On the move

The embedded finance opportunity in the mobility sector

Solaris

Handelsblatt RESEARCH INSTITUTE

Contents

Survey methodology

Solaris conducted an online survey of embedded finance's potential in the mobility industry in conjunction with the Handelsblatt Research Institute and YouGov Deutschland GmbH.

Between May 31 and June 2, 2022, we asked a cross-section of consumers in Germany, France, Spain and Italy, about their perception, use, and willingness to try embedded financial services products from select mobility providers. The results of the survey have been weighted to be representative of the population aged 18 and over in each of the four countries we surveyed.

Survey participants were asked for their views on 25 of the most popular mobility providers in their respective countries. We put together a list of mobility providers for each country from the following pool of best-selling brands:

OEMs: Alfa Romeo, Audi, BMW, Citroën, Dacia, Ducati, Fiat, Ford, Hyundai, Jeep, Lancia, Mercedes, Opel, Peugeot, Piaggo/Vespa, Porsche, Renault, Seat, Skoda, Tesla, Toyota, VW.

Mobility providers: ADAC, Air France, AirEuropa, Alsa, Amovens, BlablaCar, Cabify, Deutsche Bahn, Easyjet, eCooltra, Europcar, Flixbus/Flixtrain, Hertz, Iberia, ITA Airways, Italo, Lime, Lufthansa, Marcel, Moby, RATP, Renfe, Ryanair, ShareNow, SIXT, SNCF, Tier, Transdev, Trenitalia, Uber, Velib, Velo'v.

Message from the CEO

Financial services have been an integral part of the mobility industry for more than 100 years. However, the optimal usage of digitally-embedded financial products is still a miracle for many organizations. While many C-Level leaders continuously delegate the challenges of successful digitalization for their company, the reality is that dramatic change lies ahead which requires their utmost attention.

Already, the question is no longer whether embedded financial services can make a significant contribution to improving the customer experience, but to what extent.

A growing range of financial services are being seamlessly integrated into the daily lives of digital-friendly consumers, with innovative players offering customers exactly what they need, when and where they need it. And thus create direct added value for the customer.

As a result, mobility brands that — for too long — relied exclusively on the strength of their core products and brand name, will continue to lose their competitiveness.

Convenience is the paradigm of our time

We live in a time when personal relationships are increasingly fading into the background.

With everything just a few clicks away, it is harder for brands to attract and retain customers. Loyalty is becoming a scarce commodity. This means brands need to invest in valuable and meaningful relationships with their customers. Relationships that can withstand an ever more competitive landscape.

Embedded finance can boost customer retention, increase the number of touchpoints, and create new revenue streams.

Moreover, by increasing the amount of user data at their disposal, including real-time data, mobility brands can offer their customers tailor-made products that are as good — if not better — than those offered by a personal financial advisor.

Those brands that can leverage these opportunities most effectively and flexibly will move into a new era of long-lasting customer relationships.

Dr. Roland Folz
Chief Executive Officer – Solaris SE

Executive Summary

This study sheds light on the potential of embedded financial products in the mobility industry. The focus was on the three core products: account, payment card and line of credit.

For this purpose, well-known mobility providers in Germany, France, Spain and Italy were surveyed. In order to be able to show the conversion potential on the basis of concrete values, the perception and use of 25 mobility providers in each case and the actual willingness to use financial services of these brands were determined directly.

In all four markets studied, the adoption rate was always well above 30%.

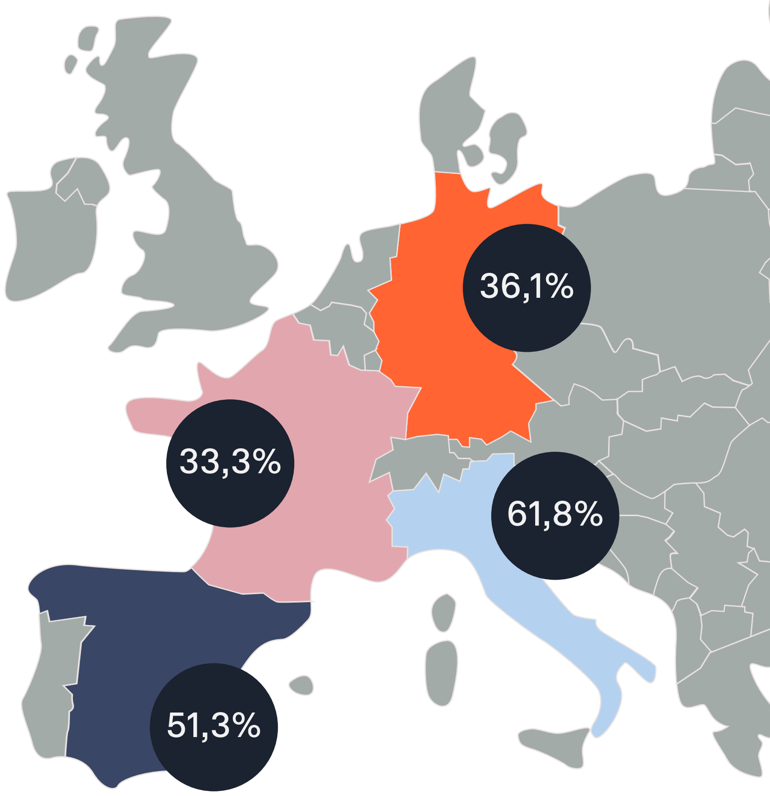
Of the four markets surveyed, Italy is the strongest - 61.8% of respondents said they would use embedded financial services from a mobility provider. Spain is the second strongest market. A total of 51.3% of respondents would use at least one embedded financial product from mobility providers.

Overall, 36.1% of German survey participants would be willing to use an account, payment card or credit product from a mobility provider. In France, 33.3% of all survey participants would consider using an embedded financial product from a mobility provider.

An important finding relates to the correlation of brand attributes and willingness to consider using financial services from a mobility provider: While a digital approach is attractive to some customers, our study found that innovation and willingness to try embedded financial services are not correlated. Instead, the most important correlation: Trust.

The higher our respondents rated the safety and reliability of a mobility brand, the greater their willingness to use a financial product from that brand.

In conclusion, it is safe to say that a high trust factor in a mobility brand correlates with an increased consent to use embedded financial products of the same brand. Such embedded financial services can be an essential building block to achieve new goals and build the ecosystem.



