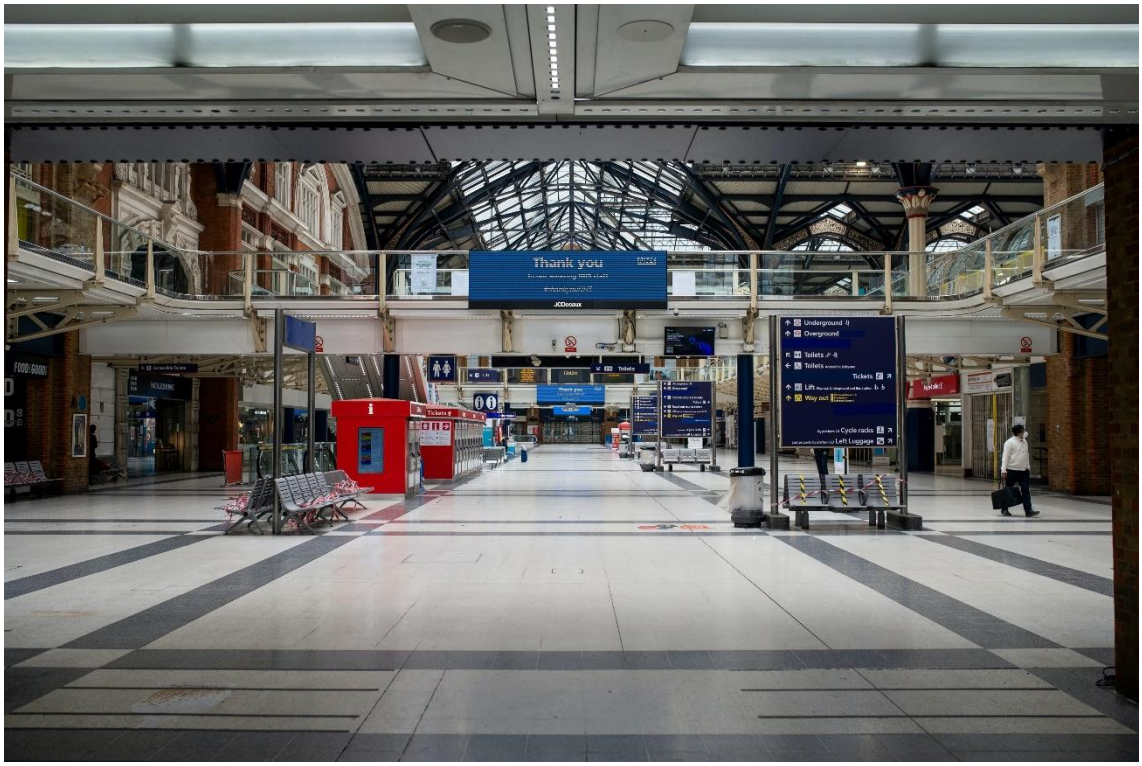
# COVID-19 REPORT




## Mobility Impact

***by Nekko Capital***

May 2020

# Legal disclaimer:

The situation surrounding COVID-19 is dynamic and rapidly evolving, on a daily basis. Although we have taken great care prior to producing this presentation, it represents Nekko Capital's view at a particular point in time.

This presentation is **not** intended to:

(i) constitute medical or safety advice, nor be a substitute for the same; nor
(ii) be seen as a formal endorsement or recommendation of a particular response.

As such you are advised to make your own assessment as to the appropriate course of action to take, use this presentation as guidance. Please carefully consider local laws and guidance in your area, particularly the most recent advice issued by your local (and national) health authorities, before making any decision.

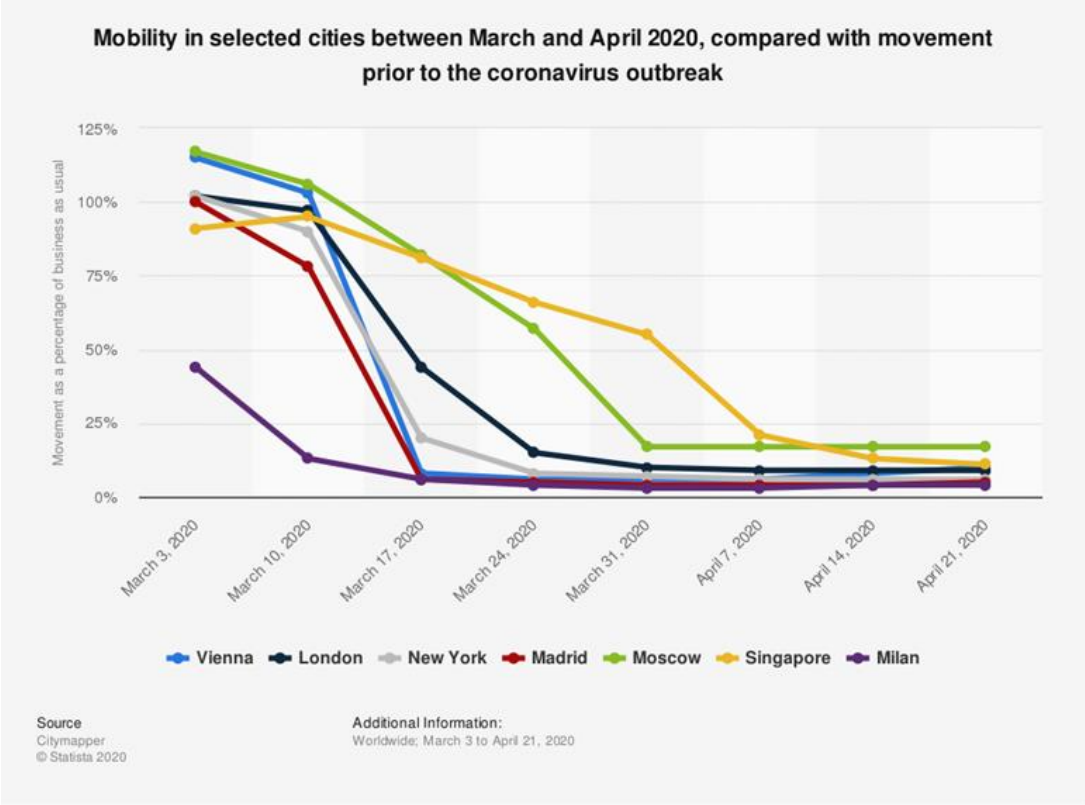
# Introduction:

