



Simplicity is the new Excellence

Striving for a perfect Customer Experience
in the digital age of Connected Car services



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Automotive OEMs at the crossroads

Obviously, since the golden age of “Tin Lizzie”, Ford’s famous Model T, there is no other industry which has developed as exorbitantly as the automotive industry. In every decade, ground-breaking product innovations have appeared which have gone on to become absolute standards for modern vehicles. This process is always connected with fundamental paradigm shifts.

One example: airbags have been regarded as exploding boxing gloves which will injure the driver, and the safety belt was a symbol for deprivation of liberty. Nowadays, law requires safety belts and it is hard to find a car with less than six airbags. What happened? Before the 1960s, people simply did not think about car accidents. You can’t really blame them for not doing so. Why should they? The whole industry took almost 20 years to simply understand that vehicles are not solely obstacles which transfer persons and goods from A to B. By its very nature, driving a car is connected with risks.

Today, digital services dominate modern life. It is not surprising that Connected Car services have already appeared in our cockpits. Steel and sheets of iron no longer represent the limits of vehicles. These have extended to include smartphones, backends and content providers. This development is irreversible. Obviously, the automotive industry is already faced with another paradigm shift. But this time, compared to airbags and safety belts, the automotive industry has to handle the involvement of an extremely powerful new player: the digital industry. The following thoughts aim at facilitating the discussion as to how the automotive industry should position itself and act in the context of new pure digital players.

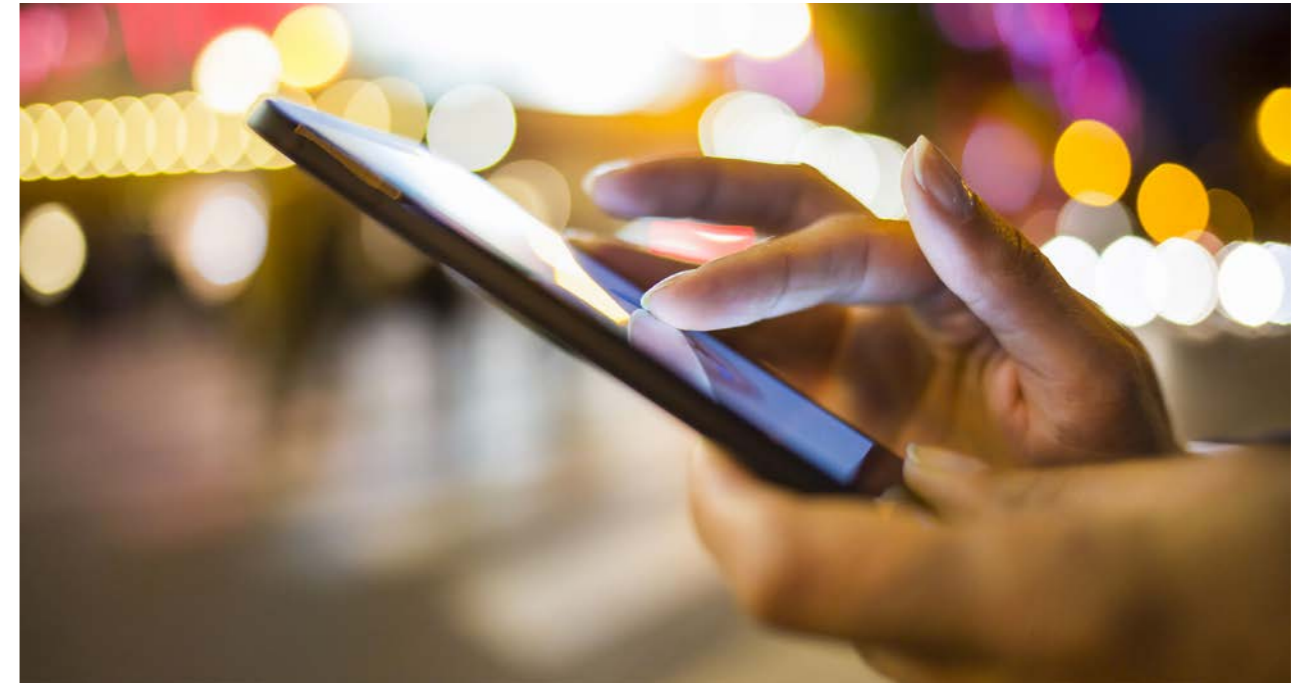
Companies like Amazon and Apple built up their whole organisation in order to offer cutting-edge digital services. It is their core competency to collect, process and distribute virtually all kinds of information. To succeed in this business, it is essential to offer a strong usability along with digital services. Irrespective of the complexity of digital services, customers expect to use them as easy as switching on a TV.

