charged and discharged. The solution is found in participating in large scale vehicle-to-grid (V2G) and battery farming. Here, OEMs must design vehicles equipped with bidirectional charging capabilities, allowing them to both charge from the grid infrastructure as well as discharge energy back to it.

OEMs can cooperate with utility companies and grid operators to establish agreements for V2G services, ensuring a seamless exchange of energy and adherence to regulations. Such collaboration can also focus on second-life batteries. Repurposing used EV batteries reduces waste and environmental impact. It also offers a potential revenue stream by selling repurposed batteries, thereby optimizing the economic return. However, extracting and repurposing batteries from end-of-life vehicles can be complicated. It is important to ensure their compatibility with various non-automotive applications. OEMs need to manage the logistics and quality control of a complex and diverse battery supply chain.

Energy producers face the ongoing challenge of managing fluctuating power production from renewable sources. At the same time, OEMs grapple with the task of maintaining battery health and ensuring optimal battery conditions. This is where the concept of battery storage farms – a group of batteries used to store electrical energy – emerges as a compelling strategy that can overcome both these challenges.

The single collaborative solution is to strategically locate battery farms near renewable energy grids. A synergy is formed by interconnecting these battery storage facilities with the grid. During periods of energy production excess, surplus power can be utilized to (dis-)charge batteries, addressing the OEM's maintenance needs. Simultaneously, these batteries act as reservoirs, ready to release stored energy back into the grid during low-production phases, thus effectively stabilizing energy peaks and lows. In essence, this innovative solution capitalizes on the requirement for battery (dis-)charging, seamlessly aligning it with the demand for grid stabilization. This relationship not only enhances operational efficiency but also propels sustainable energy practices.

¹³ Statista, 2021

¹⁴ Statista, 2022

¹⁵ Statista, 2023

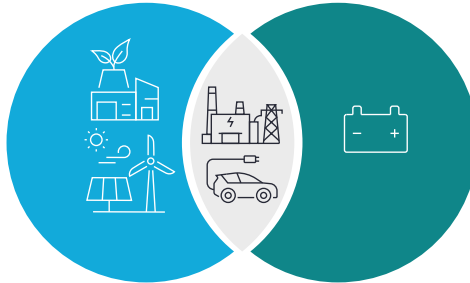
¹⁶ Senec (2023) Feed-in tariff for PV systems Is a PV system even more worthwhile with the EEG 2023?

¹⁷ IDTechEx (2023) Second-life Electric Vehicle Batteries 2020-2030

Battery farming solves both OEM and energy producer problems within one agreed solution

Challenge for energy producers

Alternating power production from renewable energy sources



Challenge for OEMs

Need for (dis-)charge of batteries to maintain state-of health

Batteries stored over two years become 'used parts'

To keep 'new part' health, store in a cool place and charge/discharge regularly

Joint solution

#1

Make use of the (dis-)charging need of stored batteries

#2

Store them close to large renewable energy grids

#3

Connect battery storage with grid

#4

Balancing energy production peaks and lows while (dis-)charging batteries simultaneously

Figure 11: The synergy of energy producers and OEMs within battery farming

Prominent examples of market-leading practices include Tesla's powerpack and megapack systems, which stand out for their utilization in large-scale battery

storage farms, underlining the company's role as an energy storage pioneer.¹⁸ Similarly, BMW excels in intelligent connectivity among energy participants, flawlessly

integrating users, producers, and storage systems.¹⁹ This synergy has enabled the creation of battery storage units utilizing both new and second-life batteries.



