

WHITE PAPER

# A closer look at the shared mobility market *in Europe, the UK and CIS countries*

Tips to expand your mobility business to a particular country. Customer behaviour, payment preferences, licencing and costs of the mobility business of each country.

✓ Ridesharing/Carsharing

✓ Bikes & Scooter sharing

✓ Taxi/Ride-hailing

✓ Delivery services



# A mobility industry *expert*

The last few years have seen the rapid growth of a new kind of transportation: shared mobility. This car sharing, electric scooters, and bike rental, which are now a common sight in major cities, with companies moving aggressively to capture their share in a growing market.

What if you want in on the action? Is it too late? Is the market already divided up? This series of articles take a closer look at the shared mobility markets in nine European and Central Asian countries. If you are considering working – or are already working – in the shared mobility market, you will learn more about legislative requirements, fees, customer behaviour, and the most promising areas of development.

## Anthony Medica

Business Development Manager



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# Introduction

More and more people are increasingly comfortable with renting things, rather than owning them outright. In fact, they hardly think of it as rental. Streaming services such as Netflix and Spotify aren't just glorified video rentals. They're more of a subscription-based library; for a monthly fee, they offer unlimited access to a vast catalogue of content.

Turns out people are alright with this, as long as it's simple to access, always there, and, importantly enough, easy to pay for. Mobility services took a page from this book and applied it to transportation.

Their explosive growth suggests this has been a successful approach. Companies like Uber and Bird have gone from total newcomers to household names in a matter of years. Their success has inspired numerous competitors, some limited to local markets, some nurturing global ambitions. So does this mean it's too late to join the party?

Not necessarily. The market division is far from over, and there's still room for more. Market research, however, is more crucial than ever. With this in mind, we have prepared a detailed overview of the mobility market in the UK and eight European and Central Asian countries. We believe these countries are well-poised for future growth, and their markets are open for outside competition.

Our overview describes the current situation, including legislation, costs, and existing market players. It also considers some possible future developments. We've even provided some recommendations for businesses who might consider working in this country. And, of course, we also provide all the key stats and sources for further reference.



The image shows three European Union flags waving in the foreground. In the background, there is a modern building with a glass facade that reflects the sky and the flags. A large, stylized map of Europe is visible on the building's facade. The overall scene is bright and sunny.

# Europe

- ✓ Poland
- ✓ Germany
- ✓ United Kingdom



# Poland

The mobility industry in Poland has one noteworthy feature: at EUR 448 per month, its cost of car ownership is one of the lowest in the European Union. The EU average is EUR 616 a month. Moreover, the cost of car ownership is lower in rural regions than in cities. As a result, taxi services are cheaper and less developed outside larger cities.



**38.65m**

Population of Poland



**81%**

Internet penetration rate



**55%**

Online banking  
penetration rate

In addition to hundreds of traditional taxi operators, Poland has several large foreign ride-sharing companies: Uber, Bolt, iTaxi, Mytaxi, YandexTaxi, Gett, and others. Moreover, several traditional taxi operators, such as Taxi Polska, PST, and MiniTaxi, are adding their drivers to ride-sharing apps and launching their own apps. 58% of all Polish taxi drivers are working with Uber. This all adds up to notable competition in the taxi market.



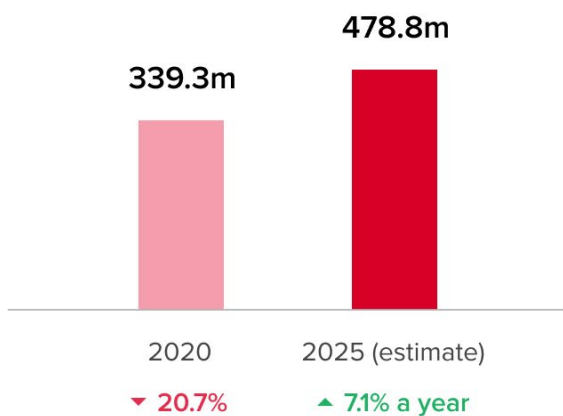
# Taxi and ride-sharing aggregator



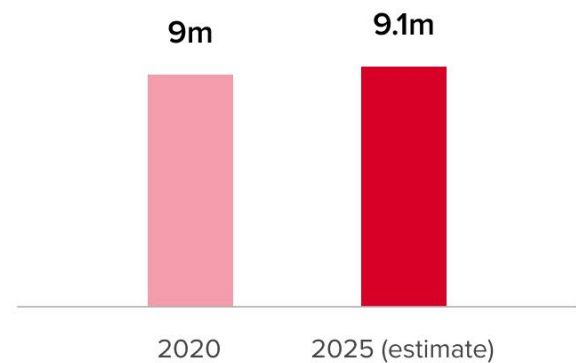
Poland



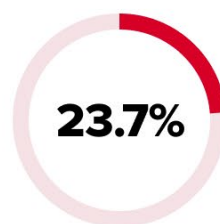
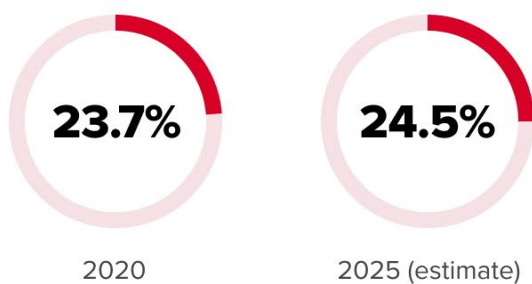
## Taxi and ride-sharing aggregator market, EUR



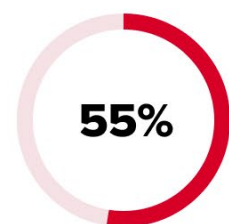
## Users



## Service penetration rate



Users aged 25-34 (young users)



Revenue coming from online services



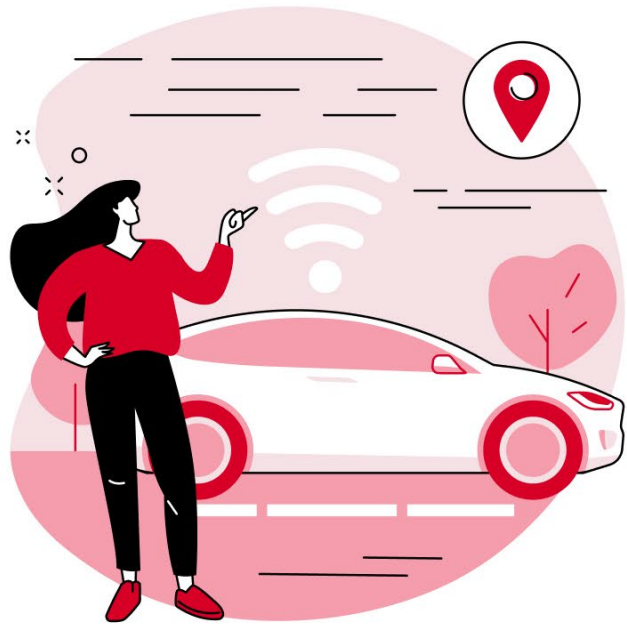
**37.67 EUR**

Average revenue per user (ARPU)

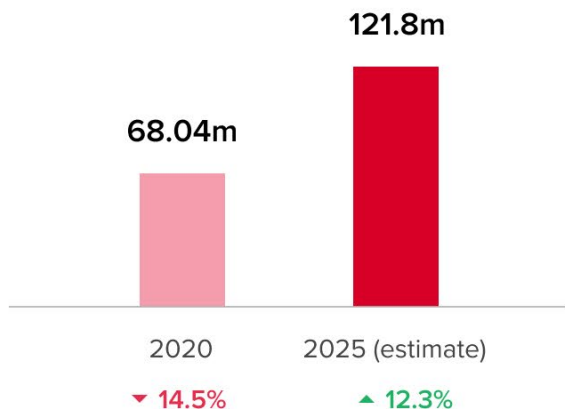
# Car-sharing



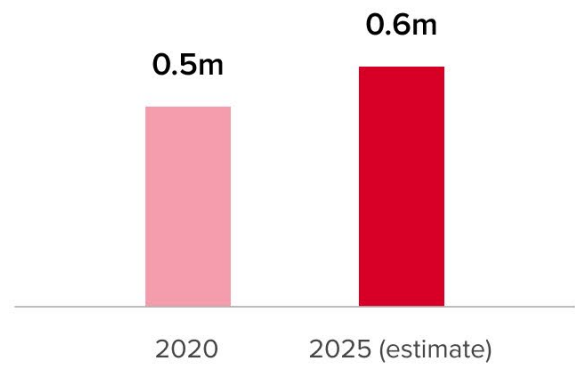
Poland



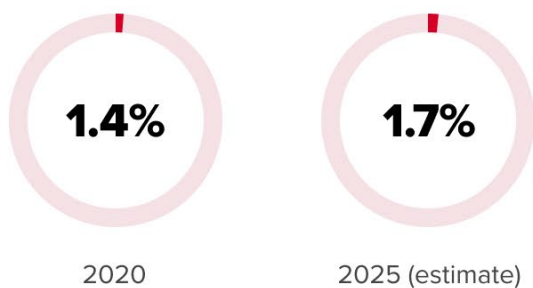
## Car-sharing market, EUR



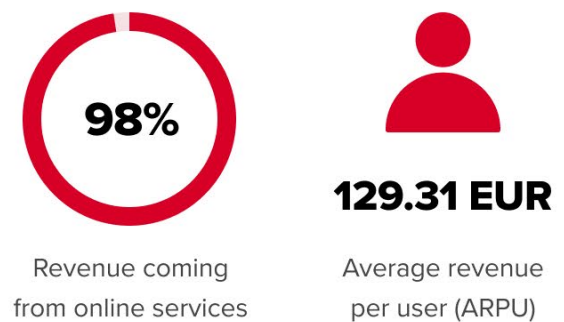
## Users



## Service penetration rate



## Revenue





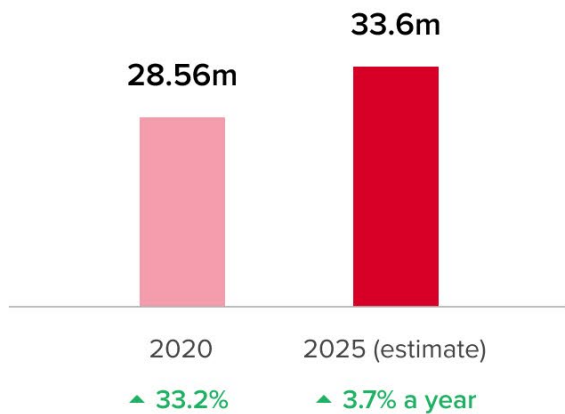
# Bike rental market



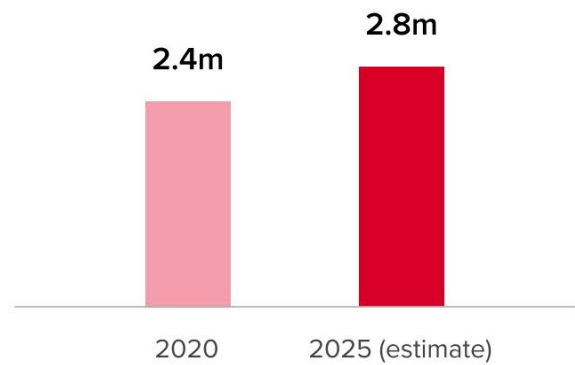
Poland



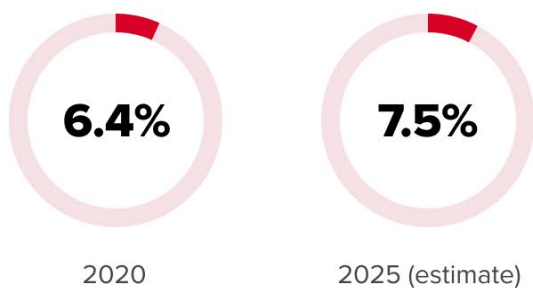
## Bike rental market, EUR



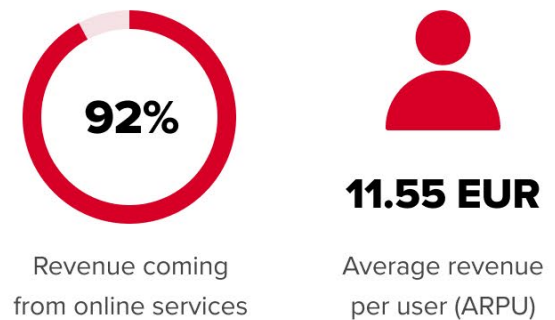
## Users



## User reach



## Revenue



## Customer behaviour

Statista market outlook notes that in 2020, most people over 50 said they prefer the traditional taxi services; people above the age of 64 rely exclusively on this service. Most of them (78%) order their taxi by phone; 81% of people in this age group do not have any taxi-hailing apps installed on their phone.



**70%**

of people in Poland either own or are planning to own their own car, irrespective of their taxi-hailing habits



**50%**

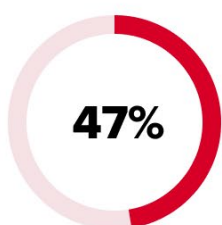
of people use taxi-hailing apps



**53%**

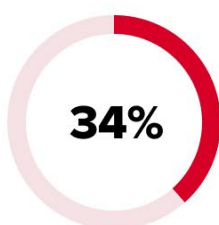
prefer a phone call; there is an overlap as some people use both

The most often-cited reason for this reluctance is security: they do not want to share their payment card number and private data. When asked what they like about the traditional taxi services, 50% of people appreciate the ability to order a taxi by phone and safety provided by professional taxi drivers. As to the downsides, 48% cite higher prices, 36% note the lack of information about the cost of the ride, whereas 27% mention they cannot rate the driver and have no detailed information about the route.



**47%**

of people under 35 prefer the ride-sharing apps



**34%**

of young people use the traditional taxi services



A 2018 research paper by Straal shows that 44% of users name lower prices as the main advantage of the ride-sharing apps. 37% note the convenience of the cashless transaction: this allows the passenger to leave the cab right after arriving at their destination, and the driver does not have to look for change. The most popular cashless payment methods in Poland are payment cards, followed by PayPal, Blik, and ApplePay.



### People above the age of 64

rely exclusively on traditional taxi services

### People above the age of 50

prefer the traditional taxi services

36% of users appreciate knowing the cost of the ride before it begins; this allows them to pick the cheapest one without worrying it will change during their journey.

As to disadvantages, 23% don't like the fact that they cannot check their driver's licence, and 21% are bothered by handing over their personal data.

## The statistically average Polish user of shared mobility services

Age	18-29
The total income of their family	above EUR 1100 per month
The average cost at the most popular bike rental service in Poland	about 7 EUR
The average monthly expenses on taxi-hailing apps per month	15 EUR
The average monthly expenses on shared mobility expenses	31 EUR

## Car sharing and micromobility

As of early 2020, different shared mobility companies operated in 70 cities across Poland, counting 37 thousand vehicles (cars, mopeds, scooters, bikes). Their total reach is estimated at 12 million people.

The largest players in the car sharing market are Panek, Traficar, MiiMove, innovgo!, 4Mobility, and Vozilla. innovgo! fleet consists solely of electric cars that can use the bus lanes in traffic jams. Vozilla is local government company opened in Wroclaw, and it also serves to test the technology behind electric and hybrid cars. Poland passed a law on electric cars in 2017; it stipulates no less than 1 million electric vehicles on Polish roads by 2025. The state-owned electric companies are actively investing in building the necessary infrastructure in large cities.

As to bike rental, Poland has two major players: Nextbike Polska, which has an 82% share in the market, and BikeU. The total amount of rental bikes reaches 25 thousand, with their users numbering more than 3 million.

The electric scooter market is still at its early stages. Legal framework is still in the works, but some restrictions are already known: scooters will only be allowed on bike lanes, the lower age limit for users will be 10 years, and the scooters will have a length limit of 1.25 metres.

Lime dominates the scooter market with 4500 units, followed by Bird with 2300 units and Hive with 2100 vehicles.

Moped sharing grows slower than other sectors of micromobility, due to its seasonality. Six companies offer about 2000 mopeds in 20 Polish cities. The main players are Blinker and Hop.City.



## Tips for businesses to expand into Poland

Alternative payment methods (APMs) and mobile payments are increasingly more popular in Poland; about 15% of all people in Poland use them. However, not all micromobility companies, including the international ones, use APMs such as PayPal or ApplePay. Offering APMs for your micromobility or ride-sharing business helps you stand out and achieve better conversion rates, especially if you're focusing on a younger audience.

Shared economy in general and car-sharing in particular is rapidly gaining ground in Polish cities. The government is actively encouraging it, developing the "smart city" concept and expanding the necessary infrastructure, such as car-sharing parking spaces, charging stations, and micromobility centres in large city. This, however, also means that many micromobility projects are partially funded by local governments and/or have other government subsidies. A commercial entity will find it hard to compete with them.



## Germany

Germany could well be named the most mobile country in the EU. As of early 2020, Germans owned more than 42.4m cars, which breaks down to 1 car per 2 Germans. The country is also well-renowned for its car industry, which accounts for 20% of its GDP. 1 out of every 15 cars sold worldwide is made in Germany; 1 out of every 20 is on German roads. This has pushed the total car ownership costs below the EU average at EUR 515 per month.



**81.49m**

Population of Poland



**90%**

Internet penetration rate



**63%**

Online banking  
penetration rate

This is bound to have its impact on the mobility market. Still, the country has more than 250 thousand registered taxi drivers and 21 thousand taxi companies; their combined fleet reaches 55 thousand cars. Berlin alone counts more than 3200 taxi companies and 2500 self-employed drivers.

**The traditional taxi companies that provide service by phone still maintain a large share of the market, but the competition is fierce. No single company controls more than 1% of the market.**

The largest company TaxiFunk Berlin does not even have its own vehicles. It is operating as a call centre, charging the drivers a commission for each passenger it forwards to them. The small companies and self-employed drivers were also the hardest hit during the pandemic lockdown. As a result, they are joining the ride-sharing apps at an increasing rate.

The largest ride-sharing companies in Germany are Uber, FreeNow (formerly known as MyTaxi), Taxi.de, Taxi.eu, MOIA (a subsidiary of Volkswagen) and BerlKönig. The last two offer zero-emission vehicles with drivers.