**Covid-19 has impacted the density of traffic in every city around the world**

Forced confinement has drastically reduced the amount of passenger kilometers travelled as well as overall industrial activity.

This reduced activity has resulted in dramatically cleaner air, particularly in the most polluted regions. For instance, smog has by and large disappeared in many urban areas in China.

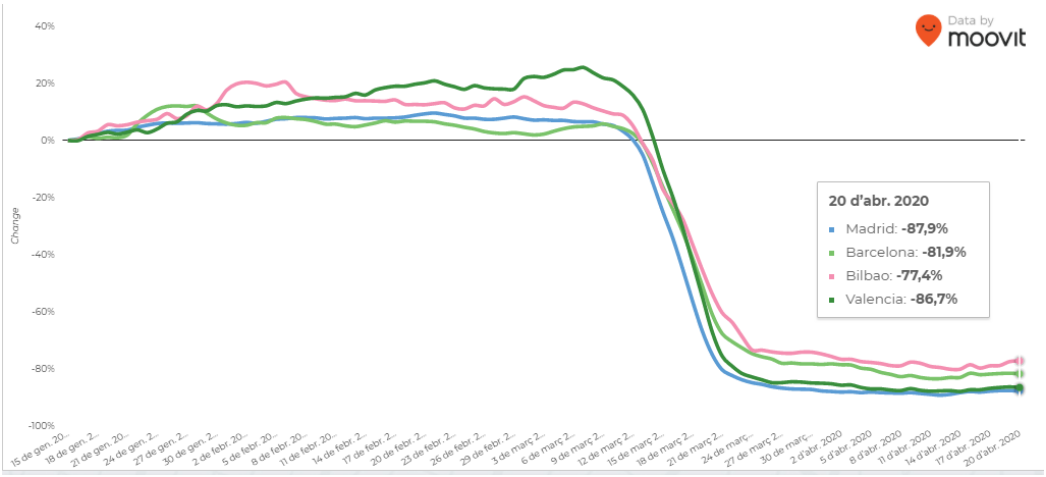
Similarly, confinement brought NO2 levels down by 33% in Los Angeles and even 70% in Delhi. In Europe, Paris saw a 60% drop in NO2 emissions and a 20-30% improvement in air quality to reach a level never seen in the past 40 years.




Source: Statista and Orsay Consulting

## Impact of COVID-19 on Public Transit usage

This graph, updated daily, is showing Moovit's app usage of the previous 7 days in each city, and comparing it to a typical week before the outbreak began (the week prior to January 15th).




Source: Moovit

## The world is under a lockdown situation

The virus has hit high-density urban areas hard in particular. The pace of urban life has been slowed. Mobility is one of the industries that is being hit directly by the new pandemic in multiple aspects, but also as we´ll see in this report some industries have experimented an extraordinary growth under these circumstances, such as the Fast-Moving Consumer Goods (FMCG) delivery.

Due to COVID-19, transit ridership has declined, Uber and Lyft have suspended their shared ride services, and shared micromobility services are challenged by sanitary concerns and low ridership rates. Further, e-commerce giants are facing unprecedented flux of online orders for household supplies and delivery needs. Despite the fact we have commented before, reports indicate considerably lower $CO_2$ concentration compared to the same time last year. In addition, in the US national average daily traffic volume has dropped by 23.4%, which has increased the speed of delivery activities around the country. And with few cars entering city-centers, some cities have started using empty parking spots for curbside deliveries.

## Covid-19 and shared mobility implications, specifically for the "gig-economy"

*The gig economy is based on flexible, temporary, or freelance jobs, often involving connecting with clients or customers through an online platform.

As cases of the virus soar worldwide, in particular companies in the so-called gig-economy, e. g. shared mobility (which covers ride-hailing, bikesharing, carsharing and micromobility) but also food and parcel delivery companies, have come under increasing pressure to look after people who work on their platforms and are typically classified as independent contractors, often lacking sick leave and other benefits. Many shared-mobility service providers worldwide had to suspend their services, as we have mentioned before, lay off staff and have taken various measures in order to protect drivers, passengers and their businesses.

