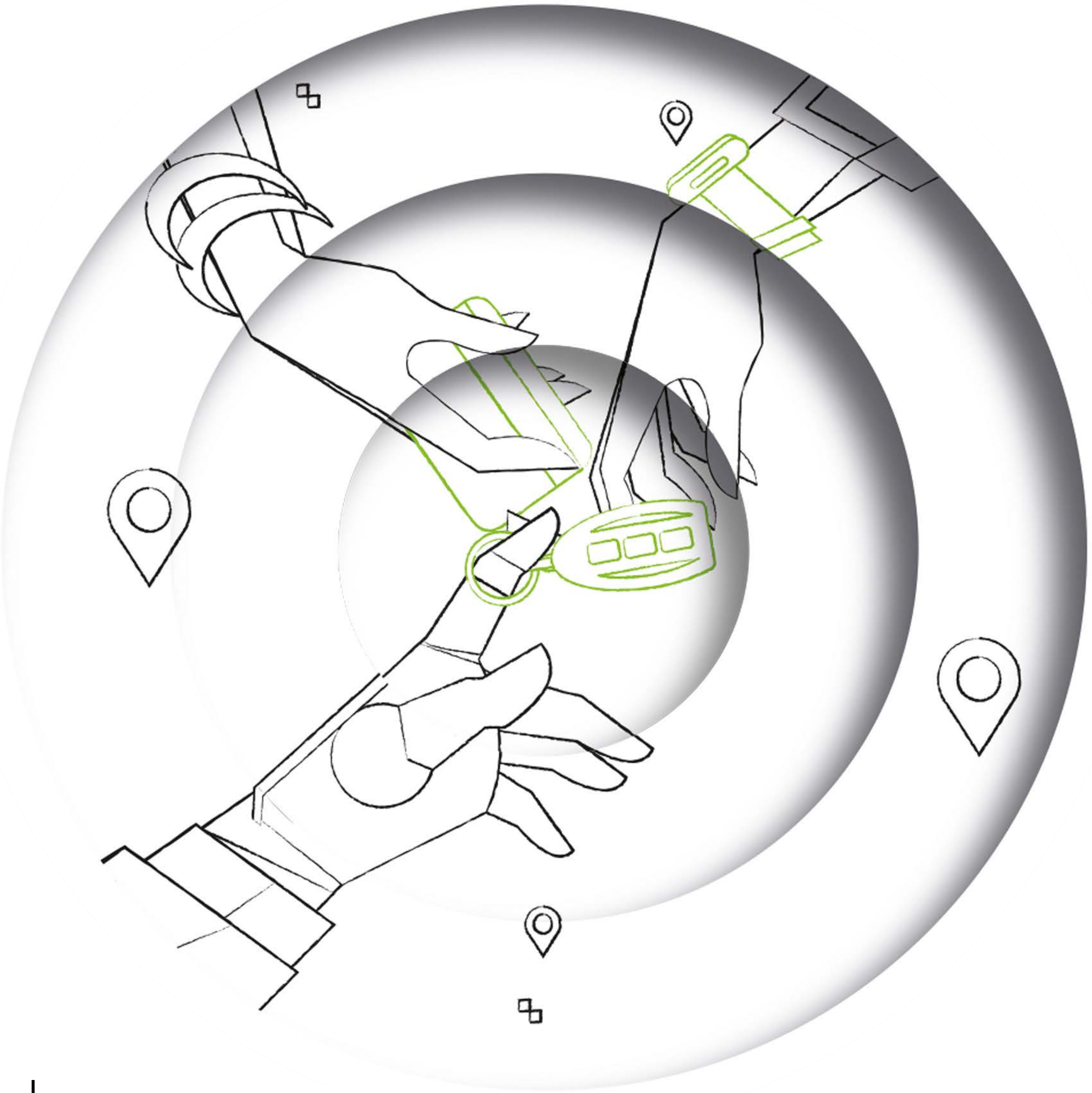
Monitor **Deloitte.**



# Vehicle-as-a-Service
# Subscription Decoded

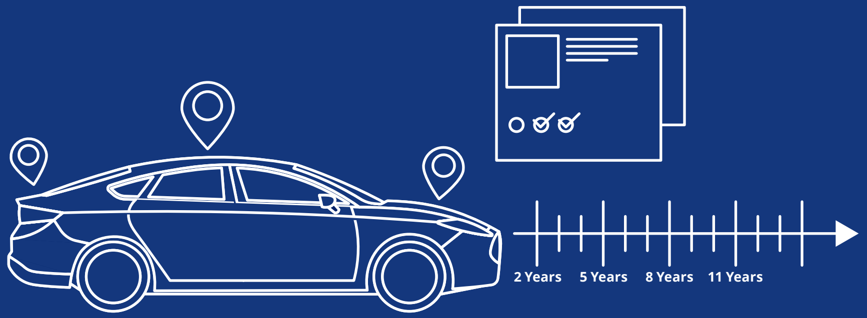
MAKING AN IMPACT THAT MATTERS since 1845

# Content

01
02
03
04

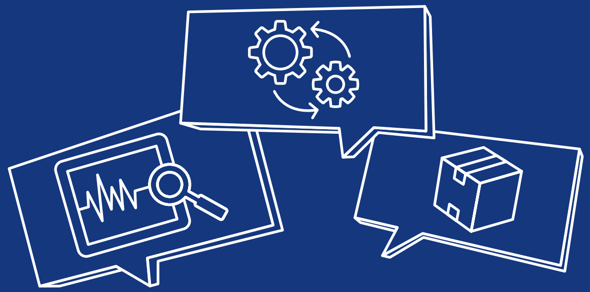
## The rise of subscription

Rather than asking "whether" it is a valid business model, the focus should be on "how" to design the right subscription for your enterprise