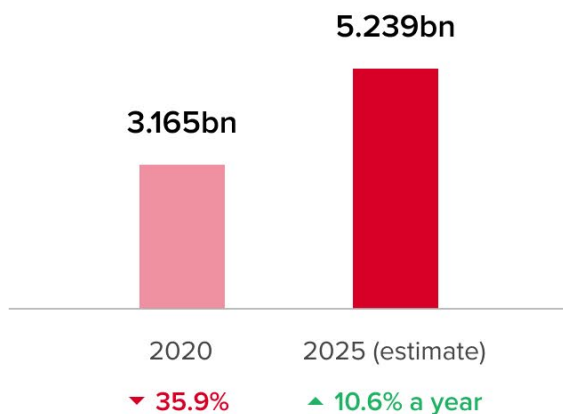
# Taxi and ride-sharing aggregator



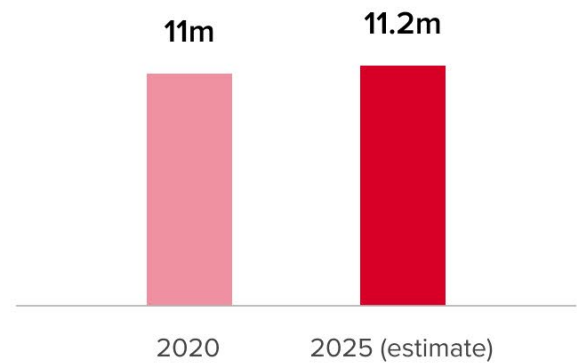
Germany



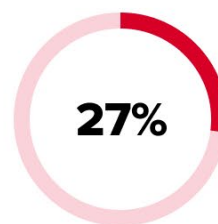
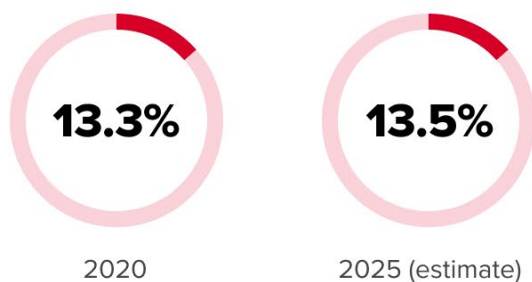
## Taxi and ride-sharing aggregator market, EUR



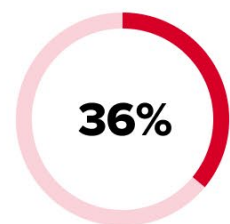
## Users



## Service penetration rate



Users aged 25-34  
(young users)



Revenue coming from  
online services



**287.34 EUR**

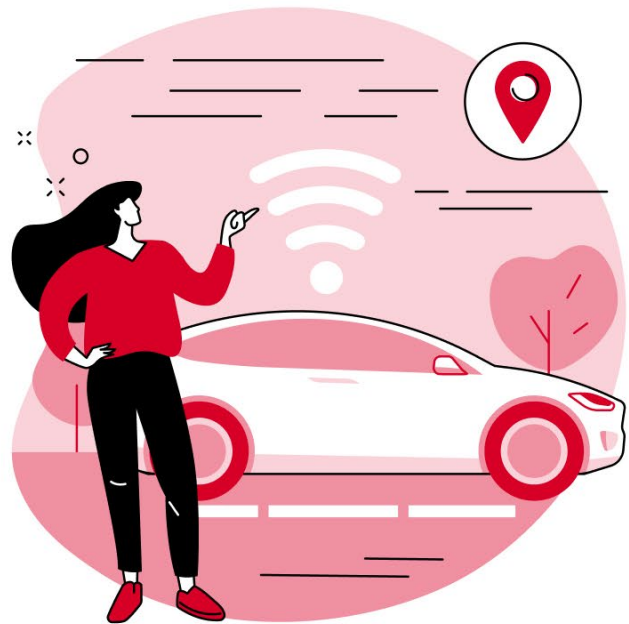
Average revenue  
per user (ARPU)



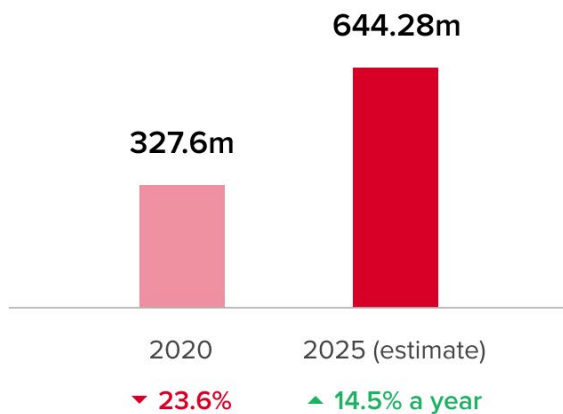
# Car-sharing



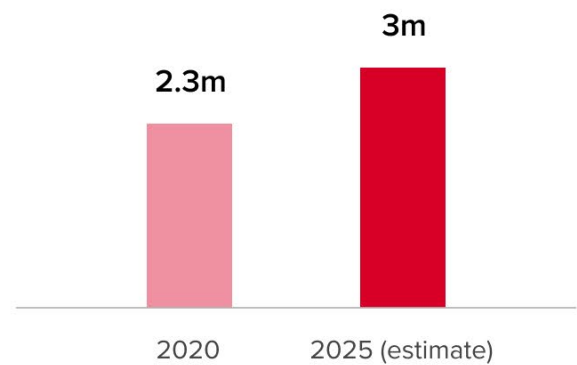
Germany



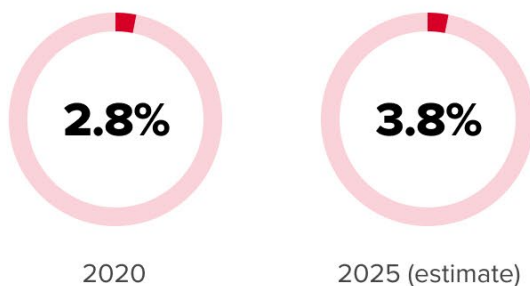
## Car-sharing market, EUR



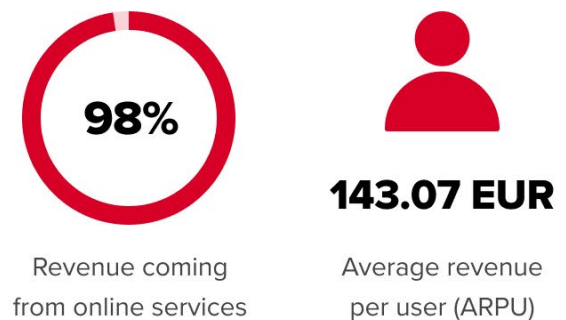
## Users



## Service penetration rate



## Revenue



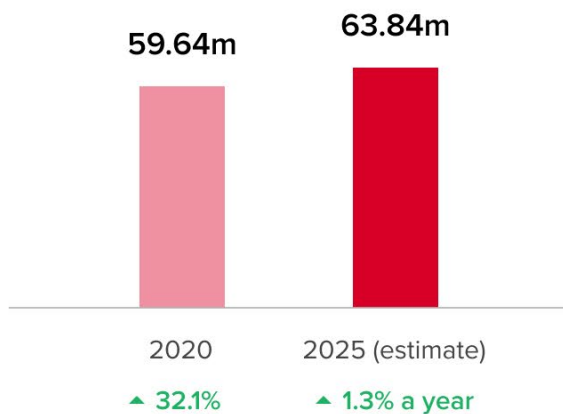
# Bike rental market



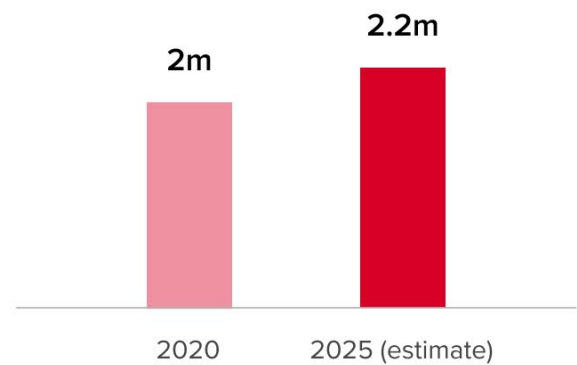
Germany



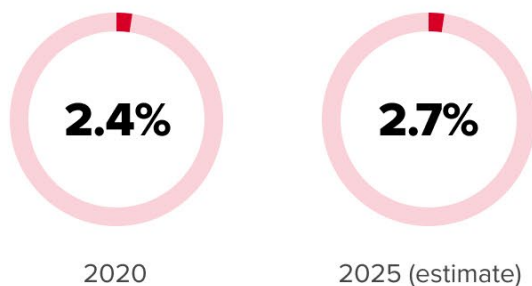
## Bike rental market, EUR



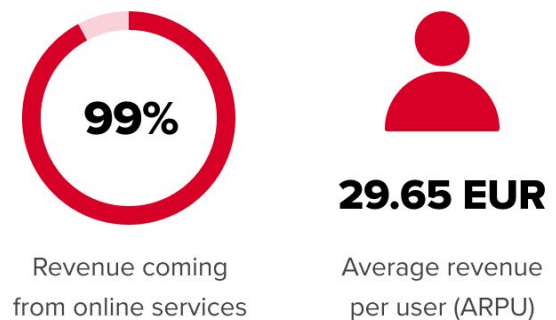
## Users



## User reach



## Revenue



## Customer behaviour

Globalfleet data suggests that, in addition to high levels of car ownership, 12% of all employed Germans also have a company car. This helps explain the low demand for car-sharing: just 3% of all Germans use it (the EU average stands at 6%.)

The pandemic and the lockdown has had some effect on German customer behaviour, but it has been limited.



It's not the only survey to suggest a rather conservative attitude towards the new mobility services. A 2019 survey by German taxi app mytaxi shows that 78% of city dwellers have never used a taxi-hailing app, car-sharing, or rental scooters, preferring their own vehicles instead. 29% don't even use the traditional taxi services.

There are also regional differences. A survey that measured the level of satisfaction with ride-sharing apps found the highest level in Berlin (80%) and the lowest in Hamburg, Düsseldorf and Cologne (64-67%). When listing the main disadvantages, the customers note the lack of different payment options and receipts in their ride-sharing app. Other common complaints include the drivers taking unfamiliar routes and overly aggressive driving (one-fifth of all passengers note that their driver violated the traffic regulations).

The conservative attitudes also extend to payments. The most popular cashless payment option in Germany is direct debit. Some car-sharing apps have already introduced this option, in addition to payment cards. The most popular alternative payment methods include PayPal, ApplePay, and GooglePay.

## Car sharing and micromobility

We've already shown that German customers are rather conservative. Still, there's notable potential for growth. In 2017, car-sharing services had just 350 thousand registered users; in 2018, that number had surged to 2.46 million. As of 2020, Germany had a total of 226 car-sharing companies, their combined fleet reaching 25.4 vehicles.

The largest of these are Flinkster (4 thousand cars), SHARENOW (a merger between car2go and DriveNow; it operates several thousand vehicles), Cambio (more than 3200 cars), Greenwheels (more than 400), stadtmobil (more than 390) and UBEEQO.

A notable mention is Sixt, a German car rental company. It was founded all the way back in 1912, which almost makes it a living fossil in the age of startups. Still, it has kept up with the times; in addition to its car rental business, it has launched Sixt Share, its car-sharing app and service.

There's also P2P car-sharing, which is more of a niche market in smaller towns and rural localities. It includes companies like SnappCar, Typo, and Getaway, with Drivy being the market leader.

Rental scooters are a new sight in German cities: they only became street legal in June 2019, so the scooter rental market is still in its infancy. Within the first months, however, more than 5 thousand rental scooters appeared in Berlin.

On the other hand, bicycle rental is well-established. Bike rental spots or Fahrradmietstationen are available in the major railway stations and are opened 24/7. They work much like car-sharing: the users register online, deposit an initial payment, and pay as they go. The most popular bike rental apps are Nextbike, CallaBike, and Metropolradruhr.



## Tips for businesses to expand into Germany

The main problem facing car-sharing companies in the German market is the fact that it already has well-established and successful taxi services. Even before the arrival of Uber, they were offering licenced taxi rides on their apps as well as the traditional service with call centres which still remain popular.

**Surprising the German customers is not easy, but the shared mobility services are increasingly popular. Their success is based on several factors: they offer additional services, they are easy to use, and they keep the prices low.**

The environmental regulations are an increasingly topical issue across the EU; this also includes Germany. Hybrid, natural gas, and electric vehicles will become increasingly popular in the next few years. The German government is working on – or, on several occasions, has already implemented – a system of subsidies, tax cuts, and other green energy incentives for businesses.

This means that green vehicles will be more than just a marketing move to grow customer loyalty. They will also be more profitable, the high EV prices notwithstanding. Moreover, electric vehicles are becoming more affordable year by year, even without the subsidies.

It is also worth noting that more than 65% of all Germans live in rural communities or in towns with less than 100 thousand inhabitants. The low population density means that regular bus services are often unprofitable and many routes are closed. They are replaced with shared buses or minivans the passengers can request from an app, and this segment of the shared mobility market has good potential for growth.



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# United Kingdom

The United Kingdom may be a conservative country, yet it successfully combines its deep-rooted traditions with innovative solutions and the latest in mobility technology. For example, the UK had a long-standing ban on riding electric scooters, hoverboards, and Segways in city parks and streets.



**66.9m**

Population of United Kingdom



**96%**

Internet penetration rate



**76%**

Online banking  
penetration rate

Still, as the technology became more widespread, it was partially lifted in summer of 2020. The iconic London black cabs can be hailed on the street or ordered by phone, and they can also be hired through an app. Car-sharing has been around for 20 years, provided by a wide network of car clubs throughout the country. Being an island, Great Britain is well-suited for implementing large-scale MaaS solutions. A single app can provide all the transportation you need to get from one corner of the country to the other – or even across the Channel.

The British taxi market consists of two parts: licenced taxis and private hire vehicles or PHV. The licenced taxis – these include the black cabs – have a meter and a set rate, accept payment cards, are adapted for disabled use, can be hailed on the street, and can use bus lanes. Private hire vehicles, as the name suggests, are privately owned vehicles available for hire.

They don't have a meter and can only be hired through an app or a call centre. The most popular licenced taxi companies are TaxiappUK, Gett, Addison Lee, and London Lady Chauffeurs, which offers taxis with female drivers. There are more than 15800 ride-sharing companies in the UK working with PHV drivers. The largest of these are Uber, FreeNow, Hopp, and Ola.

**A total of 291.3 thousand taxis were registered in England and Wales in 2019; 76% of these were PHVs**

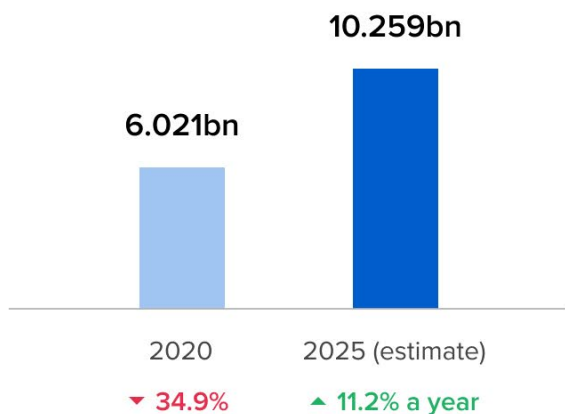
# Taxi and ride-sharing aggregator



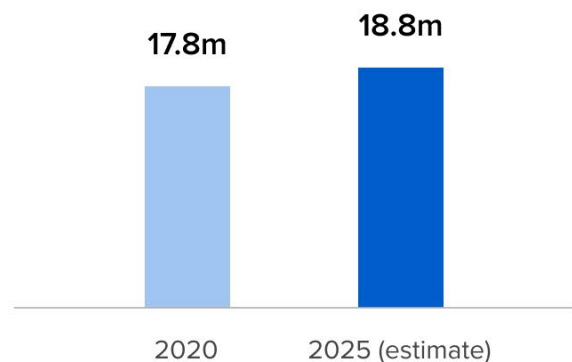
United Kingdom



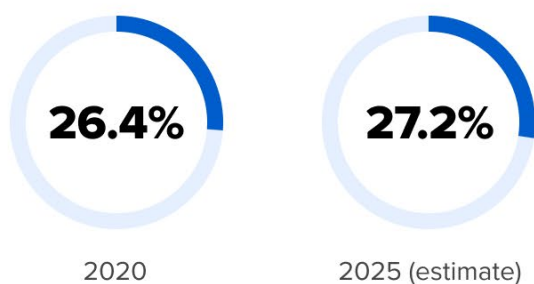
## Taxi and ride-sharing aggregator market, EUR



## Users



## Service penetration rate



**338.27 EUR**

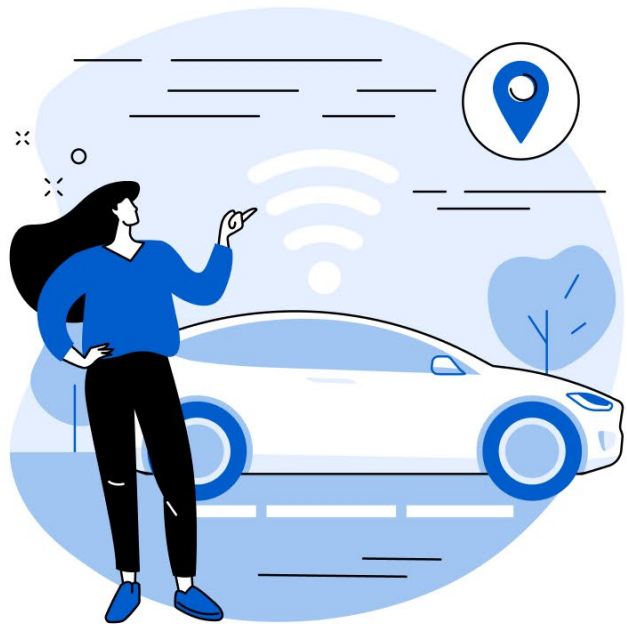
Average revenue per user (ARPU)