It is here that especially traditional OEMs struggle to fulfil the requirements. Such companies have to finally understand what digitalisation or digital transformation really means. It is not enough to launch digital services in addition to the classic vehicle portfolio. Only if traditional OEMs manage to increase the efficiency of service consumption will it be possible to meet the customers’ expectations.

Quo vadis automotive industry? We do not know. Anyway, simplicity most definitely is the new excellence.



Pure digital players as game changers in daily life



Ever since the smartphone’s triumph in the late 2000s, mobile services and connectivity became an important cornerstone of modern life. This device can definitely be regarded as the main portal to the digital world. Digitalisation of our daily lives is everywhere: for the next four years, the German online food delivery market is expected to grow by 18.5%, while offline channels will decline significantly (Statista 2016). Another perfect example can be found within the entertainment industry. 10 years ago, video streaming was almost not existent. 2017’s global market volume reached US\$ 11 billion. It is set to skyrocket to US\$ 15.7 billion by 2021 (Statista 2017).

Today, customers simply expect information and digital services to be available at anytime and anywhere. What a wonderful and comfortable world – as long as everything works well. But what was the password for your LinkedIn account? Which of the three offered music streaming providers is the best – Spotify, Deezer or Amazon Music? And why is the vehicle not displayed in the BMW ConnectedDrive app like it was yesterday?

Taking these thoughts further, the following hypotheses summarise the key challenges for automotive OEMs:

1. Particularly in the digital world, the service offering is vast. Providers have to focus on services which are really demanded by the customer.
2. Regardless of the functionality, digital services have to be as convenient as possible. To fulfil this requirement, the usage must be easy and hassle free.
3. Digital services require a considerable information flow and a lot of interactions. The required infrastructure and backends must be as lean as possible.

Traditional OEMs vs. agile pure digital players

Not surprisingly, within the automotive industry and especially for OEMs, the vehicle and its automotive core functionalities stand in the centre of everything. Classic OEMs' core competencies lie e.g. in the body and engine construction. They are very good at delivering the physical part of a digital automotive customer experience – the vehicle. Digital components like customer portals and backends are almost uncharted territory (see Figure 1).