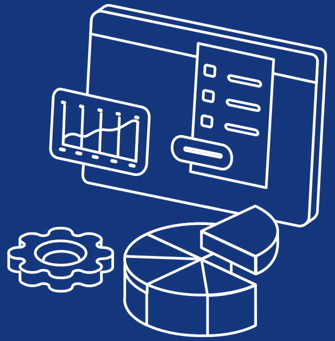

## Vehicle age key for design

Out of the 11 design criteria for subscription offerings, vehicle age plays a major role that strongly impacts decisions on the subscription design



## Three critical factors

It is important to consider the targeted vehicle lifecycle, the value proposition and sourcing when investigating vehicle age options



## From strategy to execution

Setting up subscriptions has huge implications for the business and operating model – this PoV helps you navigate to the right subscription offering for your strategy

# The rise of subscription

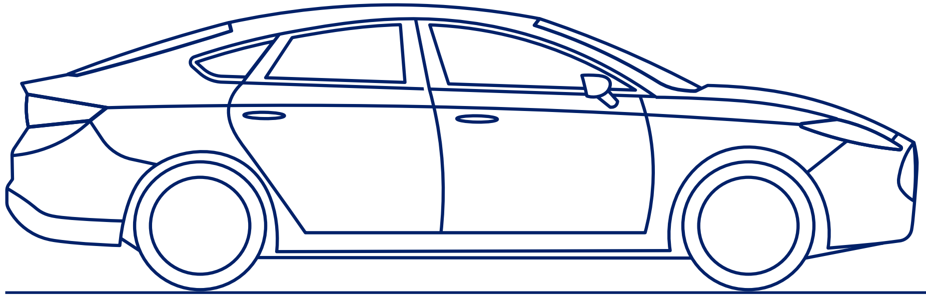
The sharing economy and subscription services have gained significant momentum in the automotive industry in recent years. As the importance of car ownership declines, the customer focus moves to pay-per-use models with less commitment and greater flexibility. These usage-based "Vehicle-as-a-Service" models offer more convenience and respond better to the needs of today's customers than traditional models like leasing or car loans.

In our last **PoV on Vehicle-as-a-Service,** we highlighted the growing car subscription trend, focusing on strategic aspects of the business model including product design criteria, player archetypes and critical capabilities as well as a deep dive in market developments:

- **Market forecast**
- **Accelerating market shift**
- **The question is not "whether" but "how"**

## Market forecast

By 2025, we expect more than €22bn in new annual auto financing in EU5 to shift towards the vehicle subscription market in both private and corporate demand. The bulk of those subscription sales will most likely displace former leasing business.

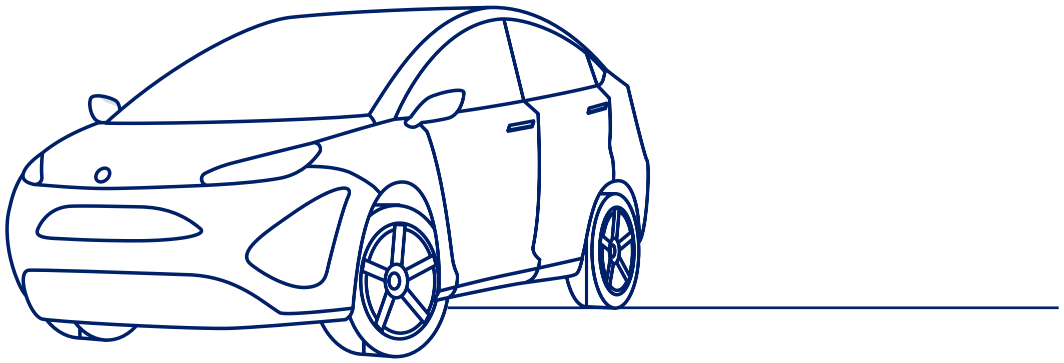


Subscription models have potential that extends far beyond the new car market, offering a vital option for used cars as well. By giving used cars a second or third lifecycle, mobility providers can optimize their overall fleet utilization. If OEMs and their Captives want a key role in shaping the new mobility environment – instead of just supplying third-party and mobility fleet providers – it is vital to address the used car market. Experts are forecasting ca. 50 percent growth in the used car market by 2030[1], potentially a key profit driver for OEMs/Captives. With subscriptions closing the gap in the product portfolio between rental and leasing, there is massive oppor-tunity in terms of residual value and fleet management when a vehicle has several usage cycles.

[1] Source: Future of sales and aftersales incl. estimated effect of accelerated market shifts

## Accelerating market shift

There are also other forces driving the recent rise in demand for subscriptions. On the one hand, the pandemic increased demand for personal mobility. On the other hand, the chip crisis and the Ukrainian war disrupted global supply and production chains.

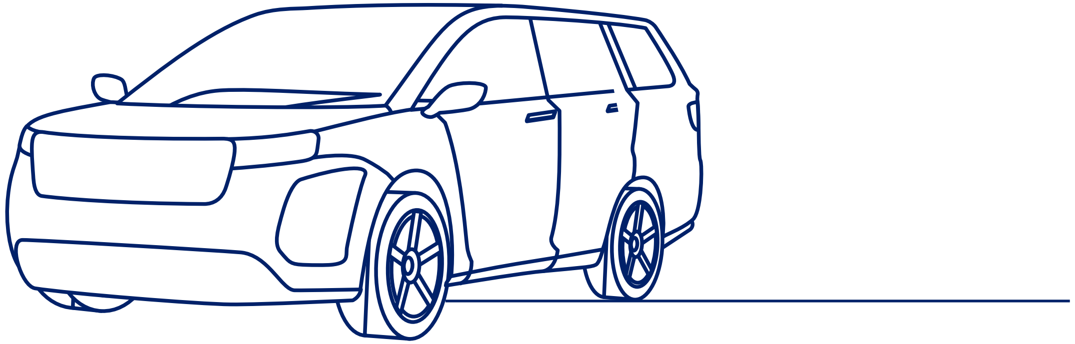


Customers had to wait much longer for delivery of their new cars as a result, and subscription was a good interim solution for many. Moreover, the strong push towards EVs, especially in European markets, is a good fit for a product like subscription, as it allows consumers to experience and test this new technology with no strings attached.