¹⁸ Popular Mechanics (2020) Elon Musk's Battery Farm Is an Undeniable Success

¹⁹ BMW Group (2017) BMW Battery Storage Farm Leipzig

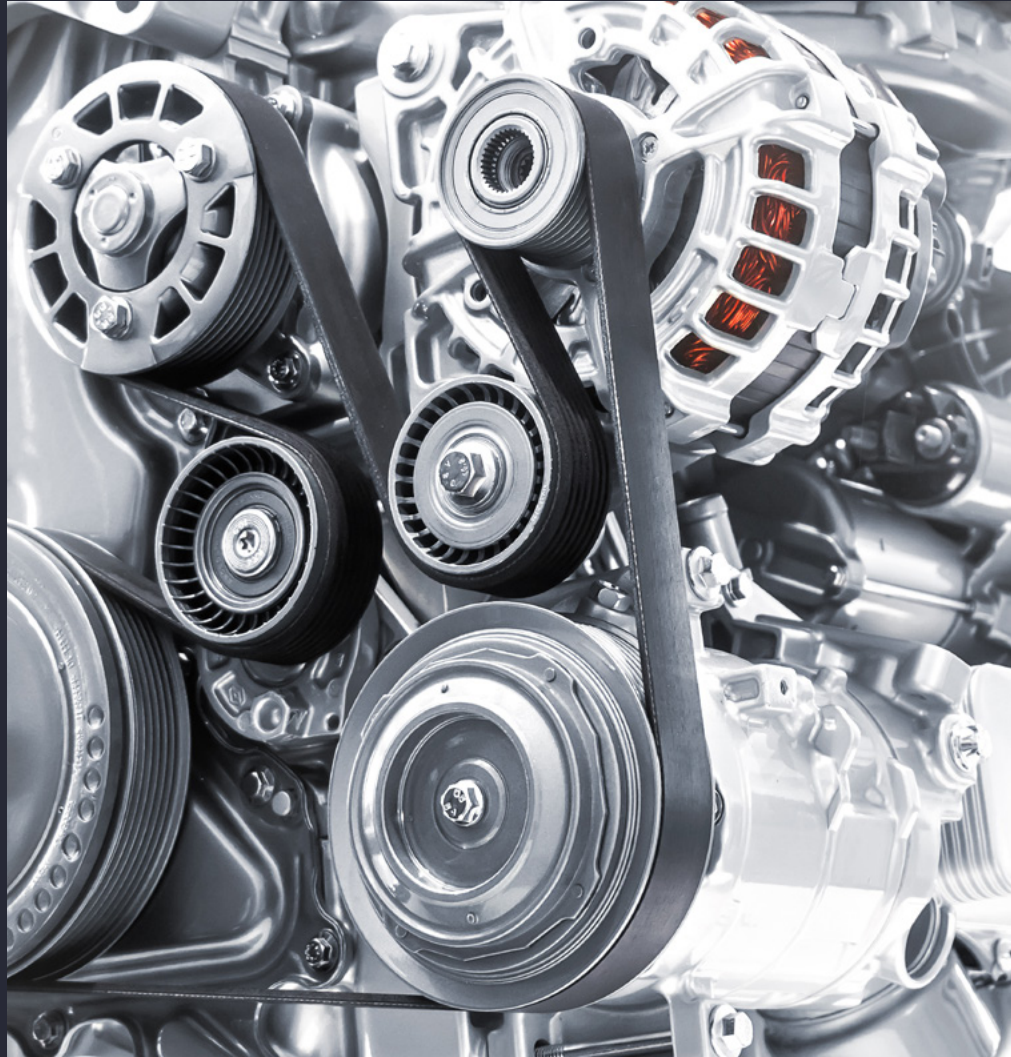
H8.

Residual value-oriented offers: The key to second and third market loyalization

In the realm of sustainability, there is great potential in emerging remanufacturing and refurbished parts opportunities. However, these solutions are not without their share of challenges. In the aftersales market, a spectrum has already come to light:

Price battle with low pseudo market prices

Production expenses for OEM parts are often higher due to the use of high-quality raw materials, strict quality controls, and compliance to specific engineering rules involving R&D costs. In contrast, imitations often use lower-grade raw materials and have less-stringent quality control. These cost-cutting measures result in lower production costs. To prevent the use of cheap imitation parts, it is important to make real spare parts easily accessible. By offering manufacturing parts, OEMs can reduce the attractiveness of the pseudo parts market. Here, the price attractiveness of remanufactured parts compared to pseudo parts can become an important argument to persuade customers.



Discontinued spare parts

Another challenge arises when spare parts are discontinued, leading to customer dissatisfaction as a result of perceived unavailability. In such cases, the provision of remanufactured spare parts becomes especially important.

