

# THE MEGATREND OF DIGITISATION IN AUTOMOTIVE AFTERSALES

How new customer demands influence the  
service of the future



# PREFACE

**T**he rapid technological development of the automobile puts enormous pressure on the automotive trade to change. Networking, electrification, autonomous driving, and new mobility concepts are the key words on the mind map of the future of the automobile. All manufacturers have embraced these challenges and are working to develop new solutions to meet future customer needs. Everybody is talking about "digitisation".

The aftersales service sector is equally affected by an explosive rise in model variance of vehicles, various service and maintenance concepts as well as a flood of information and data from the vehicles and manufacturers. As a result, customer service is becoming more complex – also from the perspective of concentrating more on the customer than on the vehicle in the future. This is one of the biggest challenges. In other industries, automation and digitisation are advanced and setting the standard. This awakens customer expectations that also need to be met in the automotive environment.

However, based on these customer requirements, workshops still struggle with predominantly analog and rigid processes, which are not yet designed to meet the required speed. They also do not focus on the needs of the different customer groups. Nevertheless, digitisation is already making its way into service in some places. Mobile tablet solutions support the service consultant in creating orders and advising customers during vehicle acceptance. Customers can now book maintenance appointments online. As a result, some of the process steps of service acceptance are already digitally mapped from the customer's perspective.

However, is that enough to meet the future requirements of customers? This question is particularly directed at the brand-based trade, which is also under particular competitive pressure in this context.

The present study "The Megatrend of digitisation in Automotive Aftersales: How new customer demands influence the service of the future" looks at the changes in the service of the coming decade, supported by extensive market research and expert interviews. The joint investigation of NTT DATA and AUTOHAUS clearly shows that completely new possibilities for exciting business models are emerging for the service of the future, especially through digitisation.

It is thus clear that the industry and specifically the service sector faces major challenges. It is now necessary to recognise these opportunities and to take the right steps.



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Photo: AUTOHAUS



Photo: NTT DATA

# CONTENT



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**1**

**MANAGEMENT SUMMARY ..... 4**



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**2**

**DIGITISATION CHANGE SERVICE ACCEPTANCE ..... 6**

- Service processes will change ..... 6
- The drivers for change in service ..... 7



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**3**

**STUDY DESIGN ..... 8**



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**4**

**RESULTS ..... 10**

- Networking ..... 10
- Telematics ..... 14
- Omni-/cross-channel and partnerships ..... 18
- Smart city ..... 22
- Autonomous driving ..... 26



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**5**

**SERVICE ACCEPTANCE THE FUTURE ..... 31**

- Flexible processes ..... 32
- What has to change? ..... 33
- What does this mean for the IT landscape? ..... 34
- Summary ..... 35



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## MANAGEMENT SUMMARY

In the future, the entire service process will have to be geared much more strongly to the individual needs of customers than it is today. Not just a process for all but rather the precisely fitting process for all – this is the challenge for the brand-specific aftersales. In the future, the dimensions of location and time for services will no longer be pre-defined, but will be integrated into the customers' everyday life.

This starts with booking an appointment, which must be possible online and on all end devices at any time. The location for vehicle acceptance must be just as flexible – dropping by the dealership is just one of several options. It is just as self-evident that vehicles can be taken to the workshop or handed over at defined drop-off points in the city centre. Time savings for the customer with the integration of services into everyday life is the highest priority. Expert advice does not necessarily have to be provided in the workshop. Advice can be sought from the service consultants from anywhere via video link or augmented/virtual reality. Digital media even make it possible for customers and service consultants to take part in the same dialogue without having to be at the same place.

For this, a newly defined partnership between the aftersales service sector and the vehicle manufacturer is required. This includes a stronger networking of IT systems and the exchange of information on customer and vehicle data. This is the basis on which common solutions and new service formats can be

developed. Manufacturers must assume the role of the innovator because they can develop and roll out company-wide IT solutions, which individual retailers cannot do alone.

These are central findings of the study "The Megatrend of digitisation in automotive aftersales: How new customer demands influence the service of the future".

The study examined five issues that exert strong pressure for change in aftersales. In order to substantiate the possible effects, the strongest conceivable expression of each issue was formulated as a provocative hypothesis. In the context of the study, market research and expert interviews were used to evaluate the individual theses and to check their validity.

### 1. NETWORKING: "REPAIRS ARE INCREASINGLY TAKING PLACE OVER-THE-AIR."

According to this theory, over-the-air software updates directly from the manufacturer will play a greater role. What Tesla is demonstrating will be imitated on a large scale. For over-the-air updates, data is transmitted wirelessly to a device via a wireless interface (Wi-Fi or mobile communications). Over-the-air is already widely used in the area of smartphones and other mobile gadgets. Car manufacturers are also increasingly committed in this area. The study shows that car manufacturers have recognised the potential of over-the-air. All manufacturers surveyed assume that repairs with regard to bug fixes and software updates will be installed via wireless interface in the

future. This method will also become more interesting for vehicle diagnostics independent of time and place. Nevertheless, there will still be a need for mechanical service and repair, which only the workshop can cover. All manufacturers surveyed emphasise that this will not result in lost business for workshops. The majority (55%) of the dealers surveyed also believe that future updates for vehicle software or the release of services will take place increasingly over-the-air. This has implications on the entire business model: 71% of the retailers have recognised that in future, digital add-on products can be marketed directly by the manufacturer via the over-the-air channel.

## 2. TELEMATICS: “MORE TRANSPARENCY WITH VEHICLE DATA – THE CUSTOMER WILL BECOME THE EXPERT.”

The market research has shown that both private and business customers have a strong interest in using technical data from the vehicle to be informed about the condition of the vehicle or service needs. 57% of customers find this option interesting. Customers would like to use their vehicle data to independently assess the need for repairs or decide whether it is even necessary to consult a mechanic. 52% of private customers would like to use vehicle data for this purpose. Drivers, however, clearly distinguish between technical vehicle data and data on their own driving behaviour, which would allow the creation of a personal driving profile. There are clear reservations about sharing data on one's own driving behaviour with a third party. For the aftersales service sector, telematics offers the opportunity to more effectively attract customers and retain them in the long term. The connectivity, which is already integrated into newer vehicles ex works, ensures that contract dealers have initial access to the customer. It is foreseeable that the service process will change significantly as a result of telematics. Because of the extensive information already available before the first contact, vehicle acceptance and handover will be significantly shortened because many questions can be clarified in advance.

## 3. OMNI-/CROSS-CHANNEL AND PARTNER SHIPS: “FULL SERVICE AGENT ASSUMES THE SERVICE OPERATIONS FOR THE CUSTOMER”

The offers of manufacturers and dealers in the field of service, repair and accessories are becoming more and more transparent and provide customers with many opportunities to inform themselves and to purchase products and services via different channels. New players on the market are also taking advantage of this trend and are pushing their way between the dealer and the customer and taking over the entire transaction process as a full-service provider – from determining service requirements, choosing a dealership and booking the appointment to vehicle transfer and billing. Market research has shown that customers want comprehensive support. However, most of the respondents obtain this service at their authorised workshop. 66% of the customers surveyed stated that full-service offers would be interesting or very interesting if they were provided by the authorised workshop. Both private and business customers see time savings as the greatest advantage of such an offer. For 54% of dealers, the range of comprehensive carefree packages creates new business potential. However, the brand-related trade also sees the risks: If external service providers in aftersales

make life easier for vehicle owners and take over all the work related to the automotive service, 40% of dealers fear that the dealership-customer relationship might be weakened.

## 4. SMART CITY: “THE DEALERSHIP COMES TO THE CUSTOMER.”

Cities are becoming more efficient, more innovative, and more technologically advanced. This trend is directly linked to the digitisation in all areas of life and influences the behaviour of dealership customers, especially in large cities. In the context of the market research, it was asked how interesting is a stronger integration of new service formats into the daily routine of urban residents. Both private and business customers found individual service offerings that would save time and eliminate the need for long distances interesting. For such services that are not carried out at the dealership but rather in close proximity to the customer at defined locations in the city, customers preferred the authorised workshop over a private service provider. 61% of customers would like such services. The retail sector already recognises the opportunities opened up in the Smart City environment and sees opportunities for new business models (78%).

## 5. AUTONOMOUS DRIVING: “THE VEHICLE WILL DRIVE ITSELF TO THE WORKSHOP.”

By 2025 at the latest, experts expect autonomous cars to be travelling on our roads. According to studies, partially and fully automated vehicles could account for between 20–35% of the world's vehicle production by 2035. Concrete applications of the technology are already emerging today, especially in commercial transport. In several metropolitan areas, pilot projects with autonomous vehicle fleets are also being carried out. This will also affect service. If consistently thought through, the technical development could lead to cars driving to a workshop completely alone without a driver.

Although the technology for the car to be driven to the workshop without a driver has not yet been made commercially available, car users view such a scenario positively. In particular, drivers under 40 show a high degree of readiness for this possibility. Assuming the safety of the technology, 47% of the users surveyed would be willing to let their car drive autonomously to the dealership.

Dealers are also open to autonomous driving with regard to the future perspective. 68% of the dealers surveyed believe that the scenario “car will drive to the workshop on its own” will be possible in 10 to 15 years. However, there is also a danger that the direct contact with the customer will be lost. 70% fear further decreased opportunities for contact. ■



## DIGITISATION WILL CHANGE SERVICE ACCEPTANCE

Photo: Shutterstock/jisak

### THE SERVICE PROCESS WILL CHANGE

**A**utomotive manufacturers, retailers, and aftersales are faced with fundamental changes in the value creation process. Technical and social changes associated with keywords such as digitisation, connectivity, drive train electrification, and autonomous driving are a challenge for the industry. At the same time, they are issues for the development of new processes. Customer expectations have also changed and will continue to change in an increasingly digital world. What has been learned in other industries will soon be a requirement in the automotive sector including aftersales: "Everything, everywhere, and immediately." The customer of tomorrow wants to be able to act digitally, competently, and with a high degree of sophistication when

buying a car or in the case of a service requirement. Digitisation and the resulting change in customer needs will fundamentally change the service process. The present study examines which change drivers are particularly relevant for the service sector and where the changes are taking place. The point of departure is the classic service process, which the car manufacturers have more or less rigidly defined. The study focusses on those steps in the service process that are relevant to the customer and can be experienced directly – from notification of a necessary service requirement, to booking the appointment to vehicle acceptance and return. Process steps that are not visible to the customer are also taking place. This includes all processes that are running in the background (e.g. the pre-ordering of spare parts or the assignment of orders to individual service person-