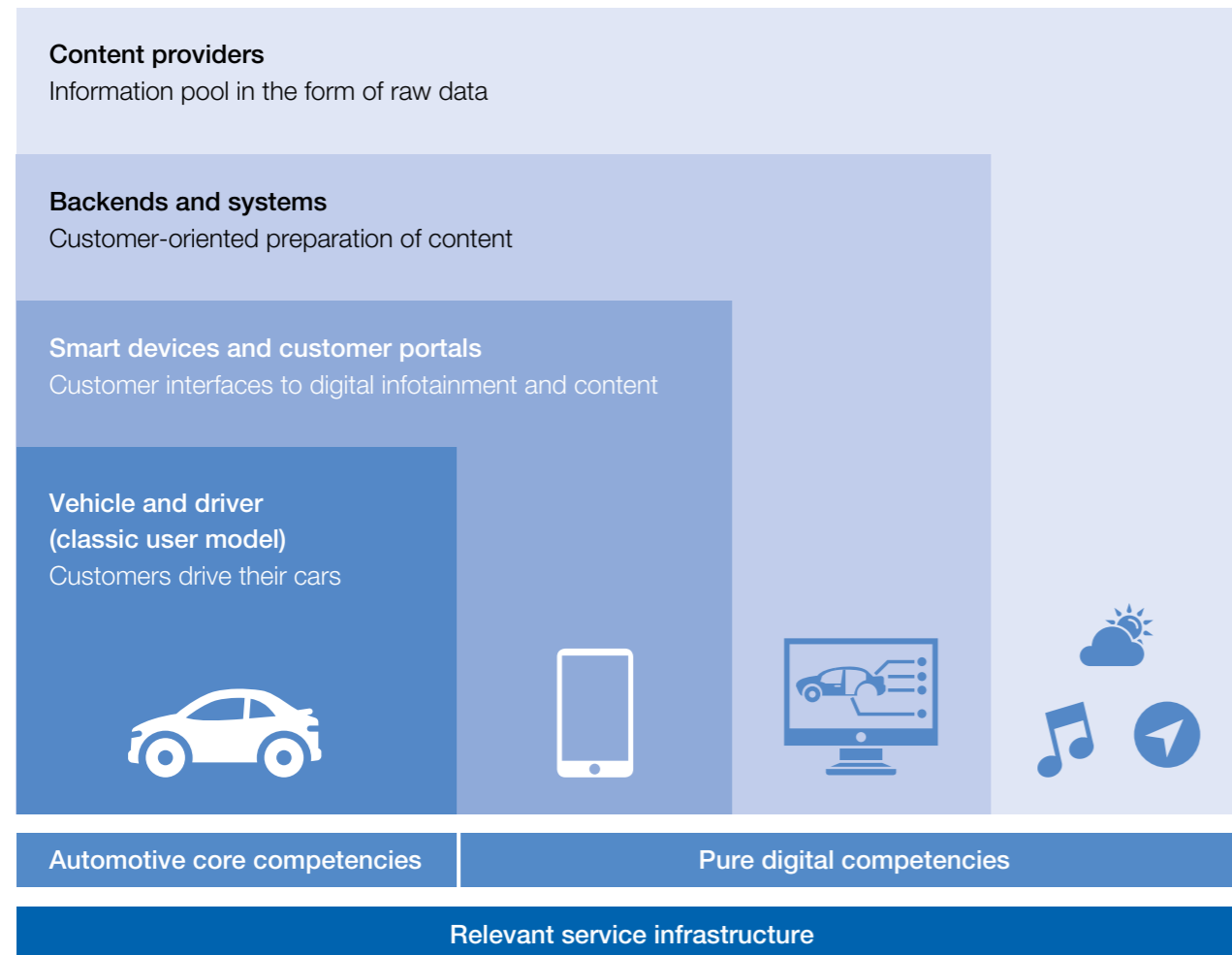


Figure 1: Automotive core competencies and pure digital competencies

Global OEMs operate with standards and processes which have been developed over decades. Those organisations are very complex and bureaucratic. Integrating the new world of digital services into this environment is extremely challenging. It was only a few years ago that “Digital Customer Experience” finally became a topic in the conference rooms of those companies. Suddenly, apps, customer portals and digital contact channels have been added to existing structures. The outcome is a bundle of too complex, unstructured services. As a result, it is not surprising that customers have to contend with continuous interruptions to their digital customer journey.

For pure digital players, it is easy to create an efficient and userfriendly offering as they are able to build digital applications, backends and the necessary digital infrastructure without any legacy systems or organisational restrictions to hamper them. If someone has to live in a foreign country, they are probably not able to speak the language. Anyway, they should learn it. It is the same thing with the automotive industry and digital services. Players in the automotive industry, especially OEMs, must adapt to the digital world.