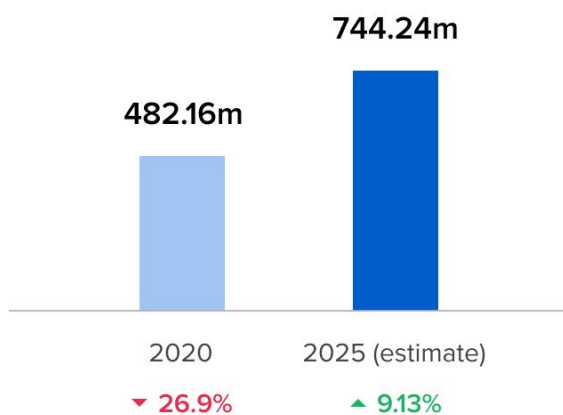
# Car-sharing



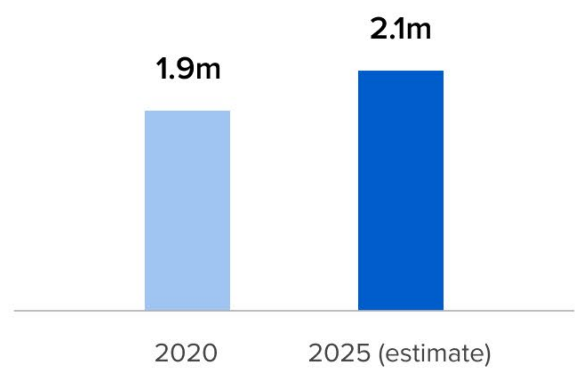
**United Kingdom**



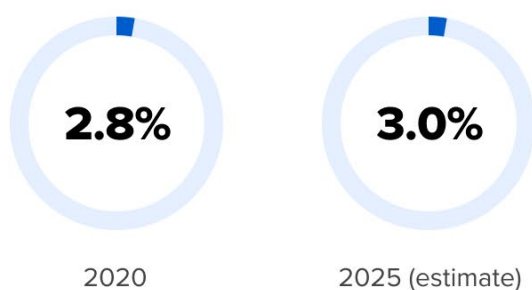
## Car-sharing market, EUR



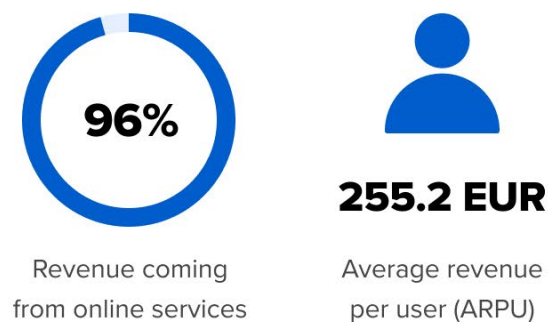
## Users



## Service penetration rate



## Revenue



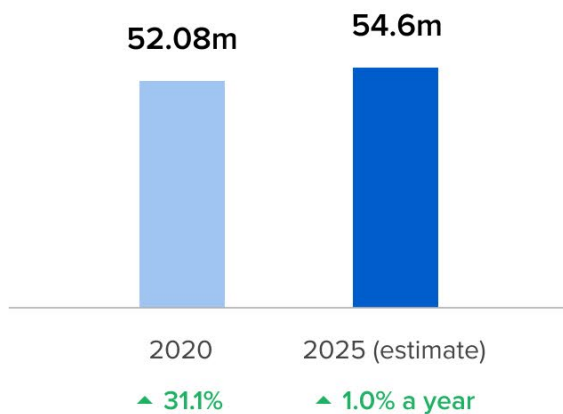
# Bike rental market



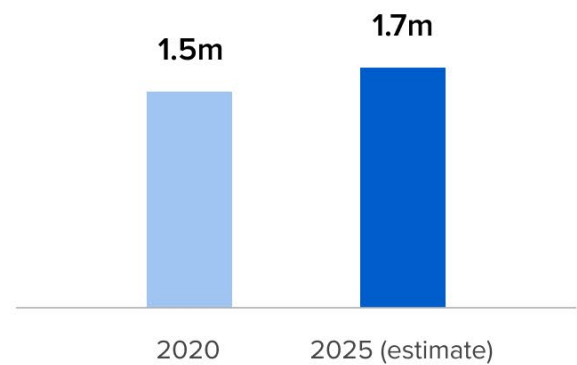
United Kingdom



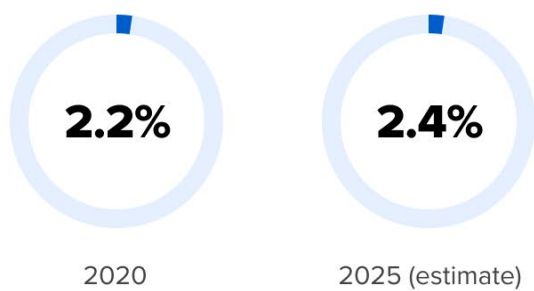
## Bike rental market, EUR



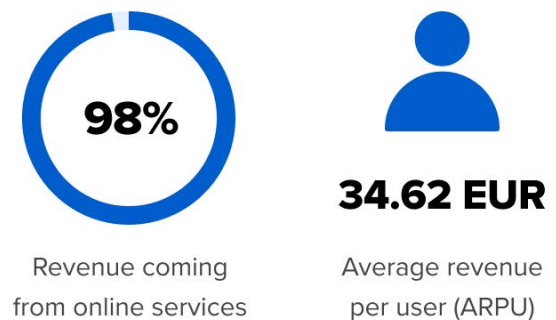
## Users



## User reach



## Revenue

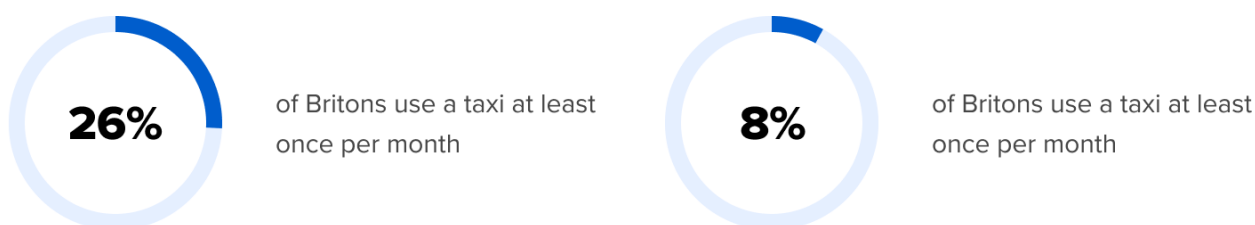


## Customer behaviour

Brits believe a private car is a necessity which provides a notable level of freedom. The cost of car ownership averages at EUR 540 a month or about 15% of the household budget. This is more than food costs, municipal taxes, and mortgage payments.

A 2019 statistical release by UK Department for Transportation shows that Brits take about 10 taxi rides a year, mostly when going to parties (47%). 14% note they take a taxi for personal errands, and 12% use it to go shopping. 60% of Brits claim they only use a taxi two times a year or less.

There are some heavy users, though.



The same release also notes that women use taxis more often than men; women over 70 use taxis twice as often as men the same age. People with lower income use taxis more often (14 rides per year), albeit for a shorter distance. In total, 40% of all rides are between 3 and 8 km. The average duration of a taxi ride in London is about 20 minutes.

Customer satisfaction has been declining slowly over the years and now stands at about 66%. 70% note they are satisfied with the safety and availability, and this number is growing. 52% note they are not satisfied with the costs, and this number is up as well.

As to payments, the UK already had a strong cashless sector, and that has only increased during the pandemic. 73,2% use online banking, 67,5% prefer payment cards to cash, 19,8% are active users of mobile payments. APMs have a strong presence among young British customers: 89% of them use PayPal, and 31% use ApplePay and GooglePay.

## Car-sharing and micromobility

The first British car-sharing company was Car City Club, which appeared all the way back in 2000 (almost simultaneously with its US counterpart ZipCar). The market has now grown to about 10 large car clubs with 350 thousand users and more than 5 thousand cars.

Half of the companies are based in London. The largest among them are Co-wheels, DriveNow (also operating under the Share Now brand), Enterprise Car Club, Zipcar, the van rental company Hertz 24/7, and E-Car Club which offers electric vehicles in 23 cities across the UK. Moreover, the UK also has P2P car-sharing platforms, such as Hiya, Drivy, and Tura. They offer more than 50 thousand privately owned vehicles for short-term rent.

After the ban on electric scooters was lifted in August 2020, dozens of scooter rental companies rushed to the market: Bird, Bolt, Dott, Ginger, Helbiz, Lime, Link, Spin, Tier, Voi, Wind, and Zipp, to name just a few. There's also an advocacy group called CoMoUK that is promoting shared transportation; it may help these businesses enter the British market.

More than 14 companies in London and other cities offer rental bikes. The largest companies include Mobike, Nextbike, App-Bike, and Lime which offers electric bikes. It is also worth noting that Transport for London runs its own rental bike scheme, known as Santander Cycles.

**The UK is one of the first countries to work on developing and implementing a common standard for micromobility data. It will allow different companies to share the data they collect using an open API. This will integrate the micromobility services in a shared ecosystem with all kinds of vehicles, including public transportation. Users will be able to manage these services from one app. For example, they can take a trip on a bus, pay for it with an app, and find the nearest scooter to cover the last mile using the same app. This will be a truly multi-modal and full-fledged MaaS service.**

It's not just a plan for the future. Businesses and non-commercial advocacy groups are working with local governments to create these standards, and the UK already has several successful examples. These include Whim in West Midlands and Maas Scotland.

## Tips for businesses to expand into the UK

As you might have noticed, the local governments have considerable authority over transportation and mobility. This means that B2G solutions are very important for any business trying to enter the UK mobility market. Here are some examples:

- adding new systems to the existing local transportation infrastructure, such as smart traffic controllers on motorways;
- developing digital platforms for some specific areas and localities;
- building the infrastructure, such as EV charging stations and scooter rental points;
- working with local governments and CoMoUK to create local mobility centres.

**Car-sharing is another area worth exploring. The pandemic has made remote work increasingly common. A growing number of Brits no longer use their car for their daily commute, but the cost of ownership remains high. This makes car-sharing an increasingly attractive option.**

There are regional differences. In larger cities, users prefer a service that allows them to pick up and leave the car at any parking spot within a set area. In smaller towns, P2P car-sharing and carpooling services are more popular. These services are poised for growth throughout the country.





# The Baltic States

- ✓ Latvia
- ✓ Lithuania
- ✓ Estonia



## The Baltic States

Lithuania, Latvia, and Estonia are often grouped together as the Baltic States. There are some good reasons for this: they all are rather small markets with similar infrastructure and logistics. On the other hand, they do have their cultural, economic, and legal differences, and they are developing in somewhat different directions.

For example, Latvia is developing the urban micromobility infrastructure. Lithuania's strong suit is sharing services. Estonia is renowned for its digital platforms and apps, which makes sense as the country is the birthplace of Bolt and Skype.

Given their small size and similar yet different conditions, the Baltic States are a unique testing ground for developing mobility services and technologies. Moreover, their intelligent transportation systems (ITS) are well-poised for growth.

In September 2020, the Baltic and Polish governments signed a memorandum on developing the 5G network and Connected and Automated Mobility (CAM), first proposed by 29 European countries in 2017.

And it's not just about signing a memorandum. The Baltic States are already laying the foundations of the future MaaS system. The Latvian city of Jelgava is building its Smart City system. It features a network of sensors which automatically evaluate the traffic and adjust the traffic lights to ensure it runs smoothly.

Latvia also has an information service called 1188 which provides detailed information about buses, trains, and ferries, such as their timetables, costs, and route maps. The Latvian authorities have already implemented some ITS solutions for public transportation, mainly in Jelgava and Riga. It's just a question of time until private ride sharing companies and other mobility services are connected to them.

Lithuania has numerous ITS systems of its own. One of them is Vintra, a ride planning system that compares public transportation with car rides and offers the best alternative. The Vintra system includes all kinds of public transportation, such as buses, trains, ferries, and planes. In 2017, the Lithuanian capital Vilnius introduced Trafi. It is an app that shows the position of nearest buses, Uber rides, shared bicycles, and scooters in real time. It also shows traffic information, including traffic jams, and weather.

In 2016, the Estonian Road Administration (ERA) developed a plan to develop the existing ITS and introduce new services. For example, Tallinn University of Technology (TalTech) has joined forces with Florida Polytechnic University to develop a self-driving shuttle called Iseauto. This is the first autonomous vehicle in Estonia.

However, at this time, none of the Baltic States has a well-developed national ITS program with a clear direction. It is a serious limitation for the mobility industry.





## Latvia

Latvians are driving fewer but newer cars than their Baltic neighbours: 380 vehicles per 1000 people. The average age reaches 13.9 years, whereas in Lithuania and Estonia it stands at 16.7 and 16.9 years, respectively. The European average is 10.8 years.



**1.85m**

Population of Latvia



**79%**

Internet penetration rate



**79%**

Online banking  
penetration rate

Public transportation is more popular in Latvia than in Lithuania and Estonia. Urban micromobility networks suffer from the lack of infrastructure and the often poor quality of roads which can be unsuitable for electric scooters. A 2019 research commissioned by Latvian State Roads suggests that just 4% of all Latvians use a bicycle for their daily commute. Still, the situation is changing as the largest Latvian cities are now repairing their roads and building the necessary infrastructure such as bike lanes, charging stations, and bike parking.

According to Latvian public broadcaster LSM, in 2020, Latvia had about 600 taxi and transportation companies; it also counted 7300 licenced taxi drivers.

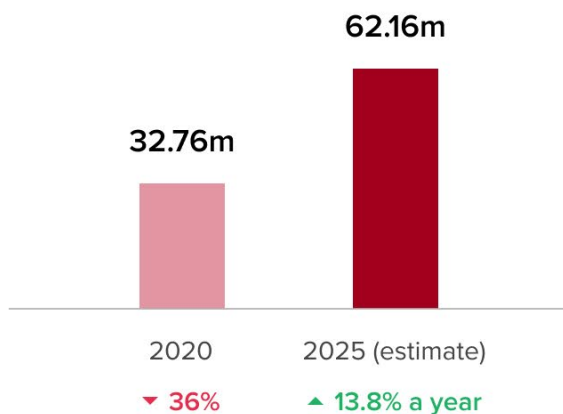
# Taxi and ride-sharing aggregator



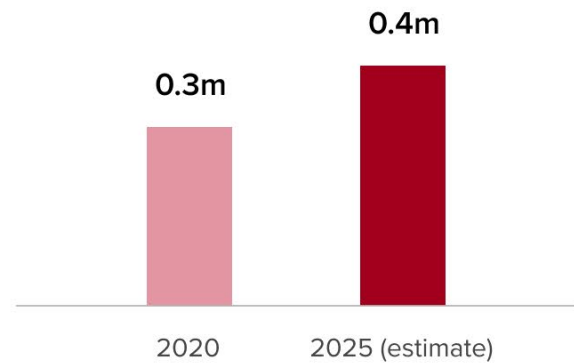
Latvia



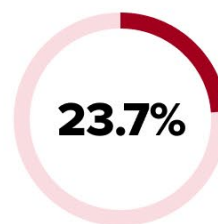
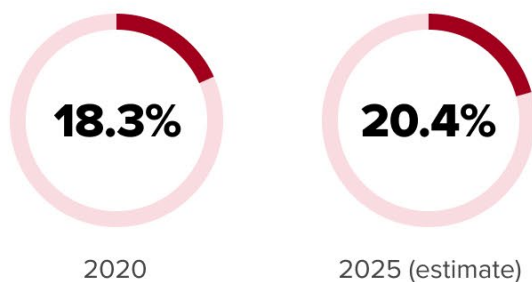
## Taxi and ride-sharing aggregator market, EUR



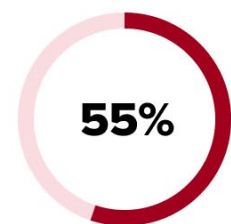
## Users



## Service penetration rate



Users aged 25-34  
(young users)



Revenue coming from  
online services



**94.28 EUR**

Average revenue  
per user (ARPU)



# Bike rental market



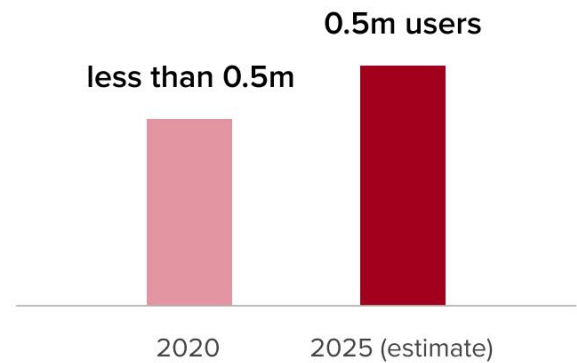
Latvia



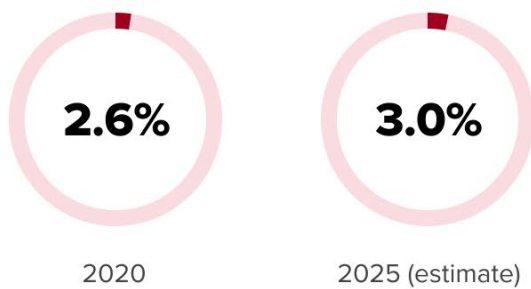
## Bike rental market, EUR



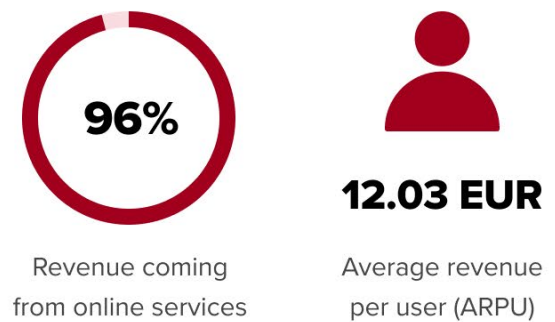
## Users

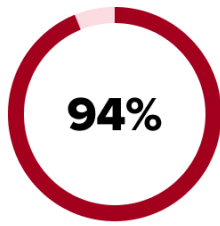


## User reach

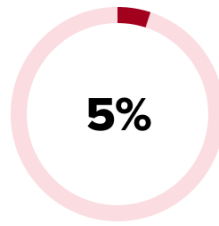


## Revenue

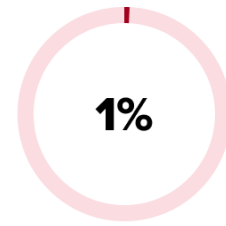




of Riga's taxi companies have  
one to ten cars



have 11 to 50 cars



have more than 50 cars

The average salary of a taxi driver reaches EUR 450-950 a month, and the average fare stands at EUR 0.4-0.7 per kilometre.

In 2019, Latvia adopted new regulations that differentiate between taxis and private hire vehicles. Taxis have yellow licence plates bearing letters TQ or TX (or EX for electric vehicles). They also must have a meter, an identifying roof sign, and they can use the bus lanes. The taxi licence is only valid in a single city or town.

Private hire vehicles include cars working with ride sharing apps such as Bolt, Yandex, Freetaxi, and ClickTaxi; Uber is currently unavailable in Latvia. They have regular licence plates, and they can only be hailed and paid using an app; taxis also accept cash payments. The licence for self-employed drivers costs about EUR 60, does not expire, and can be used throughout the country.

**The largest car sharing aggregator in the Baltics is Sixt (operating as SIA Transporent). The total amount of rental cars in the Baltics is more than 6300 vehicles. The total turnover reaches EUR 30m, of which EUR 3.2m is in Latvia.**



# Lithuania

Lithuania has seen a rise in car ownership in recent years, and it now reaches 480 cars per 1000 people, almost the same as Estonia. It remains costly, though: on average, Lithuanians spend 15% of their income on their cars every month. The figure is somewhat lower in Latvia and Estonia: 11%. The EU average is 10%.

The Lithuanian taxi market is the most liberal in the entire region. The largest companies are Uber, Bolt, Smart Taxi, eTaxi, and Taxi.lt. New regulations mean that ride-sharing companies without a taxi licence cannot use “taxi” as part of their name. The passing of the regulations coincided with the re-branding of Taxify and Yandex.Taxi, now known as Bolt and YandexGo, respectively.



**2.63m**

Population of Lithuania



**76%**

Internet penetration rate



**76%**

Online banking  
penetration rate

As of January 2020, the private hire vehicles must have a special sign on their front and rear windshields. Other than that, the market is quite relaxed: they can accept cash payments without a cash register. A receipt is only provided upon request within an hour. The private hire licence does not expire, is valid throughout the country, and costs EUR 8.