STANDARD SERVICE PROCESS FROM THE CUSTOMER'S PERSPECTIVE

Standard service process from the customer's perspective



Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

nel). Digitisation has found its way into some areas of the internal service process. For example, car manufacturers and the associated brand dealers have already recognised the need to make existing data available to service employees at any time, at any workplace, and on any mobile device without media disruptions. The prerequisite for this is the linking of the different IT systems in the dealerships (horizontal linkage), as well as the connection of the dealer systems to the manufacturer systems (vertical linkage). For example, mobile tablet solutions support the service consultant in information exchange. The paper check-list has been replaced by the guided dialogue acceptance. By linking the mobile application to the dealer management system (DMS), data is available in real-time and without media disruptions to further plan the service requirements. However, even before contacting the dealership, the Internet is increasingly changing the customer journey for service or repair needs. The large

amount of information provided by the Internet makes services comparable and the market as a whole more transparent. Customer experiences with a service company are suddenly visible to all on the web: Through the interactive assessment of providers via social media, a new, difficult-to-control competition arises in favour of the customer. Consumers looking for a business online no longer automatically use the telephone: Particularly younger customers, who are accustomed to organising their everyday lives with a smart phone, expect the increased convenience of requesting and booking an appointment online in addition to the classic way of contact via telephone. ■

THE DRIVERS FOR CHANGE IN SERVICE

The study identified five drivers that exert strong pressure for change in aftersales. Drivers were selected according to their potential for change in the service acceptance process. The expectation that the selected drivers will have a particularly large influence on the further development of service acceptance was confirmed in the expert interviews. In order to concretise the possible effects, each driver was assigned a provocative thesis. In a single sentence, the theses summarise the change potential of the drivers as the strongest expression of possible change processes. In the market research and expert interviews respondents were confronted with these theses. ■

- NETWORKING  
*"REPAIRS ARE INCREASINGLY TAKING PLACE OVER-THE-AIR."*
- TELEMATICS  
*"MORE TRANSPARENCY THROUGH VEHICLE DATA - THE CUSTOMER WILL BECOME THE EXPERT."*
- OMNI-/CROSS-CHANNEL AND PARTNERSHIPS  
*"FULL SERVICE AGENT ASSUMES THE SERVICE OPERATIONS FOR THE CUSTOMER."*
- SMART CITY  
*"THE DEALERSHIP COMES TO THE CUSTOMER."*
- AUTONOMOUS DRIVING  
*"THE VEHICLE WILL DRIVE ITSELF TO THE WORKSHOP."*



Photo: AdobeStock/NicoElNino

## STUDY DESIGN

**T**o validate the theses, the study is based on three data sources, which involve all those who participate in the process: the customer, the dealer, and the manufacturer.

As part of an online survey conducted by the market research company puls Marktforschung GmbH, Nuremberg, vehicle users, who are also dealership customers, were consulted. A distinction was made between private customers and business customers, who mainly use their cars professionally. In addition, 275 retailers were questioned in an online survey. The data from the market research are supplemented by personal expert interviews with service managers of vehicle manufacturers and partners from the academic world. ■

## CONSUMERS

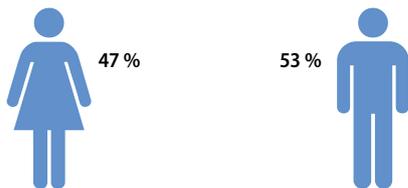
500 vehicle users were surveyed online. The sample comprises 250 private customers and 250 business customers.

### AGE DISTRIBUTION

<b>Average (Ø)</b>	<b>44 years</b>
<b>up to 40 years</b>	<b>36 %</b>
<b>41 to 50 years</b>	<b>28 %</b>
<b>Older than 50 years</b>	<b>36 %</b>

Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

### GENDER



Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

### RESIDENCE

<b>More rural locality</b>	<b>24 %</b>
<b>Small city up to 20,000 inhabitants</b>	<b>21 %</b>
<b>Mid-sized city up to 100,000 inhabitants</b>	<b>22 %</b>
<b>Large city / surrounding area of a large city over 100,000 inhabitants</b>	<b>33 %</b>

Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

### TIME INTERVAL

The survey took place online between 24 April and 5 May 2017. The average interview length was about 15 minutes. ■

## DEALERS

The survey is based on the AUTOHAUS panel consisting of about 1,600 brand-dependent and brand-independent dealers throughout Germany.

Each month, approximately 275 dealers are questioned in an online survey on economic and sales expectations as well as on a focus issue.

The panel survey for May focused on the future of the acceptance process in the context of digitisation.

### LENGTH OF INTERVIEW

The interviews for the panel were held at the beginning of May. The collection period is 3 days and begins with the first Monday of each month. The average interview length is about 5-7 minutes. ■

## EXPERT INTERVIEWS

In individual expert interviews, seven service experts were interviewed. The basis for the interviews was a standardised questionnaire on the future of the service acceptance process.

- Imelda Labbé, Head of Volkswagen Aftersales Group
- Wolfram Knobling, Director of Customer Care and Aftersales, Opel Germany
- Daglef Seeck, Director of Nissan Aftersales Centre Europe
- Gerd Meyer, Director of Mazda Service Germany
- Karl Hell, Director of Aftersales for Hyundai Motors Germany
- Prof. Stefan Reindl, Acting Director, Institute of Automotive Trade (IFA)
- Prof. Norbert Schreier, Esslingen University of Applied Sciences, Faculty of Automotive Engineering

### TIME INTERVAL

The interviews were conducted between February and June 2017. The duration of the interviews was about 60 minutes each. ■



Photo: Shutterstock/chombosan

## 4 RESULTS

### NETWORKING

***"REPAIRS ARE INCREASINGLY TAKING PLACE OVER-THE-AIR."***

**T**he increasing networking of the vehicles (i.e. the ability to communicate with the vehicle via the Internet and to receive or transmit data from the vehicle) will also influence the service process. This can be seen in the fact that repairs for troubleshooting individual control units or updates of the vehicle software are carried out during a workshop visit – this is usually not noticed by the customer in the context of service intervals. These updates are now increasingly being transmitted to the vehicle via the Internet. They are often referred to as 'over-the-air' updates. Today, the customer still mainly comes to the workshop. In the future,

these over-the-air updates will also be feasible independent of the location. The customer will therefore no longer be bound to the location of the workshop. In addition to diagnostics, not only software updates and repairs can be carried out but over-the-air also opens up the possibility of accelerating the sale of accessories. For example, the navigation system could be updated, and new performance features (e.g. certain assistance functions or an increase in the performance of the engine) could be directly activated over-the-air.

**SIDE NOTE: TESLA ROUTINELY SENDS UPDATES OVER-THE-AIR**

The automotive manufacturer Tesla updates the operating software for its vehicles free of charge over-the-air. A prime example of this practice are companies like Google or Apple, which also continuously upgrade the operating systems of their devices via software updates. Tesla regularly informs customers about updates and the current software version on its website. There, it says: "Tesla vehicles regularly receive software updates via mobile wireless to set up new functions and features. As soon as an update becomes available, you will see a corresponding message on the central console display. You then have the option to install the update immediately or at a later time. We recommend that you connect your vehicle to your Wi-Fi at home to speed up your download."



Photo: Jan Woitas / dpa / picture-alliance

The update runs directly between manufacturer and customer – a workshop is not directly involved. For example, over-the-air customers were provided with an improved driver's assistant for the motorway or a lane-changing assistant for simple, convenient lane changes including

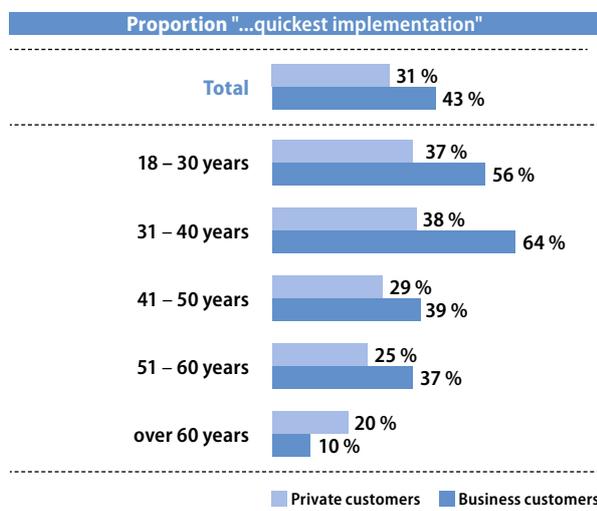
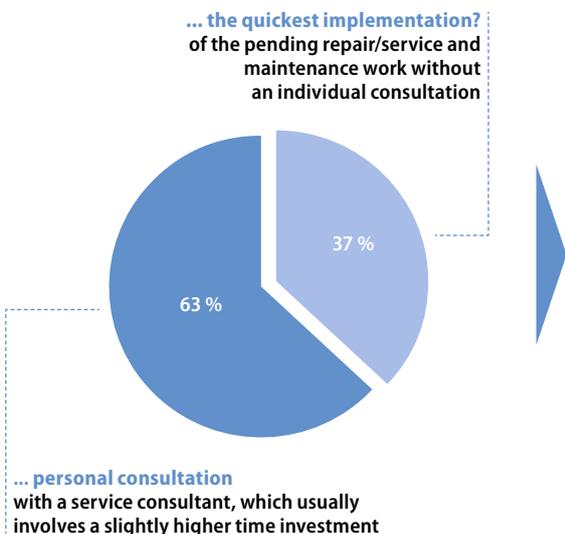
lane warning function. "Your Tesla is getting better and better!" – with this slogan, the manufacturer markets its concept of regular updates.

Almost half of the respondents can easily imagine online updates for vehicles in the future. 44% of the users are open to the idea that software updates and repairs will be sent over-the-air to the vehicle without a visit to the workshop. For business customers, the openness to over-the-air updates is even more pronounced than for private users. 58% of drivers under 40 would like this service on a regular basis. This attitude

is understandable from a consumer perspective. Why should something that is reliably carried out with smart phones or computer programs not work with a car? Concerns about data protection and security are obviously less important for users: Only 5% of respondents reported security concerns, and only 2% reported privacy concerns as arguments against over-the-air repairs.

**44 % WOULD LIKE OVER-THE-AIR UPDATE**      **DEPENDENCE OF AGE**

Which offer would you choose?  
Would you prefer...



Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)



**58** %  
 PERCENT OF DRIVERS UNDER 40 **WOULD LIKE THIS SERVICE REGULARLY.**

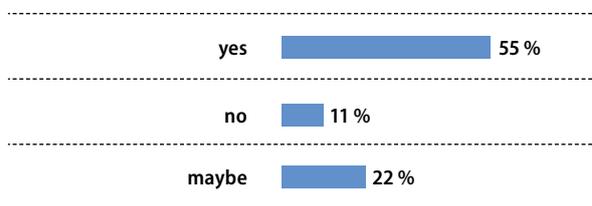
The car manufacturers have recognised the potential of updates over-the-air, and all experts surveyed assume that software updates can be uploaded wirelessly over the wireless interface in the future. Whether this is done directly through the manufacturer or through the dealership has not yet been decided.

Retailers have already recognised the potential offered by over-the-air. 55% of dealers are convinced that updates of the vehicle software will increasingly take place over-the-air. Only 30% believe that the software updates will be initiated or carried out by the dealership. Retailers also assume that the over-the-air channel will be increasingly used by car manufacturers to directly market digital add-on products. Most dealers believe that the manufacturer will play a decisive role in the marketing of these digital add-on products (e.g. vehicle functions purchased and activated by the user for a limited time). At the same time, however, the majority (71%) is convinced that the dealership will remain important for mechanical troubleshooting and vehicle repairs.