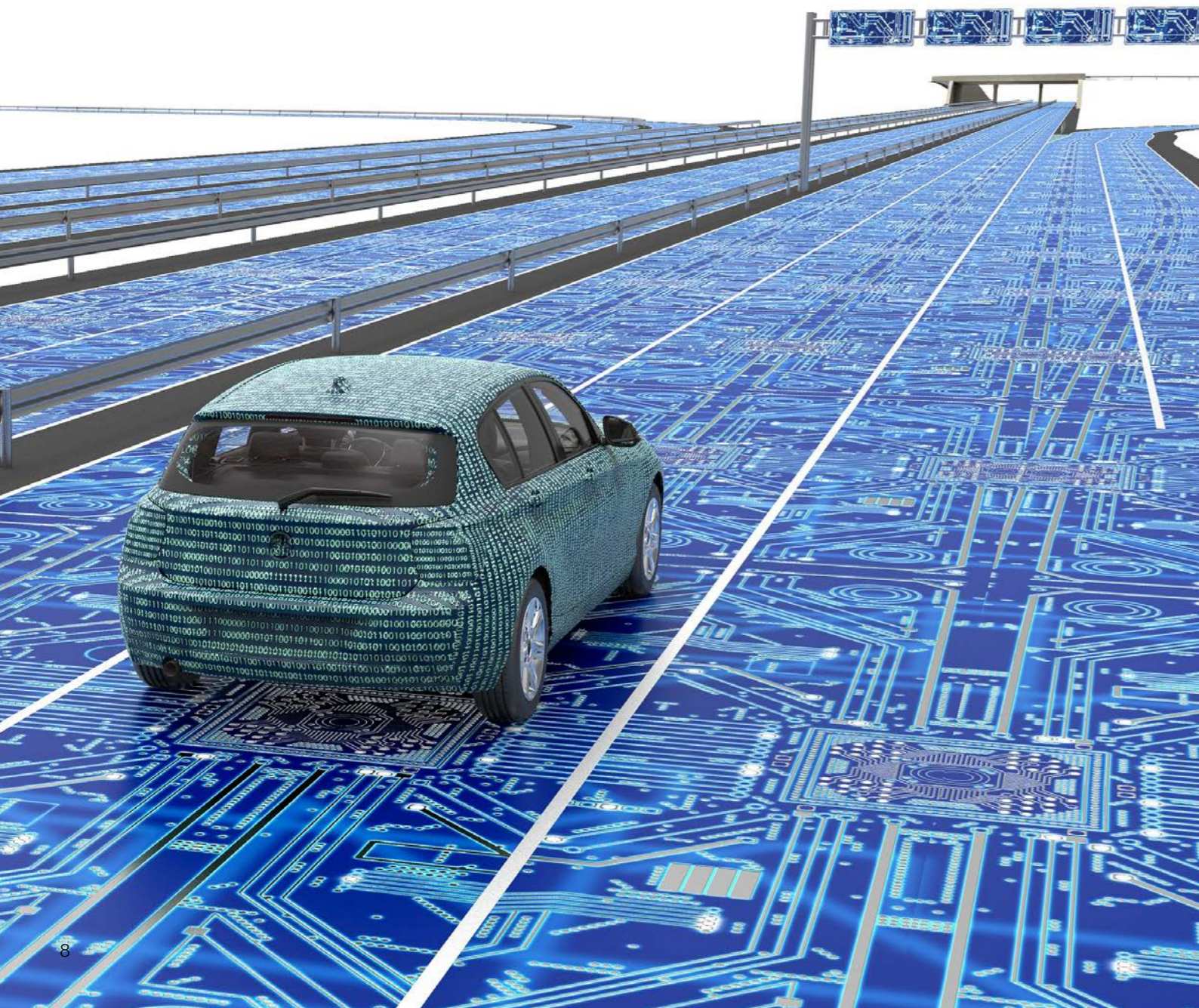
Service offerings – a pull or push market?

Hypothesis #1: Particularly in the digital world, the service offering is vast. Providers have to focus on services which are really demanded by the customer.

Today, OEMs already offer a broad range of Connected Car services (see Figure 2). They range from vehicle-focused functionalities to pure infotainment services. Some specific services, such as traffic information or music streaming, already became a standard, whereas other potentially valuable services, like insurance telematics or the

monitoring of driver behaviour, are solely offered by very few brands. The overview suggests that OEMs are generally unsure which services to offer.

Which services are really demanded by the customers? Which are not?