Low-quality non-OEM spare parts

The presence of non-original parts from other players can harm the OEM's reputation if they are poorly reconditioned. Offering certified remanufactured parts is key to strengthening customer trust.

Achieving the right market position and retaining market share depends on the successful implementation of the following five main pillars:

Global transparency of available parts

A stronger control of the third-party market through global transparency of available parts is crucial for the creation of worldwide parts. Furthermore, a network is invaluable. Whether it is a fast-remanufacturing network for brokers' market desiccation or a worldwide network of strategic safe disposal partners, OEMs need to build relevant connections to succeed in the global market.

Establish a central control tower

A control tower functions as a centralized hub, providing real-time visibility and overview of the remanufacturing process. Through global network transparency (e.g., inventory and consumption of parts), it is possible to maximize the service level at a minimized cost level. Moreover, it is essential to track process errors and implement corrective measures. Additionally, the use of tracked data helps to minimize the remaining inventory and transport costs.

Increase flexibility through outsourcing

Establish collaborations to enable capacity flexibility and advantageous personnel costs. Ensure a network with maximum flexibility via collaboration.

Use innovative solutions to enhance the network

OEMs need to support future maintenance processes with innovative digital technologies. They also need to better control network and preventive maintenance by using IoT (e.g., remote diagnostics).

Select performance KPIs

To achieve greater flexibility and agility, OEMs must evaluate the right performance indicators. The use of KPIs, such as turnaround time, cost/value ratio, and service level, helps to enhance the performance of reverse logistics.



Successful positioning and maintenance of market share depends on successful implementation of five main pillars



Creation of worldwide parts

- Stronger control of 3rd party market through global transparency of available parts
- Fast remanufacturing network for brokers market desiccation
- Worldwide network of strategic safe disposal partners



Establish central control tower

- Maximize service level at min. cost through global network transparency, e.g., inventory & consumption
- Track process errors and implement corrective measures
- Minimize remaining inventory and transport costs by using tracked data



Increase flexibility through outsourcing

- Build cooperation models to enable capacity flexibility and advantageous personnel costs
- Ensure a network with maximum flexibility via collaboration



Use innovative solutions to enhance network

- Support future maintenance processes with innovative digital technologies
- Allow better controlled network and preventive maintenance by using IoT, e.g., remote diagnostics



Engage performance KPIs

- Achieve greater flexibility and agility by evaluating right performance indicators
- Use KPIs such as turnaround time, cost/value ratio or service level to enhance performance of reverse logistics

Figure 12: Five main pillars for remanufacturing in aftersales



We can witness some remarkable remanufacturing best practices in the automotive market. For instance, a large premium OEM has developed an innovative solution to handle refurbished spare parts. When damaged parts of a vehicle are replaced at a dealer's

workshop, they are returned to the OEM, where they are analyzed and afterwards refurbished. Thus, a high-quality second-hand original spare part is created. The benefits are manifold and include offering new spare parts at reduced prices, coupled with warranties for the

spare parts and a strengthened sustainability factor. However, introducing this business model necessitates considering complex logistics processes. Dealers will also need to be motivated to send spare parts back, which can be incentivized.



H9.

Warranty: Why goodwill is as important as profit



An often overlooked but highly relevant topic within aftersales is warranty management. While they might not appear to be a primary revenue stream, warranties undeniably influence OEM businesses. Claims not only impose substantial financial burdens, but also hold the potential to deeply frustrate customers. Diving deeper into the topic, the data shows a record value of \$114.9 billion²⁰ for global automotive warranty reserves in 2021. With \$11.2 billion, the Volkswagen Group is the world's largest claim payer, followed by Mercedes-Benz and BMW. Furthermore, OEMs' total warranty sums up to an average of 3%²¹ of their annual revenue. On the customer side, 48%²² of vehicle owners

switch brands on their next purchase due to dissatisfaction with the experience in this regard. This data underlines the imperative for OEMs to proactively manage warranties. High financial stakes, customer loyalty, and brand reputation all depend on a well-handled warranty framework.