Accenture's view on embedded finance for mobility providers

Our modern world is becoming more and more connected and people are looking for comprehensive mobility solutions that are precisely tailored to their needs – they have to be fast, simple and secure.

At Accenture Song, we call these solutions Experience Platforms. Experience Platforms are ecosystems where users can always find the next best offer that meets their needs in their specific context. This also leads to a convergence of industries and business models, accelerated by digitization.

Let's look at the mobility sector – especially in urban areas. If a user needs to get from destination A to B in 15 minutes, there are plenty of options, such as ride hailing, public transport or bike sharing and everybody will immediately decide for the most convenient one.

Big tech and digital platforms are built on this premise of convenience and have been applying this method for years, while mastering the art of customer-centric product building using the power of data.

Uber for instance is not necessarily changing the way people get from A to B compared to a traditional cab ride. But with its mobility platform, Uber is applying a new business logic that connects riders and drivers in the most efficient way. The cab driver uses the Uber infrastructure to provide services and get paid easily, while riders experience a fast and convenient way to order and pay for a ride. By setting new standards in terms of digital experience, Uber is shaping its users' expectations of the competition and thus strengthening its own market positioning.

In this context, embedded finance is becoming increasingly important – digital accounts, wallets, virtual payment cards and their physical counterpart as well as lending products. Embedded finance provides huge opportunities to create product innovation and design new business growth models.

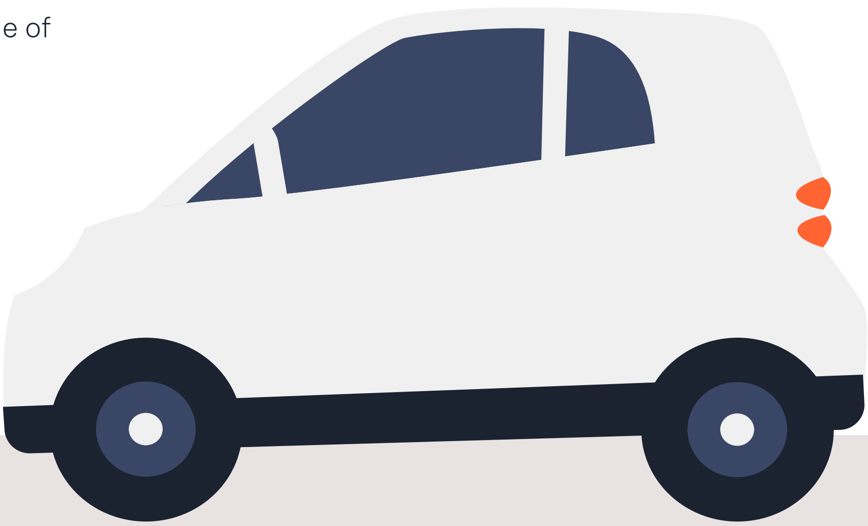
However, the strategic challenge Accenture Song sees is to leverage these possibilities in the right contexts for customers. There are four success factors for embedded finance experiences.

- Desirability: start from the user's perspective when evaluating product ideas to create a user-centric service ecosystem with value-added services.
- Viability: define how embedded finance contributes to business goals and strategy with defining concrete KPIs.
- Feasibility: look for a trusted embedded finance provider that can not only deliver, but also advise.
- Operations: to offer financial services, you need an organization, not just a project. Create a product-focused operating model outside of day-to-day operations.

Leveraging embedded finance provides tremendous potential for large ecosystems and established brands and can spark business innovation.

This white paper on the embedded finance opportunity in the mobility sector offers a deep insight into the world of digital financial products and services and gives valuable insights into the mindset of consumers. It shows that the willingness to use a financial product from a mobility brand is always well above 30% on average in Europe's four largest markets. Furthermore, the study shows what influences consumers in their willingness to use a financial service from their favorite mobility brand.

As a new business and front-end partner, we work with Solaris to bring these technologies to market in a tailored way.



Introduction: The changing face of mobility

When people imagine the future of mobility, they invariably picture a world where getting from A to B is simple and fully digital.

They picture self-driving cars. Highly integrated public transport systems where buses, trains, and other vehicles communicate with each other so you never miss a connection. And real-time traffic updates through a user-friendly app, so you don't get stuck or delayed.

Many of these ideas would have sounded fantastical even just a few years ago. But, already today, they're becoming part of our everyday lives. In San Francisco, for instance, the robot taxi service Cruise has been operating a fleet of 30 self-driving cars since June 2022.

In a rapidly changing landscape where cutting-edge competitors, disruptive technologies, and innovative business models are constantly emerging, the old certainties no longer apply. Massive improvements in cost-efficiency, convenience, experience, safety, and environmental sustainability will disrupt countless business models on an almost unimaginable scale.

Electric and autonomous vehicles, better connected and smarter road networks, new customer interfaces and services, as well as a dramatically changed competitive landscape mixing tech giants, startups and OEMs (original equipment manufacturers) are just some of the changes ahead.

That said, no process becomes more efficient just because it has been digitized. Processes become more efficient when they are *rethought*.

From this perspective, digitalization is an opportunity for established providers to become more customer-centric by expanding their core brand, and for new players to do so by positioning themselves away from conventional offerings. And one of the ways to achieve these goals is through embedded financial services, which add value by creating new customer touchpoints that better meet consumers‘ needs.

Moreover, incumbents and new players can build an entire ecosystem flexible enough to thrive in a complex landscape of interconnected value chains by initially relying on one of the financial products and gradually adding other functions.

Such ecosystems already exist or are being developed. But while it‘s clear that the mobility industry is perfectly placed to take advantage of embedded financial services, very few brands have managed to make the most of the opportunity.

So what will it take to create embedded financial products that persuade customers to take the leap?

The data in our study reveals the key characteristics that make customers more willing to try embedded financial services from mobility brands. In this paper, we'll take an in-depth look at these findings, and explain what they mean for mobility providers moving forward.

What is embedded finance?

Definition

Over the last few years, embedded finance has become a hot topic in the banking, financial and e-commerce industry, especially in view of the rapidly advancing digitization in all of these sectors. But the term is not always explained well.

This is our preferred definition:

“Embedded finance is the integration of financial services products into websites, mobile apps, and business processes of non-financial companies. Embedded finance makes it possible for any business to seamlessly offer digital financial services to its customers at the point of need, without directing the customer to third-party providers.„

Put more simply, embedded finance allows customers to bank without having to deal directly with a bank.