		Audi	BMW	Mercedes	Tesla	Ford	Nissan	Opel/GM	Peugot	Renault	Toyota	VW
Traffic Safety	Remote Diagnostics	●	●	●	●	●	○	●	●	●	○	●
	Stolen Vehicle Assistance	○	●	●	●	○	○	●	○	○	○	●
	Geofencing/Speed Monitoring	○	●	●	●	●	○	●	●	○	○	●
	Smart SOS	●	●	●	●	●	●	●	●	●	●	●
	Roadside Assistance	●	●	●	●	○	○	●	●	●	○	●
Connected Infotainment	Internet Browser	○	●	●	●	○	○	○	○	○	○	○
	Wi-Fi Hotspot	●	●	●	●	○	○	●	●	○	○	●
	News Feed	●	●	●	●	●	●	○	○	●	○	●
	Music Stream	●	●	●	●	●	●	●	●	○	●	●
	Email	●	●	●	●	○	●	○	●	●	●	○
	Social Media	●	●	●	●	○	●	●	●	●	●	○
Traffic Efficiency	App-Store	○	●	●	●	●	●	●	●	●	○	●
	Street View (Google)	●	○	○	●	○	○	○	○	○	●	●
	Traffic Info	●	●	●	●	●	●	●	●	●	●	●
	Online Route Planning	●	○	●	●	○	●	●	○	●	●	●
Cost Efficiency	Parking Infos	●	●	●	●	●	○	○	●	●	●	●
	Insurance Telematics (UBI)	○	●	○	○	○	○	○	○	○	○	○
	Driver Behavior Monitoring	○	○	●	○	○	●	○	○	●	○	●
	Real-time Fuel Prices	●	●	●	-	○	●	○	●	●	●	●
	Electric Vehicle Charging	○	●	○	●	○	●	●	●	○	○	●
	Predictive Maintenance	●	●	●	●	●	○	●	●	●	○	●
	Eco Tax	○	○	○	○	○	○	○	○	○	○	○
Convenience and Interaction	Call Center	○	●	○	○	○	○	●	○	○	○	○
	Remote Services	○	●	●	●	○	○	●	○	○	○	●
	Electronic Toll Collection	○	○	○	○	○	○	○	○	○	○	○
	Personal Online Platform	●	●	●	●	●	●	●	●	●	●	●
	Car sharing	●	●	●	○	●	○	●	●	○	○	●

● Implemented ● Planned ○ Not offered

Figure 2: Overview of Connected Car service offerings per OEM (everis 2016)

In this context, OEMs run the risk of selling their products and services on the assumption that they still act on a push market where “Happy Engineering” might become standard. At the same time, important services which customers would appreciate using might be regarded as unimportant. By contrast, pure digital players focus on creating customer-

centric offerings, as they already act according to a pull market. The ideal product or service offering responds to a concrete demand before the client asks for a solution or even indicates a demand. To realise this, it is mandatory to centralise the customer within the complete value chain: from the very start of service development through to the service usage.

How OEMs are positioned in front of changing customer expectations

Hypothesis #2: Regardless of the functionality, digital services have to be as convenient as possible. To fulfil this requirement, the usage must be easy and hassle free.

The aftersales business delivers a perfect example, which underlines the dramatic situation of traditional OEMs. A recently conducted study by NTT DATA examined the Connected Car defect detection and solving at four premium, one volume and one pure digital OEM. Objects of investigation have been eight different contact channels from classic workshop

visits up to online portals and direct over-the-air support. Based on conducted service usability tests, expert interviews and desk research, the performance was rated from -2 (very weak) to 2 (very strong). The results are quite surprising (see Figure 3).