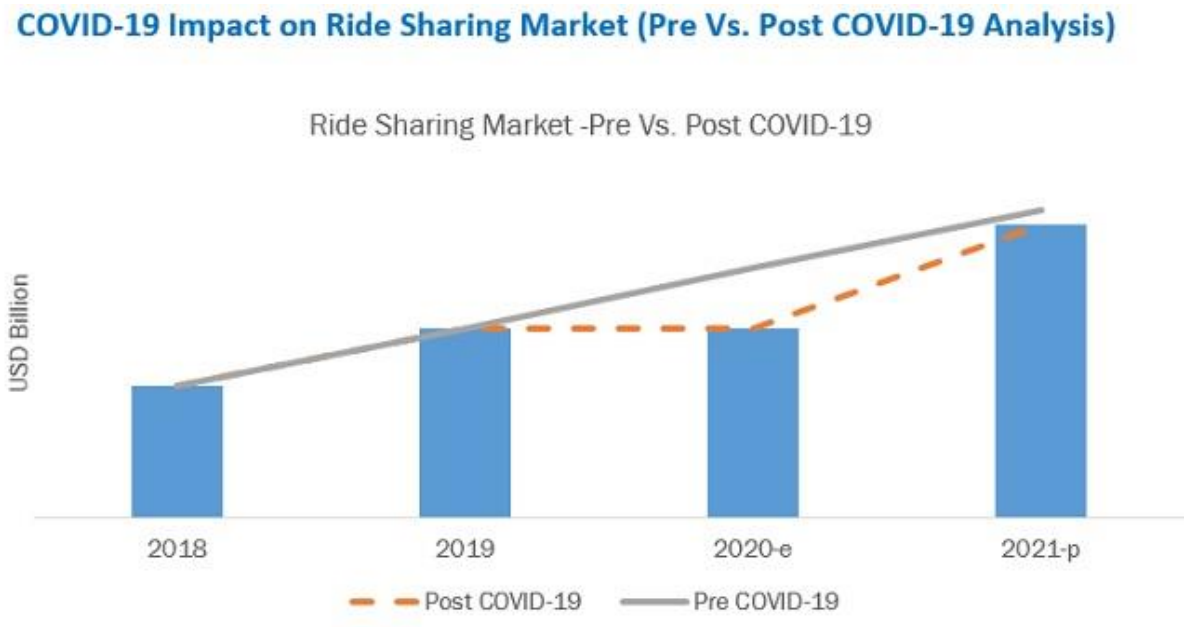
The whole sector has been forced to take different measures in order to protect its employees and passengers and to fight against the virus. In the following graph we have a resume of the different measures taken:

| Measure | Company | Comments |
|---|---|---|
| Suspension of services | Uber, Lyft, Ola, Moia, Lime, Jump, Bird, CityHop, among others. | Some of them have suspended all services, other only provide services to individual customers. |
| Reduction of staff/salaries and working time | Tier-Mobility, Moia, Clevershuttle, Bird, Uber, among others. | Due to financial pressure before Covid-19, and the crisis has cut revenues which has increased pressure. |
| Protection of drivers and passengers | Uber, Tier, Voi, Clevershuttle, Didi Chuxing, Grab, among others. | In order to prevent the infection, in the case of Uber includes the suspension of drivers and passengers who are tested positive for Covid-19 or may have been exposed to it. Disinfections also are another measure. In addition, the use of cashless solutions has increased. |
| Financial support to drivers | Didi Chuxing in Australia, Brazil, Chile, Costa Rica, Panama, Japan and Mexico; Grab Malaysia, Ola, among others. | ”Ride cover” policies to include coverage for Covid-19 and financial support, crowdfunding platforms, among other initiatives. |
| Provision of food delivery services | Didi Chuxing, Grab, KFC, Pizza Hut, Glovo, Deliveroo, Uber Eats, among others. | Contactless delivery services in order to reduce the risk of person-to-person transmission. |
| Transport of medical staff | BerlKönig, Didi Chuxing, Muvo, among others. | On-demand rides for medical and emergency staff. |

| Company | Precautionary Measures Adopted |
|---|---|
| DiDi | ▪ Built disinfection stations across China for on-demand mobility vehicles<br>▪ Invested about USD 14.3 million in this safety measure that involves installing protective plastic sheets |
| Uber | ▪ Distributing disinfectants to drivers to help keep cars clean<br>▪ Reduced their fares during the pandemic<br>▪ Disinfecting all high contact surfaces on bikes and scooters in respective depots<br>▪ Developed a new 'Work Hub' app to help drivers find alternative jobs |
| Grab | ▪ Providing face masks and hand sanitizers to drivers<br>▪ Temporarily suspended GrabShare and GrabBike services |
| Lyft | ▪ Temporarily paused shared rides across all of its markets<br>▪ Over 200,000 bottles of hand sanitizers, along with other cleaning supplies, are being distributed to Lyft drivers free of cost<br>▪ Disinfecting all high contact surfaces on bikes and scooters at depots |
| Ola | ▪ Reduced their fares during the pandemic period<br>▪ Temporarily paused shared rides—Ola Share<br>▪ Sanitizers are available to Ola drivers free of cost |

## Impact of COVID-19 on Ride Sharing market

Post-COVID-19, the global ride sharing market size is projected to grow at a Y-O-Y growth of 55.6% from 2020 to 2021, to reach USD 117.34 billion by 2021 from USD 75.39 billion in 2020. The projection for 2021 is estimated to be down by 2% as compared to pre-COVID-19 estimation.



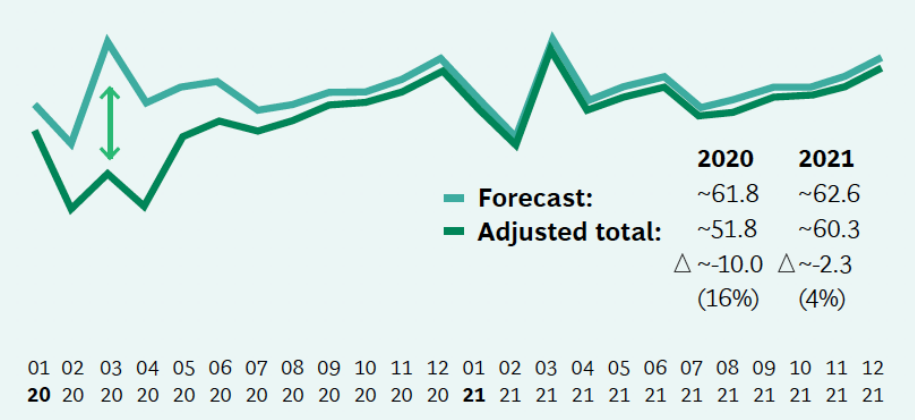

*Source: MarketsandMarkets Research

The car sharing market is estimated to lose its share by 50–60% during 2020. Furthermore, by 2021, it will gain its market by 70–80% because of new strategies like providing partitions to keep the distance between driver and passenger, equipping the vehicle with sanitizers, and installing devices to measure the body temperature of passengers to eliminate the threat of such infections in future. However, at the same time, it is expected that fares would increase due to the added precautionary measures.