Despite the immense relevance of this topic, OEMs still face major difficulties in this area. For example, a challenge appears as escalating accruals strain OEMs' finances. Moreover, software plays a fundamental role in modern vehicles. When this software malfunctions, it can disrupt the entire system, rendering the vehicle

inoperative. One pain point is that OEMs have not yet fully developed the necessary expertise to address and anticipate software-related issues. Additionally, exceptionally high customer expectations in goodwill represent a major pain point for OEMs. Another pain point lies in battery management, where OEMs currently provide an eight-year battery warranty based on the assumption of correct usage. However, customers often charge their batteries at 60% instead of the recommended 20%, revealing an unforeseen trend. In anticipation of a sea of warranty claims during these eight years, OEMs are already building reserves to ensure they have the necessary funds available.

²⁰ [Warranty Week \(2021\) Worldwide Auto Warranty Expenses](#)

²¹ [IBM Institute for Business Value \(2020\) Data-powered automotive warranty re-invention](#)

²² [Beehive Research \(2016\) Do longer warranties actually help with automotive loyalty?](#)

Every challenge breeds opportunities, and the warranties market is no different. With early analyses and transparent root causes for cases, warranty management can be significantly improved. Here are our recommendations:

Harness digital twins for swift simulation and prediction of underlying issues and effectively validate processes.

Embrace diagnostics data, especially in the realm of software-defined vehicles. Here, transparency is increased and the data empowers OEMs to accurately diagnose core issues.

Prize early recognition of root problems over mere superficial symptoms. Such proactive handling not only mitigates costs but also bolsters accruals management.

Nurture customer retention. Establishing well-defined standards and approvals empowers staff to adeptly manage goodwill cases, fostering exceptional customer

experience and positive brand reputation.

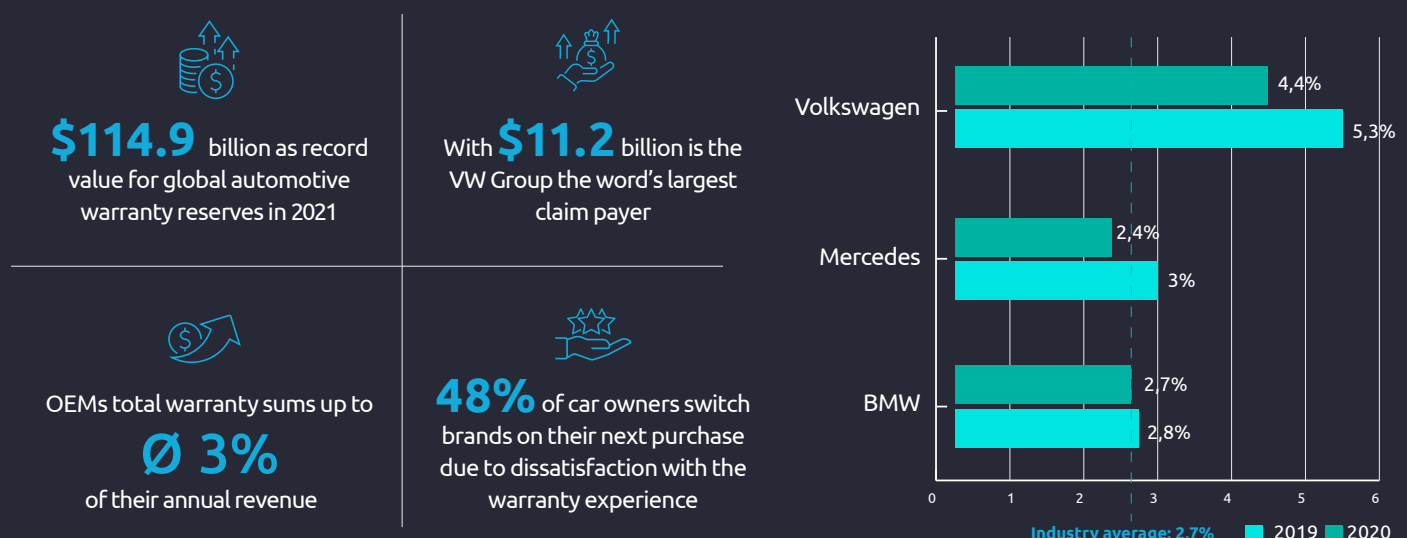
Provide adequate customer education and incentivize correct charging practices. Implementing gamification can be an efficient approach, where customers are rewarded with points for consistently charging batteries correctly and lose points for charging them incorrectly.