The manufacturers surveyed, are also convinced, without exception, that there still will be mechanical service and repair needs that only the workshops can handle. A worn brake disc cannot be replaced with an over-the-air system any more than a worn toothed belt. All manufacturers surveyed emphasise that the workshop will not lose business because of the possibility of software updates. On the contrary, in the interviews, all experts emphasised the importance of the dealer and the associated service companies. The unanimous opinion is that the dealership will remain irreplaceable. However, the interviews confirm the retail view that manufacturers use over-the-air updates to directly market "functions on demand" (i.e. vehicle functions for a certain period of time). ■

#### SOFTWARE UPDATE WITHOUT WORKSHOP

Will the updating of vehicle software and repair over-the-air (via the Internet and without visiting the workshop) increase in the future?



Difference of 100 %:  
 Don't know/not specified

Source: AUTOHAUS *puls*Schlag 05/2017  
*puls* Marktforschung GmbH

#### EFFECTS ON SERVICE

What effect could the over-the-air trend have on the retailers and the associated service?



Multiple answers possible!

Source: AUTOHAUS *puls*Schlag 05/2017  
*puls* Marktforschung GmbH

Photo: Nissan



**“YOU MUST DISTINGUISH WHETHER A REPAIR REQUIRING REPLACEMENT OF MECHANICAL PARTS IS NEEDED OR WHETHER IT IS A MATTER OF OFFERING ADDITIONAL SERVICES. WE ARE WORKING ON THE SECOND TOPIC.”**

DAGLEF SEECK, DIRECTOR OF NISSAN AFTERSALES CENTRE EUROPE

## “REPAIRS ARE INCREASINGLY TAKING PLACE OVER-THE-AIR.” – LEARNINGS

### DEALERSHIPS MUST KEEP AN EYE ON THE NEEDS OF YOUNGER CUSTOMERS

Dealerships need to keep an eye on the needs of younger customers (18–40 years). These customers are accustomed to dealing with digital media and are very open to more digitisation in service. Repairs or improvement of vehicle functions over-the-air are explicitly welcomed. Distinguishing between private customers and business customers is also relevant because business customers prefer to use over-the-air even more than private customers.

This scenario does not mean that the classic dealership will be lost, because the need for mechanical repairs to the vehicle will continue to exist. The dealership therefore remains important

for troubleshooting. Only the marketing of additional software functions will run more directly through the manufacturer. Retailers must strive to find a place in the digital value chain. Manufacturers and dealers will work together even more closely in the future. This is accompanied by stronger vertical linkage of the IT systems in the dealership and the connection to the manufacturer systems as well as the efforts of vehicle manufacturers to binding their customers more strongly to the brand via portals.

Photo: Volkswagen



**“WE SEE THE INCREASING IMPORTANCE OF CUSTOMER PORTALS WHERE THE CUSTOMER IS IDENTIFIED AS THE DRIVER OF THE VEHICLE. THE COMPLETE SERVICE HISTORY OF THE VEHICLE IS STORED ON THE PORTAL. IT ALSO PROVIDES VALUE ADDED SERVICES. THE CUSTOMER CAN RETRIEVE INDIVIDUALLY PREPARED INFORMATION OR FIND INFORMATION ON CUSTOMISED OFFERS AT ANY TIME.”**

IMELDA LABBÉ, HEAD OF VOLKSWAGEN AFTERSALES GROUP

Looking at the service process, it is foreseeable that over-the-air will change the communication between customers and the dealership. For a growing proportion of customers, personal contact with the service consultant will tend to decrease because increasingly more information can be retrieved through service portals or directly in the vehicle. Many services and products will be directly bookable without the customer contacting the ser-

vice consultant. Only for mechanical repairs on site and for the more conservative customer base will the personal contact with the service consultant remain. Because of this, the role of the service consultant will evolve. The service consultant will no longer be just a vehicle-related specialist but must also be able to provide comprehensive advice. ■



**“THE SERVICE CONSULTANT WILL NEED MORE KNOWLEDGE ABOUT INTERACTIONS THAT GO BEYOND JUST PLAIN AUTOMOTIVE ENGINEERING, BECAUSE THE CAR WILL BE NETWORKED. FOR CONSULTATIONS, IT ASPECTS WILL BECOME MORE IMPORTANT THAN THE MECHANICAL ASPECTS.”**

PROF. NORBERT SCHREIER, ESSLINGEN UNIVERSITY OF APPLIED SCIENCES, FACULTY OF AUTOMOTIVE ENGINEERING



Photo: AdobeStock/zapp2photo

## TELEMATICS

**“MORE TRANSPARENCY THROUGH VEHICLE DATA – THE CUSTOMER WILL BECOME THE EXPERT.”**

The vehicle sensor system collects a variety of data about the vehicle state, records fault codes, and provides data on customer driving behaviour. In new production vehicles, this data is collected and sent to the manufacturer via a data interface. For older vehicles, there are now retrofit solutions for linking data – either from the manufacturer itself or from third-party suppliers. Even insurance companies are offering a telematics dongle for the OBD interface in order to receive data on driving behaviour. In exchange, the customer receives a more favourable rate.

The insurance example shows that data generated in the vehicle is a valuable raw material for new business models, which go far beyond vehicle service. Vehicle and driver data are indisputably the “gold of the future” in the industry. It is no wonder that the fight for data integrity has long since erupted. The fact that the driver or vehicle owner has a high interest in the data is shown by the fact that data is already being pro-

cessed by various providers and made accessible to the driver via smartphone apps. This trend ensures that the customer is able to make use of the data and has more information on the relevance and necessity of pending repairs and services available. Furthermore, this information also forms the basis for the comparison of services and prices of different service providers. The survey has shown that drivers are deliberately differentiating between technical vehicle data and data on their own driving behaviour. The latter would make it possible to create a personal driving profile for the driver.

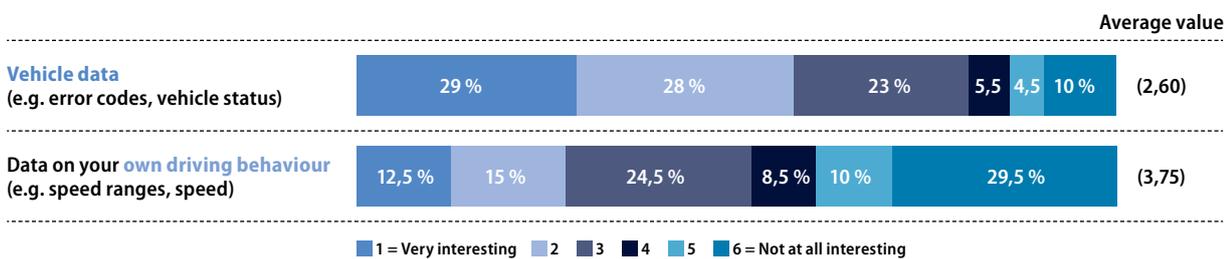
Both private and business customers have a strong interest in using technical data from the vehicle to be informed about the condition of the vehicle or service needs. 57% of customers find this option interesting. Customers would like to use their vehicle data to independently assess the need for repairs or decide whether it is even necessary to contact a service consultant. 45% of the customers surveyed would like to use vehicle

data for this purpose. For private customers, this is even 52%. 35% (averaged between private and business customers) saw another advantage in being able to estimate their repair costs in advance. 26% of the customers expected shorter conversations with the service consultant using telematics data. Only a minority (18%) did not see any benefit from the knowledge of technical data. However, compared with the purely technical

vehicle data, motorists have clear reservations on giving their own driving behaviour data to a third party. Only 13% of respondents (averaged over private and business customers) would be interested in this. About 30% indicated that this option was not at all interesting. Here, the reservations seem to prevail over the benefit.

### INTEREST IN INFORMATION ON VEHICLE DATA AND DATA ON PERSONAL DRIVING BEHAVIOUR

In many cars, information about the condition of the vehicle and the driving behaviour is already available and accessible. How interesting would it be for you to use information on the condition of the vehicle yourself or to provide the data on your driving behaviour to your vehicle manufacturer or your motor insurance provider in the future?



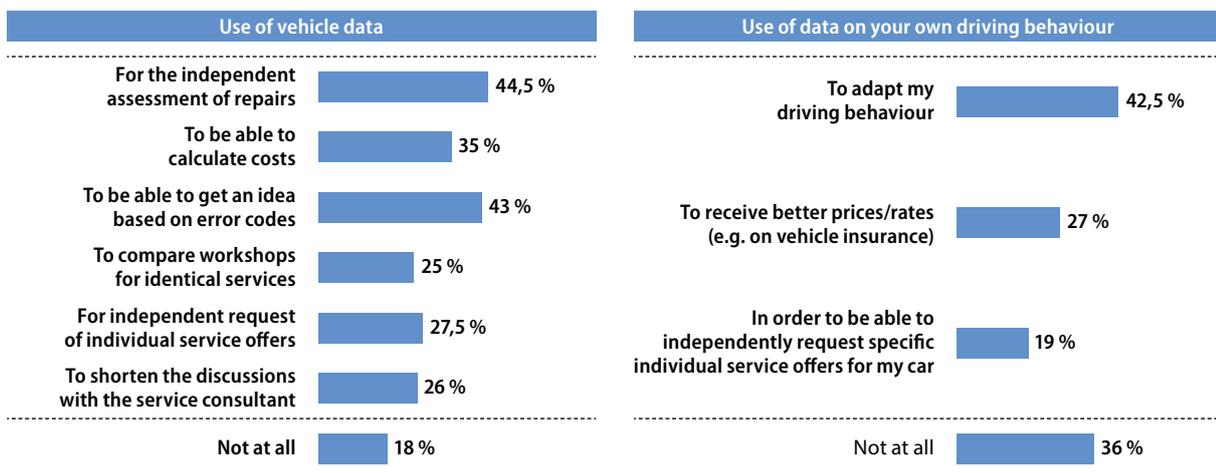
Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

### USE OF VEHICLE DATA

### DATA ON YOUR OWN DRIVING BEHAVIOUR

For what purpose would you like to view/use this information ...

... on the vehicle (e.g. fault codes or other information about the vehicle condition)?  
 ... on your own driving behaviour?



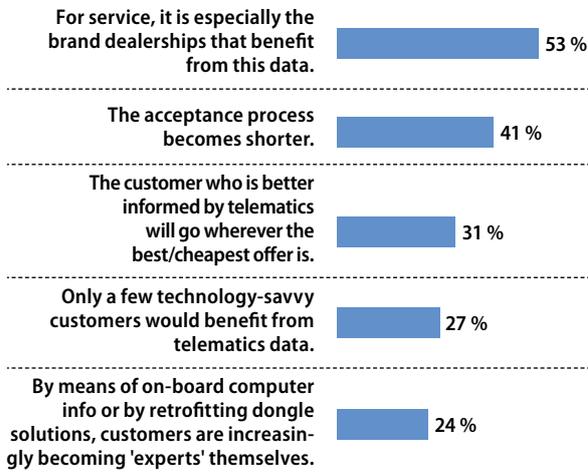
Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

For dealers, the topic of telematics has a positive connotation. 5% of the respondents were convinced that the data collected in the vehicles would primarily benefit the retailers. 41% of the dealers surveyed hoped that the acceptance process would be shortened through technical data. In turn, 31% feared that

customers would use available data to have the service done where the price is lowest. However, only 24% of dealers interviewed in the market research believed that customers themselves are increasingly becoming 'experts' for service questions.