As the subscription market began to gain more traction, many OEMs, Captives and new players in the market launched their own subscription services. There are, however, several aspects incumbent and future players need to consider if they want their subscriptions to succeed in the long run.

## The question is not “whether” but “how”

The crucial question for all players now is how to win the race in this dynamic and competitive market. In fact, the trend from ownership to usership is happening even faster than initially forecast.



The vibrant subscription market clearly indicates the viability of the business model and marks a clear transition from the “early adopter” towards the “early majority” stage.

This PoV aims to answer the question “How can I put my subscription strategy into action?”. As many players underestimate the complexity of the task, we will shed light on the way the design criteria impact strategic product choices and what that means for the business and operating model.

# Vehicle age as incremental design criteria

## 02 | Vehicle age as incremental design criteria



In our last PoV on "Vehicle-as-a-Service", we introduced eleven design criteria that will determine how providers build their subscription offerings:

**Fig. 1 – Design criteria introduced in our PoV "Vehicle-as-a-Service"**

1. **Service Coverage** – Which services are included in the subscription contract?
2. **Availability** – How long does the customer have to wait for the vehicle?
3. **Minimum Term** – What is the minimum fixed period before contract can be terminated?
4. **Notice Period** – How long is the period between submission of the notice and the last day of contract (after reaching minimum term)?
5. **Vehicle Age** – Is the vehicle new or used?
6. **Vehicle Brand** – Is the offer single or multibrand?
7. **Vehicle Choice** – Can the customer choose concrete models or only vehicle classes?
8. **Vehicle Exchange** – Who initiates the vehicle change?
9. **Vehicle Handover** – How is the vehicle delivered to customer?
10. **Target customers** – Does the subscription offering address B2C or B2B?
11. **Pricing** – How is the monthly rate made up? Are there one-time payments?

01
02
03
04

In their efforts to come up with a successful design, both incumbents and new players have some difficult decisions to make. After all, each of these criteria offers a range of options, and the right configuration of all 11 criteria depends on a wide variety of factors. It is impossible to view each design criteria on its own, as they are highly interdependent. There is, however, a logical order that determines which criterion we should address first, and that in turn impacts the range of options in the others. Vehicle age is a case in point, in that it has a major impact on the business and operating model when it comes to implementation. That's why we have made this criterion the focal point of this PoV, highlighting the inevitable give-and-take between strategic choices and implementation success.

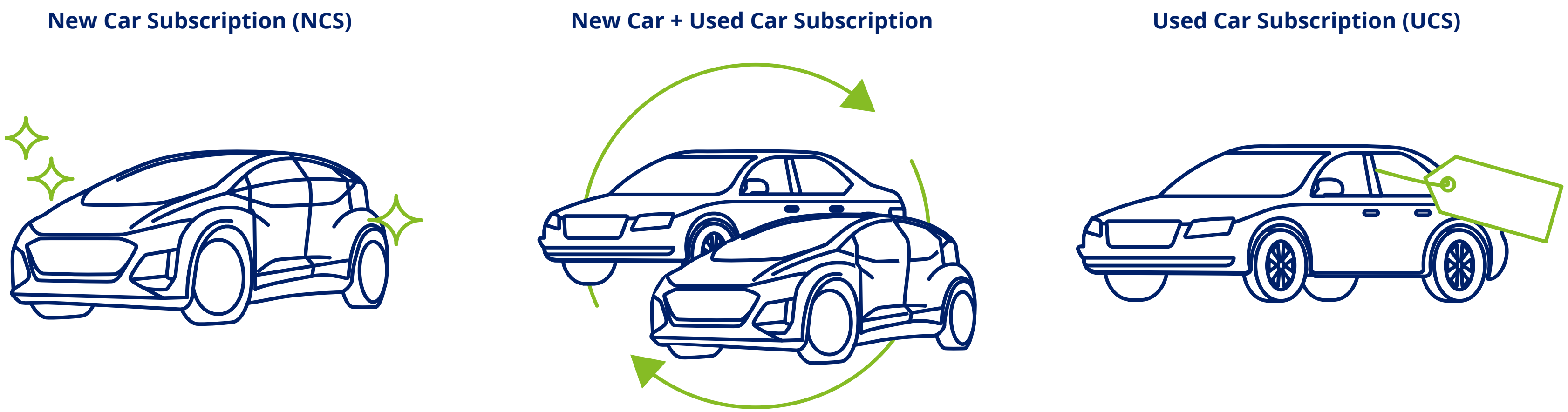
## Spotlight on Vehicle Age

- The profit pools will shift towards usage-based revenue streams in the future, so it is vital for OEMs and their Captives to optimize the lifetime value of a vehicle if they want to succeed. As a result, the way they manage their new car and used car fleets and the interaction between the two will become increasingly important in light of subscriptions as a future profit pool.
- Vehicle age is crucial for the design of a subscription offering, as it impacts sourcing, lifecycle management and the value proposition for customers.
- Meeting customer expectations in terms of vehicle age will become a major challenge as the subscription fleet includes more vehicles from different lifecycles – from brand new to several years old.