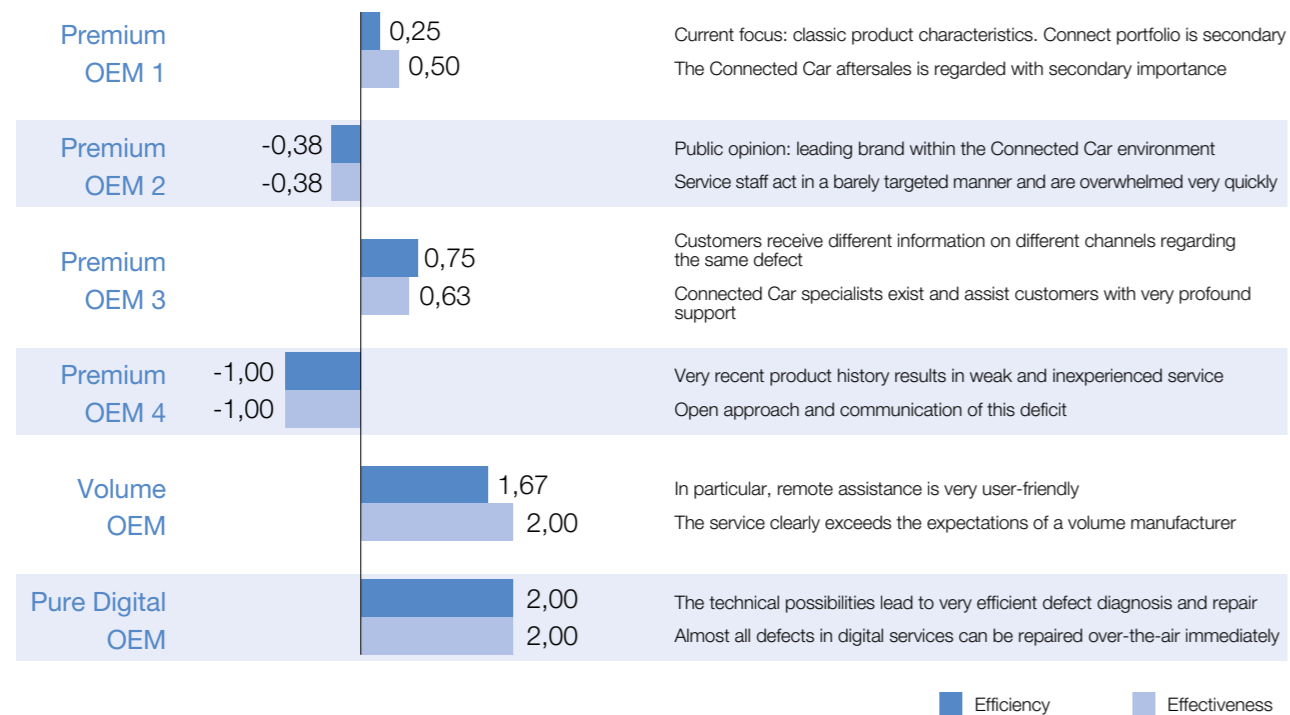


Figure 3: Efficiency and effectiveness of Connected Car service defect detection and repair

It goes without saying that a pure digital OEM will have the best ratings. The brand benefits from tailored support structures, which have been implemented at the same moment as Connected Car services have been launched. Moreover, the brand freely disposes of almost unlimited over-the-air channels which recover unavailable Connected Car services at speed.

It is especially the premium OEMs, however, that suffer from low efficiency and effectivity in Connected Car aftersales performance. To summarise: the examined premium OEMs were simply overwhelmed when customers stated a defect with the Connected Car services. Surprisingly, a volume OEM which is almost unknown for its Connected Car portfolio scored best of all. This OEM strongly integrates the driver's smartphone into the Connected Car service offering. Solely very basic, vehicle-related services like e.g. the emergency call, are run via the vehicle's

own infrastructure. In general, all typical infotainment services (e.g. music streaming) are offered via the driver's smartphone. As a result, the brand benefits from a lean Connected Car infrastructure.

This result strengthens the already stated hypothesis #2. It is especially valid in the event of a defect.

Figure 4 explains the major deficits that especially traditional OEMs have to manage in this situation.