From a business perspective, offering embedded financial services has a simple but powerful economic logic: it can make the core product more valuable and unlock access to new markets.

This makes it evident that the value of embedded financial services is based on a very important assumption: Consumers will choose financial service products from a brand they know and trust.

From this point of view, it is above all, the values associated with the favored brand that inspire customers‘ willingness to use their financial products.

The origins of embedded finance

In many respects, the idea of embedded finance is not new, and it dates back almost 100 years. And, interestingly, one of the earliest pioneering examples is from the mobility industry:
The Ford Credit Company.

Founded in Berlin, Germany in 1926, the Ford Credit Company was promoted as the first “automobile bank” — a bank that enabled customers to finance their car directly at the point of sale.

Every aspect of financing — from initial advice to contract signature — was handled for the customer in a single (albeit manual) process they could complete without speaking to a third-party or leaving the premises. And that‘s exactly how embedded finance works today, with the important difference that the process is entirely digital.

Today, almost all major car manufacturers have banks as part of their corporate structure. Because they have been established for a long time and have built strong customer loyalty, some of these banks have become true powerhouses and are among the most profitable banks in the world.

In the digital world of today, it has become much easier for a wide range of companies to offer embedded financial services.

And OEMs and mobility providers are at the forefront of this development.

Of course, not every mobility company can afford to set up its own bank. And often, retail banking options for automotive banks are severely limited when it comes to offering card accounts, BNPL and other embedded financial services. And that is why embedded finance is so hugely disruptive.

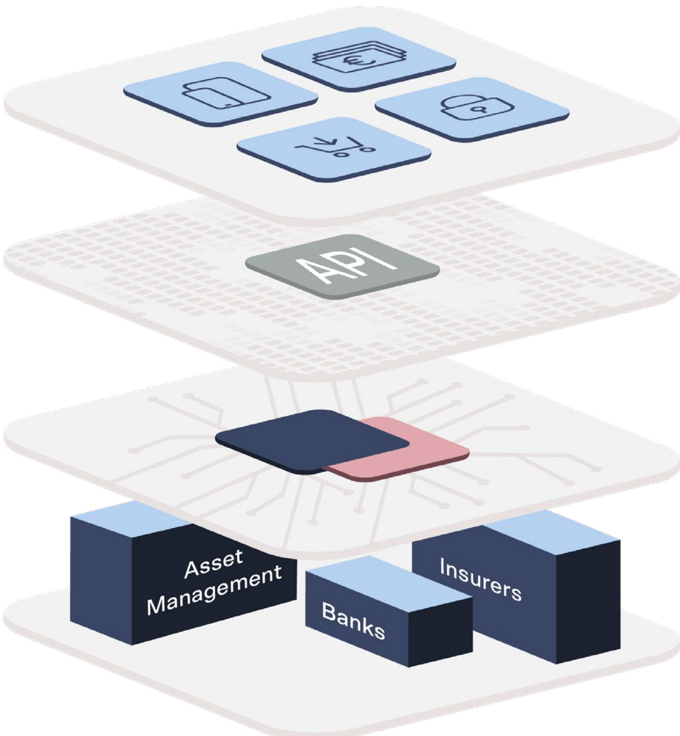
OEMs have already done considerable pioneering work in embedded finance, inspiring other industry players that might not have originally considered this option.

Nevertheless, many offerings could be expanded much further, and have yet to be tailored to the needs of new target groups.

Fact check:

For most people, a car was and is a purchase that requires financing. With this in mind, it is worthwhile for OEMs to offer this financing themselves. The fact that this offer is readily accepted is evident in Germany, where, according to a study by Ipsos/Bankenfachverband e. V., 46% of all new cars will still be financed by credit or leasing in 2020. Both payment methods can be easily and securely integrated into the customer journey, and even high volumes in the credit business can be digitally checked in seconds.

This is of particular interest to the mobility industry, as lending and payments will continue to be the largest embedded financial services in the future.



Banking-as-a-Service: The key development enabling embedded finance

The last decade has seen a fundamental shift that has significantly accelerated the evolution of embedded finance: the emergence of Banking-as-a-Service (BaaS) providers.

And, embedded finance as we know it today would not be possible if it were not for banking-as-a-service (BaaS) providers. These have packaged their banking capabilities and technology into products that enable any business — whether financial or not — to offer digital financial services.

What is Banking-as-a-Service?

Banking-as-a-service providers, or BaaS for short, rent out their financial services licenses, compliance function, treasury, and other financial services back-office operations to non-financial brands through technical interfaces called APIs (application program interfaces).

BaaS products enable brands that don't have financial services licenses to embed financial products and services — checking accounts, SME payments, business loans, payment cards — into their core offerings. They also enable established banks to access new markets by productizing their back-office services and selling them to non-financial brands.

BaaS has become a very competitive space, with providers trying to out-compete each other on scalability, security, and innovation.

A banking license is required to provide comprehensive financial services. Most BaaS providers have obtained a license from a Federal Financial Supervisory Authority that enables them to offer financial services in one or more territories, plus a wide range of other capabilities — from all or parts of the back-office infrastructure, to the technology platform and a full product suite.

These capabilities are bundled into an API that empowers any company to natively integrate traditional and mobile banking services, payments, lending, wealth management, and brokerage into any customer journey.

In essence, BaaS providers work in the background, taking on the complexity of banking business and freeing up non-financial brands to focus on the product.

For OEMs and mobility providers, that means maintaining direct customer contact and control of the experience across the entire value chain, without having to worry about the cost and complexity that being a financial services company entails.

As for the end-customer, the benefit is a simpler, more convenient experience. There's no need for them to switch back and forth between different interfaces or deal with multiple third parties. The benefit: higher conversion rates and lower bounce rates.

Banking Licenses Explained

Full banking license

- In Germany, a full banking license is known as a CRR credit institution license or, more commonly, as a deposit credit institution license. If one has such a license, the term "bank" may be used in the name.
- A full banking license certifies that you meet the legal criteria to operate as a bank.
- It enables you to offer payment services, manage customers' deposits, provide interest-bearing accounts, issue credit, debit and prepaid cards, and offer loans as well as other lending products.
- In addition, you can also offer other financial services products such as bancassurance and wealth management.
- EU banking licenses enjoy what are called passporting rights. So, having a license in one EU country — Germany, for instance — allows you to offer your services in other EU countries and in the EEA.
- Consumers also have the peace of mind that their deposits are protected by a deposit protection scheme (up to €100k per depositor).