Even though the licencing is simple, estimates suggest that up to 30% of all ride-sharing in Lithuania falls in the grey area. The number of self-employed drivers is growing at a steady pace, reaching more than 17700 people in 2020; it was 7300 in 2017. The average fare in Vilnius stands between EUR 0.6 to 1 per kilometre, and the average monthly salary of a taxi driver is EUR 450-1000.

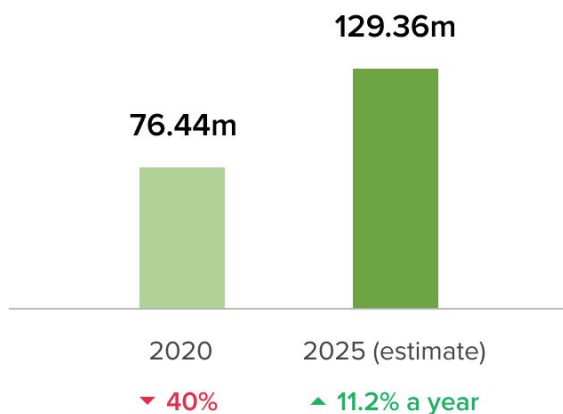
# Taxi and ride-sharing aggregator



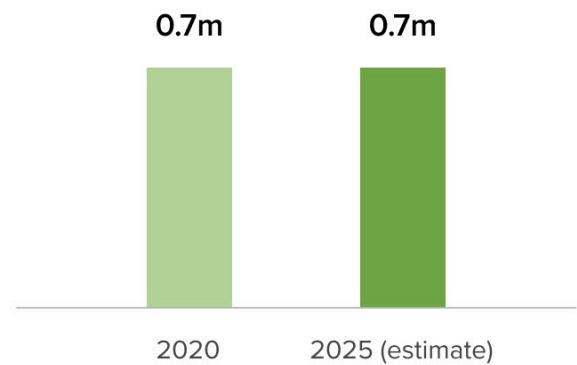
Lithuania



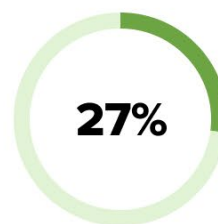
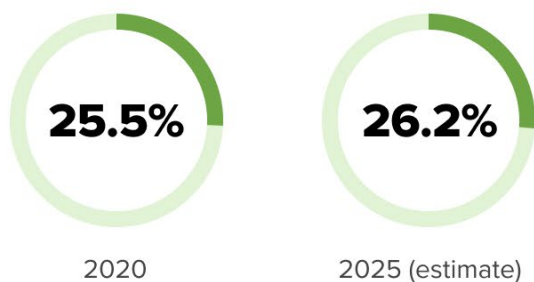
## Taxi and ride-sharing aggregator market, EUR



## Users



## Service penetration rate



Users aged 25-34  
(young users)



Revenue coming from  
online services



**104.89 EUR**

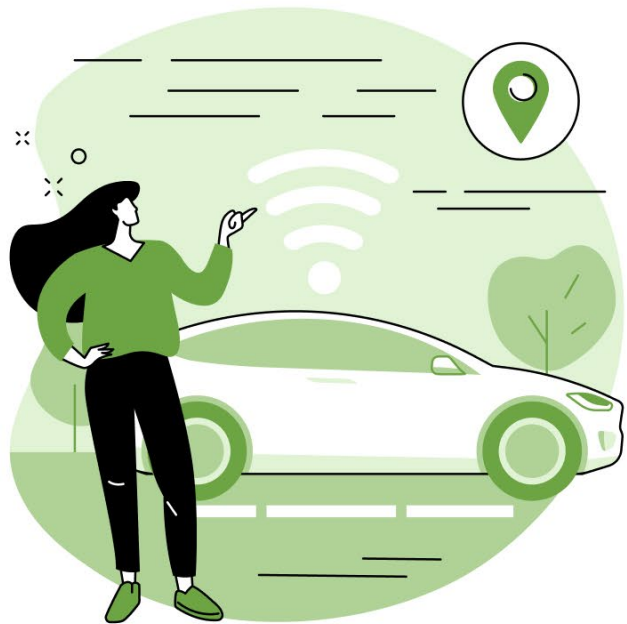
Average revenue  
per user (ARPU)



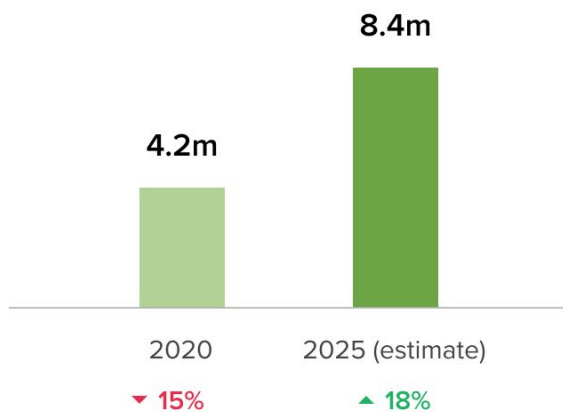
# Car-sharing



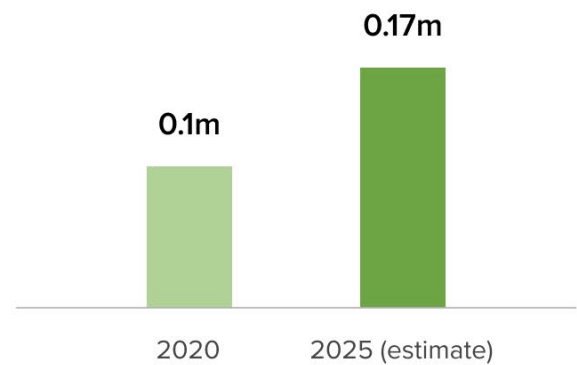
Lithuania



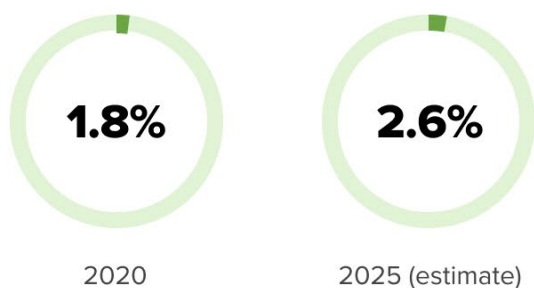
## Car-sharing market, EUR



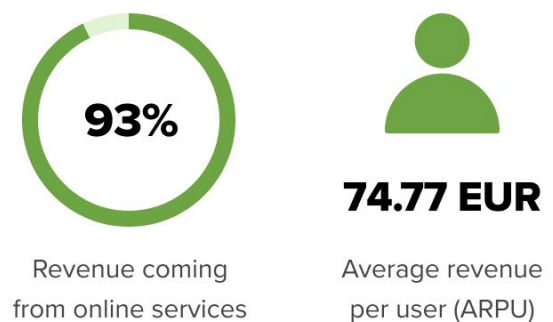
## Users



## Service penetration rate



## Revenue



# Bike rental market



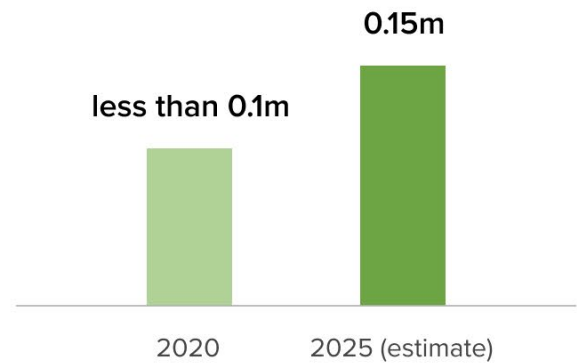
Lithuania



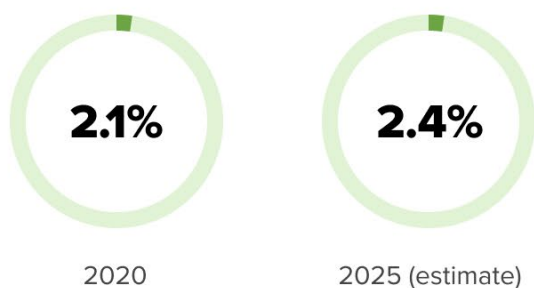
## Bike rental market, EUR



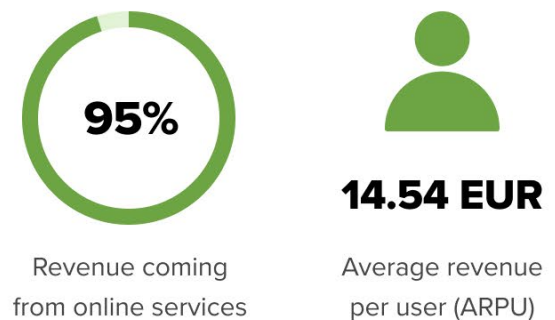
## Users



## User reach



## Revenue





# Estonia

Estonians have long been among the most enthusiastic car owners in Europe: 534 vehicles per 1000 people.

This does not mean, however, that there's no interest in shared mobility solutions. The Estonian taxi market shows rather strong division between the ride-sharing aggregators and the classic taxi companies



**1.29m**

Population of Estonia



**80%**

Internet penetration rate



**80%**

Online banking  
penetration rate

The Estonian business portal arileht.ee reports that in 2020, the market leaders were YandexGo and Bolt with a combined 50-60% market share. The local operator TaxiGo has another 15%. There are more than 10 taxi companies with call centers, such as Tulika, Tallink, and Takso24. They occupy a more upmarket segment, but they also co-operate with the ride aggregators; their market share reaches 30%.

Licencing costs for a single taxi in Estonia include a driver's licence (64 euros), service card (38 euros) and a taxi licence (20 euros). The salary of a taxi driver stands between 590-1350 EUR a month, and the average fare is about 0.8-1 EUR per kilometre.

Estonia is renowned as a tech-savvy country, so it's not surprising that ride-sharing apps are popular. 70% of young people use them; more notably, 30% of seniors aged 65-74 in Tallinn and 16% in entire Estonia also report using them. Estonian homegrown aggregator Bolt is clearly the market leader in Tallinn with 63% of all downloads.

Another growing trend is carpooling, such as GreenShift: the driver picks up passengers who cover some of the costs using an app. P2P car-sharing is popular as well: there are services tracking the private hire vehicles using GPS. They can show the location and technical condition of the car; they can also block the users if they haven't paid their fare. An interesting project is a four-wheel e-bike for urban bike-sharing.





## Tips for businesses *to expand* *into the Baltic States*

As mentioned above, the Baltic States are often seen as a single market, and it makes sense to treat them as such. A micromobility company should consider entering all three countries at the same time, keeping in mind the local differences and legal requirements. The trends are encouraging.

There is a strong demand for green transportation, there are government incentives for using electric vehicles, and their infrastructure is constantly expanding. This suggests there will be a steady growth market for products using electric scooters, e-bikes, and electric cars.

The Baltics have a good growth potential for intelligent transportation systems. There's also a large number of qualified employees and creative projects working in the shared mobility field and already familiar with the local requirements. What is lacking is funding for promising projects, including funding from local governments.

Therefore, localised investments in promising Baltic start-ups may offer a better return on investment than introducing existing products and business models, even if they work well in other European countries.



The background of the slide features a low-angle shot of several flags flying against a clear blue sky. The flags are predominantly blue with white and yellow accents, characteristic of the CIS (Commonwealth of Independent States) flag. The flags are attached to silver poles and are captured in motion, creating a sense of dynamic energy.

## CIS Countries

- ✓ Russia
- ✓ Kazakhstan
- ✓ Ukraine



# Russia

The mobility market in Russia has seen strong growth in the last few years, which is due to a number of factors. The capital cities (Moscow and Saint Petersburg) are nearing full saturation in the taxi and car-sharing field. Therefore, large companies and ride-sharing aggregators are actively expanding in other large cities and building their own multi-modal transportation systems within their own ecosystem.

Large international operators are entering the market (such as DiDi in Kazan and Bolt in St Petersburg), which means more competition. Moreover, the classic taxi call center operators are still successful in smaller cities below 500 thousand people; the share of grey market drivers remains high as well.



**146.1m**

Population of Russia



**75.4%**

Internet penetration rate



**56%**

Online banking  
penetration rate

There are several reasons why shared mobility is an appealing solution. Many Russian cities (with the exception of capital cities) have underdeveloped public transportation networks. The average cost of car ownership is quite high: EUR 468 a month, and car ownership remains low (an average of 308 cars per 1000 people).

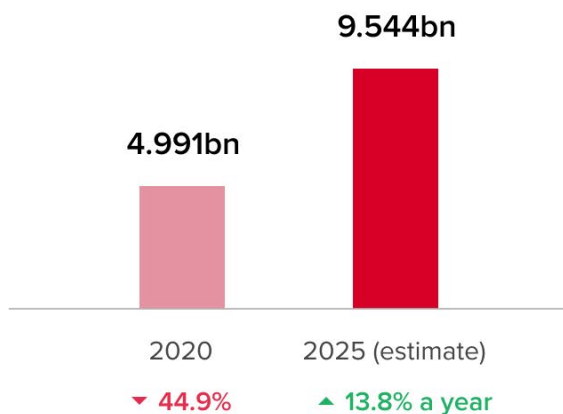
# Taxi and ride-sharing aggregator



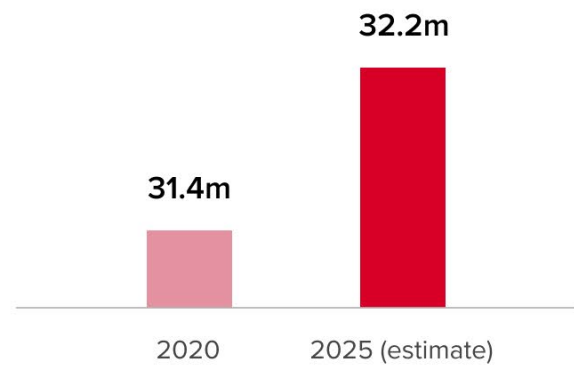
Russia



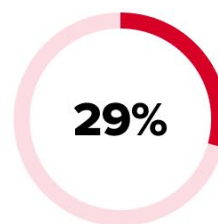
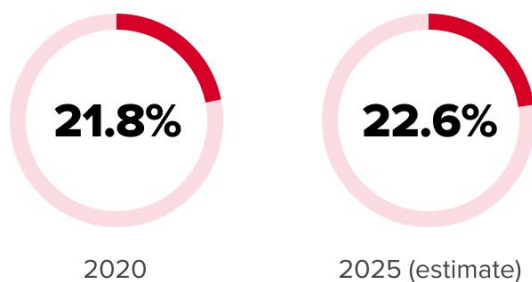
## Taxi and ride-sharing aggregator market, EUR



## Users



## Service penetration rate



Users aged 25-34  
(young users)



Revenue coming from  
online services



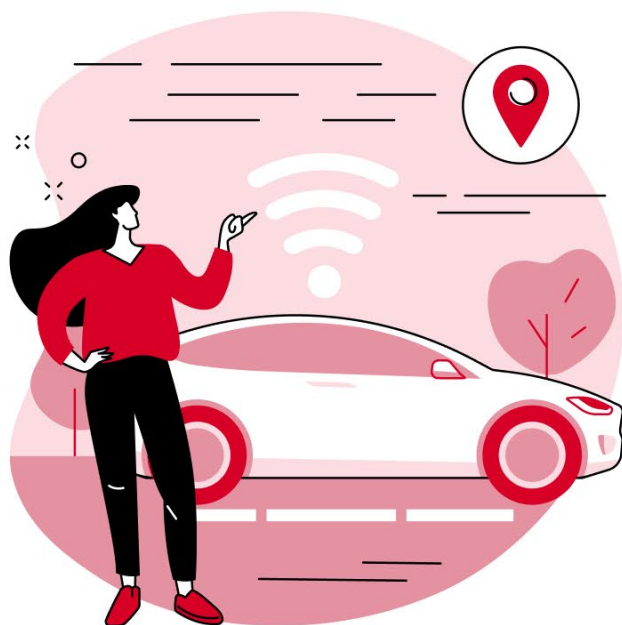
**159.18 EUR**

Average revenue  
per user (ARPU)