## DATA IN THE SERVICE ACCEPTANCE

The sensors in the vehicle collect a lot of data about the vehicle and the user. What could this mean for the future service acceptance process?

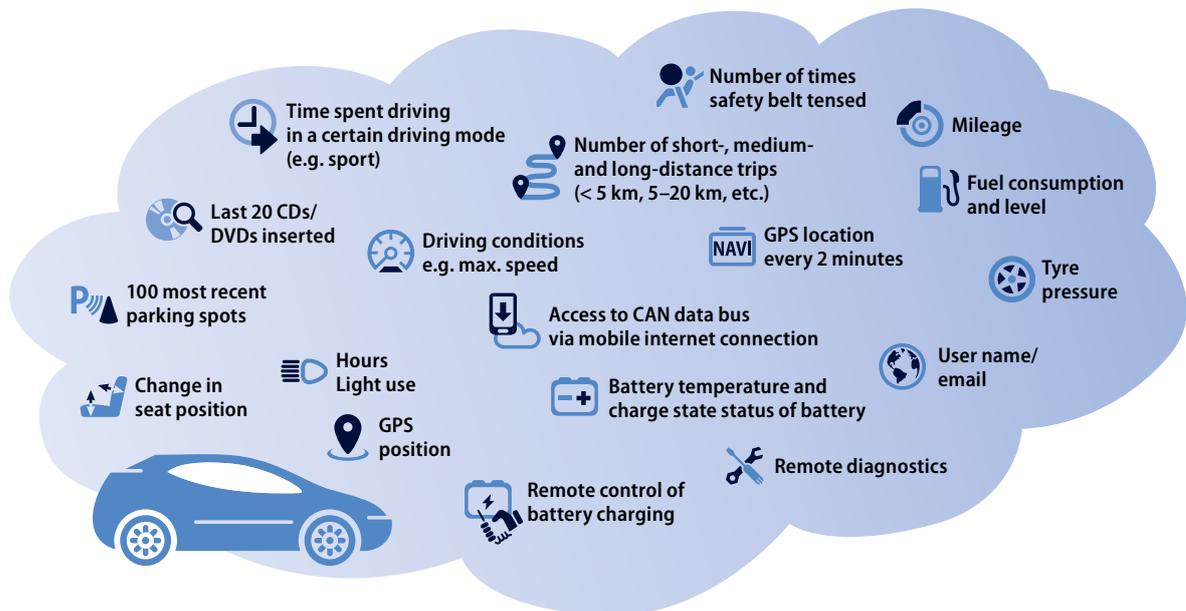


Multiple answers possible!

Source: AUTOHAUS *puls*Schlag 05/2017  
*puls* Marktforschung GmbH

This view is supported by the results of the interviews with the service experts of the manufacturers: The manufacturers see the customers as 'experts' only conditionally because the technical knowledge remains limited despite telematics data. An error code can only be interpreted by experts who have the appropriate diagnostic tools and corresponding expert knowledge. However, the manufacturers also see that some customers are becoming more informed. This is mainly due to the knowledge available on the Internet and service-specific portals. In the future, service consultants will have to deal more intensively with these 'enlightened' customers. If more information about the condition of the vehicle is provided to the customer, this trend will continue to grow. ■

## SIDE NOTE: TELEMATICS DATA DELIVERED FREE



Source: AUTOHAUS

Together with BMW, Mercedes is one of the pioneers in the field of vehicle telematics. The Stuttgart-based company calls the range of services on vehicle data Mercedes 'Me Connect', which represents one service component of the customer portal 'Mercedes Me', alongside financing and assistance functions. Me Connect offers the user vehicle diagnostics, breakdown and accident management, and an emergency call system. With a retrofit solution for older vehicles, the driver can view the current operating data of the vehicle, activate a driving log function, or transmit maintenance information to the manufacturer, find parked vehicles via GPS or monitor the parking time, make an emergency call in the event of an accident or breakdown, simultaneously transmitting relevant vehicle data, and, of course, search and contact

dealers. On the basis of the data transmitted, the dealer knows when the next service is due, how much maintenance is required, and which spare parts are needed – even before this is displayed to the driver. Suggestions for appointments and replacement vehicle are then sent directly to the customer. Comparable adapter solutions are also available on the open market for retrofitting. Service solutions such as Drivelog Connect from Bosch, Texa CARE from Texa, PACE from PaceTelematics, or the Bluetooth dongle from Continental offer a spectrum similar to the Mercedes solution. For example, the Drivelog Connect auto-diagnostics translates error codes into understandable language on a smart phone. If necessary, Drivelog will navigate the user to the nearest workshop.

## “MORE TRANSPARENCY WITH VEHICLE DATA – THE CUSTOMER WILL BECOME THE EXPERT.” – LEARNINGS

For dealers, opportunities and risks are closely linked. Through telematics, the customer has access to information about the operating status of the vehicle and, in the event of technical problems, a first error report. In combination with the price transparency provided by the Internet, customers are more confident and more informed than ever before about which workshops they will take their cars to. The fact that customers opt for the more favourable offer from an independent workshop is the risk that results for dealers.

### TELEMATICS AS A CUSTOMER RETENTION INSTRUMENT

This is also countered by the great opportunity to retain customers more effectively through telematics and to win their long-term loyalty. The connectivity, which is already integrated into the newer vehicles ex works, ensures that contract dealers have initial access to the customer. Telematics also makes new business models available to the retailers. Using predictive maintenance, new service offerings can further enhance service quality for the customer. Empirical values coupled with the analysis of error frequencies or correlations between conspicuous fault patterns allow valuable conclusions to be drawn about defects that are highly likely to occur at a particular point in time. Instead of reacting to a failure or malfunction after the fact, predictive maintenance enables the manufacturer to identify existing defects before they actually occur. This provides the manufacturer with a headstart on knowledge compared to the customer, who does not have this advantage. Like that, it is a valuable customer loyalty tool.

### THE ACCEPTANCE PROCESS WILL BECOME MORE EFFICIENT

The service process experienced by the customer will be significantly modified by telematics data. Because of the extensive information already available before the first contact, vehicle acceptance and handover will be significantly shortened because many questions can be clarified in advance. This includes preparing the order, ordering parts, or capacity planning in the dealership. The prerequisite for this is that service consultants also have all relevant data at their workplaces and are always in a position to provide up-to-date information to the customer. Not only the customer, but also the service consultant can use the now freed time thus generated for other activities.

### SERVICE CONSULTANTS NEED CUSTOMER EXPERTISE

In the future, service consultants will be increasingly confronted with ‘enlightened customers’ who do not want to make use of any further advice or who just want to be informed about specific aspects. Part of the advisory service provided today could thus be completely omitted. More often than now, consultants will be dealing with customers who are already well-informed and who have a correspondingly high demand for further professional advice. With the aid of the available data about the vehicle, service consultants can better focus on the customer contact by accessing information about the vehicle and customer beforehand. ■



Photo: Hyundai

**“THE DEMANDS ON SERVICE CONSULTANTS ARE INCREASING” – THEY MUST BE SPECIALISTS IN MANY SUBJECTS.”**

KARL HELL,  
DIRECTOR OF AFTERSALES FOR HYUNDAI MOTORS GERMANY



Photo: Volkswagen

**“WE WILL MAKE SURE THAT WORK THAT DOES NOT ADD VALUE (E.G. THE PREPARATION OF A SERVICE ORDER) IS AUTOMATED, THEREBY SAVING TIME. BY INTEGRATING VEHICLE DATA INTO THE SERVICE PROCESS, EFFECTIVE PREPARATION OF THE ACCEPTANCE BECOMES POSSIBLE. THIS CAN GO AS FAR AS THE VEHICLE AUTOMATICALLY SENDING ITS SERVICE NEED.”**

IMELDA LABBÉ, HEAD OF VOLKSWAGEN AFTERSALES GROUP



Photo: Shutterstock/Peshkova

## OMNI-/CROSS-CHANNEL AND PARTNERSHIPS

***“FULL SERVICE AGENT ASSUMES THE SERVICE OPERATIONS FOR THE CUSTOMER.”***

Today, companies are addressing customers through many channels. In terms of retailers, this means that the customers are no longer only contacted in brick and mortar stores but also through the Internet (e.g. online shops, digital newsletters, or social media platforms). The combination of all these customer contacts creates a whole new brand experience for the customer. This is addressed on all channels (omni-channel marketing). The consumer has the opportunity to obtain product information through many channels – the possibilities to actually purchase the product are just as diverse: Online shops, mobile apps, or brick and mortar locations – the customer decides.

In the areas of service, repair and accessories, manufacturer and dealer offerings are becoming more and more transparent. As independent service providers, new players in the market take over the entire process for the customer, from determining the service requirements and selecting the dealership to booking the appointment and transporting the vehicle. Similarly, insurance companies or leasing companies act as intermediaries between the customer and the automotive retailers. One example of this are insurance companies that seek to minimise the costs of claims settlement. The channelling of damage cases to a separate workshop network, thus circumventing the brand retailers, offers an attractive savings potential for the insurer. HUK-Coburg is a pioneer and is building on its own network of workshops. The insurer already has a network of 1,500 partner workshops in Germany.

However, comparative portals could also push their way into the role of the intermediary in the service sector. Consumer

portals like Check24, Preisvergleich.de, or Verivox are a fixed variable in many industries today – from holiday bookings to the appropriate insurance premiums. The business model of the intermediary portals is based on commissions payable upon conclusion of the contract. The start-up company Caroobi, which describes itself as a digital workshop, is a completely new intermediary in the service sector. Users can book repairs at a fixed price and have their vehicle serviced in one of over 400 workshops – including insurance and a guarantee of up to two years. Caroobi also handles administrative tasks such as ordering spare parts or generating invoices for the workshops. In addition, around 30 of their own experts identify vehicle damage by remote diagnosis.

Market research conducted within the framework of the study has confirmed that customers are eager for a comprehensive service. Most of the respondents arrange the execution of this service at their authorised workshop: 66% of the customers surveyed stated that full-service offers would be interesting or very interesting if they were provided by the authorised workshop. Within the framework of such a comprehensive service, the workshop would coordinate all necessary workshop visits and take over the complete service processing from booking the appointment to the vehicle transfer and return.

In comparison, only one third of the respondents could imagine this service by an independent specialist service provider. Private customers as well as business customers clearly favour the authorised workshop as a provider of the comprehensive service. From their point of view, the missing consultation with the authorised workshop speaks against using a third party.

**CUSTOMERS WANT COMPREHENSIVE SUPPORT THROUGH AN AUTHORISED WORKSHOP**

How interesting does the following possible service sound to you: All necessary workshop visits for your car (i.e. your complete service handling from booking the appointment to the vehicle transfer and return) is taken over by a workshop or a specialised service provider. How interesting is such an offer when it ...