E-money license

- An e-money license enables you to offer payment services and some other financial services products, but not to operate as a bank or use the term "bank" in your name.
- E-money institutions can accept customer funds and convert them into e-money, but they cannot manage them. Customers can use e-money accounts as digital wallets, but they cannot earn interest on or overdraft them.
- Additionally, an e-money license also enables you to offer debit cards, account-to-account transfers, standing orders, direct debits, and some digital financial services products, such as foreign currency exchange, but not lending as a standalone product.
- Like EU banking licenses, EU e-money licenses also enjoy passporting rights. So, getting an e-money license in one EU country enables you to offer e-money services in the rest of the EU and EEA.

How big is the embedded finance opportunity?

The digital embedded finance market is still so new that forecasts for its development vary widely. Nevertheless, the growth potential that all experts attest to the market is huge.

An August 2022 McKinsey study estimates that, in the EEA and UK, BaaS providers' total addressable market could be worth between **€90 billion** and **€105 billion** by **2030**.

As for non-financial brands with large customer bases — such as retail and ecommerce — integrating embedded financial services (retail, SME and enterprise) could create a total addressable market of between **€75 billion** and **€85 billion** by **2030**.

In the mobility industry more specifically, the numbers are equally impressive and are likely to exceed every forecast.

The global market volume for the shared mobility market, which includes bike-sharing, car-sharing and ride-sharing services, will be worth **€461.23 billion** in **2026**, according to a recent study by Research and Market. Bike-sharing alone will grow from **€3.3 billion** in **2020** to over **€13.7 billion** in **2026**, with **92%** of total revenue expected to be generated online.

Similarly, the micro-mobility market (light vehicles with speeds typically below 25 km/h) will be worth **€100 billion** to **€150 billion** in Europe by **2030**, according to a McKinsey study. And the market for other modes of transport — bus, rail, public transport and air travel — is expected to hit **€1,013.79 billion** in **2026**, with **68%** of total sales expected to be generated online.

There are three consumer behavior trends that will likely influence this growth:

- The desire to use more digital functions via car infotainment systems
- The growing popularity of mobility-as-a-service products, including e-hailing, ride-sharing, P2P ride-sourcing, and micro-mobility
- Greater receptiveness to financial products from businesses outside the traditional financial services sector — especially for simple services such as payment processing

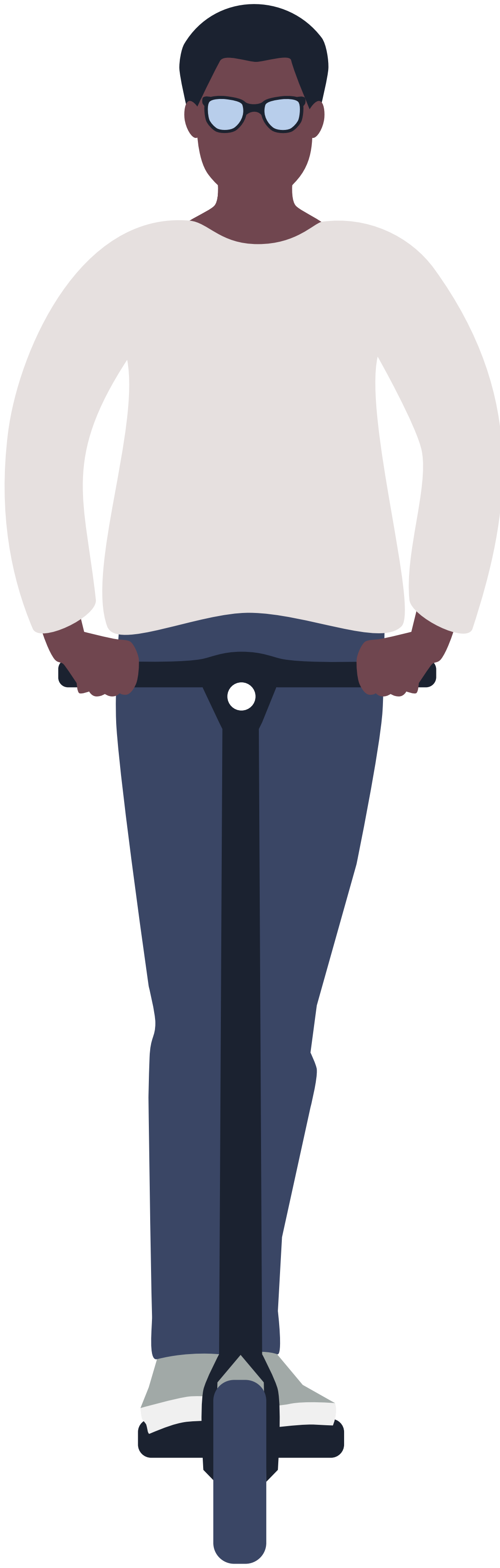
These trends will be influential for two key reasons.

First, payments, lending, insurance, and other financial products bought in these contexts will likely be managed through mobile apps. The ubiquity of social media, e-commerce platforms, and other apps has normalized data sharing. So, for the average consumer, sharing more data to gain access to embedded financial services isn't a big leap.

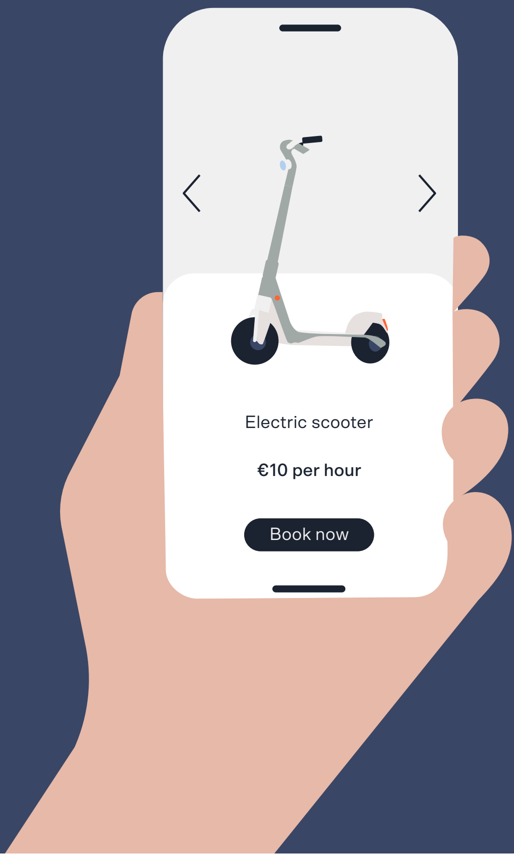
Second, and more significantly, the market for connected cars — vehicles that can access the internet — is booming. Every year, these vehicles could save 280 million hours of driving. This is time drivers can spend with on-board computers linked to financial services.