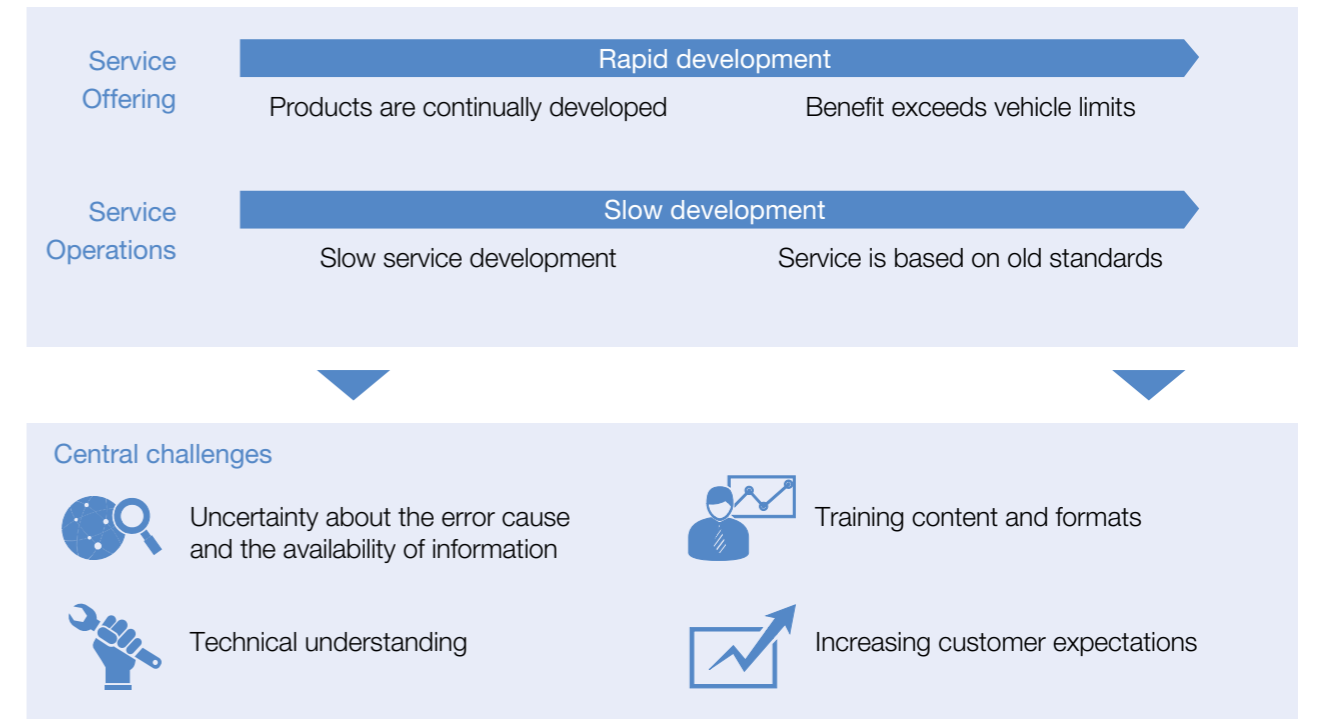


Figure 4: Connected Car service stress ratio

The study revealed that today OEMs focus on developing the Connected Car service offering while at the same time neglecting to detect or maintain technical or software defects. This unequal development results in a methodical and technical overload. First of all, the growing complexity of Connected Car services and the necessary technical infrastructures lead to an uncertainty about the cause of an error or defect. Service staff simply do not know where to start in order to remedy the situation.

Furthermore, digital services clearly exceed pure automotive competencies. The proper handling of IT-related smart technologies is not included sufficiently in the standard training given to contact centre and workshop employees. This situation is aggravated by a general increase in customer expectations: if customers are offered more and more services, they simply expect a continuous improvement in defect detection and repair too.

Keep it simple – how to use the vehicle as an effective and efficient digital device

Hypothesis #3: Digital services require a considerable information flow and a lot of interactions. The required infrastructure and backends must be as lean as possible.

It is without a doubt that the smartphone is today's central device for enjoying all the advantages of the digital world. Via mobile apps customers are used to ordering pizza, regulating the temperature in their living rooms on the way back home or even starting the washing machine. It is most likely that customers who have an affinity with digital services have already built up a mobile ecosystem in terms of devices and applications. The overall goal sounds easy: seamless connectivity. But how should OEMs enable the realisation of this status?

Taking into account all these disruptive changes for automotive OEMs, and considering NTT DATA's Connected Car study results, OEMs must position themselves between two conflicting opportunities so as to enable Connected Car services: a vehicle- and a customer-centric infrastructure (see Figure 5).