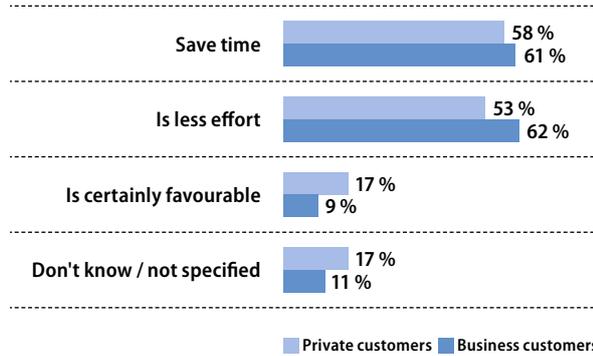


Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

Both private and business customers see time savings as the greatest advantage of a comprehensive service offer. The arguments 'time-saving' and 'less effort' are more important than the opportunity to save money.

**ARGUMENTS FOR COMPREHENSIVE SERVICES**

By preferred authorised workshops

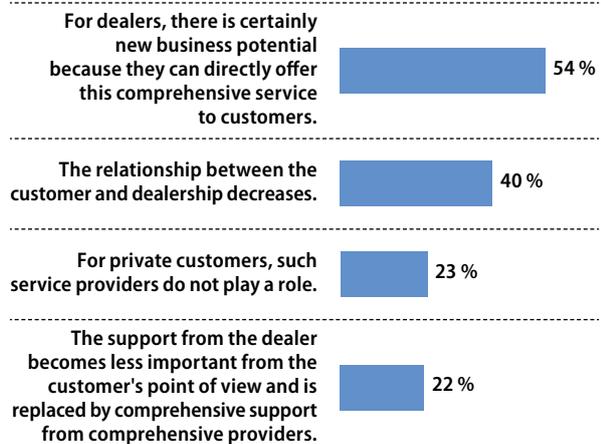


Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

For 54% of dealers, the range of comprehensive carefree packages creates new business potential. The brand-based retailers also recognise the risk: If external service providers in aftersales make life easier for vehicle owners and take over all the work related to the automotive service, 40% of dealers fear that the dealership-customer relationship might be weakened.

**COMPREHENSIVE SERVICE PROVIDERS IN SERVICE**

New players in aftersales could be able to take over the entire processing of the service for the customer. What would be the consequences for retailers?



Multiple answers possible!

Source: AUTOHAUS pulsSchlag 05/2017 puls Marktforschung GmbH

The retailers also face the risk that prices in service will come under pressure if price-driven external service providers become negotiating partners for the dealership. 65% of the respondents believed that the price pressure in the service sector would continue to increase. A further 19% believed that the companies would have to switch to a B2B business model and learn the support of business customers.

Therefore, this development could result in the image of dealerships becoming less important in the future. Unlike private customers, the brand experience in the dealership would be less important for price-driven professional service providers, who act as brokers for customers. The efforts of the brand retailers to create an appealing shopping experience for customers by means of elaborately designed sales rooms will be in vain. The dealers surveyed apparently do not see this development at all. 91% of decision-makers at the dealerships believe that the image of dealerships will remain equally important in the future. This is all the more noteworthy because only 25% of the customers surveyed stated that the image is important for the choice of the authorised workshop.



Photo: Shutterstock/Quality

### THE PRICE DECIDES

What will change in service in the dealership if the customer is a price-driven service provider in the future?

The price pressure in servicing is increasing because such full-service providers primarily decide according to the price-performance ratio. **65 %**

The consulting services at the car dealership must change (from B2C to B2B). **19 %**

The image of the dealership will become less important because the professional service providers only decide on hard criteria and not emotionally. **9 %**

Multiple answers possible!

Source: AUTOHAUS pulsSchlag 05/2017  
puls Marktforschung GmbH

The expert interviews show that vehicle manufacturers see the area of the fleet customers as a model. However, from the perspective of the service experts surveyed, the dealership is not out of the game. In the end, it is still the provider of the service – even if the fleet manager at a leasing company is the main contact person. Nevertheless, a trend is emerging: In the private customer segment, the trend is also clearly predictable, and the number of full service contracts is growing significantly. In addition, the trend seen by manufacturers is that the share of corporate customers will continue to grow. According to figures from the German Federal Motor Transport Agency, only 35% of new registrations in 2016 were made by private owners.

Photo: IFA



**“THE FAMILY WITH SEVERAL CARS IS ALSO A SMALL FLEET. SERVICE PROVIDERS THAT TAKE ON THE MANAGEMENT COULD SOON EMERGE. THIS IS CERTAINLY DRIVEN FORWARD BY DIGITISATION, WHICH PERMITS SUCH PROCESSES TO BE MAPPED.”**

PROF. STEFAN REINDL, ACTING DIRECTOR, INSTITUTE FOR AUTOMOTIVE TRADE

Photo: Nissan



**“WE HAVE 600 SERVICE PARTNERS IN GERMANY. NOT EVERY ONE OF THEM IS CAPABLE OF KEEPING DATA UP-TO-DATE USING PROFESSIONAL CUSTOMER RETENTION MANAGEMENT. THE WAY OF THINKING THAT YOU DO BUSINESS WITH WHOM-EVER CAN SUPPLY THIS DATA IS BECOMING MORE COMMON. IT MAKES SENSE THAT OEM AND RETAILERS ARE JOINTLY MANAGING CUSTOMER RELATIONS IN A WAY THAT COMPLIES WITH DATA SECURITY. CUSTOMER PORTALS OF THE OEM AND CONNECTIVITY OF VEHICLES ARE KEY COMPONENTS.”**

DAGLEF SEECK, DIRECTOR OF NISSAN AFTERSALES CENTRE EUROPE

## “FULL SERVICE AGENT ASSUMES THE SERVICE OPERATIONS FOR THE CUSTOMER” – LEARNINGS

According to the survey, the majority of retailers believe that the opportunities prevail and create new business opportunities for brand retail. They see the offer of comprehensive care-free packages as a service expansion in the dealership as a new business potential. At the same time, the brand-based dealerships fear that customer loyalty might be weakened if external service providers are positioned to assume all the work related to the automotive service.

In order to counteract this, retailers must develop their own full-service offers, which can be used as a customer loyalty measure. The key to achieving this goal is efficient customer data management and, as a result, a close exchange between automotive manufacturers and retailers.

In the expert interviews, the fact that dealers partly operate with outdated and poorly maintained customer data was seen as problematic. It is estimated that up to 70% of the customer

data available is outdated. This underlines the future importance of the customer portals of manufacturers and data integration with retailers. An even closer partnership between manufacturers and retailers is becoming a decisive factor. According to service experts, the dealers have understood that up to date customer data is in the interest of both manufacturers and dealers. The idea that the dealer must guard customer contacts top secretly is a thing of the past.

From the point of view of retailers, the partnership-based thinking must not be limited to the manufacturer. For the retailer, it will become more important to also interoperate with those players who are pushing into the market as intermediates. The complete service processing in the sense of a comprehensive carefree package will only be possible in a network of several partners. The dealership cannot provide the service package alone.

Photo: Hochschule Esslingen



**“FROM MY PERSPECTIVE, RETAILERS MUST COOPERATE EVEN MORE CLOSELY WITH THE SERVICE ORGANIZATION OR FOR EXAMPLE WITH INSURANCE COMPANIES. IT’S ABOUT SECURING PARTNERSHIPS. FROM MY POINT OF VIEW, THE POSSIBILITY OF PARTNERSHIPS IS THE MAIN STRATEGIC TASK FOR DEALERS .”**

PROF. NORBERT SCHREIER,  
ESSLINGEN UNIVERSITY OF APPLIED SCIENCES, FACULTY OF AUTOMOTIVE ENGINEERING



**“DIGITAL PROCESSES  
ARE ANONYMOUS.”**

PROF. STEFAN REINDL,  
ACTING DIRECTOR INSTITUTE  
OF AUTOMOTIVE TRADE (IFA)

**THE SERVICE CONSULTANT WILL BECOME  
A CUSTOMER MANAGER**

The need to develop new full-service offers for customers also affects the role of the service consultant. An even greater involvement of the service consultant in all the customer's vehicle-related interests is required. Today's service consultant would become more a "customer manager" than a technical consultant focused on the vehicle.

If the trend continues towards a third player as a full-service agent taking on the role of customer manager, the contact for the service consultant in the dealership will change. The counterpart will no longer be just the consumer but also increasingly a professional buyer of services. A B2B relationship could develop from today's B2C relationship.

**THE SERVICE PROCESS WILL BE MAPPED  
DIGITALLY**

What does this mean for the service process as experienced by the customer? All this suggests that individual process steps must be mapped even more digitally. Workshop selection, appointment booking, and provisioning of vehicle and customer data must be possible digitally. In the relationship to private customers, the digitisation of these processes becomes more important because the customer is accustomed to this from other areas of life and expects this convenience when it comes to vehicle maintenance. New players on the market (e.g. insurance companies or Internet groups) will hold the trump card. The pressure to digitise processes also results from the requirements in B2B partnerships. In exchange with full-service providers, digital processes with flexible interfaces are essential for a dealership to be considered a cooperative partner at all. As the market survey shows, the time savings for customers play a decisive role – quick processing is even more important than the price argument. In such a scenario, the digital customer contact partially replaces the personal contact in the dealership. ■



Photo: AdobeStock/thampapon1

**SMART CITY:**

**“THE DEALERSHIP WILL COME TO THE CUSTOMER.”**

To make life in large metropolises ecological, more humane, and more socially acceptable, cities are being designed to be more efficient, more innovative and more technologically advanced, as part of holistic development concepts. Again, digitisation in the areas of telecommunications, mobility, energy supply, waste disposal, and administration is both a driver and prerequisite. Smart City means the upgrading of cities with digital technology, the networking of separate systems, and the intensive use of existing data. Quiet, clean, net-

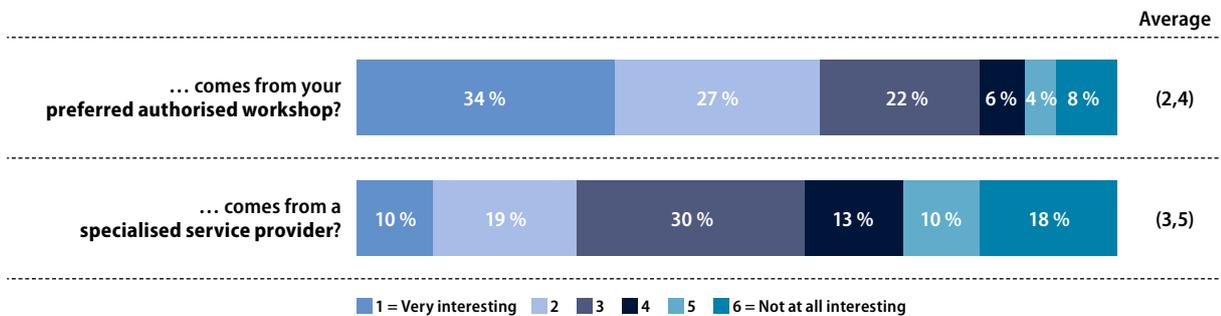
worked, and digital – this is the smart city of the future. This trend is directly related to the living habits of urban residents. They are also interconnected and are experiencing digitisation in all areas of life. Professional and private lives are organised through smart phones, which are always close at hand. Changing living habits are influencing the behaviour of dealers in large cities. Service must be more integrated into the everyday life of the customer than ever before.