Tesla is already active in this area with an insurance product. In the future, connected cars will probably be able to make contactless payments at gas stations and toll booths, while telemetric insurance — insurance in which the consumer's driving style influences the premium — will likely become standard.

Taking all these developments together, it's evident that the question is no longer if, but when embedded financial services will become the norm in the mobility sector.



What do customers in the EU's four largest economies think about embedded financial services from mobility providers?



The results of our survey confirm there is a strong business case for integrating financial products into mobility services. A high number of customers are already willing to consider using embedded financial services from a mobility provider or OEM, which means mobility providers can not only develop new revenue streams, but also considerably increase customer retention.

Out of the four markets we looked at, Italian customers were the most willing to try embedded financial services from mobility providers. Across all age groups, 61.8% of respondents said they would use embedded financial services (payment cards, accounts, credits) from a mobility provider, with a very high percentage — 68.9% — among digitally-savvy Millennials (25-34 years old).

Spain is the second strongest market. Overall, 51.3% of respondents would use at least one embedded financial product from mobility providers. Again, Millennials stand out as having the highest affinity for digital financial services, at 54.0%.

The main reason consumers in Italy and Spain are the most open to using embedded finance products from mobility providers seems to be their willingness to buy goods and services on credit.

A simple example illustrates this: To finance a VW brand car, 33% of Italians and 22% of Spaniards would consider an embedded loan from Volkswagen Financial Service (VWFS). In contrast, only 13% of Germans and 11% of French survey participants would consider this option.

Consumer behavior and real purchasing power in the surveyed countries are likely to play a significant role in this outcome.

Another factor that may have impacted the results is that Italy and Spain’s digital markets are still developing. In contrast, because the German and French markets are more mature, willingness to consider a financial product from a non-banking company has plateaued.

For Germany and France, it can basically be said that they are similar markets: The willingness to consider a financial product from a non-banking company has plateaued in recent years.

Overall, respondents in these two markets are significantly more experienced and comfortable with embedded financial services from the mobility industry.

In total, 36.1% of German survey participants are willing to use an account, a payment card or a credit product from a mobility provider. The 25-34 age group is again the most inclined to use a financial service from a mobility provider, with a share of 45.1%. OEMs are already capitalizing on this potential and successfully demonstrating what first-class mobility services with integrated financial services can look like.

In France, overall willingness is a slightly lower but still a respectable 33.3%. What is surprising here is that 45- to 55-year-olds, not 25- to 34-year-olds, are the most willing to use embedded financial services.

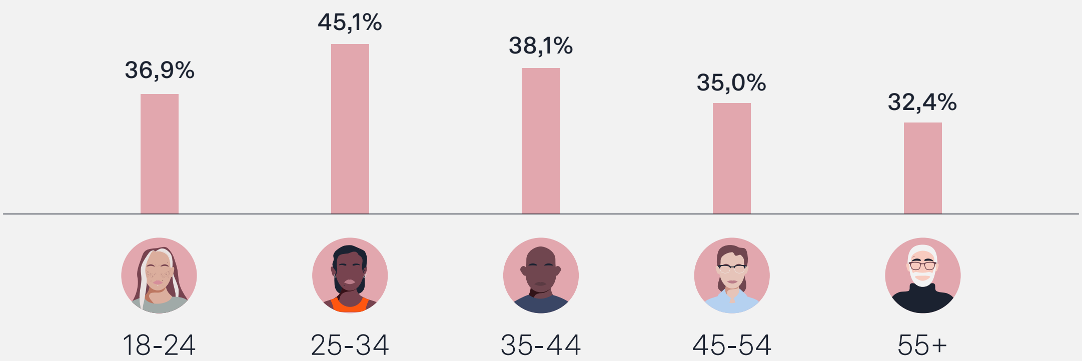
It is difficult to determine why the figures in France are slightly lower than in the other three markets. If financing new cars is an indicator of willingness to consider embedded financial services, the outcome should have been much more positive, as consumer loans dominate the field.

More than 60% of new cars purchased by individuals in France are financed by credit, according to a study by the Comité des Constructeurs Français d‘Automobiles. Rental is the dominant form of financing (69% of loans in 2019), way ahead of specific car loans (30%). Within rental financing, lease-purchase financing is very dominant (90% of rental financing), while rent without purchase option remains marginal.

Survey

What proportion of respondents can imagine using an embedded financial service from a mobility provider?

Germany



Trust and reliability: the two most important values for mobility customers

For a long time, established financial institutions enjoyed a decisive advantage when it came to convincing consumers of financial services: a massive leap of faith.

There is hardly any other industry where trust is as important as in the financial sector – but that is changing right now.

There are concrete reasons why a wave of embedded financial solutions will now enter the mobility industry, because the former basis of trust for banks, namely personal contact via a nationwide branch network, is no longer indemand.

Customers are visiting branches — where incumbents built trust through personal contact — less and less. Instead, the focus has shifted entirely to the service itself. At the same time, incumbents have been shrinking their physical footprints due to cost pressure, falling demand and the innovative offerings of direct and neo-banks.

The reasons for closing down branches might be logically and economically sound. But the decision has inadvertently put incumbents in direct competition with new providers whose offerings are better tailored to consumers' digital habits.

The fact that this not only serves a new generation of financial customers, but also promotes the willingness to switch through attractive functions and complete offers within an app, has crystallized in recent years.

This opens the door for embedded finance offerings for the mobility industry, for transportation over platform providers to OEMs. After all, they possess the trust and loyalty that is required to convince their customers of their own financial services.

With this said, while a digital-first approach is attractive to some customers, our study found that innovation and willingness to try embedded financial services are not correlated.

Rather, the most important correlation is with trust.

The higher our respondents rated a mobility brand for safety and reliability, the greater their willingness to use a financial product from that brand.

But the even more significant finding is that respondents were willing to use embedded financial services from a mobility brand they rated as being safe and reliable even if they'd never been a customer of that brand. It was enough that the brand was known to them.