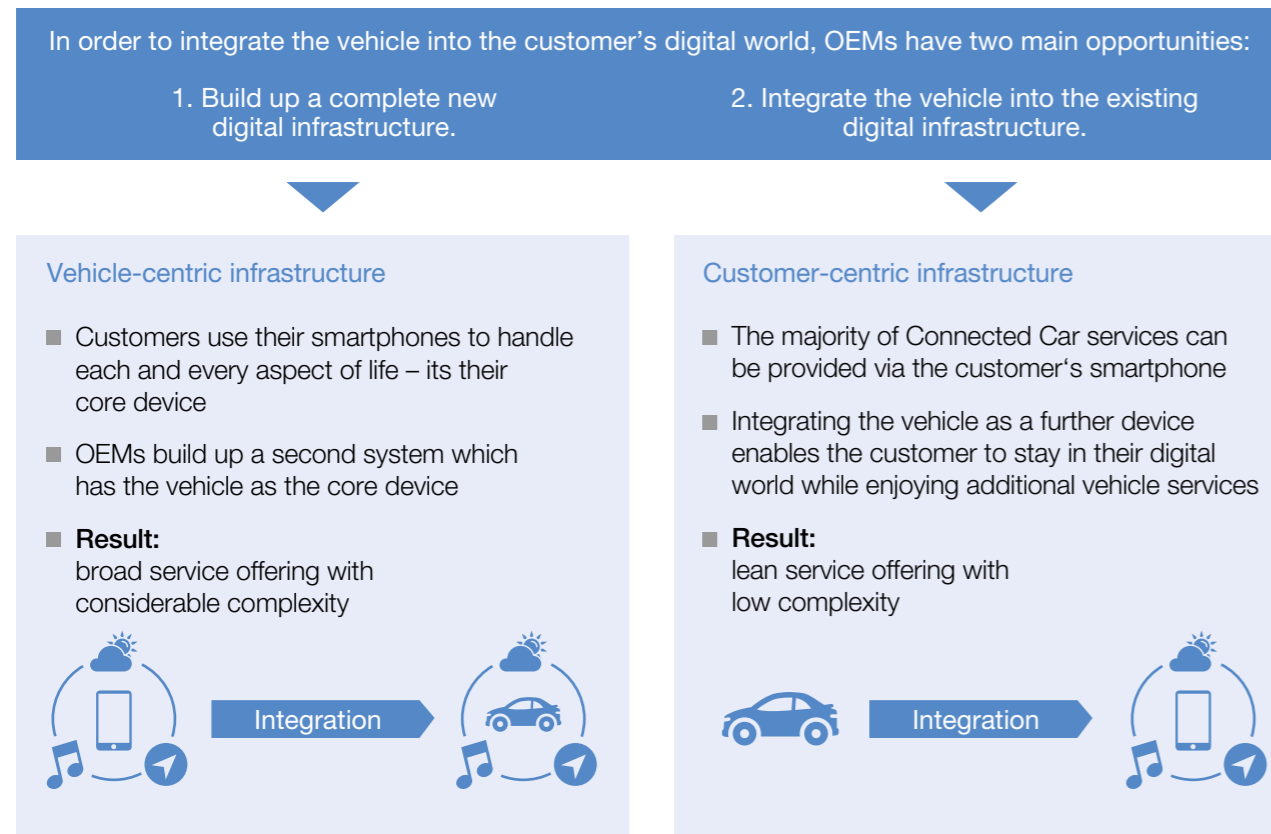


Figure 5: The vehicle as a further device for existing digital infrastructures

This is at least partly an explanation for the weak performance of premium OEMs in the context of Connected Car services (see Figure 3). Those companies are used to acting on a push market. Here, the vehicle stands in the centre of the complete product and service offering. NTT DATA discovered that especially classic OEMs strive to follow this principle in the digital world too.

Just one example: why use a separate SIM card for infotainment services? As a consequence, the service offerings are often complex and oversized. One of the examined OEMs offers to download four different music streaming services. Although, it is most likely that a potential customer is already using a streaming service on their smartphone. In this case, customers expect to use digital services seamlessly: in-car and everywhere else. To have a market relevance from this perspective, OEMs simply must position themselves as digital service hubs for customers. To realise this, OEMs must integrate the vehicle into the customer's existing digital infrastructure. Here, the vehicle has to be regarded as another digital device like a smartphone or tablet. The outcome would be a huge efficiency increase in the use of Connected Car services.

On the contrary, simply integrating the vehicle into the existing digital customer ecosystem ignores the OEMs' endeavors to diversify in the context of a changing automotive self-image (see Figure 1).

Autonomous vehicles incl. all development stages decrease the importance of pure automotive characteristics like e.g. the ride comfort. Just imagine the extreme expression of autonomous vehicles: a capsule without a steering wheel, accelerator pedal or any other classic opportunities to influence the motion. Customers will enter such means of transport, choose the destination and start to use their time for whatever they want. Now customers will evaluate their driving experience to a large extent based on the offered digital services. Simply integrating the vehicle into the already existing infrastructure as a further device would result in a strong influence of 3rd party service providers like Apple, Google etc. In the worst case, OEMs would be limited to being hardware suppliers for mobility services.

The impact for OEMs is a trade-off between complexity and the range of offered services. It is not possible to answer how best to position perfect between the two extreme poles of vehicle- and customer-centric infrastructures. The near future will demonstrate which strategy will be successful in a market which consists of traditional OEMs and pure digital players.

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Sebastian Dappa has a degree in Business Administration (M.Sc.) from the WFI Ingolstadt School of Management and the Kozminski University in Warsaw. Within NTT DATA's Unit Strategy Transformation Consulting, he is responsible for all topics concerning Customer Strategy. His expert knowledge addresses especially current issues in the fields of Smart Mobility and Future Retail.

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Appendix

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