In general, there are three types of offerings: (1) new cars[2], (2) used cars[3] or (1+2) a combination of both offerings. What all three options share is a certain flexibility with regard to contract terms and an all-inclusive package that in most cases includes maintenance, repair, taxes and insurance but not vehicle charging/fuel.

There are also differences between new car subscriptions and used car subscriptions. New car subscriptions can offer customers more features and extras (e.g., built-to-order). Used car subscriptions, by contrast, only offer extras related to financing for existing cars in the fleet. The decision as to which route to go has a range of driving factors that we will outline in the following:

**Fig. 2 – Subscription offering options regarding vehicle age**




[2] We define new cars as those with theoretically 0 km on the odometer (not considering logistics-related travel).
[3] We define used cars as those between 1 and 3 years of age with up to 45,000 km on the odometer.

01
02
03
04

## Three key deciding factors

Three key aspects factor into the decision on vehicle age, and each has an impact on strategy as well more operational issues.

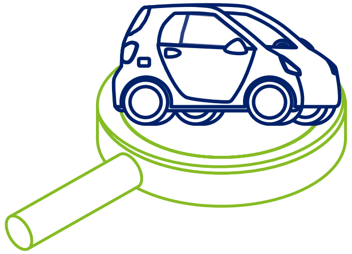
**Fig. 3 – The decision on vehicle age depends on three deciding factors that effect both strategic and more operational questions**

**Vehicle lifecycle management**

Subscriptions can be used as an additional sales channel for new cars, but there is much more to it. They can help OEMs create recurring revenues with vehicle-as-a-service offerings, thereby increasing the lifetime value of the vehicle.

**Value Proposition**

Knowing your customer group is the key to getting the subscription product right. Subscriptions appeal to both pragmatic mobility-seekers and new car enthusiasts, though OEMs should address each group differently from a premium or volume player perspective.



**Sourcing**

Accessing a steady stream of the right cars to supply your subscriptions is vital, both in terms of the business and operations.

## Vehicle Lifecycle Management

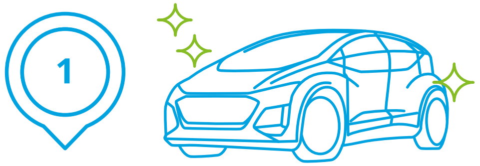
Based on the vehicle age, subscription providers can determine which part of the vehicle lifecycle to address. New car subscriptions focus only on the beginning of the cycle and serve primarily as an additional sales channel for new vehicles. Used car subscriptions, on the other hand, offer higher (compared to new car subscription) potential to generate recurring revenues for several years in a row with a single vehicle.

Vehicle age affects vehicle lifecycle management in two ways: profit maximization and required capabilities driven by complexity.

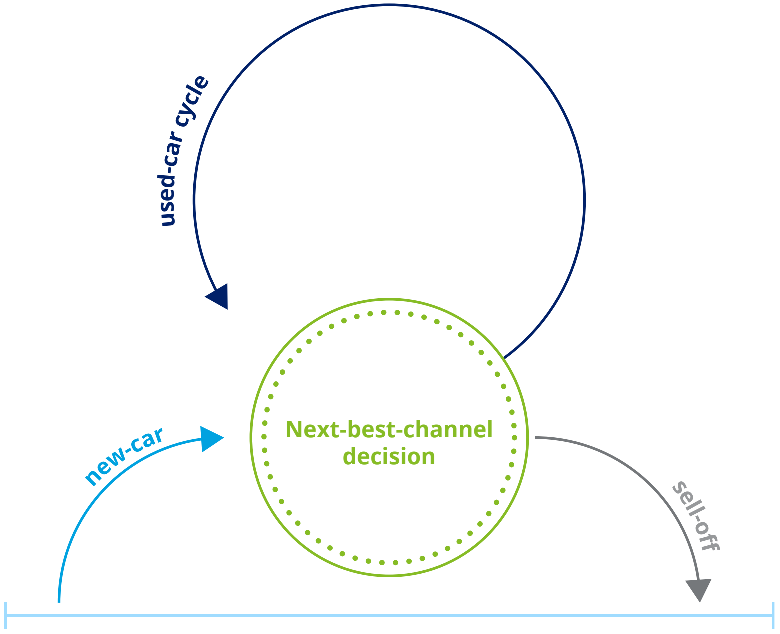
**Profit maximization:** Efficient and comprehensive asset management is the key to maximizing profits per car before reaching the ideal remarketing point. This point may come sooner or later and is strongly connected, but not limited, to residual value and the nature of the asset itself (volume vs. premium/ICE vs. BEV). In this case, subscriptions may serve as an interim channel to bridge the gap until the optimal selling point. Based on our project experience, companies have the potential to generate 40 to 60 percent higher profits compared to a one-time sale.

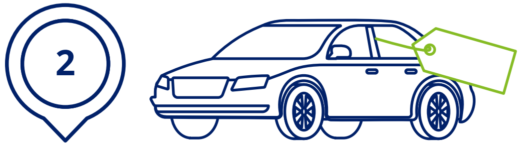
**Capabilities:** There are two skill sets required to manage the vehicle lifecycle as efficiently as possible. On the one hand, it is vital to have a lean operating model that includes handling and logistics as well as a contractual framework for asset management. This ensures a competitive cost base to operate a comparably low-margin business with numerous customer touchpoints. On the other hand, having a state-of-the-art technology stack and architecture for inventory and contract management is key to optimizing vehicle lifetime value in addition to data-driven monitoring of the used car market.