Use Case: Lufthansa

German airline Lufthansa is a prime example of the correlation between trust and willingness to use embedded financial services.

Lufthansa offers credit cards to its customers through its „Miles and More“ bonus program. Aside from collecting bonus points whenever they pay with the card, customers also get travel cancellation and travel interruption insurance, comprehensive rental car insurance, and, on the Gold plan, international travel health insurance. There are also optional extras like baggage loss and travel accident insurance.

The success of the Miles and More program: Consistency that pays off. In 2019, Miles and More was already the best-known provider-specific bonus program in Germany. Thus, unsurprisingly, 28% of our German survey participants told us the attributes that best fit the company were safety and reliability.

Correspondingly, 11% of all people polled would like to use a Lufthansa credit card, and as many as 15% in the Millennials age group. In Germany, Lufthansa ranks second in the credit card segment. A strong result that shows potential for expansion with further financial features such as buy-now-pay-later.

The brand’s reputation created such high levels of trust that consumers took it at its word. And where older consumers rated the brand as safe and reliable, younger consumers were also more likely to rate it as safe as reliable.

The upshot is that if a brand has been associated with security and reliability over a long period of time, it has a much easier time persuading customers to try its financial services products.

Willingness to try embedded financial services from OEMs was correlated most strongly with safety and reliability in Spain, Germany and Italy – three of the four markets in our study.

By contrast, French customers told us they‘re most willing to use embedded finance products from OEMs they consider practical and family-oriented. That said, safety and reliability were a close second.

It is also worth highlighting that, while younger consumers tend to be early adopters, this is not necessarily the case when it comes to embedded financial products from mobility providers.

Our research found that older consumers are just as willing as younger ones to try the embedded financial products offered by car and other mobility brands.

Use case: ADAC

ADAC (Allgemeiner Deutscher Automobil-Club) is Europe‘s largest automobile club, with around 21 million members in Germany.

A quarter of Germans can already imagine purchasing financial products from ADAC.

Would you use one or more of the following mobility companies‘ products?

Yes, a bank account:

TIER	ADAC	Deutsche Bahn
11,8	9,1	8,3

Yes, a credit card:

ADAC	TIER	Lufthansa
12,1	11,5	11,3

Yes, a loan:

VW	AUDI	BMW
12,9	12,4	12,0

39% of Germans associate ADAC with the attributes of safety and reliability, and the willingness to use financial products from this provider is correspondingly high.

The target groups that will dominate the market in the future show very clear values with 48% in the 18-24 age group and even 42% in the 25-44 age group, reflecting the fact that it is precisely these attributes that transport financial products to a provider that operates outside the financial sector.

Remarkably, at 19%, the willingness of the 45-54 age group to use an ADAC credit card is at a similarly high level to that of global platforms such as Amazon.

The three most compelling embedded finance use cases for the mobility industry

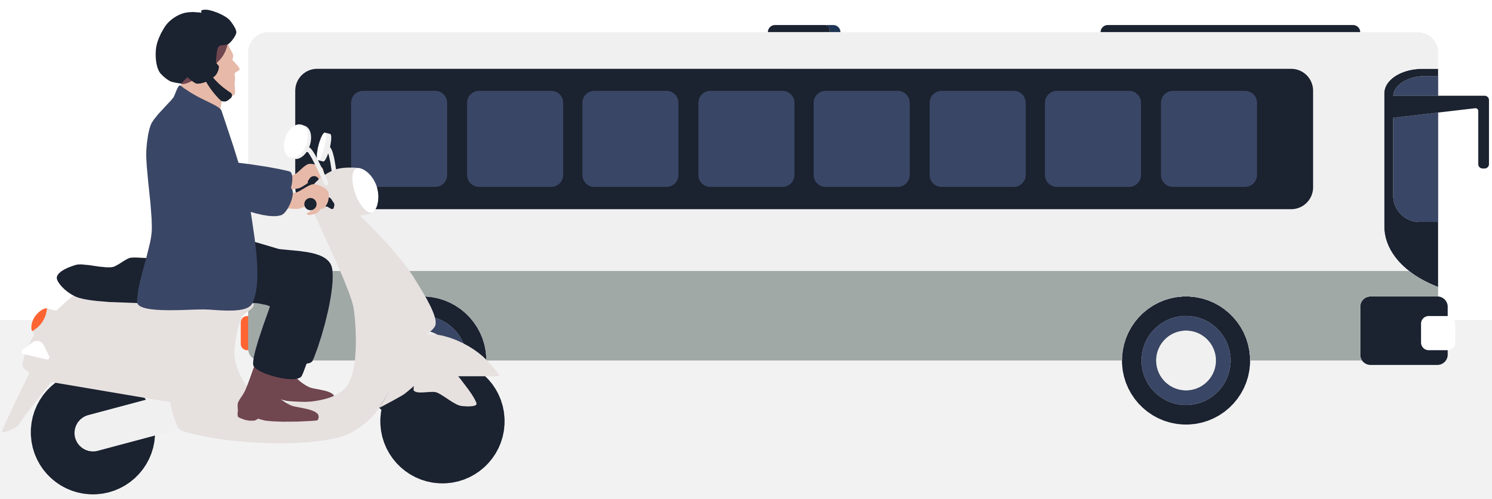
For mobility providers as well as OEMs, offering financial services can be an attractive tool to develop their customer relationship – incoming data from the financial products allows for a continuous improvement. They can deepen customer relationships, simplify transactions via the seamless integration of financial processing, and tap into new lines of business.

In addition, embedded financial services can add value to core offerings and drive innovation towards a customer-centric ecosystem.

Yet, this is not a one-way process from which only the mobility providers benefit. It is crucial that customers also receive added value, otherwise they would not accept the products. This is ensured by simplified and smooth end-to-end customer support, flexible payment methods, easier credit applications and, above all, real-time verification, which creates transparency and clarity for customers.

But which embedded financial products are best suited for mobility brands —
and most likely to be valued by their customers?

In this section, we will outline what we believe are the three most promising use cases.



Bank accounts

The bank account is the Holy Grail of the financial world. It is both the product with the highest customer stickiness, as well as the foundation of consumers' personal financial ecosystem.

Once the customer has opened an account, the mobility provider is in a powerful position. They can process all payments, credit, and overdrafts through the account, as well as add further financial services products on top. They can also strengthen their core offering through features such as bonuses, loyalty points, and cashback rewards which increase the number of touchpoints and encourage the customer to stick around.