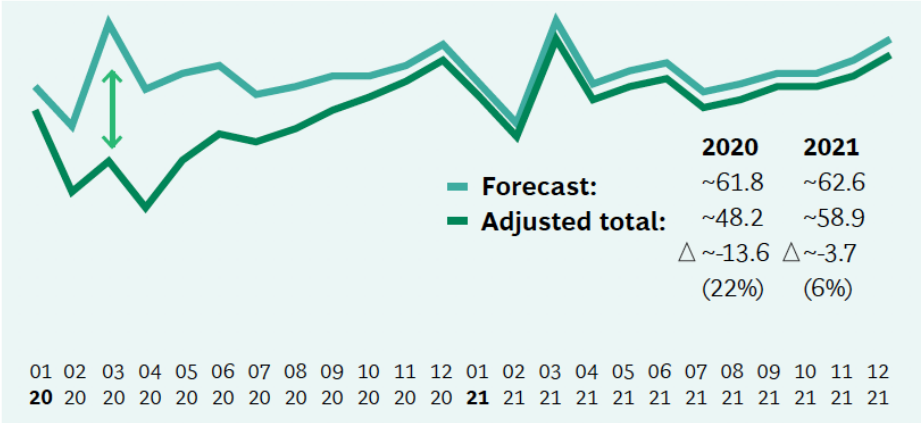
## Automotive Industry is suffering a global demand shock

BGC´s automotive and Center for Macroeconomics teams forecast a 20% decline, with a worst-case scenario of 40%, for new auto sales in 2020. In the following graphs we can observe the monthly sales forecast for China, Europe, and US (vehicle units and monthly sales millions).

**Moderately optimistic scenario**



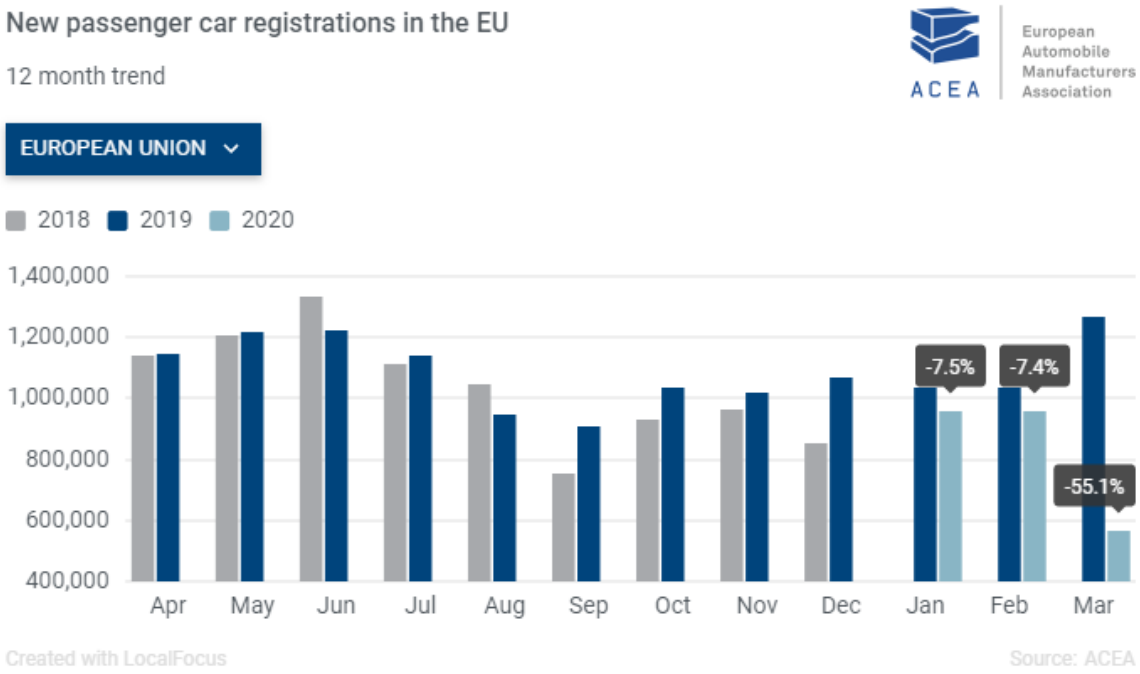

**Moderately pessimistic scenario**




*Source: IHS Markit Automotive Light Vehicle Forecast and BCG.

## Impact of COVID-19 on EU passenger car market

In March 2020, the EU passenger car market recorded a dramatic drop (-55.1%) in registrations of new vehicles as a result of the COVID-19 outbreak. With containment/lockdown measures taking hold in most markets from around the middle of the month, most European dealerships were closed during the second half of March.