**Fig. 4 – How does vehicle lifecycle management factor into the three types of subscription offerings?**




**New car subscriptions**
serve as an additional sales channel, which drives volume in new car sales. This gives OEMs the chance to offer new models and technology for shorter time periods than established channels like financing and leasing. It is, however, restricted to one usage cycle only. Another key aspect here is using new car subscriptions as a strategic measure to either boost sales of new models that are slow to launch or balance production capacity.




**Used car subscriptions**
provide leverage to optimize vehicle lifetime management before reaching the optimal remarketing point, as an integrated vehicle fleet generates recurring revenue streams across multiple usage cycles via several different channels (e.g., rental, car sharing, etc.). This enables OEMs to maximize the lifetime value of the vehicle throughout the lifecycle as well as in terms of the remarketing margin.


**Combining both offerings**
allows subscription providers to maximize asset control and monetization by leveraging the entire vehicle lifecycle, from production to final sell-off. However, it also creates challenges in that the condition of the vehicles can vary widely (from completely new cars to several years old). That means providers have to consider the customer proposition very carefully with regard to pricing and transparency (i.e., bracket pricing vs. VIN-based pricing). This scenario also runs the risk of being “stuck in the middle” and increasing complexity without making the best of both worlds.

## Market insight

Our hands-on experience in this market shows that subscriptions work very well for new technologies such as electric vehicles. It gives customers the opportunity to test the technology without a huge commitment and see whether it is a good fit for their lifestyle, while also eliminating the residual value risk. That said, whether an EV offering is attractive financially depends strongly on government incentives (e.g., BAFA in Germany), so providers need to follow political developments very closely.

Given the current competitive landscape, used car subscriptions or a combination of new and used car subscriptions are the predominant models on the current subscription market. With sales and financing rates in decline, most players are looking to tap into recurring revenue streams.

## Value proposition

Subscription models and the age of the vehicles on offer help address the customer's changing preferences, circumstances and purchasing power over the customer lifecycle, which could increase customer loyalty and retention. Used car subscriptions work well with customers that are primarily focused on flexibility and willing to trade that brand-new car smell for a lower monthly fee. New car subscriptions, by contrast, are good for exclusivity seekers and car enthusiasts that not only want to drive the latest model, but also completely new, more customized cars.

Depending on the demand and requirements of your target customers, vehicle age can play a pivotal role in increasing **product fit**. It will help providers offer the right custom add-ons (e.g., in-car payments, additional milage, more comprehensive insurance coverage, etc.) and effective marketing campaigns.

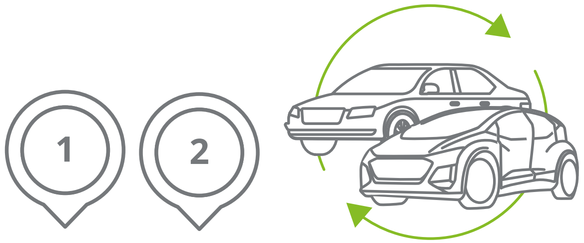
**Customer satisfaction** grows with predictability. Customers appreciate it when their expectations are met, and vehicle age is no exception. That is why it is so vital to be clear and transparent about how you define a new or a used car (condition, mileage, etc.) or more broadly about what the customer can expect.

A well-defined value proposition is crucial for subscription providers, as it ensures a strong product fit as well as the high customer satisfaction and retention that go along with it.

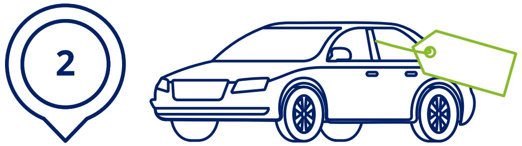
**Fig. 5 – How does value proposition factor into the three types of offerings?**



**New car subscriptions**
are good for exclusivity, customization and the highest value vehicles targeted to a potentially smaller, but financially strong customer group that is willing to pay the required premium. New car subscriptions give premium OEMs the opportunity to complement their existing value proposition with a direct digital channel offering new customer touchpoints.




**Combining both offerings**
has the potential to target a cross-section of both customer groups and therefore the biggest possible population. The challenge here is to distinguish between the various products on offer and manage customer expectations to avoid creating an offering that appeals to neither of the two groups.




**Used car subscriptions**
are good for flexible mobility and reasonably priced services. The target customer segment is larger, but also more cost-sensitive, which in general is more suited to a volume strategy.

## Market insight

Based on our hands-on experience, the majority of players in this market position their subscriptions as a flexible, convenient way to access mobility rather than an exclusive, highly customized offering. How much flexibility is enough? Customer behavior suggests that cost is a more important driver than flexibility. As a result, most players on the German market are not competing on maximum flexibility in terms of the subscription period. Instead, they tend to offer short term leasing durations to achieve more attractive monthly rates for customers.

## Sourcing

New car subscriptions rely on the factory/brand/importer as the one and only source for vehicles with a high standard of condition and a limited range of models. Used car subscriptions, on the other hand, obtain vehicles from different sources with more variability in make and quality.

**A reliable supply** of vehicles in terms of both quantity and quality is vital for satisfying customer expectations and achieving the subscription model's goal of top-line growth. Given the current geopolitical developments, sourcing is more important than ever.

**Sourcing is a key activity,** regardless of whether the subscription offers new or used cars. The complexity of the model, however, depends on the number of stakeholders involved and the underlying sourcing strategy. In general, there are three different strategies:

1. **On risk:** This means keeping the assets on the provider's own balance sheet and bearing both residual value and utilization risk, while also building the base for remarketing profits.

2. **Buy-Back:** These cars are sourced on the basis of predefined buy and sell terms, which eliminates residual value risk but also the potential for remarketing profits.

3. **Lease-back:** A third party (e.g., Captive) buys the vehicles and leases them back to the subscription provider.

Ensuring a constant supply of suitable vehicles is a critical factor for subscription providers with a strong impact on margin as well as customer satisfaction.