In 2021, 36% of respondents in a representative study by the German industry association Bitkom said they had already changed their main account three times. Clearly, customers are more than willing to switch if they are given a good enough reason to do so. The challenge is to retain them through relevant, targeted features and by differentiating from incumbents.

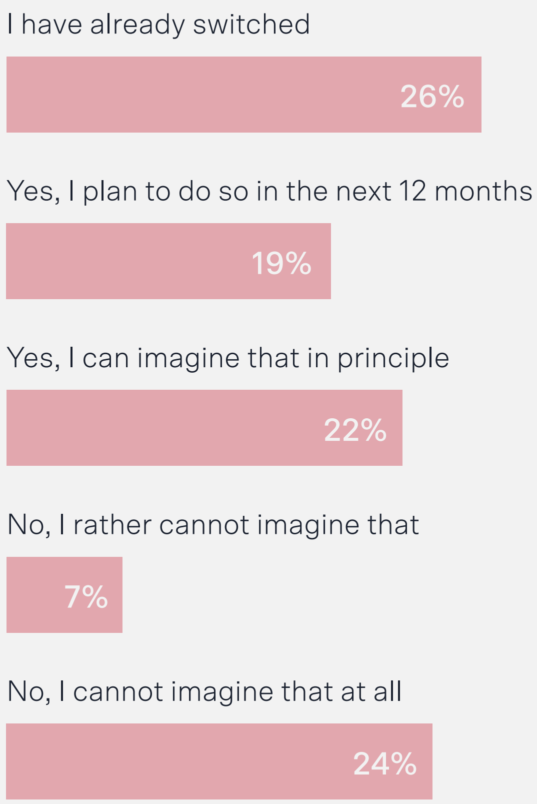
The readiness to use an account from a mobility provider, has not yet come to the attention of customers. In all four markets surveyed, only between 8-9% of consumers can apparently imagine this at present.

According to our research, 9% of customers would like to open a bank account with ADAC in Germany and with Trenitalia in Italy. Millennials are the age group who are most open to the idea. 13% would open an ADAC account while 15% would open a Trenitalia account

While 9% might seem low at first glance, it's relatively high when you put it in context. The total number of checking accounts in Germany was around 113.9 million at the end of 2021. In five years' time, 50% of those accounts will be with non-financial services brands and challenger banks, which will leave 50 million to 60 million accounts up for grabs.

Survey

Can you imagine swithcing to an online-only bank without a branch with your main account?

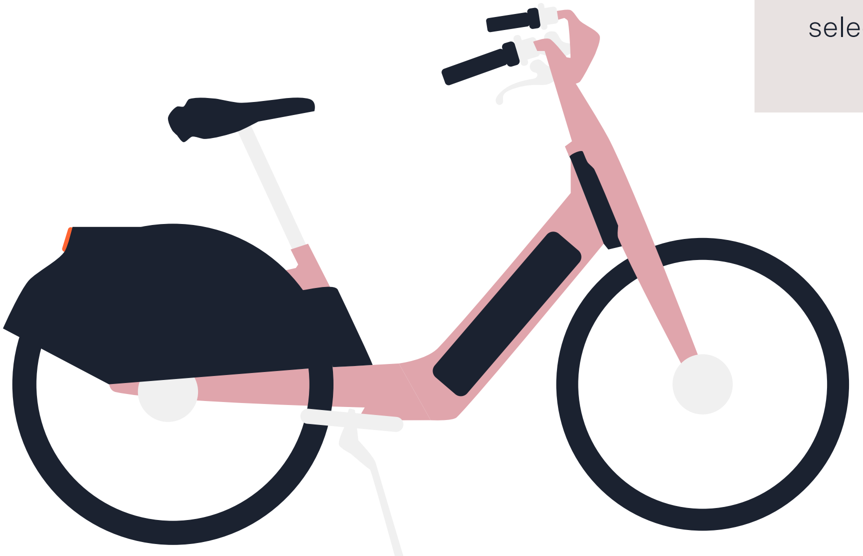


Bitcom research, Digital Finance 2022, May 2022

Business development tip: From user account to bank account

By offering financial services, businesses can transform what were previously just user accounts into „fully comprehensive“ bank accounts. Linking user and behavioral data with payment data enables them to offer customers tailor-made financial services that closely match their personal requirements and circumstances. This creates an offer in which core products are complemented by relevant financial services products.

Since they already have existing customer relationships through their core products, acquisition costs for their financial service offerings are much lower compared to those of traditional banks. Prime examples for this include automotive banks, such as Volkswagen Financial Services, but also Google Pay and Uber.



Use case: Uber

Mobility service providers Lyft and Uber are offering their own bank accounts to their drivers with the aim of connecting drivers with their billing system as quickly and easily as possible, reducing the transaction costs for both parties.

For more than a third of its drivers in Mexico, who previously did not have access to financial services, Uber is offering debit cards coupled with their respective Uber accounts.

Uber also uses instant payment methods for about 70 percent of its payments. As long as the funds remain on the credit card, which Uber issues in the U.S. in partnership with Visa and GoBank, the card is free to use.

In addition, both Uber and Lyft have a worldwide cashback program that pays back about one percent for every payment made with the credit card at participating partners, next to further discounts at selected partners.

Cards

Payment cards are another embedded finance feature with huge potential for mobility brands.

Cards serve as a supplement to the account and are an important means of establishing and maintaining an ongoing connection with the brand. The customer carries the card with them at all times and interacts with the brand every time they make a payment. The card is therefore a strong marketing tool.

And, payment cards being a key driver in the customer journey, they enable brands to take payment from, lend money to, and reward customers for their loyalty more easily.

Research shows 73% of consumers will buy from a specific retailer if their loyalty program works directly through their credit card. And direct discounts (69%) and points or promotions (56%) are two of the main reasons consumers will consistently use a specific payment method.

Survey

The number of card payments in the EU in 2020 - 63.7 billion
Total value of EUR 2.34 trillion

ECB - Payment Statistics 2021

But the real power of cards lies in the fact that customers interact with the brand whenever they use them — even when they're not purchasing from the brand. Payment data is also a valuable source of information on customers' behavior which brands can use to improve and enhance their offerings.