In conclusion, adapting to the evolving landscape of product complexities and heightened customer expectations requires a holistic approach. As the industry continues to grow, embracing these solutions will not only elevate warranty management practices, but also define the success and reputation of OEMs in an ever-demanding market.

Despite the many challenges, successful cross-industry players are already emerging. In terms of warranty management, those best practices show the particular importance of speed, simplicity, and customization. For example, Apple offers a streamlined warranty claim process and fast turnaround times. It also offers AppleCare as an extended warranty program. And then there is HP, a company that excels in customized warranties, offering self-repair kits to minimize downtimes and providing an online warranty management tool for self-management. By drawing inspiration from successful players and infusing their strategies with industry-specific insights, OEMs can elevate their warranty management practices and secure long-term success.

Facts and figures

Claim rate (% of revenue)



* Numbers converted from US-Dollar to Euro, based on the exchange rate at the end of September 2022.

** Warranty Week and Capgemini Research.

Figure 13: Warranty claims as major financial effort for OEMs

H10.

How Generative AI is improving business performance

Ever since machine learning exploded in the early 2000s, AI has become an integral part of modern society, impacting all industries. In the automotive industry, AI has revolutionized various aspects of vehicle design, manufacturing, operations, and customer experience.

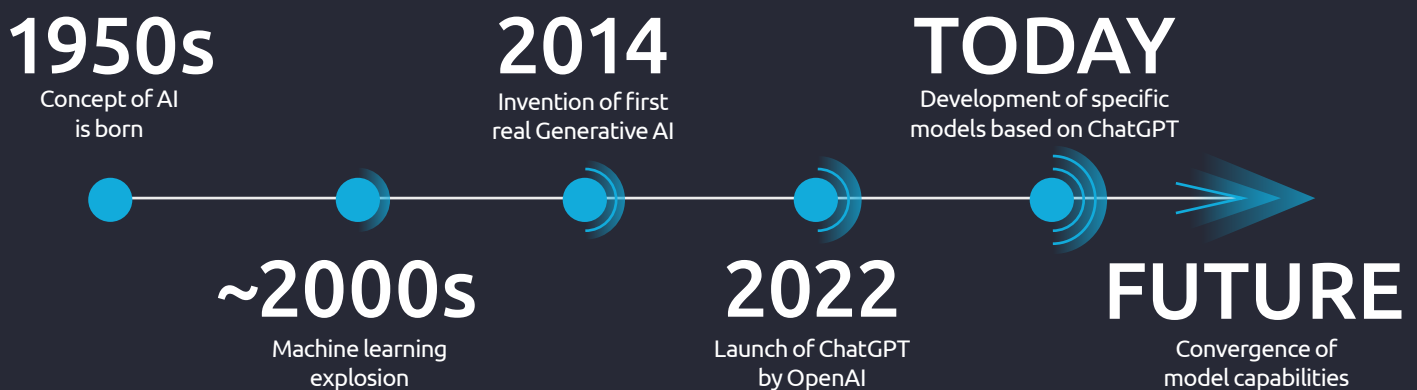
Several AI use cases stand out. With such outcomes as reduced costs or improved CX, OEMs are uniquely positioned to take advantage of AI's wide-ranging possibilities. By 2026, Gen AI will automate 60%²³ of design efforts for new websites and apps, enabling businesses to significantly lower operational costs. This cost optimization can result in improved profitability and resource allocation for other critical areas of the organization.

Recognizing this trend in customer engagement can help OEMs tailor their products and services to meet these changing expectations. The prediction of a 14%²⁵ issue resolution rate per hour through Gen AI indicates a potential boost in customer service efficiency. This can translate into faster issue resolution, reduced customer frustration, and improved overall customer experience.

OEMs should now integrate Gen AI into their offerings to remain competitive and aligned with customer demands. Doing so not only offers cost savings and efficiency improvements but also aligns with the evolving preferences and demands of a customer base that is increasingly interested in AI technologies.

The fact that 50%²⁴ of customers are excited about interacting with AI suggests a growing appetite for AI-driven solutions among customers.