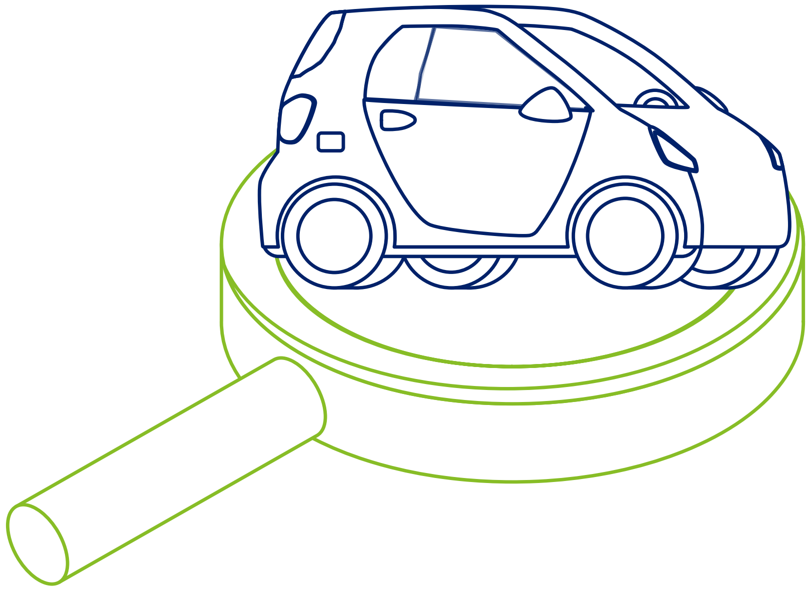
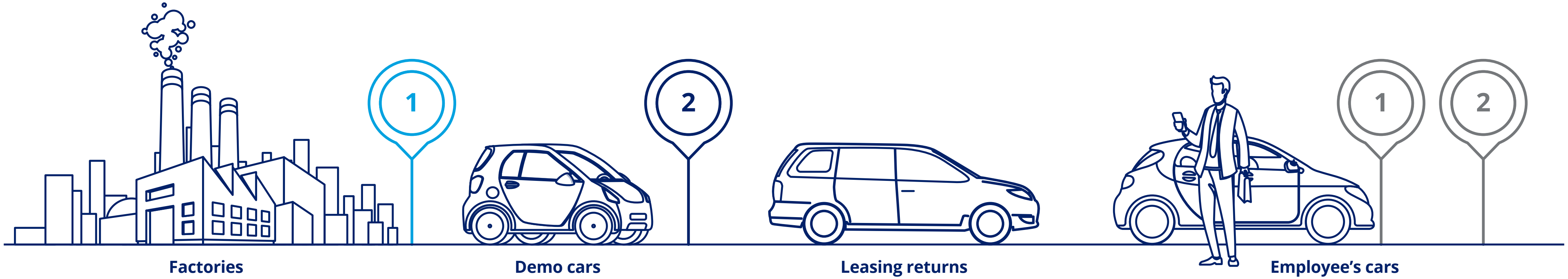
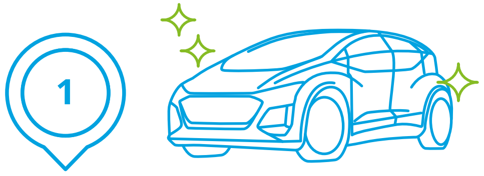
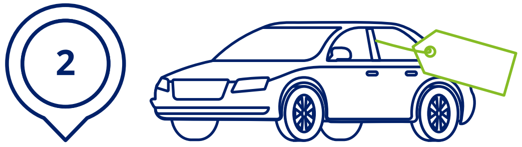


**Fig. 6 – How does sourcing factor into the three types of offerings?**

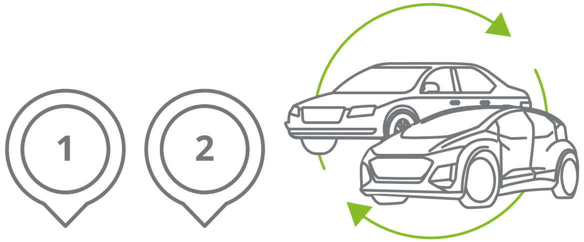



**New car subscriptions**
keep standards very high, offering similar vehicles of comparable quality with no need for maintenance (costs rise drastically after roughly two years). The cars come from a small number of sources (i.e., factory/importer). New car subscriptions can be used as part of a strategy to promote different sources, such as produce-to-stock vehicles, which again will help to balance production capacity.




**Used car subscriptions**
focus on leveraging an integrated fleet across several use cases. It offers providers the chance to make "spot deals" to optimize their purchasing costs and create potential for remarketing profits. That said, the sourcing operations for these subscriptions are more frequent and more complex. Buy-back and lease-back strategies limit the potential for remarketing profits and for maximum vehicle lifetime value, which could challenge the expectations for margins.