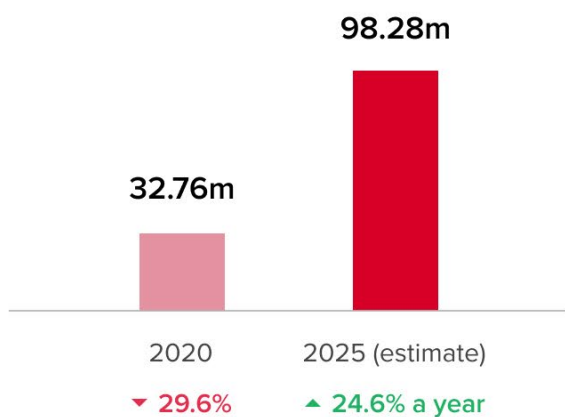
# Car-sharing



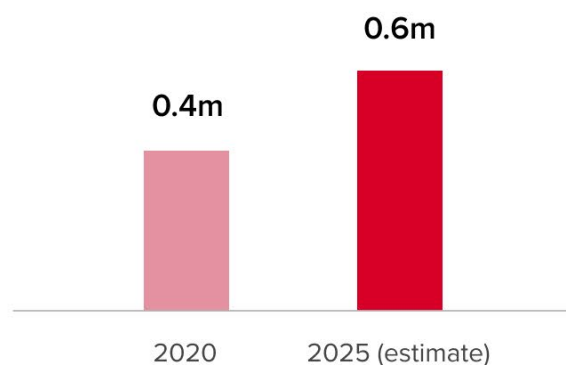
Russia



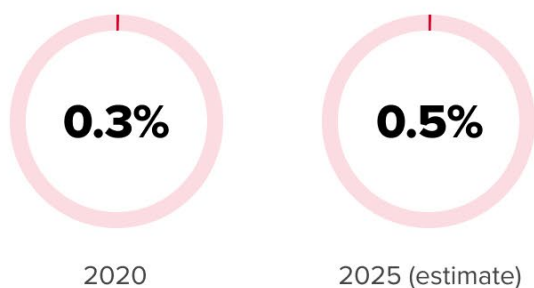
## Car-sharing market, EUR



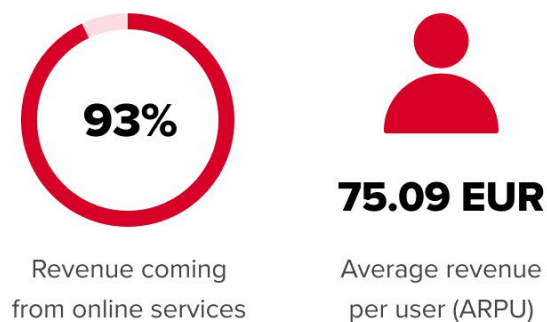
## Users



## Service penetration rate



## Revenue





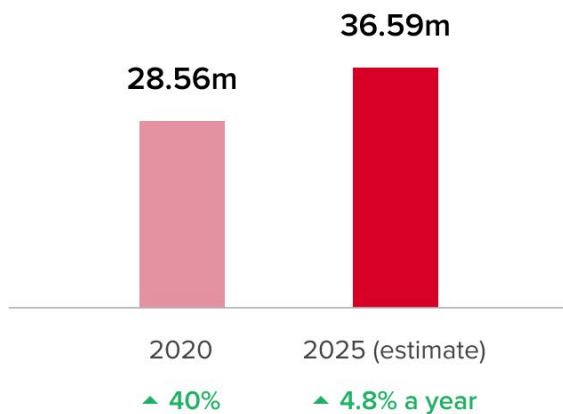
# Bike rental market



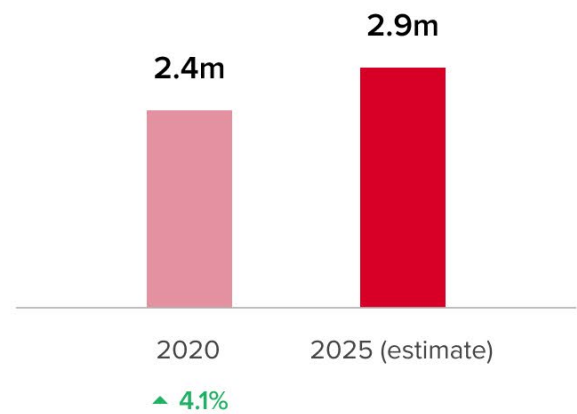
Russia



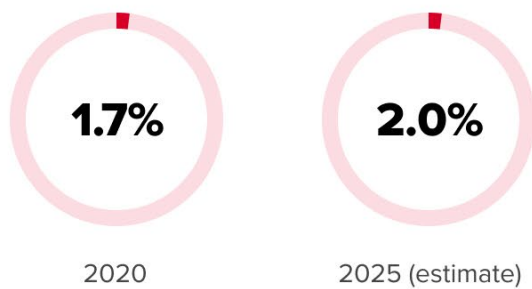
## Bike rental market, EUR



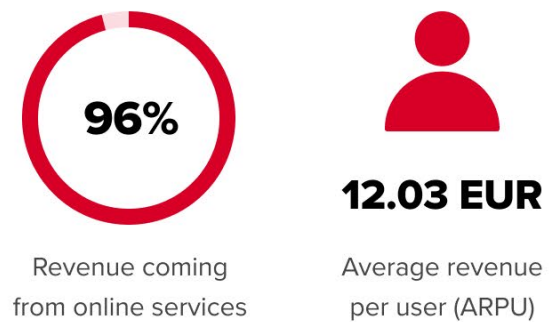
## Users



## User reach



## Revenue



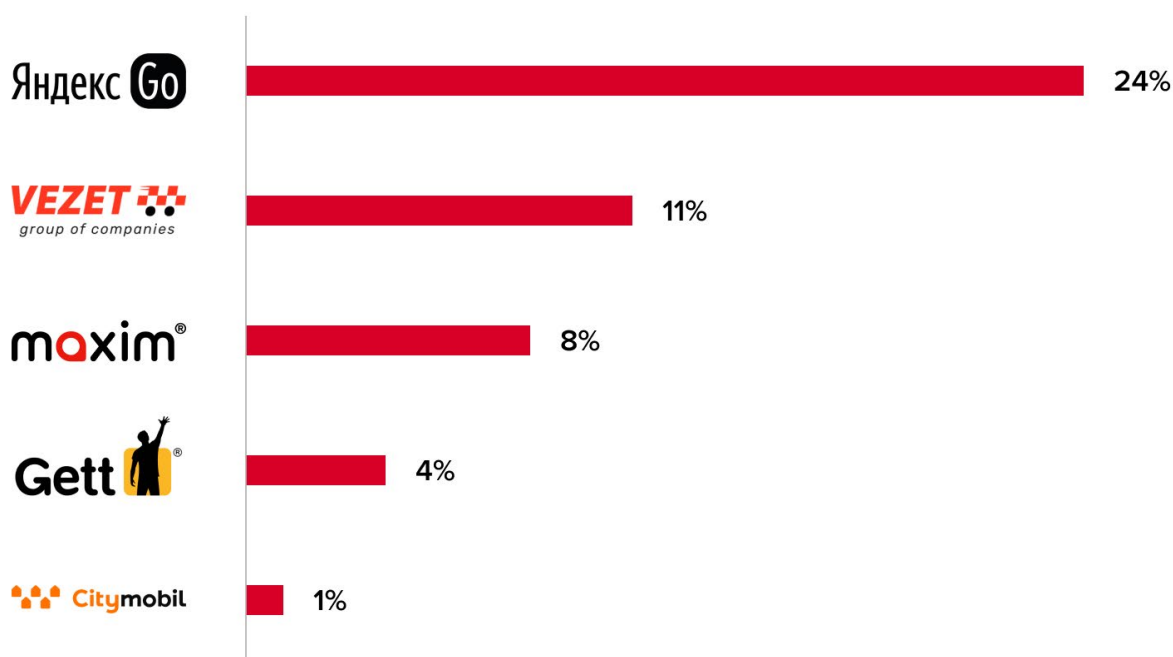


The market structure varies by city. YandexGo has a large market share in cities above 500K people. Cities between 100K and 500K people are split evenly between YandexGo, Vezet and Maksim. Cities below 100K are dominated by Vezet and Maksim.

The market lost almost half of its value due to COVID-19 pandemic and strict lockdown measures. It has, however, seen a relatively strong comeback by the end of 2020. Many companies have switched to B2B and B2G services which remain underdeveloped as well as cargo transportation and deliveries in the B2C segment.

For example, the St Petersburg company Taksovichkoff has developed its small cargo delivery service Gruzovichkoff, which boosted its turnover by 18%. The local government of Surgut got rid of its own cars, transferring its employees to a local taxi company and saving EUR 500K a year.

### 53% of taxi rides in Russia are booked through ride-sharing aggregators



## Car-sharing and micromobility

Currently Russia has 27 companies offering car-sharing services. Their total fleet reaches 39 thousand vehicles, 29 thousand of which are in Moscow. The largest operators are Yandex Drive, Delimobil, BelkaCar, YouDrive.

The pandemic-related social distancing can have an impact on customer behaviour in the future. Car-sharing may become more preferable than public transportation or taxi. It may, however, be less preferable than a private car; the interest in car ownership has been growing.

According to a Bank of Russia estimate, the ratio of people per shared car may increase in the next few years, reaching the levels of Toronto (498 people per shared car), Madrid (500) and New York (525). It is also estimated that, in seven years' time, 10% of all new cars in Russia (about 200K vehicles) will be purchased for use in car-sharing.

Bike and scooter rental, besides Moscow and St Petersburg, is also popular in southern cities, such as Krasnodar, Stavropol, Rostov, and Sochi. Each of them has 18 to 25 rental services, and up to 49% of people use bikes to commute to work.

**Russia has about 30 scooter rental companies with the total of 35 thousand vehicles. Moscow has seen a 42% growth in scooter and bike rental in June-September 2020, following the lockdown.**

Within the next two years, Kazan plans to expand its bike and scooter rental network to 1.6 thousand locations, together with a corresponding infrastructure development. The single largest problem facing micromobility companies, in addition to the lack of bike paths and parking, is vandalism and theft. Losses in all Russia exceed EUR 1.65m per year.

## Tips for businesses to expand into Russia

Internet penetration rate is growing in Russia. This makes digital services and taxi apps for smaller towns an increasingly attractive business. Another area of growth is apps for booking buses and minivans, which already are popular in Germany. The federal government is also working on developing and promoting the smart city concept across Russia. This opens a growth opportunity for digital mobility and intelligent transportation systems.



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- ✓ Mass payouts

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# Kazakhstan

Modern taxi services are relative newcomers in Kazakhstan. Services such as Uber, Indriver, and Yandex.Taxi entered the country in 2016, followed by Bolt. Still, they've seen rapid growth.

Kazakhstan enjoys a high Internet penetration rate (higher than in the US), and the ride-sharing aggregators offered extremely low prices. As a result, it took them just one year to gain the second place right after public transportation. Taxis now account for a 23.9% share in Kazakh passenger transportation market; at the same time, the number of classic taxi companies has declined by 18%.



**19.12m**

Population of Kazakhstan



**88%**

Internet penetration rate



**26%**

Online banking  
penetration rate

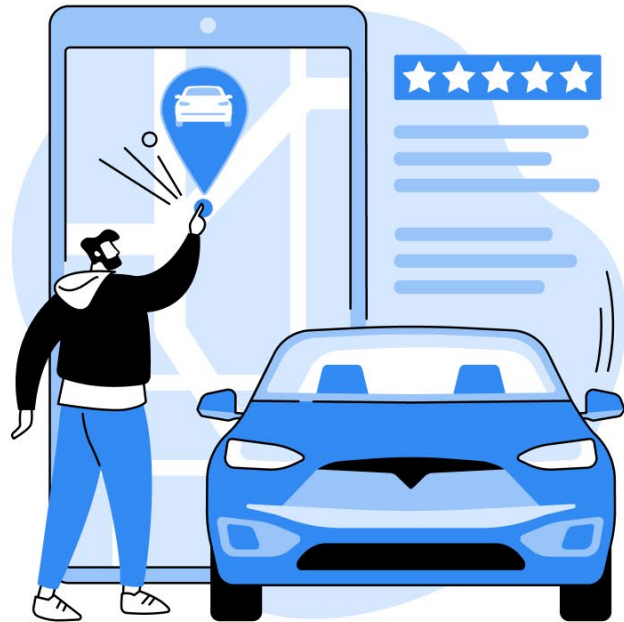
The biggest markets for taxi services are Almaty, the largest city in Kazakhstan which sees about 40-60 thousand taxi rides per day, and Nur-Sultan (formerly Astan), the capital of Kazakhstan. In 2015, a taxi driver in Almaty completed 15 rides per shift on average; the number now stands at 30. Pay-time – the time paid from the moment the client orders a taxi – has grown from 60% to 80%.



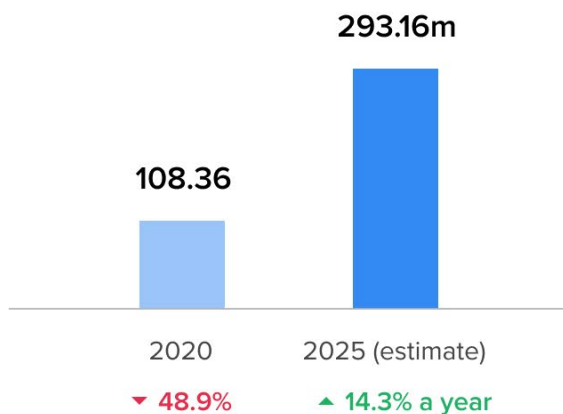
# Taxi and ride-sharing aggregator



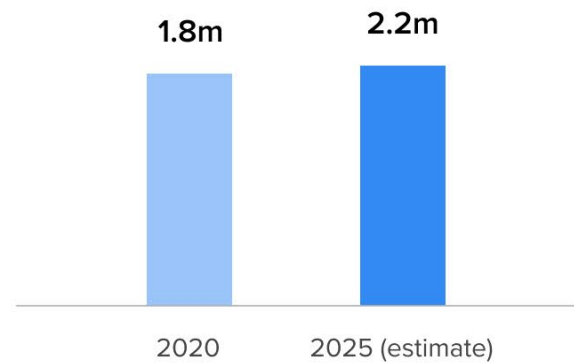
Kazakhstan



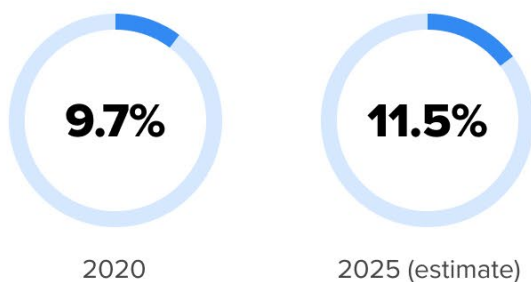
## Taxi and ride-sharing aggregator market, EUR



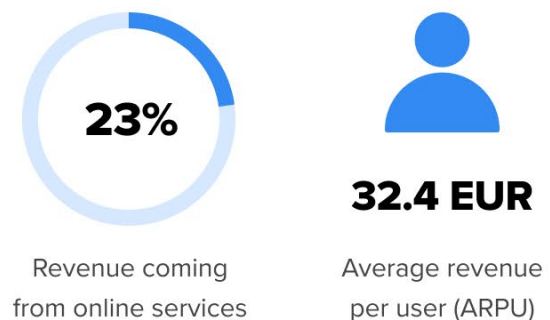
## Users



## Service penetration rate



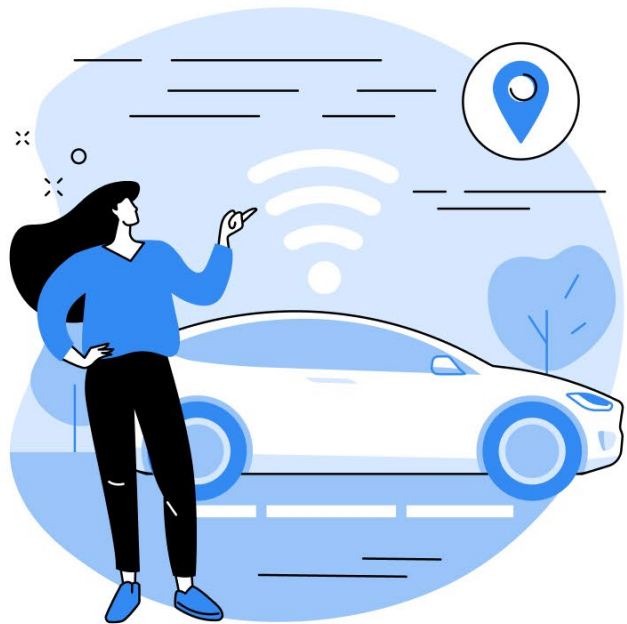
## Revenue



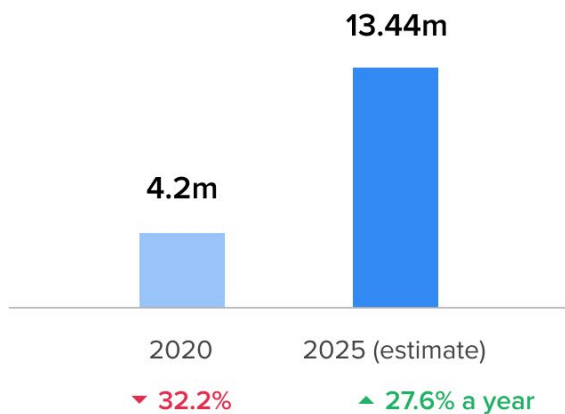
# Car-sharing



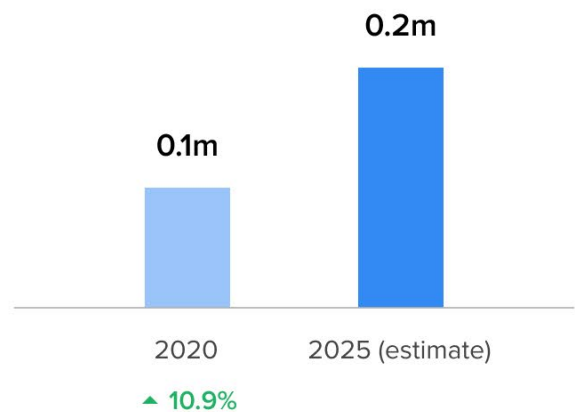
Kazakhstan



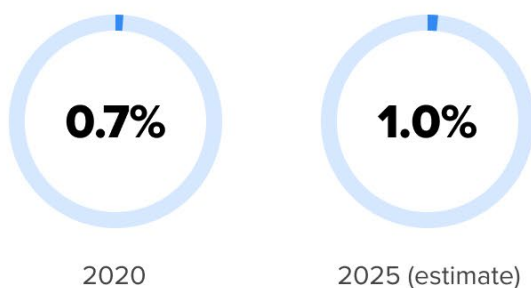
## Car-sharing market, EUR



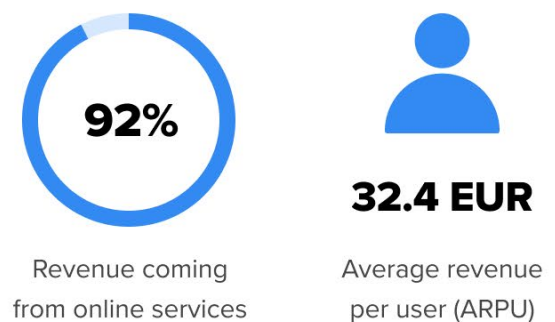
## Users



## Service penetration rate



## Revenue



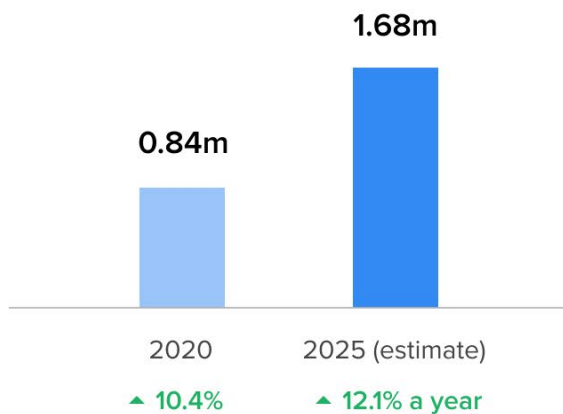
# Bike rental market



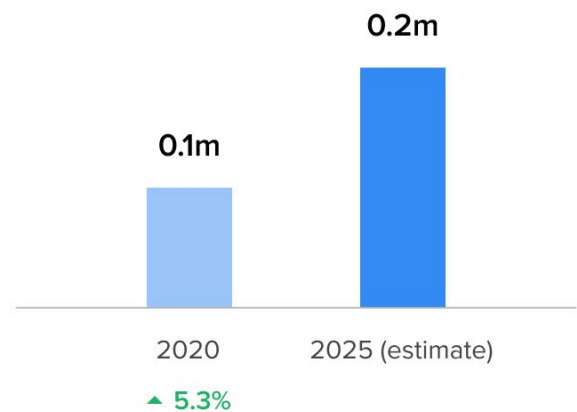
**Kazakhstan**



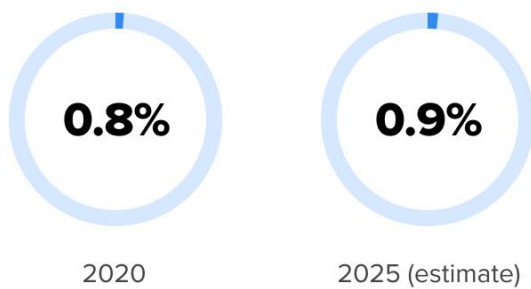
## Bike rental market, EUR



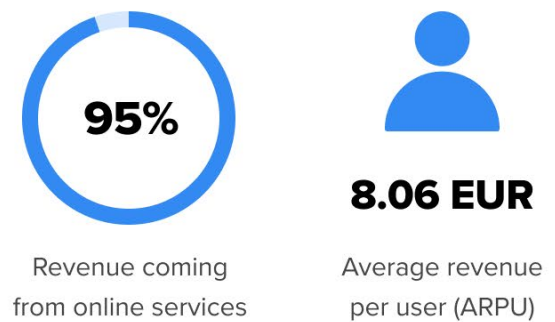
## Users



## User reach



## Revenue



## Customer behaviour

Taxis are still a relatively novel service, and customer behaviour is still developing. This means that costs remain the main issue, whereas safety may not be as important. A large number of the private hire vehicles are aging Russian Ladas or Uzbek-made Daewoo Nexias.