There is also an opportunity to appeal to younger consumers — who are fond of experiences and increasingly socially conscious — by offering rewards, such as tree-planting and donations to charity, that position them as socially responsible brands.

The rise of digital payments could be a turning point in the payment card market, building a new wave of industry momentum as the landscape shifts from card-based competition to transaction-based competition.

Specifically, when we asked customers about their willingness to use a credit card from a mobility provider, between 10% of customers in Germany and up to 26% of customers in Italy said they were open to it. And the brands they were most willing to get a credit card from were national railway providers: SNCF, Trenitalia, and Renfe.

It goes without saying that these providers scored very well for safety and reliability, with up to 24% of survey participants giving them these attributes. This makes it all the more surprising that Deutsche Bahn is discontinuing its credit card program instead of expanding it and linking it to other financial services or bonus offerings.

Another striking survey finding is the data on credit card use in Italy and Spain, where consumers are very willing to use credit cards from companies associated with traveling; specifically airlines and car hire.

22% of Italian respondents would use a credit card from Easyjet and 21% of Spanish participants would use a payment card from AirEuropa. The car hire company Europcar also ranked high in both countries. 25% of Italians and 21% of Spaniards would use a Europcar credit card.

In a May 2022 survey by Norisbank, over 75% of respondents said credit cards are their preferred way to pay when traveling. So, credit cards could be a significant source of revenue for mobility providers in the travel industry

Use case: Grover

Tech rental platform Grover, which launched the Grover card in partnership with Solaris, is a perfect example of how brands can give their customers more value while encouraging them to spend more money on the core product.

Whenever they pay with the Grover card, customers can earn cashback and discounts on Grover tech rentals, creating a closed loop and incentivizing them to shop more sustainably — a core Grover value.

The simple but elegant and distinctive card design also strengthens the connection, reminding customers of the Grover brand even when they shop with other merchants.

Credit products

As we have already mentioned, credit is the grandfather of embedded finance. Automotive banks have been active in Germany for almost 100 years.

And today, almost all major OEMs offer integrated credit solutions through their own banks. In the automotive sector, the sheer size of the transactions is the primary driver for this need and will stay high in demand.

According to the German banking association, for instance, in 2020, 46% of new cars and 27% of used cars were financed. It‘s no surprise, then, that between 13% of consumers in Germany and 33% in Italy would take a loan from an OEM.

But the dominance of car banks in financing is faltering as major banks attack manufacturers‘ car leasing business. Major banks such as Société Générale are now closing in – and increasing the pressure on the finance subsidiaries of the major OEMs, such as VWFS or BMW Financial Services, known in the trade as ‘captives.’

Survey

Proportion of pirvate cars financed by loans or leasing in Germany from 2012 to 2020

Ipsos/Bankenfachverband e. V - Konsum- und KFZ-Finanzierung: Marktstudie 2020

The biggest opportunity for mobility providers lies in embedded leasing. Leasing rates have been rising almost continuously since 1992, with a record-setting 70% of all new vehicles on the road being leased in 2019. But the transition to electric cars — which are considerably more expensive than petrol and diesel-powered cars — is likely to increase demand further.

Electric car pioneer Tesla already makes it possible to order online in just a few clicks. Other OEMs could follow suit, cementing their market position by offering frictionless, customer-centric, fully digital leasing.

For airlines, car hire companies, and bus operators, on the other hand, there's huge potential in so-called "buy now, pay later" (BNPL) — a product which has become extremely popular in the retail sector.

BNPL enables customers to pay for purchases, particularly larger ones, in several small installments over an extended period of time. This means that, when they choose it over paying with their credit card, they're implicitly taking out a loan.

The benefits for merchants are a higher conversion rate, an increase in average shopping cart value, and a new revenue stream in the form of interest income. As for customers, they get more flexibility without having to jump through all the hoops taking a loan usually entails.

Use Case: Samsung Pay

South Korean tech giant Samsung launched its Samsung Pay service in Germany at the end of October 2020 in partnership with Solaris.

Alongside a virtual debit credit card and a free account, Samsung also offers German customers a „buy now, pay later" option called "Splitpay" which enables them to split purchases worth €100 or more into installments.

Customers can use Samsung Pay with their mobile phone or Internet of Things (IoT) devices, like the Galaxy Watch, to which they've connected a virtual or physical card (either Samsung's own card, or a card from another issuer). Once the consumer loads up their card and authorizes it, they can pay with their device using contactless technology.

Recently, BNBL has come under criticism for its low barriers to entry. Providers must be aware of the risks, educate their customers, and comply with applicable regulatory and legal requirements.

Our research found that Spanish and Italian customers were the most open to getting this kind of finance from mobility providers. In Spain, airlines Iberia and Ryanair were the most popular options, with 14% willing to borrow from Iberia and 12% from Ryanair.

In Italy, consumers were most willing to borrow from car hire company SIXT, with 17% of participants saying they were open to doing so.

Conclusion: The road ahead

The mobility industry is undergoing a radical transformation.

But while there are undoubtedly challenges ahead, there's also enormous growth potential in many areas. And embedded finance can be the foundation on which mobility providers can build a stronger ecosystem that goes beyond their core offering.

In this segment, it is therefore up to incumbents, captives, and young challengers from the startup world to offer new and, above all, customer-centric solutions that are in line with the ascribed values
– the consumers' perception of a brand's core values.

In addition to the further development and differentiation of the core offerings of OEMs and service providers, the main focus will be on building strong ecosystems that combine more than just mobility solutions.

Embedded financial products can be an essential building block for achieving new goals and strengthening the essential attribute that is already associated with many providers in this industry today, namely trust.

From shared mobility to connected cars and B2B mobility payments, the markets are growing, but many of them are not yet integrated into business strategies or even ecosystems to the extent that the enormous potential can be exploited.

When mobility provider ecosystems cover the entire value chain, they can create a customer-centric, unified value proposition where users can enjoy an end-to-end customer journey and engaging customer experience across a wide range of products and services through a single gateway.

Mobility providers — and OEMs in particular — have already ignored progress once before, and Tesla earned a significant first-mover advantage as a result. Given the impact current social, political, and economic upheaval will likely have on their core business, they simply cannot afford to make another misstep by neglecting the ever-increasing demands of customers.

Leaving the field of ecosystems to others and neglecting the ever-increasing demands of customers cannot be the goal throughout the industry.

It is now time to look for strong and reliable financial players who can help the industry bring this vision to life.

Thank you.

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