The evolution of AI



²³ [Gartner \(2023\) Gartner Experts Answer the Top Generative AI Questions for Your Enterprise](#)

²⁴ [Capgemini Study \(2023\) Why Consumers Love Generative AI](#)

²⁵ [NBER \(2023\) Generative AI at Work](#)

Key Gen AI insights²⁶

Gen AI offers huge potential across the automotive industry, optimizing both customer and business value.

Customers are already seeing the benefits of Gen AI and gradually demanding it from OEMs.

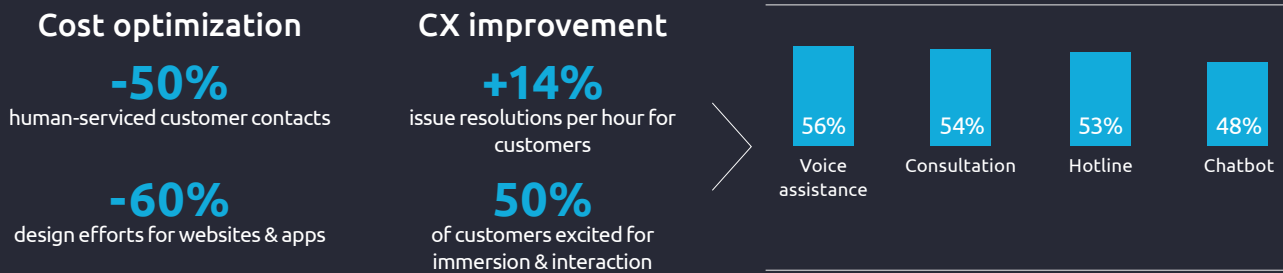


Figure 14: Development of Gen AI and impact on Automotive

Gen AI use cases in aftersales are set to unleash their full potential to foster a better customer experience. To successfully introduce Gen AI, the following are suggested actions to be taken:

Deliver Gen AI empowered predictive maintenance

By deep diving into extensive datasets, and in addition to leveraging machine learning algorithms, Gen AI uncovers subtle patterns and anomalies that traditional methods might miss. The adaptive learning approach ensures accuracy in predicting potential issues, offering OEMs a proactive stance in addressing vehicle maintenance. Gen AI dynamically optimizes maintenance schedules based on real-time data, minimizing downtime. It can also tailor strategies for specific vehicle models and prevent unexpected breakdowns. Its application is also of value in workshop appointment scheduling. Analyzing real-time data from both driver and dealer calendars, it identifies optimal slots. This not only minimizes waiting times but prioritizes urgency, enhancing the overall customer experience.

The customer interaction center of the future

Gen AI is transforming OEMs' customer interaction centers, optimizing experience through instant, accurate responses and personalized assistance. Efficient problem-solving streamlines service and allows employees to focus attention on complex requests. Through seamless integration across all channels, Gen AI offers a consistent and responsive customer experience, fostering stronger customer loyalty.

Companies are actively investing in Gen AI to remain competitive in the long run. Notable best practices include Finnair, which achieved a remarkable 46% faster response time across all cases (e.g., app, webform, etc.) and a staggering 900%²⁷ increase in volume handled by implementing a company-specific multilingual 24/7 AI chatbot

backed by historic data. Additionally, Toyota is also embracing AI within its service assistance.²⁸ They provide vehicle owners with real-time information on vehicle status and safety concerns, and provide intelligent solutions through proactive communication. This all results in exceptional customer experiences and a competitive edge in the market.

In summary, the premium OEM's target is crystal clear: transition from evolution to revolution with Gen AI. Despite Gen AI being a field that is more likely to skyrocket in the mid-term, it is still important to start setting up the right skills today and to enable detailed measures when needed in the future. The shift towards Gen AI can transform the aftersales experience. No more lengthy examinations and tiresome service processes. It will turn the aftersales experience into one of anticipation and delight!

²⁶ National Bureau of Economic Research, Capgemini Invent Research, Capgemini Research Institute

²⁷ Ultimate (2023) How Finnair managed a 900% increase in requests with chat automation

²⁸ Cognigy (2023) Next-Gen Customer Support – Toyota's Drive for Innovation is Limitless

Actions for success

Decisive and fast moves will ensure the OEM's survival in the aftersales market.