Kazakh customers tend to prefer more comfortable vehicles operated by Uber and Yandex.Taxi for shorter trips. When travelling longer distances, they choose cheaper services, such as InDriver. They offer a different pricing model: the customer marks the sum they are willing to pay, and the driver chooses whether to accept it. About 55% of all taxi rides are booked using mobile apps.

A large share of car-sharing users are business people who need to get around the city. Another large category is young families who must share one car between both. The third large group is foreigners on business trips or working in Kazakh companies.

**According to 2018 data collected by Velocity.kz, micromobility services are popular among car owners who need to cover short distances in the city centre. Bike sharing and scooter rental users in Almaty are aged 20-50, and 60% of them are men. 80% of all bikes and scooters are rented by locals during the evening rush-hours to avoid the crowds in public transportation. 20% of all clients are foreigners.**

A recent trend is the growing popularity of companies focusing on transporting children to kindergartens and schools. There are about a dozen of similar companies in Almaty and Nur-Sultan, such as Baby Taxi, Kinder Taxi, School Bus, Safe Baby Taxi etc.

## Car sharing and micromobility

The first car-sharing operator Anytime (part of Mikro Kapital Group) entered the Kazakh market in 2018. A year later, more than 250 shared cars were available in Almaty, and the number of their clients reached 55 thousand.

The growth of car-sharing and micromobility services depends on the city local governments. They offer free parking to car-sharing services and develops the biking infrastructure. For example, in 2019 the mayors of the largest cities in Kazakhstan helped develop the national micromobility development programme.

**Another factor influencing the growth of shared transportation is the relatively high cost of loans. Hiring a vehicle, bike, or scooter is often cheaper than getting a loan to purchase it.**

One more factor influencing the micromobility market is the local climate and geography. For example, even though Almaty has more than 2m people, it has less rental bikes than Nur-Sultan which has slightly more than 1 million people.

Almaty is located at the foothills, while Nur-Sultan lies at a flatland. Most of the rental bikes in Almaty tend to be left in the lower part of the city in the evening, and the bike sharing companies must pick them up and move uphill every day. Meanwhile, electric scooters tend to overheat when moving uphill, especially in summer, which leads to breakages. It should be noted, though, that these are not unique problems; all cities in a hilly area tend to have them.

## **Tips for businesses to expand into Kazakhstan**

Kazakhstan is currently undergoing the entire evolution of micromobility services at a much faster pace. This makes it easy to predict the next moves. To understand what will be popular in a few years' time, you only have to look at the development of micromobility in Europe and Asia. Then, you can adapt the strategies and products popular elsewhere.

It should be kept in mind that Kazakhstan is a huge country: more than 2.72m sq km. This makes it 6.3 times larger than Germany. The distances between towns and cities are large. Moreover, much like in other countries around the world, Kazakhstan is cutting down on unprofitable inter-city bus routes. This means that there is a good growth potential for services such as P2P car-sharing and joint ride platforms.





# Ukraine

Ukraine is a unique market for mobility with a huge growth potential, even though – or because – it suffers from contradictions and uneven development across the board. There are Ukrainian companies working on unique solutions that cannot yet find a use in the country. On the other hand, Ukrainian mobility companies are actively using and implementing technologies that are still the subject of heated debate in the European Union.



**41.88m**

Population of Ukraine



**62%**

Internet penetration rate



**33%**

Online banking  
penetration rate

For example, a Ukrainian company has developed a platform that brings together charging station owners and electric vehicle drivers. Users can book a charger, plan their route, and enjoy other bonuses.

However, Ukraine only introduced incentives and “green” licence plates for electric vehicles in 2020. As a result, the number of electric vehicles in Ukraine remains low. There is growth: sales went up by 40% in 2019, reaching 7700 units. Still, the necessary maintenance and charging infrastructure is only available in the largest Ukrainian cities.

**Ride-sharing aggregators see a strong growth. International companies such as Uber and Bolt entered the market in 2016. They saw a warm welcome from their users and, remarkably enough, taxi companies who protested against ride-sharing aggregators in the EU countries. Following their entrance, the Ukrainian lawmakers sped up their work on the legislative framework for the taxi market. Much of it, however, still remains in the grey area.**

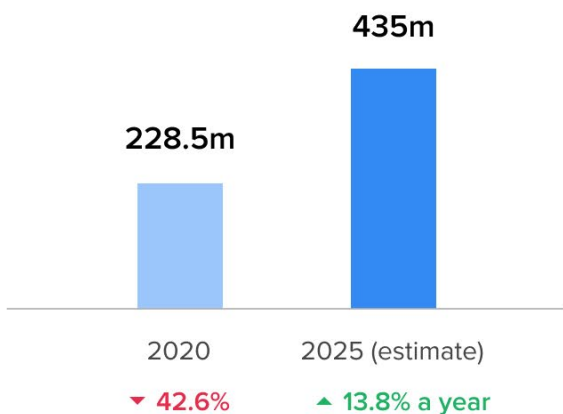
# Taxi and ride-sharing aggregator



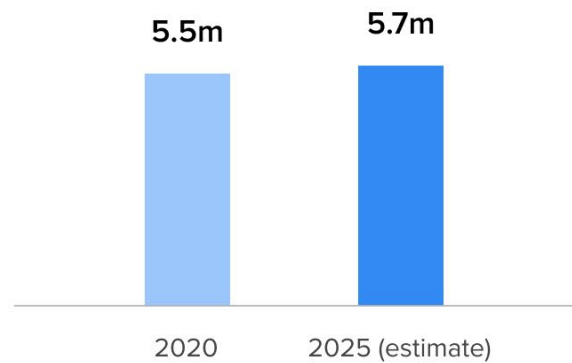
Ukraine



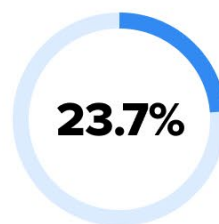
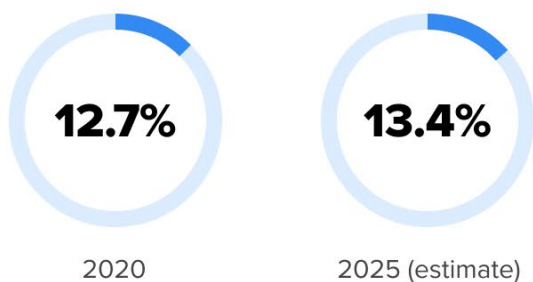
## Taxi and ride-sharing aggregator market, EUR



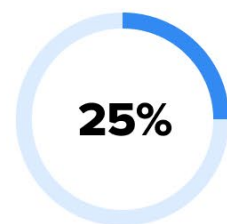
## Users



## Service penetration rate



Users aged 25-34  
(young users)



Revenue coming from  
online services



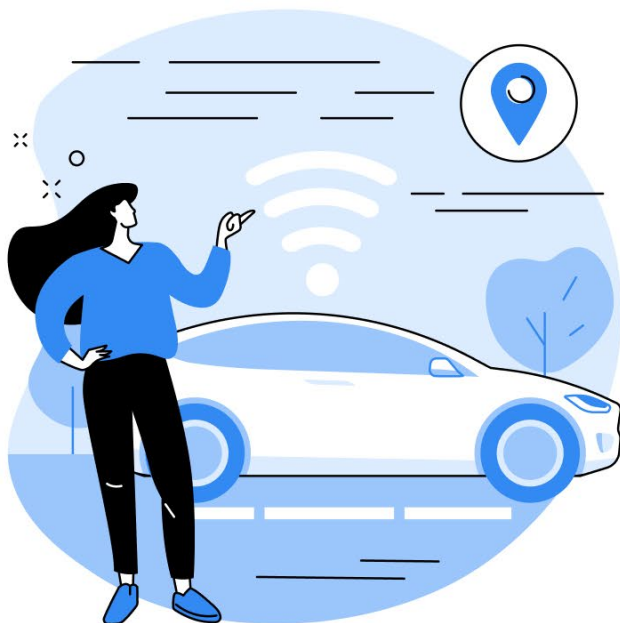
**41.36 EUR**

Average revenue  
per user (ARPU)

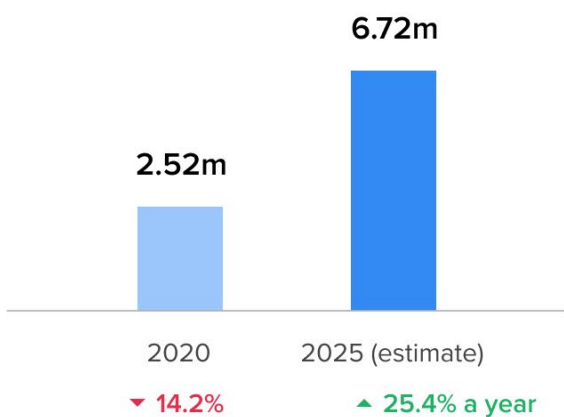
# Car-sharing



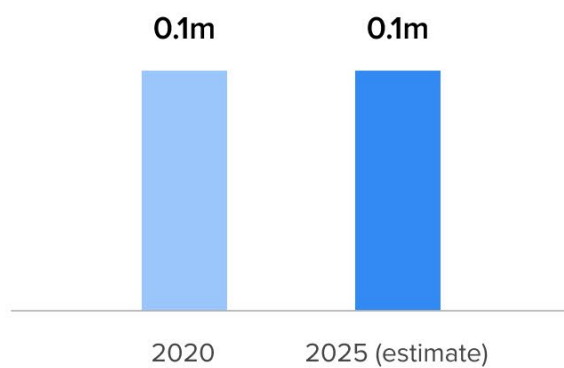
Ukraine



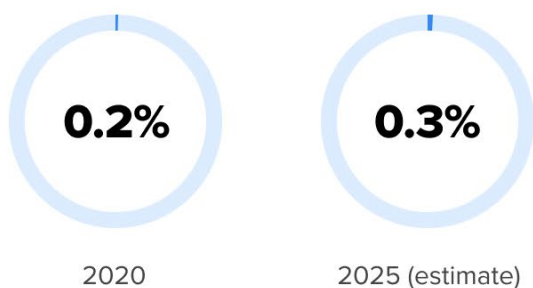
## Car-sharing market, EUR



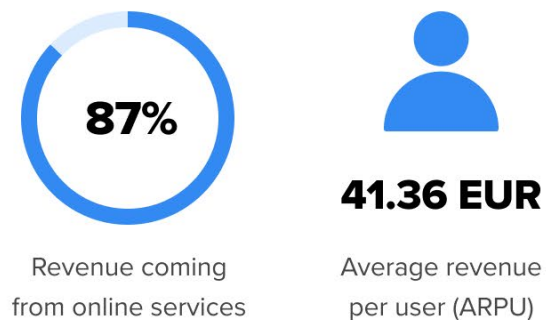
## Users



## User reach



## Revenue





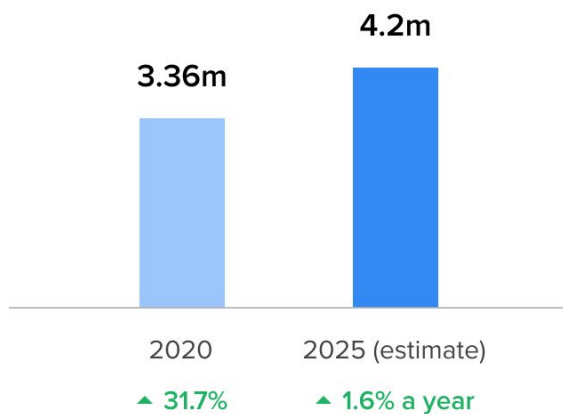
# Bike rental market



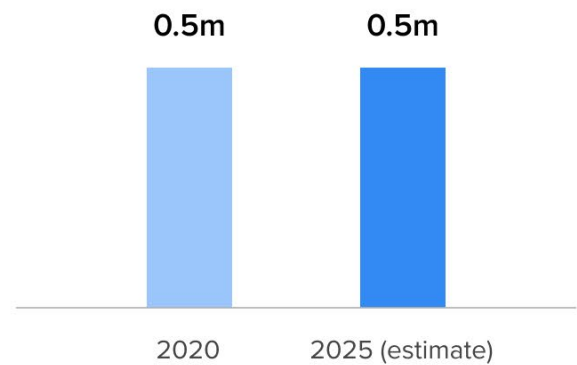
**Ukraine**



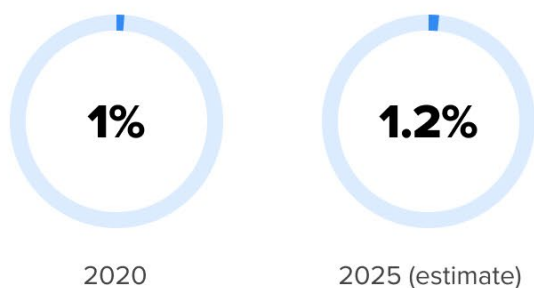
## Bike rental market, EUR



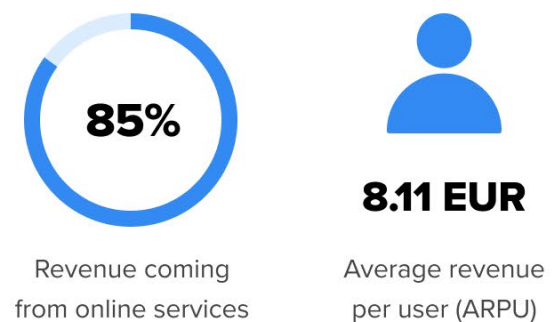
## Users



## User reach



## Revenue

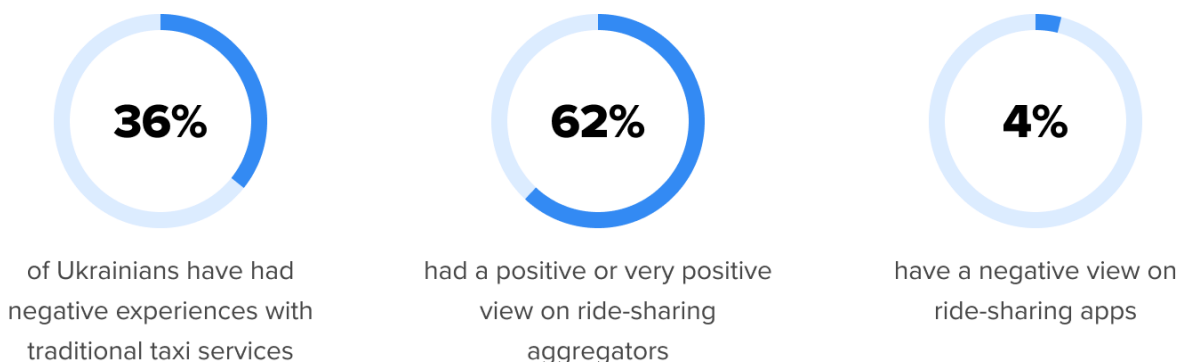




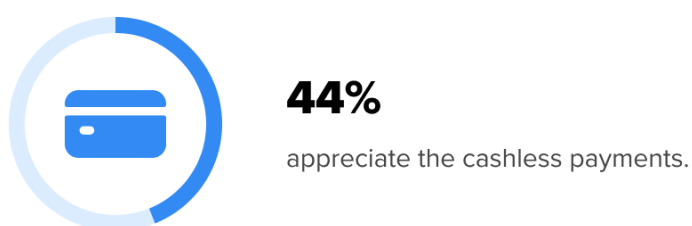
## Customer behaviour

2019 research shows that the most client-oriented taxi services in Ukraine are Uber, Uklon, Bolt, Taksi 838 and Taksi 571. The leaders in safety and quality are Elit-taksi, Ekspress-taksi, Taksi 571, Boss-taksi, and Uber. The most expensive taxi service in Kyiv is Elit-taksi, the cheapest – Taksi 594, Avangard, and Premium.

A 2020 customer survey carried out by Kyiv International Institute of Sociology shows that 36% of Ukrainians have had negative experiences with traditional taxi services. The same survey also showed that 62% had a positive or very positive view on ride-sharing aggregators. Just 4% have a negative view on ride-sharing apps. 42% note that the fares are lower, and 44% appreciate the cashless payments.



A 2017 survey by Ukrainian car sales portal auto.ria.com suggests that Ukrainians do not yet see any significant benefits in using car-sharing services. The main reason is cost: hourly car rental fees are not significantly lower than a ride with ride-sharing aggregators. 28%, however, note that they would be interested in parking-to-parking short-term rental, and 20% of city dwellers would consider car-sharing as alternative to private car ownership. Car-sharing clubs are only attractive to 5% of respondents, and 9% note they would be ready to rent out their own car.



69.4% of Ukrainians live in cities; the majority of them prefer a private car. Average monthly car ownership costs are low – about EUR 210 a month. Second-hand European cars are affordable, too. As a result, shared mobility services are in limited demand.

## **Car-sharing and micromobility**

Car-sharing services have been available since 2017. The market is dominated by two large companies. There's Mobilecar in Odessa whose entire fleet consists of Nissan Leaf electric vehicles. They also own a network of 16 charging stations and rent their vehicles as taxis for EUR 18 per day. The service only charges a time fee: EUR 6 per hour. There are no additional charges per kilometre. However, the user must put UAH 1000 (EUR 30) on their private account when making the first booking.

Germancar offers rental vehicles in Dnipro, Kyiv, Zaporizhzhia, Lviv, Kharkiv, Vinnytsia, and Odessa. It's also operating outside Ukraine in Tbilisi, Batumi, Kutaisi, Prague, and Dubai. The service charges a EUR 1.8 hourly fee and additional EUR 0.14 per kilometre. Its fleet consists of Skoda Fabia, Renault Logan, and Ravon R2. The company is currently working on its corporate car-sharing project with the projected fleet of 1000 vehicles. Germancar estimates that more than 60% of large Ukrainian companies could adopt this business model, with banks being among the first adopters.

Bike rental in Ukraine is more of a tourism service, rather than a serious mode of transportation. Public transportation can compete with bike rental even in the centre of Kyiv. The pandemic lockdown, however, has brought increased interest in bike rental. For example: when Kyiv municipal bike rental operator Bikenow (formerly Nextbike) underwent a rebranding in summer of 2020, it lowered its prices.

A 30 min rental now costs UAH 20 (EUR 0.6) instead of UAH 30. On the other hand, a public transportation ticket costs just UAH 8 (EUR 0.24). The company plans to increase the number of its rental locations to 2000. Bikenow also operates in Vinnytsia, Lviv, Odessa, Kharkiv, and Ivano-Frankivsk.