In concrete terms, this means that customers will be able to park their vehicles anywhere in the vicinity of their daily routine instead of transporting them to a dealership that may even be located in the commercial area outside the actual city. Parking lots, and petrol stations, as well as electric charging stations can be used as drop-off points. Taken a step further, this means that the customer does not go to the dealership but rather the dealer comes to the customer. It is also possible to provide services – from the diagnosis to the actual repair of vehicles – at certain locations outside the workshop.

This market research investigated the degree of interest in new service formats that can be more strongly integrated into a customer life. Both private and business customers found individual service offers equally interesting. However, the authorised workshop was clearly favoured as the partner of choice versus an independent service provider. 61% of customers would like such services from their preferred authorised workshop. In contrast to this, only 30% of customers would also choose an independent service provider. 18% of the respondents clearly rejected third parties.

**SMART CITY**

How interesting does the following service offer that may be available in the future sound to you? Upcoming services/repairs will be fully integrated into your everyday life. You will hand your car to your workshop or a specialised service provider at any time at an agreed location (e.g. at a train station, in the city centre, at petrol stations, in front of your workplace, at a Park&Ride parking lot, or at charging stations for electric vehicles). Your car will then be serviced/repaired directly on site (mobile) or returned on an agreed date. How interesting is such an offer when it ...



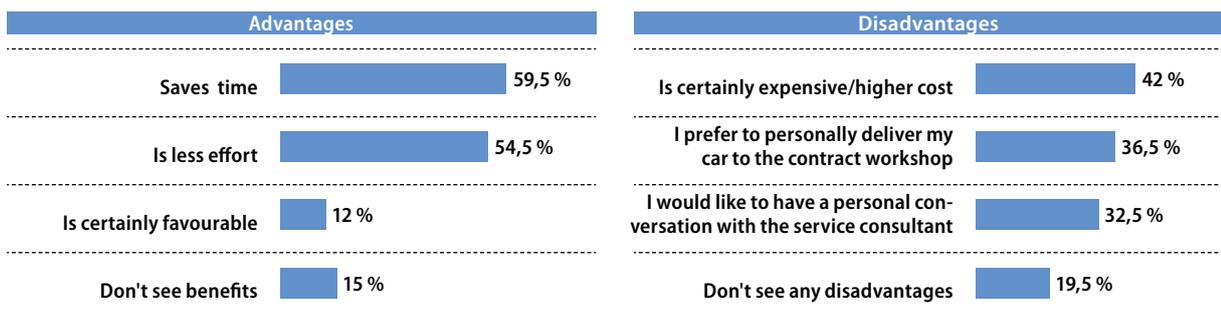
Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

As with the full-service agent, time savings and less effort were also mentioned as the most important argument for the use of new service formats on site. However, the customers feared that individual services could then also be correspondingly expensive. This was recognised as the most important drawback, regardless of whether these services would be provided

by an authorised workshop or an independent service provider. As an important argument against the provisioning of such services by a service provider, 37% of the respondents feared that such a supplier might have less knowledge about customers and the corresponding vehicles.

**TIME SAVINGS AS THE MOST IMPORTANT ARGUMENT**

By preferred authorised workshops



Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

# 78%

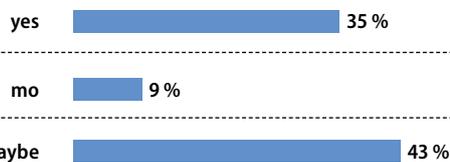
ESPECIALLY THE APPOINTMENT SCHEDULING AND THE SERVICE ACCEPTANCE PROCESS COULD BE BETTER DIGITISED IN THE FUTURE, **SAY 78% OF DEALERS.**

Retailers recognise the opportunities that open up in the context of smart city. The majority see opportunities for new business models. 35% responded to the questions about new opportunities with yes; another 43% see potential at least tentatively. It is obvious that the exact possibilities are still unclear. This may be an indication that companies are not yet aware of concepts of the smart city and the resulting requirements.

However, there are already ideas on how services for the urbanised and networked world could look like: 78% percent of the dealers say that, in particular, booking appointments and the service acceptance process could become even more digitised – and thus accommodate the living habits of citizens in smart cities. 58% could envision pick-up and drop-off services at defined drop-off points associated with repair plants outside the city. Only 22% thought that mobile maintenance models at parking lots or in reserved areas stand a chance.

### NEW BUSINESS MODELS 'SMART CITY'

Does the "Smart City" social environment provide new processes and business models for dealerships?

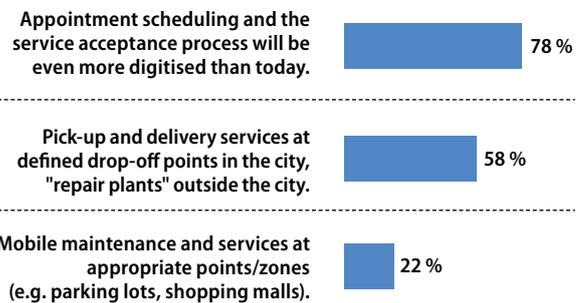


Difference of 100%:  
Don't know / not specified

Source: AUTOHAUS *pulsSchlag* 05/2017  
*pulsMarktforschung GmbH*

### MORE DIGITISATION

What new services could dealers offer in urban areas in the future?



Multiple answers possible!

Source: AUTOHAUS *pulsSchlag* 05/2017  
*pulsMarktforschung GmbH*

Several aspects worthy of consideration emerged from the expert interviews conducted. On one hand, it was recognised that dealers must strive to make the processes as time-saving as possible for the customer (e.g. through shorter reaction times and early access to information). Service formats will continue to diversify in the future depending on the customer's life situation. The standard service process will dissolve and be oriented towards the individual situation of the customer. However, some service experts agree that the demand is strongly dependent on the region (urban versus rural areas). The service experts also saw limitations on the possibilities such as basic legal aspects: For example, environmental guidelines that prevent the service from being carried out in a parking lot. However, this could change with the switch to electro mobility. Many environmental aspects would then become unimportant. Engine oil, for example, would be irrelevant.

Due to improved data availability, paired with new communication tools such flexible offers will be made easier and possible in the first place. It would thus be technically feasible to replace the personal customer consultations and explanations with live videos. Smartphones would allow customers to access check lists, photos, or videos for their existing repair job. However, service experts emphasise that despite the technical capabilities there would be no longer a need for the customer to be present on-site. Nevertheless, there should always be a conversation with the customer about the findings and the resulting scope of a repair before placing the order. Here, too, technological innovations such as augmented or virtual reality would offer the possibility to temporarily establish this presence for service consultancy. ■

Photo: Volkswagen



***“WE CAN EASILY IMAGINE THAT SERVICE FORMATS WILL DIVERSIFY DEPENDING ON THE LIFE SITUATION AND TRAFFIC SITUATION OF THE CUSTOMER. LOOK AT CHINA. IF TRAFFIC IS SO CONGESTED THAT YOU CANNOT GET THROUGH, YOU HAVE TO BRING YOUR CAR TO A DROP-OFF SITE IN THE CITY. A DEALERSHIP AT THE EDGE OF THE CITY IS THE WRONG SOLUTION FOR SOMEONE WHO LIVES IN THE CITY CENTRE.”***

IMELDA LABBÉ, HEAD OF VOLKSWAGEN AFTERSALES GROUP

## “THE DEALERSHIP WILL COME TO THE CUSTOMER.” – LEARNINGS

The networked world of living in the smart city offers new opportunities for brand-based retailers through new customer requirements. These must be recognised and translated into new service formats. The starting position for retailers is optimal: According to the user survey, the contract workshop or dealership remains the preferred contact point for services.

The concrete design of service offers must be oriented to the customer’s lifestyle. In order to meet the needs of as many different customer groups as possible, it is necessary to offer different service formats. The needs of businesspersons, who are bound by a rigid schedule, differ from those of urban hipsters, who are free to allocate their time.

New business models range from the pick-up and return of the vehicle at defined drop-off points to mobile on-site diagnosis or repair. In addition, the customer can be advised either at

locations outside the dealership or via digital channels. If the trend towards electromobility continues to intensify, the mobile service will surely become even more important because of the elimination of environmental restrictions.

Although manufacturers and dealers are still unsure about new business models, the recommendation can nonetheless be deduced to offer on-site customer contact points and drop-off points (e.g. in the inner-city area) that are outside of the dealership. In principle, retailers should open up to new, flexible/mobile maintenance models – even if there is still a conservative segment of customers who prefer to go to the workshop themselves. For the dealership, the opportunity arises to exploit the potential and offer new service formats on its own. Otherwise, there is a risk that others will seize the opportunity and push themselves into the market as a third-party supplier.

Photo: Nissan



***“OUR TASK IS TO ACCOMMODATE THE CUSTOMERS, SO THEY CAN OPTIMALLY PLAN THEIR DAILY SCHEDULE. THE ACCEPTANCE PROCESS IS DECISIVE. WITH CONNECTIVITY, WE WILL BE ABLE TO NOTIFY THE CUSTOMER EARLY ON THAT THERE IS A NEED FOR MAINTENANCE.”***

DAGLEF SEECK, DIRECTOR OF NISSAN AFTERSALES CENTRE EUROPE

### SERVICE REPRESENTATIVES WILL BE MORE FLEXIBLE

New (mobile) service formats lead to a diversification of the service consultant role. Assignments at changing locations and shorter preparation phases would be feasible. Consulting will no longer be restricted to the location of the dealership but can take place at any location. As an extension of the original hypothesis, one could say: Not only the dealership but also the service consultant will come to the dealership. This also changes today’s job specification. Service consultants would have to be

specially trained for the “virtual customer dialogue” via mobile devices as well as on-site assignment at changing locations or wherever the customer is.

A prerequisite for the provisioning of customised services would be the extensive digitisation of the service acceptance process. Commissioning, vehicle transfer, and consulting as well as the payment process would have to be completely digital. New service formats resulting from process digitisation would meet the desire of customers to save time and reduce the personal effort for the service.



Photo: Shutterstock/Mopic

## AUTONOMOUS DRIVING "THE VEHICLE DRIVES ITSELF TO THE WORKSHOP."

Assistance systems are already making cars increasingly safer by enabling semi-autonomous journeys even today. By 2025 at the latest, experts expect autonomous cars to be travelling on our roads. McKinsey predicts that by 2030 about 15% of new cars will already drive autonomously.

In commercial traffic, concrete applications already stand out today. The German government has approved round about two million euros in funding for a joint project between the logistics company DB Schenker, the truck manufacturer MAN, and Fresenius University. The so-called "platooning" project, which is funded for 20 months from June 2017 to January 2019, will test high-tech trucks on the A9 highway digital test field to see how automated driving in truck convoys will work in regular road traffic, starting in spring 2018.