We are now able to take a step back and pull in data from across the automotive world and other industries to create one succinct action plan for automotive aftersales. OEMs might now be encouraged to reflect upon this field, leaving them uncertain where to start with improvements. Contemplation here has resulted in the emergence of numerous critical points that require attention. Naturally, given the resource limitations, not all issues can be addressed simultaneously. As such, clear priorities must be established. One thing is certain though: no action is no option! With this in mind, we have prepared a checklist with the most urgent measures that can help OEMs create and shape their aftersales strategy for the future. We have consolidated our recommendations into two distinct sections: the first focuses on short-term actions to be completed by 2025, while the second delves into the long-term aftersales transformation scheduled to extend up until 2030.





A checklist for OEMs

Today: Fixing the basics

OEMs need to fix the basics now for quick results and the ability to define their aftersales strategy.

Launch a profitability program to exploit today's profit pools in core business

- ☐ Repair and maintenance
- ☐ Exploitation of customer segments
- ☐ Used vehicles (i.e., second- and third-segment vehicles)

Build up digital aftersales to stay competitive

- ☐ Set up a holistic customer interaction strategy based on case criticality and proactive care maturity
- ☐ Build an "active" CRM through a unified customer ID to balance reduced customer interactions
- ☐ Consider a consistent online service appointment booking by streamlining data organizations
- ☐ Offer digital repair progress tracking and transparent updates through real-time data sharing
- ☐ Successfully market connected services by entering customers' ecosystems and by smartly packaging services
- ☐ Upgrade the aftersales experience to overcome product shortcomings (including specific B2B measures)
- ☐ Define a B2B aftersales strategy to tackle the increasing B2B segment and focus on aftersales
- ☐ Improve warranty management to achieve cost savings





Tomorrow: Investing in new and prospering profit pools

OEMs need to create a future-proof strategy and invest in new profit pools.

- ☐ Build a progressive connected services portfolio and consider using data to acquire additional business
- ☐ Leverage digitized workshops for better planning and utilization, and train and upskill staff to enable human technology
- ☐ Establish a mobile service option and define a location strategy
- ☐ Leverage data on driving behavior and sensors
- ☐ Develop a battery strategy for storage (e.g., farms) and second-life
- ☐ Create a refurbished parts strategy, analyze second and third focus markets

About Capgemini Invent

As the digital innovation, design and transformation brand of the Capgemini Group, Capgemini Invent enables CxOs to envision and shape the future of their businesses. Located in over 30 studios and more than 60 offices around the world, it comprises a 12,500+ strong team of strategists, data scientists, product and experience designers, brand experts and technologists who develop new digital services, products, experiences and business models for sustainable growth.

Capgemini Invent is an integral part of Capgemini, a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided everyday by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of nearly 350,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fueled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering and platforms. The Group reported in 2022 global revenues of €22 billion.

www.capgemini.com/invent

**GET THE FUTURE
YOU WANT**

The information contained in this document is proprietary. ©2023 Capgemini Invent. All rights reserved.

Authors:



Sebastian Tschödrich
Global Head of Automotive
sebastian.tschoedrich@capgemini.com



Anne Junge
Head of Customer Transformation
anne.junge@capgemini.com



Nadine Kirchhoff
Head of Sales & Commerce Transformation
nadine.kirchhoff@capgemini.com



Sebastian Marschall
Head of Connected Products & Services
sebastian.marschall@capgemini.com



Isabelle Orlea
Senior Manager
isabelle.orlea@capgemini.com



Katharina Schuback-Ruther
Manager
katharina.schuback@capgemini.com

Contributors:

Tim Eberhard
Senior Director
tim.eberhard@capgemini.com

Christoph Strohschein
Senior Director
christoph.strohschein@capgemini.com

Julius Ulrich
Senior Consultant
julius.ulrich@capgemini.com

Philipp Kramer
Senior Consultant
philipp.kramer@capgemini.com

Alia Gilmullina
Senior Consultant
alia.gilmullina@capgemini.com

Kristina Alt
Associate Consultant
kristina.alt@capgemini.com