## Tips for businesses to expand into Ukraine

For the next few years, the main driver of growth in Ukrainian mobility market will be digital infrastructure solutions focusing both on end users and transportation business. A promising area of investment is digital products for navigation, route planning, carpooling, and transportation cost optimisation. This also includes consumer mobile apps and intelligent transportation systems for businesses.



# **Shared mobility market during the pandemic:** *things and trends to watch in 9 European and CIS countries*

The COVID-19 pandemic has been a transformative event both for technology and the society. The shared economy is also growing and gaining strength. This global shift to new service models has been driven by transportation systems and mobility. The main trends in passenger transportation are effectiveness, safety, and speed while maintaining optimal consumption of energy and time.

The pandemic did bring a sharp drop in transportation throughout the world, but it has proved to be short-lived. Passenger car transportation has rebounded relatively quickly, mainly due to digital solutions and products. We can already see the main trends and drivers of this future growth.

## Developing the micromobility infrastructure

The pandemic has boosted urban cycling. 37 out of 94 major European cities and 17 out of 49 European capitals have developed programs that encourage biking. More than 1000 km of bicycle infrastructure has been built since spring of 2020, and another 1000 km are being planned. The total amount of investments in cycling are above EUR 1bn.

Finland has been the most active country; their additional investments in biking infrastructure reach EUR 7.76 per person. It's followed by Italy (EUR 5.04) and France (EUR 4.91). The UK has spent EUR 4.8, and Lithuania EUR 2.61.

## Clean air vs the pandemic: growth in electric vehicles

20 major cities throughout the world have announced their plans to phase out fossil fuel vehicles by 2030 or earlier. Paris is aiming to make its centre fossil-fuel-free by 2030, and Copenhagen is planning to start a gradual phaseout of diesel vehicles in 2022. London will introduce zero-emission zones in the city centre by 2025; its Ultra system is already working.

Electric vehicles see higher usage rates than private fossil-fuel cars. This means that their total cost of ownership will soon be lower, as electricity costs less than fossil fuels and their simpler construction means cheaper maintenance. Currently, electric vehicles make up 1.8% of taxis and shared cars. Estimates suggest that the figure could reach 80% by 2040.

## Future transformation of MaaS apps

Here's another thing the pandemic has changed: our plans. The nearest future is less predictable, and we often need to adjust or change our plans on-the-go. This includes travel. It's no coincidence that many shared mobility services are focusing on long-term co-operation, trying to maintain a steady user base with subscription-based services.



It would seem that a single MaaS super-app is just around the corner. It would allow planning, booking and paying for all the rides in all kinds of transportation. This has not happened, though. People are more cautious about the future. In six months time, they may not need the service they have subscribed to. This means that the viability of long-term shared business models remains unclear.

It is possible that MaaS apps will be the next step in the development of public transportation maps. They would help choose the best routes between two points, contactless payment for all kinds of urban transportation, including shared vehicles, as well as parking, chargers, petrol stations, maintenance, and other travel costs, such as road tolls.

This will open up new opportunities for the transportation business. No single operator can cover the entire ecosystem. This means that new companies will be able to join the open transportation systems, and customers will be able to choose the best solution for them. It does not stop with transportation businesses: banks will be able to offer new credit products. Insurance companies can prepare personalised products for each user, based on their transportation preferences.

The competition between transportation services will become more local. It is unlikely that any single country will have place for more than three global transportation platforms. Within cities and towns, however, there will be place both for large companies and smaller enterprises focusing on a specific business niche.

## **Recommendations for businesses**

Payments are a very important part of any transportation business. The whole point of micromobility is speed and ease-of-use, so payments should be as common and seamless as possible.

When entering a new country, businesses should consider the local payment methods popular in the region. They should also consider the specific requirements of shared mobility services and their audience. Another thing to consider is the average fare. The lower the payment, the more often users will choose their mobile e-wallet where they store some money for small online purchases.

For example, no matter the country, car-sharing services are most popular among young urban professionals aged 25-35. They can pay both with the traditional bank cards and alternative payment methods, such as PayPal, GooglePay, and ApplePay. Virtual cards issued by fintech companies such as Revolut are also popular. Senior citizens who prefer taxis are more comfortable with payment cards or direct bank transfers (using SEPA in Europe). As to bike, scooter, and moped rental, they often use instant mobile payments with a variety of e-wallets.

The most suitable payment method is key to increasing your conversion rate.



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- ✓ Mass payouts

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# Appendix. Licencing and costs of the mobility business of each country

## Poland

In 2018 and 2019, licenced taxi drivers in Warsaw and Krakow held several protests against the ride-sharing apps, accusing them of unfair competition. At the time, there was no legal framework regulating the ride-sharing apps. It was introduced in January 2020, reaching a compromise between the ride-sharing apps and traditional taxi operators.

According to the new regulations, all drivers working with ride-sharing apps must have a licence. It is issued by the local government, which means that working in a different city requires a different licence. The same regulations made the licencing process substantially easier and cheaper. The licence costs EUR 50-100, depending on its duration and the municipality, which makes it one of the cheapest in Europe. The entire process, including the necessary paperwork, the driver's exam, taxi meter, and other expenses, costs about EUR 950 for a single car.

The fine for transporting passengers without a licence is EUR 2300 for the driver. The ride-sharing apps operating without a licence are fined EUR 9200, which is the average annual salary for a taxi driver. Nevertheless, much of the Polish taxi market remains in the grey zone. The traditional taxi services also don't have a single, unified rate, even though all cars on the market must have a meter. The average rate for 1 km in Warsaw is EUR 0.5-0.6/km for the ride-sharing apps and up to EUR 0.8/km for the traditional taxi services (excluding the drop charge).

## Germany

The current legislation was not made with mobility-as-a-service in mind, and there are active discussions about changing it. The current Passenger transportation law, known in German as Personenbeförderungsgesetz or PbefG, requires a special driver's licence: P-licence or Personenbeförderungsschein. It also requires drivers to return to their base after each ride before accepting new passengers, which undermines the entire ride-

sharing business. That's no accident; the law does not even acknowledge ride-sharing services. This, coupled with relentless protests and lobbying from traditional taxi services, means that Uber is only allowed to operate in six major German cities.

The minimum taxi fare is set by German federal states and cities; it currently stands between EUR 1.5 and 3.8/km. For example, the minimum fare in Frankfurt (Oder) is EUR 1.6/km, whereas the minimum fare at its better-known and wealthier namesake Frankfurt am Main stands at EUR 3.5/km. This excludes the drop charge and any other surcharges. The ride-sharing fares are on average 15% lower.

The pandemic has added additional costs for German taxi drivers. Things like disinfectants, single-use face masks and other safety measures have added an additional EUR 328 in expenses per month for a single car.

The average salary of a taxi driver is low by German standards: from EUR 1300 to EUR 2250 a month, depending on the region. On the other hand, the P-licence is cheap as well: all the costs reach about EUR 200.

## United Kingdom

The licencing costs and requirements differ for licenced taxis and PHVs, yet some things apply to both. All licences are issued for 1 year and are valid in a limited area; they can then be extended for an additional fee. The licenced taxi drivers have to pass an exam showing their driving skills and knowledge of the neighbourhood; there's also a medical check-up. The licence costs about GBP 1200 or EUR 1320.

The PHV drivers don't have to pass an exam, but they still need a licence that costs about GBP 650 (EUR 715). They also need a separate licence for their car and a copy of their ride-sharing operator's licence. The licence fees differ by region and county and are set by the local department of transportation. The local government sets the minimum rates and the total number of licenced taxis for their region. The number of PHVs is not limited.

The rates differ by city, day of the week, and time of the day. The day rate for licenced taxis reaches the equivalent of EUR 2.1/km in London, EUR 1.03/km in Liverpool, and EUR 1.35/km in Manchester. Notably enough, PHVs aren't always cheaper. In fact, an Uber ride



in the rush hour can cost 1.7-2 times more than the traditional taxi cab with a meter due to high demand surcharges and traffic jams.

The basic salary for London taxi drivers averages at GBP 33 thousand a year (EUR 3020 a month). PHV drivers in London have higher income: up to EUR 4500 a month. However, they don't enjoy the same social benefits and trade union membership that licenced taxi drivers do.

## Russia

Russia only requires licencing for regular transportation routes with more than 8 passengers. The taxi permits are issued by the regional or local transportation department and are valid for 5 years. Both businesses and individuals can receive them. The driver has to register as either an individual business or self employed and apply for the permit online. It is free in Moscow; in St Petersburg and other cities, a small fee applies (EUR 2-3).

At the beginning of 2020, there were about 600K taxi drivers in Russia. The share of grey market stands at about 16%, but it varies by region. The number is less than 10% in Moscow; it reaches 25-50% in Krasnoyarsk. Other regions with high number of illegal taxi drivers are Kalmykia, Adygea, and North Ossetia. In 2019, 441K taxi licences were active in Russia, half of them being individual businesses. Moscow has 6 taxis per 1000 people, the highest in country, whereas the Tuva Republic has the lowest: 0.6 taxis per 1000 people.

The average salary varies dramatically by region, from EUR 300 in cities with less than 100 thousand people all the way up to EUR 1100 in Moscow and St Petersburg. The driver must pay about 20-30% of the total earnings to the aggregator and 30% for car hire.

The average fare also varies across regions; a taxi ride costs between EUR 5-12. As the strictest lockdown measures were lifted, many ride-sharing aggregators noted a lack of drivers as migrant workers had left the country. It is expected that the fares will rise by 10-15% by the end of 2020 as taxi services try to recoup their losses during the spring lockdown.

## Kazakhstan

Estimates suggest that up to 80% of the private hire market falls in the grey area; unofficial data suggests that about 500 thousand people work in it. The legal ride-sharing apps have decreased the grey market in small-to-medium cities. For example, legal private hire vehicles have replaced almost all grey market drivers in Ust-Kamenogorsk. The number of illegal drivers still remains high in large cities.

There is no separate licencing for taxi drivers. To become a legal private hire vehicle, the driver has to register as an individual business. The registration is free and available online.

There is a 2% tax for individual businesses. Another 3-5% goes to the partner whose brand or business the driver is using; some of them, such as Yandex.Taxi, don't co-operate with individual drivers. 25% usually goes to the ride-sharing aggregator.

As a result, the driver usually receives 65-70% of the money earned. If the driver is hiring the car from a taxi company, the average fee is about EUR 300 a month. Putting it all together, the driver can earn about 400-800 EUR a month, depending on the region; this is significantly higher than the average salary in Kazakhstan.

As of April 2019, app cars transporting passengers must have a cash register or a taxi meter that can also issue receipts and transfer data. The fine for tax avoidance for private drivers is about EUR 112.

The average cost of car ownership in Kazakhstan is low – about EUR 160 a month. This translates in low taxi prices. In 2017, when ride-sharing companies were just gaining their market share, the average fare for a ride up to 10km was below EUR 1. It has increased since but still remains substantially lower than the neighbouring Russia. It is estimated that Kazakhstan's taxi market will continue growing by 14% in the foreseeable future, whereas the fares will grow by 12%.

# Ukraine

The Ministry of Transportation and Ukrainian Taxi Association estimate that Ukraine currently has about 220 private hire drivers. The share of grey market is even higher than in Kazakhstan: more than 90%. The total volume is estimated at EUR 1.2bn, which is several times higher than the official market. The taxi services are almost unregulated, which brings losses both for the official taxi services and the government.

The legal framework that is currently being prepared would introduce a single register for private hire vehicles and organisations using a patent cost system. The annual patent cost is to be set at the annual minimal salary (currently EUR 140). The private hire vehicles won't be allowed to use special identifying signs. Drivers working with aggregators such as Uber will not be legally seen as taxi drivers, but they still will be able to work legally.

The average fare in Kyiv is about EUR 0.2-0.3 per km. The total cost, however, isn't usually determined by the distance. Rather, it's influenced by demand, length of time, and traffic. The average salary, depending on the region and workload, can reach up to EUR 1000 a month. It should be noted that several taxi services and aggregators do not limit the length of driver's shift.

# Sources

## Poland

<https://insights.leaseplan.co.uk/fleet-management/cost-reduction/car-cost-index-2018/>

<https://movmi.net/shared-mobility-poland/>

<https://straal.com/newsroom/nearly-70-of-citizens-in-large-polish-cities-are-familiar-with-car-sharing-mobility-as-a-service-report-publication/>

<https://www.globalfleet.com/en/wikifleet/poland>

<https://mobilne-miasto.org/en/>

<https://www.adlittle.com/en/rethinking-demand-mobility>

<https://www.mindtheproduct.com/how-we-built-a-ride-hailing-app-for-the-polish-market/#:~:text=Based%20in%20Poland%2C%20iTaxi%20is,charge%20them%20for%20the%20ride.>

<https://news.crunchbase.com/news/europes-warring-ride-sharing-startups-vie-for-elusive-supremacy/>

<https://www.digitalpoland.org/assets/publications/mobility-as-a-service-pl/mobility-as-a-service-pl-by-straal.pdf>

<https://www.jdm-recruitment.eu/ru/vse-o-taksi-v-polshe-ne-daj-sebya-obmanut/>

[https://polska.lv/info/centrs/ru/katalog/Informaciya/Prakticheskaya\\_informaciya/2\\_8/Taksi\\_v\\_Polshe/45](https://polska.lv/info/centrs/ru/katalog/Informaciya/Prakticheskaya_informaciya/2_8/Taksi_v_Polshe/45)

<https://poland-consult.com/polezno-znat/avtolyubitelyam/taksi-v-varshave.html>

<http://taxi-warsaw-pl.taxigator.ru/>

<http://taxilife.ru/nationalnews/11081/>

<https://www.fakt.pl/pieniadze/zakupy/uber-czy-taxi-co-wola-polacy-badanie-2019/c364db8>

<https://www.bettertaxi.com/taxi-fare-calculator/warsaw/>

<https://www.statista.com/outlook/368/146/ride-hailing-taxi/poland?currency=krw#market-marketDriver>

<https://poland-consult.com/praca/vakansii/rabota-v-taksi-v-polshe.html>

<https://www.schoenherr.eu/publications/publication-detail/a-new-reality-for-ridesharing-apps-in-poland/>

<https://cleantechnica.com/2018/07/22/wroclaw-polish-shenzhen-electric-vehicles/>

[https://www.researchgate.net/publication/324877816\\_Evolution\\_of\\_Carsharing\\_in\\_Poland](https://www.researchgate.net/publication/324877816_Evolution_of_Carsharing_in_Poland)

<https://www.intelligenttransport.com/transport-news/104902/polands-first-mobility-hub-to-open-in-warsaw-business-district/>

<https://www.salaryexpert.com/salary/job/taxi-driver/poland>

<https://www.jpmorgan.com/merchant-services/insights/reports/poland>

## Germany

<https://movmi.net/shared-mobility-germany/>

<https://berlinspectator.com/2020/06/23/germany-taxi-federation-and-uber-unhappy-with-new-transportation-rules/>

<https://www.movingto-berlin.com/carsharing/>

<https://www.globalfleet.com/en/wikifleet/germany>



[https://www.mckinsey.de/~media/McKinsey/Locations/Europe%20and%20Middle%20East/Deutschland/News/Presse/2020/2020-05-07%20Consumer%20Sentiment%20Wave%205/200505\\_Consumer\\_Sentiment\\_Survey\\_Wave5\\_Germany.ashx](https://www.mckinsey.de/~media/McKinsey/Locations/Europe%20and%20Middle%20East/Deutschland/News/Presse/2020/2020-05-07%20Consumer%20Sentiment%20Wave%205/200505_Consumer_Sentiment_Survey_Wave5_Germany.ashx)

<https://www.taxi-rechner.de/statistik/de-deutschland>

<https://de.statista.com/statistik/daten/studie/36499/umfrage/taxitarife-in-deutschland-nach-staedten/>

<http://www.derinnenspiegel.de/taxitarife/uebersicht/taxitarife1.php>

<https://www.taxi-times.com/taxi-ist-coronafit-und-zahlt-dafuer/>

<https://www.taxi-times.com/eckpunkte-pbefg-warum-keiner-zufrieden-ist/>

<https://www.ibisworld.com/de/branchenreporte/betrieb-taxis/334/>

<https://taxi-magazin.de/>

<https://www.tagesspiegel.de/berlin/massive-einbrueche-bei-fahrdiensten-in-coronakrise-berliner-taxigewerbe-in-sozialer-not/25788654.html>

<https://www.stern.de/wirtschaft/job/taxifahrer--was-verdienen-eigentlich-taxi-fahrer--8125846.html>

<https://de.jobted.com/gehalt/taxifahrer>

<https://www.mystipendium.de/berufe/taxifahrer/gehalt>

<https://www.adac.de/news/carsharing-statistik-2020/#:~:text=Zu%20Beginn%20des%20Jahres%202020,um%2060.000%20auf%20jetzt%20710.000.>

<https://www.carsharing.de/alles-ueber-carsharing/carsharing-zahlen/aktuelle-zahlen-daten-zum-carsharing-deutschland>

<https://de.statista.com/statistik/daten/studie/1067411/umfrage/verteilung-von-services-im-bereich-der-mikromobilitaet-nach-serviceart/>

<https://www.bussgeldkatalog.org/taxifahrer-werden/>

<https://www.taxi-times.com/neue-mobilitaet-ein-schwarzbuch-klaert-auf/>

<https://www.tagesschau.de/inland/merkel-autogipfel-101.html>

<https://www.taxi-times.com/78-prozent-der-deutschen-nutzen-keine-neuen-mobilitaetsdienste/>

<https://www.presseportal.de/pm/82695/4134243>

<https://de.statista.com/prognosen/1021757/umfrage-zur-nutzungshaeufigkeit-von-taxis-in-deutschland>

<https://de.statista.com/statistik/daten/studie/154574/umfrage/anteil-gewerblicher-pkw-in-deutschland-nach-ausgewaehlten-haltergruppen/>

<https://www.destatis.de/Europa/DE/Thema/Verkehr/Mitfahrzentralen.html;jsessionid=D2D58B643EF000CB7C4B7D169DF91FF0.internet8721>

<https://www.saatkorn.com/studie-taugt-der-firmenwagen-2019-noch-als-benefit/>

## The UK

[https://www.glassdoor.co.uk/Salaries/london-taxi-driver-salary-SRCH\\_IL.0,6\\_IM1035\\_KO7,18.htm](https://www.glassdoor.co.uk/Salaries/london-taxi-driver-salary-SRCH_IL.0,6_IM1035_KO7,18.htm)

<https://movmi.net/shared-mobility-uk-ireland/>

<https://www.globalfleet.com/en/wikifleet/united-kingdom>

<https://www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/industrial-strategy-the-grand-challenges#future-of-mobility>

<https://como.org.uk/>

<https://urbanmobilitycompany.com/content/daily/ticket-to-ride-a-scooter>

<https://urbanmobilitycompany.com/content/daily/the-business-of-mobility-powering-the-micromobility-clean-up-in-cities>