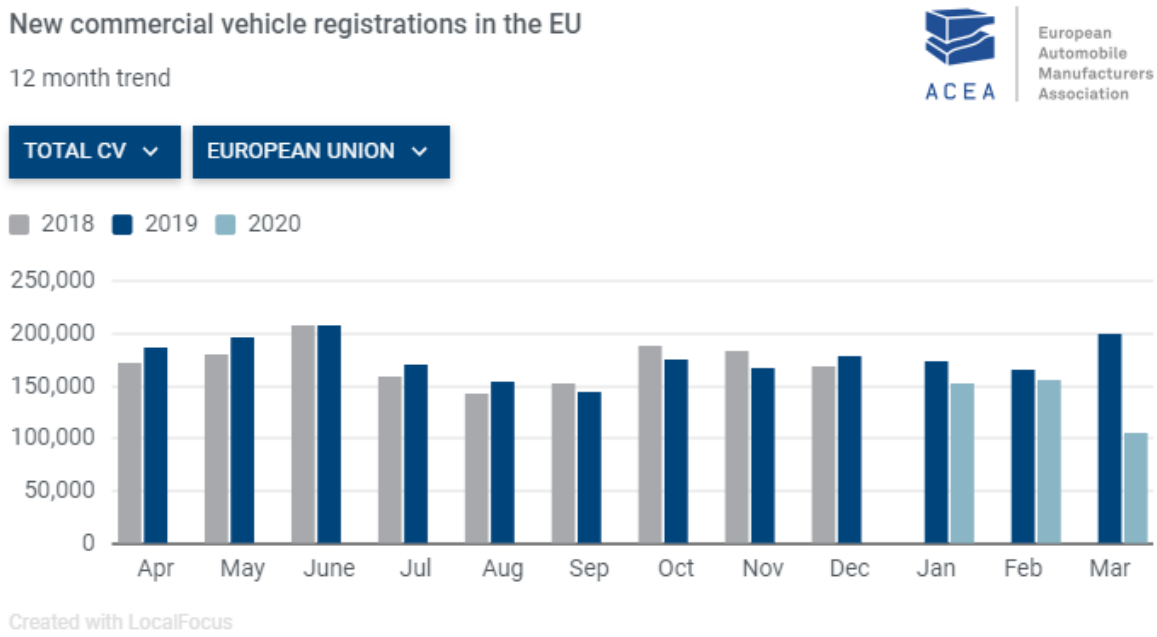



Consequently, demand across the region fell by more than half last month, dropping from 1,264,569 units registered in March 2019 to 567,308 units.

All 27 EU markets contracted in March, but Italy took the biggest hit, with registrations falling by 85.4% to 28,326 new cars (compared to 194,302 units in March 2019). Likewise, demand also collapsed in France (-72.2%) and Spain (-69.3%) last month. Germany recorded a less extreme drop than the other key markets, but registrations fell by 37.7% nevertheless.

## Impact of COVID-19 on EU commercial car market

In March 2020, demand for new commercial vehicles fell by 47.3% across the EU, as measures to prevent the spread of the coronavirus lead to the closure of dealerships. Each vehicle segment was strongly affected by the fallout of the COVID-19 outbreak and all 27 EU markets recorded substantial declines last month. The strongest drops were posted by Italy (-66.1%), Spain (-64.4%) and France (-63.1%).




In the first quarter of 2020, the EU commercial vehicle market contracted by 23.2% to 413,327 units as a direct consequence of March's substantial slowdown. The four major markets, Spain (-31.7%), France (-26.9%), Italy (-26.6%) and Germany (-14.4%), all faced double-digit losses so far this year.

# Mobility: Mobility on demand

## Car sharing

Some systems in some regions are seeing a temporary spike in demand as people shift out of public transit, others are suspending or eliminating offerings as demand has evaporated overnight. Usage is overall significantly down, in some cases up to 70%. Several startups had existing operational and financial business model issues that can sustain this situation much more.

Some companies have already shut down operations, like CityHop in New Zealand because it was deemed a non-essential service. Other companies, like Evo only allows people to use their vehicles for essential trips and they want to ensure there are vehicles for front line workers or for picking up groceries or medication. As we have mentioned before, Uber and Lyft have stopped all pooled rides in the U.S and Canada markets where they´re offered.

For example, in Spain, companies in the carsharing vertical such as Zity has suspended their services since 14th March. Emov also has suspended their services since 20th March, in Wible the company announced the suspension of their services since 18th March. ShareNow since 1st April has eventually suspended their services too.

## Bike Sharing

Some bikeshare companies amped up sanitizing efforts and made their services free of charge to allow access to medical workers and those with urgent needs. From January 23 to March 12, Meituan Bikeshare, formerly known as Mobike, provided about 2.3 million trips in Wuhan, according to its own data collection, accounting for more than half of all non-walking trips in the city during the epidemic. A total of 286,000 people used the service, with a total cycling distance of more than 2 million miles, equivalent to 81 laps around the equator. Meanwhile, the average daily distance for a single ride increased 10%, showing an increased reliance on bicycles for longer trips.

Similar trends are evident in other cities around the world. New York City's public bikeshare system, Citi Bike, saw a 67% surge in demand in early March compared with the same period last year. Chicago and Philadelphia saw ridership in their bikeshare programs nearly double during March. One of Philadelphia's major bike trails experienced a 470% increase in traffic. London issued special guidance for new riders and, before lockdowns shut down all non-essential shops and traffic, bike shops in Dublin were seeing more business than ever.

Some cities are temporarily or permanently expanding cycling infrastructure in response to COVID-19. Bogotá experimented with opening up its 22-mile Ciclovía network, a system of streets normally closed to cars on Sundays, during other days of the week. In a pilot project conducted with NUMO, the New Urban Mobility alliance, the city and a private bike operator are also lending e-bikes to health care workers.

## Ride sharing

Ride sharing startups has no sense at this moment because, for example, in Spain only one individual can move in the same car.

Surveys from CarGurus made to ride sharing users indicates that around 40% of the people that have previously used the services, they will reduce their use or stop using them entirely.