Highly automated and autonomous driving creates new possibilities for the service sector. One day, it will be possible to drive vehicles without a driver (and thus without a customer) to the workshop for service. Such a scenario will fundamentally alter the present image of aftersales.

Although the corresponding technology for the car to be driven to the workshop without a driver has not yet been made commercially available, car users view such a scenario positively. In particular, drivers under 30 show a high degree of readiness for this possibility. Assuming the security of the technology, with 52% of private users and 74% of business customers, this group is particularly well represented. Overall, 47% of users surveyed are already prepared to drive the car autonomously to service, while a quarter of respondents are sceptical about this scenario, and 21% categorically excluded this possibility. Especially with customers over 60 years, the reservations towards autonomous driving predominated. As expected, the age of drivers has a major influence on their willingness to rely on autonomous technology.

**47%**

IN TOTAL, 47% OF THE USERS QUESTIONED ARE EVEN TODAY **READY TO LET THEIR VEHICLE DRIVE TO THE WORKSHOP AUTONOMOUSLY.**

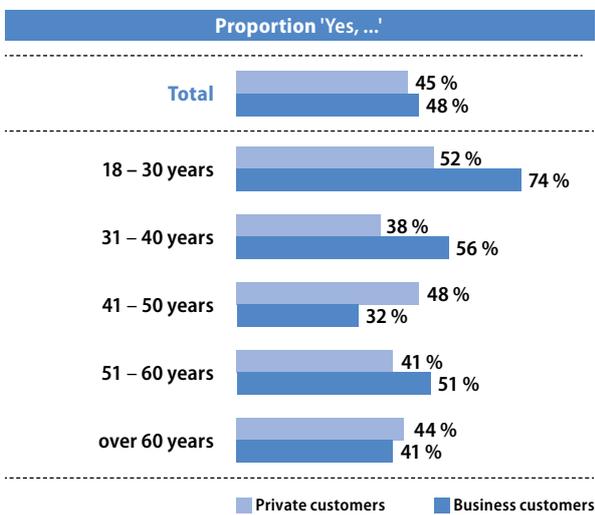
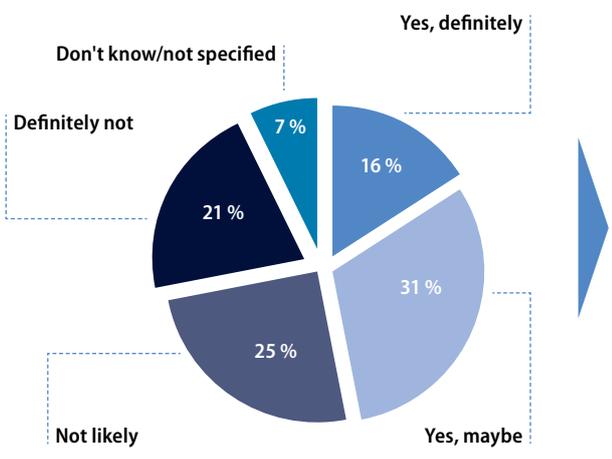


Photo: Shutterstock/Tiko Aramyan

**74%** ASSUMING THE SECURITY OF THE TECHNOLOGY, A WILLINGNESS OF 74% IS ESPECIALLY PRONOUNCED AMONG YOUNG BUSINESS CUSTOMERS.

**AUTONOMOUS VEHICLES IN SERVICE**

Would you be willing, from this point onwards, your car, equipped for autonomous driving, to drive independently (i.e. without a driver) to a workshop for servicing?



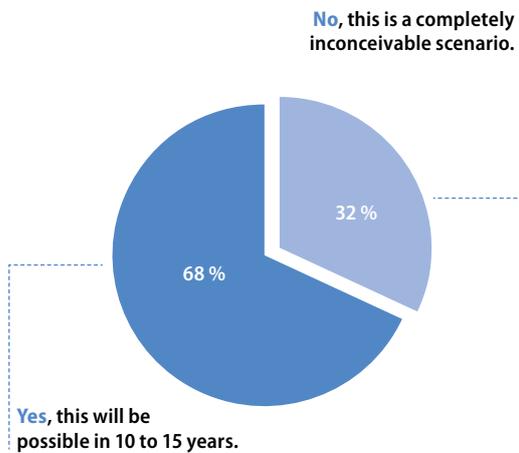
Source: NTT DATA Deutschland GmbH, Service acceptance study 2017 (Sample size: n = 500)

The attitudes of dealers towards the future of autonomous driving is surprisingly open. 68% of the dealers surveyed believe that the scenario "car will drive to the workshop on its own" will be possible in 10 to 15 years, although the necessary technology is still in development. Only one third considered the scenario to be completely unrealistic.

Dealers are well aware of the consequences of the autonomous scenario on the dealership: Dealers believe that if only cars come and no customers, this will affect the service process in the dealership. 70% feared a further decrease in contact opportunities. 44% believed that the need for consultancy is continuing to decline and that the network coverage must be reconsidered.

## AUTONOMOUS VEHICLES

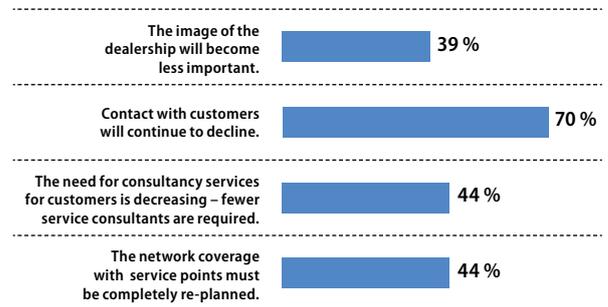
Vehicles could go to the workshop without a driver.  
Is this a realistic scenario?



Source: AUTOHAUS *puls*Schlag 05/2017  
*puls* Marktforschung GmbH

## IMPACT ON THE SERVICE PROCESS

What effect would such a scenario have on the service process at the dealership?



Multiple answers possible!

Source: AUTOHAUS *puls*Schlag 05/2017  
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The expert interviews revealed that all the manufacturers interviewed are working on technologies for the autonomous vehicle. However, manufacturers have not yet dealt intensively with the possible consequences for aftersales. None of the experts were able to present concrete considerations for servicing autonomous cars. In the interviews, this scenario is mainly expected to occur in 10 to 30 years at the earliest. In addition, the long periods of time that are required before the existing vehicle fleet on the road would be replaced by new

generations of vehicles need to be considered. The scenario for autonomous driving is usually combined with the scenario for electro mobility (i.e. autonomous vehicles would then also be electrically powered).

In addition, most experts link autonomous driving with the topic of the joint use of such vehicles. In the eyes of manufacturers and experts, the autonomous vehicle is more of a public car used in the context of a sharing business model. ■

Photo: Hochschule Esslingen



**“TODAY, LAWN MOWERS ARE RUNNING AUTONOMOUSLY, TOMORROW IT WILL BE CARS. THIS IS A VISION FOR THE NEXT YEARS, AND MUST BE CONSIDERED IN ALL STRATEGIC DELIBERATIONS.”**

PROF. NORBERT SCHREIER, HOCHSCHULE ESSLINGEN UNIVERSITY OF APPLIED SCIENCES,  
FACULTY OF AUTOMOTIVE ENGINEERING

Photo: Hyundai



**“AUTONOMOUS DRIVING IS COMING, BUT IT WILL STILL BE A WHILE. IT IS EXTREMELY HARD TO GUARANTEE ANYTHING WITH CERTAINTY. IN 20 TO 30 YEARS, WHEN THERE ARE SOLUTIONS FOR VEHICLES TO BE REGISTERED IN DATABASES AND THE PROVISIONING OF ELECTRICAL ENERGY HAS BEEN ENSURED. BUT RIGHT NOW, WE ARE STILL IN THE TESTING PHASE.”**

KARL HELL,  
DIRECTOR OF AFTERSALES FOR HYUNDAI MOTORS GERMANY

## “THE VEHICLE DRIVES ITSELF TO THE WORKSHOP.” – LEARNINGS

Autonomous cars are robots. And robots don't care about the décor of the dealership. The consequence is that the outer appearance of a service company is less important in a scenario in which robot cars drive autonomously to the service. On site, no friendly service consultant would have to wait for the arrival in order to receive the vehicle. Admittedly, the scenario in which robots themselves make their way to the workshop is quite unusual.

On the other hand, there is no compelling reason to argue against such a scenario – all experts confirmed this in their interviews. One thing is clear today: whether the scenario would be real in 10 or 15 years – the service would have nothing in common with today's processes except that there will still be an invoice for a service provided. All other steps of service acceptance could be completely digitised – the appointment scheduling, vehicle acceptance, diagnosis, and consultation with the vehicle owner as well as the order placement.

### CONSULTATION CAN TAKE PLACE VIRTUALLY

Experts point out that customers definitely wish to be informed about findings before the order is placed. However, this does not have to be done on site in the workshop. Through digital media (e.g. video conferencing or virtual/augmented reality), the discussion could take place just as well via smart phone or tablet. Considering the period in which the scenario becomes real, one can assume that technologies such as augmented and virtual reality will be well established.

### PERSONAL CUSTOMER CONTACT WOULD BE RARE

An autonomous scenario would also have far-reaching implications for the automotive retailers. The contact points of customers with their dealerships will be less frequent because personal customer contacts during maintenance and service appointments would be largely eliminated. If, as predicted, the online sales channel also plays an even more important role in new car sales, customer contacts in the dealership will be even rarer. Customer loyalty would thereby tend to be driven more centrally by the manufacturer, which would build and maintain its brand image through flagship stores and customer events.

If vehicles can travel independently to a service facility, this would be possible anywhere and at any time of day. Dealerships and their workshops could develop into a 'service factory' where repairs are carried out in large numbers around the clock in multi-shift operation. The geographic location of a service factory would be of secondary importance – the most important aspect would be the good accessibility for robotic cars.

### THE CUSTOMER WOULD TEND TO BECOME A FLEET CUSTOMER

The aftersales experts surveyed saw the operation of autonomous cars less in the private sector but primarily in the fleet business. If robotic cars are operated commercially by a fleet operator, the contact person for service operations will be a business customer. The customer approach and handling of the services would then be settled in the B2B area.

Photo: Mazda



***“IF THE CAR CAN ACTUALLY COME TO THE WORKSHOP ON ITS OWN, THE SERVICE ADVISER WOULD BE COMMUNICATING WITH THE CUSTOMER THROUGH TABLET AND HEADSET, INFORMING THE CUSTOMER VIA FACETIME, VIA FACETIME ABOUT ANY FINDINGS REGARDING THE VEHICLE. IN ANY CASE, THE CUSTOMER WISHES TO BE ASKED BEFORE HEADING TO THE CASHIER. BUT THE CUSTOMER DOESN'T HAVE TO BE ON SITE FOR THAT.”***

GERD MEYER,  
DIRECTOR OF SERVICE MAZDA DEUTSCHLAND

### NEW ROLE FOR THE SERVICE CONSULTANT

The fact that the role of the service consultant would change dramatically in this scenario, is beyond question. This is also supported by the opinion of the dealers surveyed: 70% of dealers believed that contact with customers would be further reduced by autonomous cars. 44% of the respondents even believed that the need for consulting would increasingly diminish.