<https://urbanmobilitycompany.com/content/daily/micromobility-and-data-standards-the-implications-within-europe>

<https://www.creds.ac.uk/wp-content/uploads/CREDS-Shared-mobility-comm-report-WEB.pdf>

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/bulletins/familyspendingintheuk/financialyearending2018>

<https://www.autocar.co.uk/car-news/industry/analysis-will-car-sharing-replace-vehicle-ownership>

<https://www.adlittle.de/en/rethinking-demand-mobility>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/833569/taxi-and-phv-england-2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833569/taxi-and-phv-england-2019.pdf)

<https://www.bathnes.gov.uk/services/business/taxis/driver-vehicle-and-operator-licences/how-much-does-private-hire-vehicle>

<https://tfl.gov.uk/info-for/taxis-and-private-hire/licensing/private-hire-driver-licence>

<https://tfl.gov.uk/info-for/taxis-and-private-hire/licensing/apply-for-a-taxi-driver-licence>

<https://tfl.gov.uk/info-for/taxis-and-private-hire/licensing/private-hire-vehicle-licence>

<https://www.numbeo.com/taxi-fare/in/London?displayCurrency=EUR>

<https://londonlovesbusiness.com/heres-when-a-black-cab-is-cheaper-than-uber/>

<https://tfl.gov.uk/modes/taxis-and-minicabs/taxi-fares>

<https://www.taxi-point.co.uk/single-post/2018/08/07/Taxi-minicab-PHV-Uber-Whats-the-difference>

[https://files.data-economy.ru/Docs/taxi\\_07102019.pdf](https://files.data-economy.ru/Docs/taxi_07102019.pdf)

<https://www.autoexpress.co.uk/car-news/97929/ultimate-guide-to-car-sharing-car-clubs-and-ride-sharing>

<https://www2.deloitte.com/content/dam/Deloitte/de/Documents/consumer-business/Impact%20of%20the%20COVID-19%20crisis%20on%20consumer%20behavior.pdf>

## **The Baltic States**

<https://www.itsinternational.com/its5/feature/its-baltic-states-rise>

<https://www.thefirstnews.com/article/poland-baltic-states-join-forces-on-5g-connected-and-automated-mobility-15903>

## **Latvia**

<https://bnn-news.com/cc-riga-city-councils-rules-distort-the-taxi-service-market-137382>

<https://lvportals.lv/skaidrojumi/306132-izmainas-autoparvadajumu-likuma-ari-pasazieru-komercparvadajumiem-ar-taksometru-2019>

<http://atd.lv/lv/pakalpojumu-tarifi>

<https://www.lsm.lv/raksts/zinas/ekonomika/simt-masinu-dikstave-par-ko-rigas-taksometru-parka-vaditajs-ir-pateicigs-covid-19.a363548/>

<https://www.lsm.lv/raksts/zinas/ekonomika/visiem-iznakt-no-enas-vid-saks-parbaudit-ar-bolt-un-yandex-taxi-platformam-stradajosus-taksometru-vaditajus.a364358/>

<https://www.lsm.lv/raksts/zinas/latvija/taksometru-biznesa-aizvien-aizdomas-par-lielu-pelekas-ekonomikas-dalu.a370291/>

<http://alviksa.lv/ru/tarifi>

<https://lvportals.lv/skaidrojumi/308934-ar-ko-atskiras-balto-un-dzelteno-numurzimju-taksometri-2019>

<http://atd.lv/lv/pasa%C5%BEieru-komercp%C4%81rvad%C4%81jumu-ar-taksometru-vieglo-automobili-vad%C4%ABt%C4%81ja-re%C4%A3istr%C4%81cija>

<https://zagranportal.ru/latviya/transport-latviya/taksi-v-latvii.html> <https://emigranto.ru/evropa/latviya/uslugi-taksi-v-gorodax-latvii.html>

<https://www.sixt.lv/sixt-jaunakas-zinas/baltijas-finanses-2019/>

<https://www.lsm.lv/raksts/dzive--stils/ikdienai/kam-var-sudzeties-ja-taksometrs-neatbrauc-solitaja-laika.a251009/>

[http://veloplans.lv/wp-content/uploads/2017/08/Velo-petijums\\_15012020.pdf](http://veloplans.lv/wp-content/uploads/2017/08/Velo-petijums_15012020.pdf)

<https://www.rdpad.lv/wp-content/uploads/2019/04/%C4%AAstermi%C5%86a-RP-Gehl-Atzinums-LV-01.03.19.pdf>

<https://www.pwc.com/lv/lv/news/tiek-laists-klaja-latvija-pirmais-mobilitates-petijums.html>

<https://www.algas.lv/salaryinfo/transport-parvadajumi-logistika/taksometra-vaditajs>

## Lithuania

<https://sumin.lrv.lt/lt/naujienos/atnaujintos-taksi-ir-pavezeju-veiklos-taisykles-ka-butina-zinoti>

<https://www.delfi.lt/verslas/mano-eurai/kainu-statistika-isverte-is-koju-panevezyje-brangiau-nei-vilniuje.d?id=78612431>

<https://www.vz.lt/paslaugos/2020/01/03/taksi-ir-pavezeju-automobiliai-tures-buti-pazymeti-specialiu-zenklu>



<https://www.vz.lt/transportas-logistika/2020/08/19/yandextaxikeicia-pavadinima-zada-daugiau-pokyciu>

[https://www.respublika.lt/lt/naujienos/lietuva/kitos\\_lietuvos\\_zinios/pavezejams\\_patvirtinti\\_reikalavimai\\_taksistams\\_tik\\_sypsena\\_kelia/](https://www.respublika.lt/lt/naujienos/lietuva/kitos_lietuvos_zinios/pavezejams_patvirtinti_reikalavimai_taksistams_tik_sypsena_kelia/)

<https://www.tv3.lt/naujiena/verslas/1029575/taksi-vairuotojai-piktinasi-pavezejams-naujosios-taisykles-ne-motais>

<https://www.mzirafos.lt/taksi-vilniuje-paslaugos-kaip-keliauti-mieste-pigiausiai/>

<http://www.ivilnius.lt/transportas-mieste/taksi/>

<https://www.lrt.lt/naujienos/eismas/7/1100770/seimas-patvirtino-naujus-reikalavimus-taksi-ir-pavezejimo-paslaugu-teikejams>

<https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/fc27e880e5a11e99f05bdf72918ad4e>

<https://ltsa.lrv.lt/lt/veiklos-sritys/keliu-transportas-5/taksi-ir-pavezejimo-paslaugu-teikimas>

<https://ltsa.lrv.lt/lt/naujienos/leidimus-pavezetojams-ir-taksistams-isduos-ltsa>

<https://www.govilnius.lt/suplanuokite-kelione/transportas/dalijimosi-automobiliu-paslauga-vilniuje>

<https://madeinvilnius.lt/verslas/vilniaus-rinka/automobiliu-dalijimosi-bendroves-kasdien-dezinfekuos-automobilius-klientams-dalins-apsaugines-priemones/>

<https://www.15min.lt/gazas/naujiena/gatve/dalijimasis-automobiliais-kur-pigiau-o-kur-patogiau-221-1180776?copied>

<https://apklausa.lt/f/lietuvos-taksi-imoniu-kokybe-br37nc7/answers.html>

<https://www.regitra.lt/lt/atviri-duomenys/>

[https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_vehicles\\_per\\_capita](https://en.wikipedia.org/wiki/List_of_countries_by_vehicles_per_capita)

<https://www.statista.com/statistics/452070/lithuania-number-of-cars-per-thousand-inhabitants/>

<https://www.manoalga.lt/salaryinfo/transportas-pervezimas-logistika/taksi-vairuotojas>

<https://www.businessmaas.com/apps/trafi-is-revolutionising-city-traffic/>

## Estonia

<https://arileht.delfi.ee/news/uudised/taksoplatvormi-looja-taksoari-trendidest-kas-keeleoskuset-aafrikalased-taksoroolis-on-probleem-ning-miks-hinnad-tousevad?id=91180057>

<https://www.eesti.ee/et/erinouetega-tegevusalad/transport/soidukikaardi-taotlemine/>

<https://auto.geenius.ee/rubriik/uudis/koik-mida-pead-teadma-esimest-novembrist-apitaksod-seaduslikud-aga-muutused-suured/>

<https://www.kantaremor.ee/pressiteated/taksoappide-uuring-noored-pigem-toksivad-vanemad-helistavad/>

<https://auto.geenius.ee/rubriik/uudis/tallinnas-alustas-uus-teenus-mis-aitab-toole-soitjatel-autot-jagada/>

<https://www.carcops.ee/rendiauto-gps/>

<https://www.thefirstnews.com/article/poland-baltic-states-join-forces-on-5g-connected-and-automated-mobility-15903>

<https://forte.delfi.ee/news/auto/statistikaamet-eesti-on-euroopa-liidu-uks-autostunumaid-riike?id=83724167>

<https://www.palgad.ee/salaryinfo/transport-logistika/taksojuht>

<https://tehnikamaailm.ee/artikkel/roheidufirmade-konkursi-powerup-eesti-finalistid-selgunud>

## Russia

<https://ac.gov.ru/files/content/24166/rynok-taksi-2019-pdf.pdf>

<https://www.regberry.ru/malyy-biznes/kak-poluchit-razreshenie-na-taksi>

<https://www.gazeta.ru/business/2020/09/21/13260631.shtml>

<https://iz.ru/957842/timur-khasanov/vse-taki-roskosh-rossiianin-platit-za-mashinu-bolshe-chem-anglichanin>

<https://www.gazeta.ru/business/2020/07/28/13168771.shtml>

[https://www.dp.ru/a/2020/08/24/Peterburgskie\\_taksi\\_uhodja](https://www.dp.ru/a/2020/08/24/Peterburgskie_taksi_uhodja)

<https://www.autostat.ru/news/44351/>

<https://vc.ru/transport/145660-agenty-perestroyki-kak-i-pochemu-budet-menyatsya-rynok-taksi-v-rossii>

<https://movmi.net/russia-shared-mobility-region/>

<https://vc.ru/transport/143636-rynku-taksi-nuzhen-vtoroy-silnyy-igrok-pochemu-vladelcy-takso-parkov-i-eksperty-zhdut-prihoda-servisa-didi-v-rossiyu>

<https://www.vedomosti.ru/business/articles/2020/08/25/837655-v-rossii-nachal-rabotat-kitaiskii-agregator>

[https://www.dp.ru/a/2020/08/14/CHuzhie\\_sani](https://www.dp.ru/a/2020/08/14/CHuzhie_sani)

[https://cbr.ru/Collection/Collection/File/27931/bulletin\\_20-03.pdf](https://cbr.ru/Collection/Collection/File/27931/bulletin_20-03.pdf)

[https://moskvichmag.ru/gorod/kolichestvo-poezdok-na-prokatnyh-velosipedah-s-iyunya-po-sentyabr-vyroslo-na-42/?utm\\_source=facebook.com&utm\\_medium=social&utm\\_campaign=velosipedisty-zahvatyvayut-gorod.&fbclid=IwAR0EtXLR21eNcSfQetg1ngtpmkW6p3mD8RAgZYubQJZCJUweCQwrY27z9us](https://moskvichmag.ru/gorod/kolichestvo-poezdok-na-prokatnyh-velosipedah-s-iyunya-po-sentyabr-vyroslo-na-42/?utm_source=facebook.com&utm_medium=social&utm_campaign=velosipedisty-zahvatyvayut-gorod.&fbclid=IwAR0EtXLR21eNcSfQetg1ngtpmkW6p3mD8RAgZYubQJZCJUweCQwrY27z9us)

[https://www.m24.ru/articles/gorod/20082020/156999?utm\\_source=CopyBuf](https://www.m24.ru/articles/gorod/20082020/156999?utm_source=CopyBuf)

<https://www.business-gazeta.ru/news/476032>

## **Kazakhstan**

<https://the-steppe.com/mneniya/trud-ne-iz-legkih-kak-ya-mesyac-rabotal-voditelem-uber-v-kazahstane>

<http://yapartner.kz/rejting-po-zarabotkam-kz-za-18-25-aprelja-2019-goda/>

<https://liter.kz/yandeks-taksi-teper-stal-yandeks-go/>

<https://kursiv.kz/news/biznes/2020-05/kazakhstanskiy-rynok-legalnykh-taksi-za-mesyac-v-rezhime-chs-prosel-na-84>

<https://mk-kz.kz/economics/2019/12/25/aktivney-vsekh-v-kazahstane-uslugami-taksi-polzuyutsya-almatincy-4060-tysyach-zakazov-v-sutki.html>

[https://forbes.kz/auto/kak\\_onlayn-servisyi\\_taksi\\_pomenyali\\_ryinok\\_v\\_kazahstane/](https://forbes.kz/auto/kak_onlayn-servisyi_taksi_pomenyali_ryinok_v_kazahstane/)

<http://www.arrivo.ru/kazakhstan/taksi-v-kazahstane.html>

<https://mk-kz.kz/economics/2019/01/22/v-kazahstane-reshili-vyvesti-iz-teni-sferu-taksi.html>

[https://tengrinews.kz/kazakhstan\\_news/taksi-budut-proveryat-postah-transportnogo-kontrolya-409844/](https://tengrinews.kz/kazakhstan_news/taksi-budut-proveryat-postah-transportnogo-kontrolya-409844/)

[https://forbes.kz//finances/markets/bombicheskaya\\_sila\\_chem\\_jivet\\_ryinok\\_taksi\\_kazahstana/](https://forbes.kz//finances/markets/bombicheskaya_sila_chem_jivet_ryinok_taksi_kazahstana/)

[https://forbes.kz//finances/markets/bombicheskaya\\_sila\\_chem\\_jivet\\_ryinok\\_taksi\\_kazahstana/](https://forbes.kz//finances/markets/bombicheskaya_sila_chem_jivet_ryinok_taksi_kazahstana/)

<https://taximaxim.kz/id-id/blog/2019/03/1489-voditel-taksi-v-kazahstane-kakoj-on/>

[https://ee.sputniknews.ru/finance\\_and\\_companies/20190906/17792144/estonia-taksoprilozhenie-bolt-kazakhstan.html](https://ee.sputniknews.ru/finance_and_companies/20190906/17792144/estonia-taksoprilozhenie-bolt-kazakhstan.html)

[https://tengrinews.kz/kazakhstan\\_news/kazahstantsyi-stali-chasche-ezdit-na-taksi-issledovanie-373587/](https://tengrinews.kz/kazakhstan_news/kazahstantsyi-stali-chasche-ezdit-na-taksi-issledovanie-373587/)

<https://kursiv.kz/news/issledovaniya/2019-10/ot-chego-zavisit-cena-poezdki-na-taksi>

<https://kursiv.kz/news/issledovaniya/2019-10/ot-chego-zavisit-cena-poezdki-na-taksi>

<http://tdaily.ru/news/2019/12/12/telecomdaily-nazval-samye-deshevye-onlayn-taksi-kazahstana>

<https://egov.kz/cms/ru/articles/taxi>

<http://auagroup.kz/vozduh-v-almaty/%D0%BB%D1%8E%D0%B4%D0%B8-%D0%BD%D0%B0-%D0%B2%D0%B5%D0%BB%D0%BE%D1%81%D0%B8%D0%BF%D0%B5%D0%B4%D0%B0%D1%85-%D1%87%D1%83%D0%B2%D1%81-%D1%82%D0%B2%D1%83%D1%8E%D1%82-%D1%81%D0%B5%D0%B1%D1%8F-%D1%81%D1%87%D0%B0%D1%81%D1%82%D0%BB%D0%B8%D0%B2%D0%B5%D0%B5/>

[https://total.kz/ru/news/zhizn/vo\\_chno\\_oboshlas\\_vseobshchaya\\_velosipedizatsiya\\_almati\\_astani\\_i\\_shimkenta\\_date\\_2017\\_10\\_25\\_01\\_18\\_33](https://total.kz/ru/news/zhizn/vo_chno_oboshlas_vseobshchaya_velosipedizatsiya_almati_astani_i_shimkenta_date_2017_10_25_01_18_33)

[https://express.kz/news/dialog/za\\_tri\\_mesyatsa\\_byla\\_lich\\_odna\\_popytka\\_ugona\\_kak\\_karshering\\_prizhilsya\\_v\\_almaty-135760](https://express.kz/news/dialog/za_tri_mesyatsa_byla_lich_odna_popytka_ugona_kak_karshering_prizhilsya_v_almaty-135760)

<https://profit.kz/news/48559/Karshering-Anytime-kto-pervij-togo-i-tapki/>

<https://trends.rbc.ru/trends/sharing/5dd688389a79478903d09be0>

## Ukraine

<https://112.international/society/demand-for-electric-vehicles-in-ukraine-grows-47370.html>



<https://pro-consulting.ua/pressroom/rynok-taksi-v-ukraine-bolshe-klientov-civilizovannej-pravila>

<https://delo.ua/economyandpoliticsinukraine/36-ukraincev-nedovolny-tradicionnym-taksi-364572/>

<https://uiamp.org.ua/isl/rinok-taksi-v-misti-kiievi-stan-klyuchovi-gravci-perspektivi-ta-vikliki>

<https://ukraina.ru/exclusive/20191216/1026004630.html>

<https://www.5.ua/ru/obshchestvo/v-ukrayne-berutsia-za-taksystov-nelehalov-cto-predlahaet-zakonoproekt-o-lehalyzatsyy-rinka-taksy-221470.html>

<https://112.ua/mnenie/kak-budut-nakazyvat-nelegalnyh-taksistov-552385.html>

<https://infoclimate.org/wp-content/uploads/2020/05/dk-clim-ciley-full.pdf>

<https://auto.ria.com/news/autobusiness/233159/rezultaty-oprosa-gotovy-li-ukrainczy-k-sovmestnomu-polzovaniyu-avtomo.html>

<https://proprokat.com/sravnenie-karsheringovyh-kompanij-v-ukraine/>

<https://mobilecar.com.ua/news/karshering-v-ukraine-i-za-rubezhom/>

<http://autoconsulting.com.ua/article.php?sid=44078>

<https://lowcost.ua/uber-shuttle-in-kyiv/>

<https://ua.interfax.com.ua/news/press-conference/640612.html>

<https://press.unian.ua/press/10783862-rinok-taksi-v-ukrajini-potrebuye-legalizaciji-ta-efektivnogo-derzhregulyuvannya-eksperti-foto-video.html>

<https://vctr.media/taksi-v-odin-konets-29945/>

<https://ain.ua/2020/06/25/servis-veloprokata-nextbike-provel-rebranding-teper-eto-bikenow/>

<https://ain.ua/2019/06/22/veloprokatom-kieva-vybrali-nextbike-hto-dolzhna-sdelat-kompaniya/>

<https://tech.liga.net/technology/article/nemetskiy-veloprokat-v-stolitse-kiev-vybral-nextbike>

[https://auto.24tv.ua/tag/avtonovynka\\_tag69/](https://auto.24tv.ua/tag/avtonovynka_tag69/)

<https://taxi2444.com.ua/tarify-taksi-v-kieve>