In the case of Blablacar you can now only post essential trips within a city in your app and offer one seat per car. The application has opened to new horizons and has doubled its base service with the launch of **Blablahelp**. It puts volunteers in touch with their closest neighbors to perform some basic day-to-day tasks such as going to the supermarket, food stores or pharmacies. Users who already have a Blablacar account can access this new service directly, which currently operates in Spain and five other countries: France, Germany, Russia, Ukraine and Brazil. Since March 4$^{th}$, the platform recommends its users not to travel and announced the return of reservations without extra cost.

## Ride hailing

Companies like Uber, on April 29th, reported his decision to laying off 20% of its workforce, as rides come to an indefinite halt in most countries owing to lockdowns and social distancing in place. Earlier this month, the company withdrew its financial forecast for 2020 and said it would write down about $2b in investments hit by Covid-19.

Southeast Asia´s ride hailing giant Grab saw its transport GMV down by double-digit percentage. Grab operates in 339 cities across eight countries and the coronavirus outbreak has impacted but in different ways in its business model due to the fact they are diversified also in food and grocery delivery among others, which has helped to weather some of the impact by the crisis but not completely offset the impact on the transport business.
The strategy for ride hailing companies is to wait out and companies like Uber with Uber Eats take the advantage of the increasement in these type of services as Lyft has done too. Lyft with no food delivery business before the pandemic, has created a temporary one in order to compensate the bad results they are accumulating during the Covid-19 crisis.

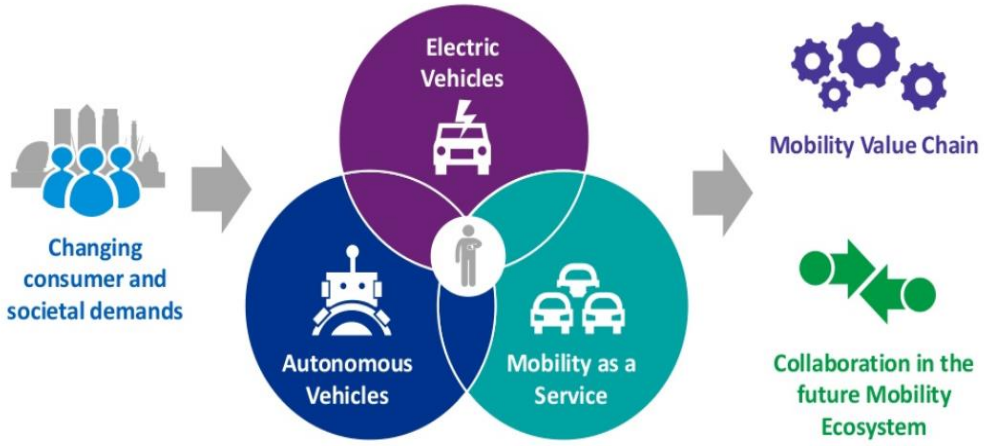
## Public transportation

According with the World Bank public transit authorities will be faced with hard decisions over the next few months between providing essential coverage and reducing service frequency.
One of the main challenges identified by the International Public Transport Union (ITU) is the management of demand, in response to the need to respond to the public transport supply that is needed and, at the same time, to protect the health of users and employees.
To ensure health and safety, transport authorities, operators, and international organizations have been working together to design and implement a wide range of emergency measures specific to COVID-19, which we have sorted into two categories:

1) Minimize the risk of contagion: disinfection, physical distancing, communications, contract tracing technology.
2) Adjust transport operations: service adjustments, improved connectivity for health care providers and other essential workers, shifting passenger traffic from public transport to other models.

## Mobility: MaaS (Mobility as a Service)

The central idea of MaaS is a promise that we will get you where you need to go, but how we get you there is not fixed. At a time of an emergency or a disruption, the need for alternative modalities and maybe new alternative packages is accentuated. Sampo Hietanen, CEO and Founder of MaaS Global, believes that we will soon see unorthodox alliances, a flood of new products and services, and plenty of radical rethinking that would not have been possible at ordinary times.




Source: KPMG

MaaS emphasizes mobility aggregation and subscription services that bundle multiple services into a pricing package. Revenue generated using MaaS platforms, which integrate different transport services (including buses, taxis, rail and metro) into a single app, will exceed $52 billion by 2027, up from $405 million in 2020.

A study made by Juniper Research ("Mobility-as-a-Service: Business Models, Vendor Strategies & Market Forecasts 2020-2027") found that this significant growth will be realized from 2021, as there will be significant reductions in transport usage in 2020 due to the coronavirus pandemic. The research anticipated that this will restrict the growth of MaaS platforms in 2020, but that

MaaS initiatives will rebound quickly in 2021 as cities re-evaluate their transport strategies.

It recommends that MaaS platform providers engage with transit authorities now to design pilots for 2021, in order to ensure future growth. While ride hailing giants such as Uber and Lyft are adding transit information to apps, the fact that they are not neutral in the transport market means that this model will fail to engage the necessary transit partners for an effective solution. They recommend that MaaS vendors focus on licensing platforms as neutral players.

## Mobility: Last-mile delivery

One of the verticals experimenting a huge growth during the Covid-19 crisis is the last-mile delivery but as the demand for local delivery has spiked due to stay-at-home orders and social distancing during the Covid-19 pandemic, the system is feeling the strain.

On April 8th, the WSJ reported that Amazon shipping, which the ecommerce giant was testing to compete with the likes of UPS and FedEx, has been put on pause as Amazon focuses on meeting its own shipping needs. The company in mid-March put a halt on incoming shipments of non-essential supplies to its warehouses so it could focus on critical supplies, and announced it was hiring 100,000 more workers. As it has prioritized those essential shipments, delivery times for other items have stretched to weeks rather than days, according to published reports.