The effects of autonomous driving are not yet totally foreseeable. From today's point of view, many questions can hardly be answered. For example, whether autonomous driving would actually affect vehicle ownership. However, it is obvious that automotive manufacturers will become much more differentiated and diversified (i.e. away from the role of manufacturer towards that of service provided that ensures the customer's mobility). ■

Photo: Volkswagen



***“THE MOBILITY PROVIDER GUARANTEES CUSTOMERS MOBILITY IN ADDITION TO THE PHYSICAL PRODUCT. THIS MAY EXTEND ACROSS DIFFERENT MODES OF TRANSPORTATION. IN THE FUTURE, THE CUSTOMER MIGHT PAY PER KILOMETRE INSTEAD OF FOR THE PRODUCT ITSELF. FOR US, THIS MEANS THAT WE WILL HAVE TO OFFER SERVICES FROM ONE SOURCE AND CONNECT DIFFERENT SERVICES WITH ONE ANOTHER.”***

IMELDA LABBÉ, HEAD OF VOLKSWAGEN AFTERSALES GROUP



Photo: Shutterstock/multiz12



Photo: Shutterstock/ImageFlow

## SERVICE ACCEPTANCE OF THE FUTURE

**T**he five theses on the future of aftersales, which were verified in the market research and expert interviews, influence the service process in many places. The pressure for change affects structures and all participants: the customer, the dealership and its processes, and even the vehicle manufacturer's understanding of its own role.

In the future, the entire service process will have to be geared much more strongly to the individual needs of customers than it is today. Not just one process for all but rather for each one the perfect process – this is the challenge for aftersales. The dimensions of space and time as well as the scope of consulting services for the vehicle will no longer be fixed in a rigid process but will instead be flexibly integrated into the customer's everyday life.

## SERVICE ACCEPTANCE OF THE FUTURE

Individual and flexible integration into the customer's everyday life.



Photo: Matthias Enter/Fotolia (Icons), roccomontoya/Getty Images (Icon Fabrik), voyata/shutterstock (Hintergrund)

Source: NTT DATA

## FLEXIBLE PROCESSES

### 1. Location: The dealership will come to the customer and new mobile service formats will develop

- On-site service: Service offers in suitable locations in the urban environment will facilitate access to the services for the customer. If customers are already there, because they work or shop in the city, a local service point will be more attractive than a dealership on the outskirts.
- Through even more flexible offers of dropping off the vehicle at the workshop, the service will have an even lower threshold from the customer's point of view. Drop-off points where customers leave their vehicle in the morning and pick it up repaired in the evening are conceivable. The place where the vehicle is actually repaired is less relevant for the customer.

### 2. Time: Flexibility and time savings through service integration into everyday life

- The better service integration into the customer's daily life offers valuable time savings.
- In the future appointment scheduling must be possible at any time and in many ways: Instead of making a telephone appointment request during the opening hours of the dealership, service appointments will be arranged via a smartphone/tablet app or online on the home computer. Service requests will also be possible at any time directly from the (networked) vehicle.
- New technologies and service offers such as autonomous driving, or the full-service agent mean that the customer will be less concerned with vehicle servicing in the future because time-consuming process steps such as delivering the car will no longer be necessary.

### 3. Consultation: Comprehensive customer management with innovative communication paths and on-site consulting

- The study revealed that customers will continue to be interested in consultation in the future. Because of the new technologies and the digitisation of the future service process, the type of consultation will change, and the scope will also be flexibly adapted according to customer requirements.
- In the future, customer consultation services will no longer be held exclusively in the dealership. If the service comes to the customer, this must also apply to the consultation. It will take place, for example, at drop-off points in the city, where customers deliver their vehicles for service. It is also possible to consult customers directly at their homes. In addition, there will be digital communication channels, which will allow consultation at any time and at any place (e.g. via video conference). For customers, direct entry into a consultation session could be a personal area in the customer portal of the vehicle manufacturer.
- If the capabilities of virtual language assistants such as "Alexa" or "Siri" are expanded, the virtual customer consultant could also be brought in for certain requests. This would be available to private customers at their workplace or to a clerk at a full-service provider and act as their first point of contact.

## WHAT MUST CHANGE?

The requirements of the future service process described allow concrete recommendations for action for the automotive retailers.

Strong partnerships will form the success model for the retailers. In addition to an even closer networking and cooperation between manufacturers and retailers, new partnerships with third parties are also taking decisive steps to exploit business potential and develop new service formats.

- The dealership must therefore be equipped with the necessary IT infrastructure.
- The retailers need the manufacturer as a partner (and vice versa) in order to accomplish digital change. Dealers must become aware of new business models (e.g. the comprehensive service for private customers) before others do business and push themselves between the customer and the dealer.

This also means a major change for the roles of employees in the dealership. In addition to personal customer contact, digital communication (e.g. via social media) is coming into focus. A new understanding of the roles needs to be developed for customer communication. On the basis of the current role of the service consultant, the following changes will occur:

- The demand for the classic role of the service consultant with regard to personal customer contact will decrease as the need for expertise in digital communication increases.
- A new role model of the customer manager in the operational phase of mobility of both B2C and B2B business is emerging.

- On-site presence and a differentiated approach to customer support is decisive for customer loyalty.
- Based on this, there is a general demand for new role concepts in the dealership and new training needs for today's service consultants.

A prerequisite for the provisioning of customised services is the extensive digitisation of the service process as experienced by the customer. Information procurement, consultation, order clarification, and commissioning as well as the payment process would have to be digitised. This is the only way to achieve a high degree of flexibility for a customised form of service, depending on the customer segment, as well as the full integration of the service into the everyday life of the customer.

- The classic service process must be broken down in favour of flexible processes with regard to time and place of service provisioning. Customer individuality is decisive here ("segment of one").
- The service process must be mapped digitally – from service request to vehicle pick-up. Customer consultation will no longer be held on-site at the dealership but rather via different channels and diverse media.
- The new service process must be flexibly adapted to (technologically) new channels and support the current state-of-the-art media in customer communication.



Photo: Shutterstock/franz12

## WHAT DOES THIS MEAN FOR THE IT LANDSCAPE?

IT support for the service process will play a decisive role in the realisation of the future service acceptance. Customers would like to decide whether they need advice from a service consultant. The direct conversation with the customer in the dealership will be partly replaced by digital communication channels. These must be designed in such a way that the customer enjoys using them and is not lost in an anonymous digital world. Customer proximity in a digital environment will become the key factor. Thus, a consistent digitised mapping of the process becomes indispensable and – in the long term – also decisive for competition.

The strategic adaptation of the existing IT systems should therefore be based on the challenges described. This applies both to the backbone systems of the manufacturers as well as to their linking with dealer systems or IT systems of third parties. From the perspective of NTT DATA, several factors are decisive for successful project implementation:

- Even if the personal customer contact on site is less frequent, process and information gaps should be avoided. For each customer interaction, the brand representative (i.e. the employee in the dealership as well as the employee in the manufacturer's call centre), must know the customer and vehicle history. Example: In the future, dealers should be informed if the manufacturer plans to implement a software update for the mutual customer.
- Process information must be available to all parties involved in the process, regardless of location. It must be possible to seamlessly continue individual process steps on other channels at a different time without information loss and without additional customer interaction. Example: All the information necessary for parallel processes is also available at a mobile repair point in the city.
- The service process must correspond to and integrate with the customer's daily needs. Processes running parallel for one and the same customer must be merged using IT and mapped as a single process.

In order to guarantee the continuity of the information even on the "last mile" in the dealership and at all workplaces, the adaptation of the available digital equipment on site is necessary. This particularly applies to the service consultant's workplace:

- The workplaces of the service consultants must be modified to support new forms of digital consulting. This is the prerequisite for consultations to be carried out for example via online video link using virtual/augmented reality.
- Mobile infrastructures with the appropriate equipment must be created for the changing areas of the service consultant. These must also be connected to the dealer's IT systems.
- All information about the customer must be provided complementary and not as an accessory to the available vehicle data. Knowledge of customer history and knowledge of personal preferences will play a key role, particularly with regard to the future understanding of the "customer manager's" role. The appropriate IT solution enables the service consultant to approach the customer in a more personal manner and in possession of information, provided at the perfect moment.



Photo: IFA

**"THE JOB PROFILES IN THE DEALERSHIP WILL CHANGE – BOTH TECHNICALLY AND WITH RESPECT CONSULTATION."**

PROF. STEFAN REINDL, ACTING DIRECTOR, INSTITUTE FOR AUTOMOTIVE TRADE

Photo: Nissan



**"IT MAKES SENSE FOR OEM AND RETAILERS TO JOINTLY MANAGE CUSTOMER RELATIONS IN A WAY THAT COMPLIES WITH DATA SECURITY. CUSTOMER PORTALS OF THE OEM AND VEHICLE CONNECTIVITY ARE KEY COMPONENTS."**

DAGLEF SEECK, DIRECTOR OF NISSAN AFTERSALES CENTRE EUROPE

The relationship between manufacturers and retailers must be re-adjusted in the course of digitisation. This applies, in particular, to the exchange of information on the vehicle and the customer. Only a cooperative approach is promising.

- Manufacturers and dealers will have to cooperate even more closely in the future. This includes a stronger networking of IT systems and the exchange of information. The partnership enables the joint development of solutions and new service formats. Manufacturers will assume the task of the innovator because they can develop and roll out company-wide IT solutions, which individual retailers cannot do alone.
- In addition, closer cooperation with other market players such as leasing companies, telematics service providers, online marketplaces, insurance companies, or specialists for digital marketing will be necessary. The key is in the development of intelligent interfaces that link both old and new technologies in order to ensure the connectivity of the various systems on a permanent basis. At the same time, complex processes can be mapped, harmonised and made available.

- At the same time, the awareness that partnerships with third-party providers are no longer permanent and global but rather only temporary or local must be developed. Processes and IT must support this flexibility and enable a partner to be connected or disconnected in the short term without a multi-year IT development.



Photo: Shutterstock/Alia Photo

## SUMMARY

While the automotive industry is increasingly focusing on new drivetrain systems and innovative technologies for vehicle sales, it does not appear to have understood this change in the aftersales business. There is currently only little pressure to change the known structures, processes, and roles. The name of the game for customer experience in service is still "a standard process for all".

The study revealed that the future of the service process lies in digitisation and proximity to the customer. For aftersales, this means getting ready sooner rather than later and doing away with old structures in order to be able to meet future customer requirements and not to be overtaken by new players on the market. In order not only to be prepared for the already foreseeable changes but also for new trends and technologies and

the associated uncertainties for the industry, rapid responsiveness is decisive for success. Flexible and modular structures form the basis for the speed at which aftersales can move in the fast lane.

As a Global IT Innovator, NTT DATA sees the upcoming changes as an opportunity and not as a hurdle for the automotive industry. Through numerous interdisciplinary references in the field of digitisation strategy, we help to identify the need for action at an early stage, thereby ensuring long-term competitiveness. In doing so, our customers view us as a reliable and down-to-earth partner, who supports and accompanies them from the initial idea to the implementation of the solution and subsequent operation. ■

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## IMPRINT

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