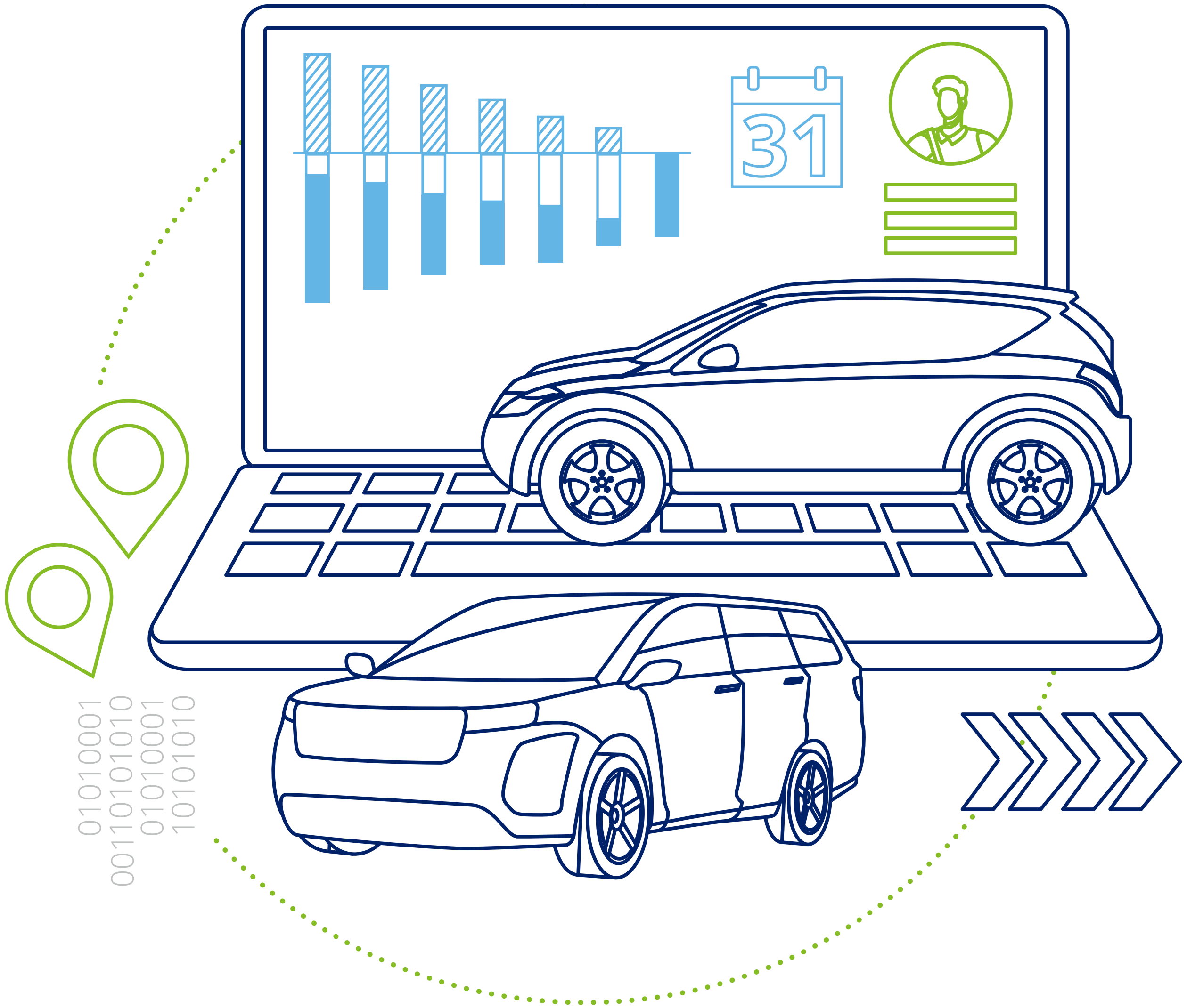

**Combining both offerings**
maximizes the number of vehicles and the choice of vehicle in your subscription offering at an appropriate price point.

01
02
03
04

## Market insight

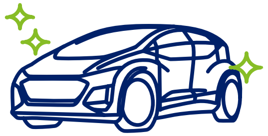
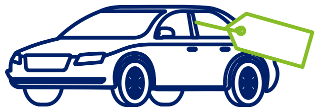
The chip crisis triggered by the pandemic and geopolitical conflicts led to a sharp decrease in the supply of new cars and, as a result, in the number of used cars on offer. With the increase in used car prices and the very low discounts offered on new cars that came as a result, we saw a significant decrease in the profitable sourcing pool for vehicle subscriptions. This shows how important it is to establish a long-term sourcing strategy that is resilient in the face of market volatility. What is more, when vehicle availability is low and production issues cause disruption, subscriptions can help bridge the gap for leasing customers, for example, until their car arrives.

# Summary



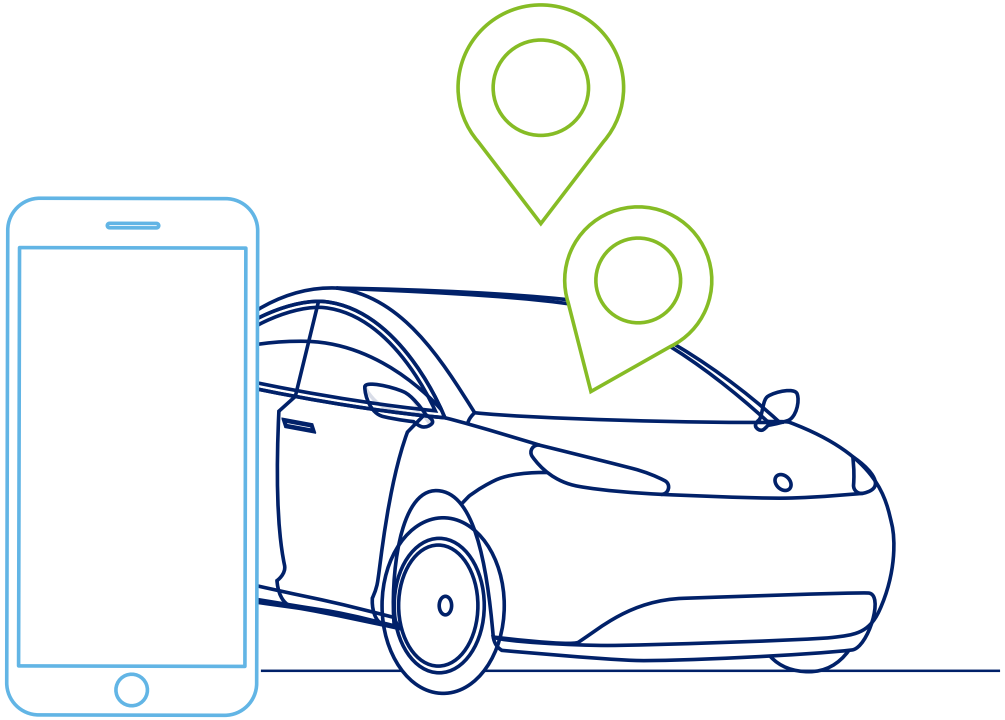
Our focus on vehicle age highlights the complexity and sheer volume and variety of implications caused by a single factor when it comes to designing a subscription model. To help you in your decision-making process, we have summarized the most important strategic rationales and winning themes of both edge cases:

**Tab. 1 – Most important strategic rationales and winning themes of NCS and UCS**

| |  **New car subscriptions (NCS)** |  **Used car subscriptions (UCS)** |
|---|---|---|
| **Strategic rationales** | The focus here is on establishing a new sales channel to address the changing needs of a demanding and financially strong customer base as well as a stopgap channel to balance production capacity. Managing residual value isn't a core focus as assets only have one usage cycle before remarketing. NCS generates new digital touchpoints for up/cross-selling as well as a lock-in effect based on premium services. Rather than price, product and service differentiation is the deciding factor for your customer base. NCS lowers the barrier to entry for new models or technology (e.g., BEV). | We use these subscriptions to close the gap in the product portfolio between rental and leasing and offer customers products that respond to their changing demands across the entire customer lifecycle. This continuous product portfolio enables providers to manage one fleet across various mobility use cases with UCS as a interims channel. This gives an asset several usage cycles, which increases overall fleet utilization and enables providers to get to the optimal remarketing point. |
| **Winning Theme**<br>(to be read as spotlight on most differentiating capabilities and not as exhaustive list) | As a pure NCS provider, it is key to have (or create) a strong, established brand that has a complementary direct digital sales channel. That makes digital skills a top priority for subscription providers that want to create a hassle-free, seamless online customer experience to fulfil the value proposition. A state-of-the-art CRM technology stack is vital for the NCS brand experience to increase loyalty and lock customers in the ecosystem. The ability to self-manage the product and seamlessly select/deselect add-on services (e.g., in-car payments, mileage, insurance coverage, etc.) are key must-haves for the target customer group. | As a pure UCS player, the optimization of the vehicle lifetime value is the biggest leverage. That makes the skill set for these subscriptions different to NCS. Sourcing options are broader in comparison, which in turn increases complexity. The focus is on creating the right sourcing mix with optimal price points (e.g., spot deals), while also meeting customer demand. It is vital to manage the fleet across the entire lifecycle with lean operations (in-fleeting and de-fleeting, pre-delivery inspection, logistics, etc.) to maximize in-life margins. Providers need data-driven decision support as part of a state-of-the-art technology stack to determine the number of cycles and the optimal selling point to realize additional remarketing profits. |

Obviously, a combination of NCS and UCS can offer the best of both worlds, although it does require a broader skill set. Every mobility player should definitely consider it.

In conclusion, it is important to emphasize that subscription providers – if they want to win the race – need to make an in-depth analysis of all design criteria in the way we did with the example of vehicle age. With the right mix of criteria aligned with one other as well as with your enterprise's overall strategic ambitions, subscriptions could be the key to unlocking the potential of future profit pools and outperforming the competition.



# Contacts

**Sebastian Pfeifle**
Partner
Global Automotive Mobility Lead
Tel: +49 151 58070435
spfeifle@deloitte.de

**Ingo Schmuckall**
Director
Automotive Mobility Strategy
Tel: +49 40 32 080 4362
ischmuckall@deloitte.de

**Benedikt Middendorf**
Director
Automotive Mobility Strategy
Tel: +49 152 55837469
bmiddendorf@deloitte.de

**Christopher Hemberger**
Manager
Automotive Mobility Strategy
Tel: +49 151 18293917
chemberger@deloitte.de

**Milena Luczak**
Senior Consultant
Automotive Mobility Strategy
Tel: +49 151 58078087
mluczak@deloitte.de

**Special thanks to Daniel Hils and Viktoriia Polchenko for their constribution.**

Monitor
**Deloitte.**

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms, and their related entities (collectively, the "Deloitte organization"). DTTL (also referred to as "Deloitte Global") and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients. Please see www.deloitte.com/de/UeberUns to learn more.

Deloitte provides industry-leading audit and assurance, tax and legal, consulting, financial advisory, and risk advisory services to nearly 90% of the Fortune Global 500® and thousands of private companies. Legal advisory services in Germany are provided by Deloitte Legal. Our professionals deliver measurable and lasting results that help reinforce public trust in capital markets, enable clients to transform and thrive, and lead the way toward a stronger economy, a more equitable society and a sustainable world. Building on its 175-plus year history, Deloitte spans more than 150 countries and territories. Learn how Deloitte's more than 345,000 people worldwide make an impact that matters at www.deloitte.com/de.

This communication contains general information only, and none of Deloitte Consulting GmbH or Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms or their related entities (collectively, the "Deloitte organization") is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

No representations, warranties or undertakings (express or implied) are given as to the accuracy or completeness of the information in this communication, and none of DTTL, its member firms, related entities, employees or agents shall be liable or responsible for any loss or damage whatsoever arising directly or indirectly in connection with any person relying on this communication. DTTL and each of its member firms, and their related entities, are legally separate and independent entities.

Issue 09/2022