Amazon is not the only company struggling to meet the increased e-commerce demand during the pandemic. UPS and FedEx both suspended service guarantees, citing the impact of Covid-19.

With this supply chain issues appear the rise of Popup FCs (fulfillment centers) which can remove friction and get goods to customers quickly. They are smaller facilities that can be set up in various locations on a temporary basis, placing inventory closer to customers. Popups, on the other hand, offer the flexibility to quickly and cost effectively stand up an FC operation in a high demand location. This focus on regional fulfillment is crucial in the face of Covid-19, shortening the supply chain and delivery timeframes by strategically positioning inventory and routing orders more efficiently.

The growing quarantine measures imposed by governments restricts free movement of people, nevertheless authorities are ensuring that supply chains risks are minimized and that goods keep flowing. At this moment, it's clear that businesses need to re-evaluate their models, the resilience of their supply chain and how to stay connected with clients. Currently, one of the main supply chain problems in Europe is related to the recent stricter movement measures,

including the closing of restaurants and non-essential shops, leading to an unprecedented rise in demand for groceries with decrease in physical shopping for non-essential consumer goods. Many retailers are also incentivising customers to purchase online, alleviating congestion from the stores but pressuring the last mile delivery system.
There are three major events for last mile delivery operations:

1) **Unbalanced demand**: Wholesalers and retailers report both doubling the demand and huge limitations in delivery capacity dictated by the lack of human resources, with up to 30% of warehouse and delivery employees not being able to work.
2) **Exponential growth in home deliveries**: Home deliveries have experimented an increase on average around 73.8% in different areas like metropolitan France. An overall increase in e-commerce purchase by 15.3% compared with the previous quarter.
3) **Delivery experience is priority for retailers and carriers**: The Belgian postal operator, bpost, chose to have the drivers sign the proof of delivery instead of the client, preventing unnecessary contact. In a similar fashion, the UK home delivery company Deliveroo is adding a 'contactless drop-off' option to their app, allowing customers to have their orders without facing the deliverer. In France, retailers are studying ways to better respond to customers. One of the options is to offer a predefined 'basket of goods' of easy purchase that is also simple to assemble, while responding to client's grocery needs. Also in the UK, like across Europe, retail giants like Morrisons are expanding their teams by hiring drivers and distribution staff. At the same time, they strengthen their sick leave policy. This is part of an effort to keep offering home deliveries in a timely and safe way.

As we have just commented there is no specific solution against this issue but round and vehicle consolidation is kept up with the bigger volume and to properly allocate parcels and vehicles, guaranteeing that vans are not running empty. At the same time, route optimization ensures that different vans do not pass in the same street on the same day, hence reducing the number of vehicles, drivers and time needed to deliver.

## Mobility: Electric Vehicles

The global economic recession triggered by the coronavirus outbreak will hit the booming electric vehicle market hard in 2020, and the latest forecasts point to a plunge in sales as a result of falling oil prices, supply chain delays and delayed consumer purchases.

While global EV sales have surged exponentially in recent years to reach a record 2.2 million in 2019 alone as more battery car models came onto the market than ever before, the figure is likely to be almost half that in 2020, according to Wood Mackenzie.

At present Wood Mackenzie expects China - the world's largest market for EVs - to catch up to 2019 demand levels by only November at the earliest, with Europe likely to reach that point a month later. In the US, meanwhile, year-on-year demand is projected to lag 2019 demand by almost a third by the time 2020 draws to a close.

Many carmakers which had planned to launch new EV models this year - including Volkswagen and GM - have now announced plans to push back these launches over the next several years rather than the next 12 months. While the

pent-up demand from the pandemic will help a bounce back in sales later in the year, new demand growth will lack until 2021."

Marc Amblard, Managing Director at Orsay Consulting (advisor in the mobility space), believes that the coronavirus pandemic will likely have a small net positive impact on EV sales in **Europe**, driven by the increased awareness of their impact on air quality, as well as possible EV-focused incentives. In **China**, the EV market share will likely remain at its pre-crisis level, unless the government decides to reverse their June 2019 decision to decrease in EV incentives. In the **USA**, he expects the crisis to have an overall negative impact — at least in the short- to medium-term — on EV sales, in part compensated by a positive impact on California and highly polluted metropolitan areas.

# Perspectives on the Mobility market

## The mobility industry against the virus all together

What started being an infection in a city of China has become a global pandemic. Mobility and travel sectors have been two of the industries most impacted by this crisis.

Startups, as we have seen in this report have taken the difficult decision to laid off part of their staff or even shut down their operations entirely. Bird laid off one-third of their team members. The valuation of their main rivals, Lime, dropped by 79% in their last funding round.

Startups have been offering free or discounted rides to healthcare personnel to ensure a safe, fast commute. Examples:

- Voi is strategically placing many of their vehicles near hospitals.
- Sixt is offering 100 € vouchers to doctors and nurses in Berlin, Hamburg and Munich.
- Moia started offering free rides at night because of the lack of train and bus services.
- Institutions such as the City of London is offering healthcare workers a three-month bicycle loan and discounted ticket rates.
- Bird released an in-app feature that allows riders to see which restaurants in their local community of Santa Monica are open and offering takeout or delivery.
- Greenmobility, the largest car sharing company in Denmark is offering their fleet to local restaurant for a discounted rate.
- Cabify has launched the new Shipping by P&L category, operated by its subsidiary Prestige & Limousine, which allows users to send and receive small items during the current state of alarm.
- Blabacar, as we have said before, has opened to new horizons and has doubled its base service with the launch of **Blablahelp**.

## Impact on future mobility

It´s a reality that the new future of mobility will be slightly different in a post-covid-19 moment. Companies should focus in new areas and the industry in general must strength other ones.

Systems that allow to develop programs that take into account something very important such as social distancing and tools to monitor this in real time which should allow the user to take real-time mobility decisions based on the preferences of each one influenced by its personal circumstances and external factors.

Artificial intelligence in the mobility sector is a must in the future and it should address different areas, such as, customer experience through digital assistants, optimization of operational efficiency to better meet the increasing demand, preventive maintenance and preventive safety.

Covid-19 has awakened again the interest in AVs (Autonomous vehicles) which will be a reality in the future public transport service. With solutions like this one, drivers will not be exposed to the virus in situations like that.

Traffic management will be recognized as a significant portion of MaaS. Traffic Management 2.0 and Transportation Systems Management and Operations will be integrated into MaaS in 2020.

Last but not least, Time goals, that has been a key matter for companies before the pandemic, in the future will be even more important and companies and institutions are making efforts to meet this objective.

As we will see in figures in the startup case, within the online food ordering and delivery marketplaces in this report, this crisis has brought with it also new opportunities to the delivery market that we will try to summarize in the following lines:


Source: Weforum

As we have seen in the report, the Covid-19 has put an incredible strain on global supply chains, from medical supplies to household goods, as spikes in demand stress-test logistic infrastructures. There is an opportunity for unmanned delivery vehicles to assist in addressing this demand and help to reduce the risk of spreading infection and now even more thanks to 5G technology.

Before Covid-19 the World Economic Forum forecasted demand for e-commerce delivery increasing in 36% in inner cities by 2030, projections expect to up this number even more after coronavirus.

This pandemic also creates a considerable risk of exposure to delivery drivers and increases the potential for them to spread the infection. This pressing risk of exposure, as well as the strain on existing delivery services, could potentially be alleviated by automated delivery vehicles. Using AVs for deliveries still may require some work on the regulatory front regarding to vehicle safety standards, which require human-operable controls and mirrors, for example. In this regard, in the US one exemption is Nuro, a builder of unmanned autonomous delivery vehicles. At this time, there is only one company in the US, Waymo, that is permitted to operate AVs on public roads without a human inside which dilutes the potential to offer driverless deliveries at this time.

In any case, the mobility industry has made good technological progress over the past few years that could be used during this pandemic, specifically:

- Automated delivery robots
- Drones (UAVs)
- Digital citizen management platforms to manage the increased load of citizens´ contacts and interactions.
- Data-driven population vulnerability insights could be used to better serve those with immediate needs for public services.
- Unused airport shuttles (or buses) to deliver food to seniors who are isolated at home.
- Wifi-enabled busses to provide digital mobility solutions and act as wifi hot-spots in the areas where connection isn´t good.

## Business Case: A proven success case in Coronavirus times: Deliberry

If one sector has experimented a huge growth in times of this pandemic is the Online FMCG Market, which in Spain increased a 9.1% during 2018, but still with runway to catch up with the figures in other countries in Europe.

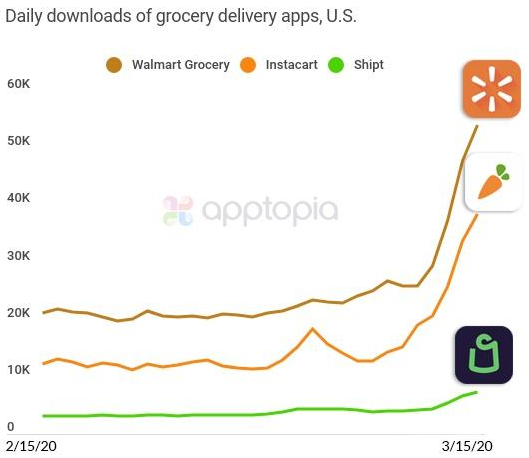
Spain, a country with very strict measures in this global lockdown has seen how customers choose to go to the "online supermarket" allowing them not to take the risk of infection.

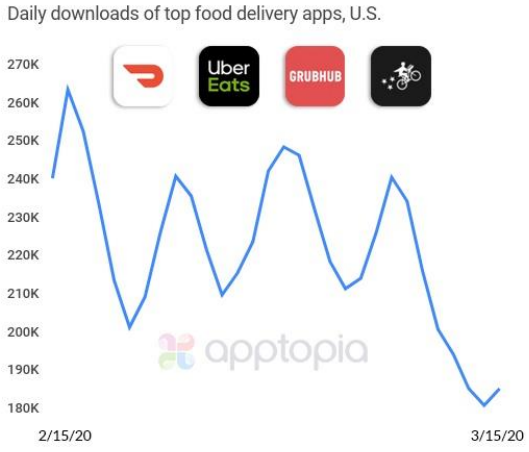
Supermarkets weren´t ready to this avalanche of orders and important chains as Mercadona had to temporary close its online market in Madrid, others such as Carrefour, Alcampo, even Prime Now of Amazon had suffered the consequences.

Deliberry has experimented a growth of +812% new buyers in March compared to February with also an increase in the AOV which represents the digital solutions offering by this startup.

## Covid-19: The triggering of Online FMCG Market in the future

It´s the momentum for this market which seems to be aligned with the change in habit that will drive online penetration of the sector (purchases in the Spanish supermarket represent € 90bn) at levels more in line with those of Northern European neighbors; from 2% to 7%.




*Source: Apptopia

It´s quite interesting to observe how the number of downloads, in apps like Wallmart, Instacart or Shipt increased up to 218% in a day but others like Uber Eats experiment all the opposite.

Another contrast is that in Northeast Europe, customers prefer to use food delivery apps like Uber Eats, in countries like Spain people prefer to cook at home and order online food trough apps like Deliberry.