The shared mobility revolution: What it is and how you can take advantage
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Introduction

The shared mobility revolution is well underway. But what is it, what’s driving it, and how can organizations take advantage?

This eBook explores economic, environmental, regulatory, technological and social factors driving shared mobility and its implications for companies that operate corporate vehicle fleets. We’ll also look at emerging business models that leverage shared fleet vehicles to strengthen customer relationships and create new revenue streams. Lastly, we’ll explore ways they can enhance employee engagement and corporate responsibility, thereby improving quality of life for everyone.

People, especially millennials, are embracing alternatives to private car ownership — and their employers should be, too. When combined, public-transport, micromobility and shared mobility, enabled by technology and easy-to-use apps, together create a credible, more attractive alternative to the classic ‘one-person, one-vehicle’ paradigm.

At the same time, fleets are transitioning from owned and operated in-house vehicles, to shared, automated cars, vans, delivery trucks, and heavy-duty vehicles. Fleet management is changing — the dividing line will increasingly be between the organizations that lead the new mobility revolution, and those that were too slow to adapt.
Chapter 1:
What’s driving the shared mobility revolution?
There are a wide variety of factors driving the current mobility revolution. These include not only economic and environmental concerns, but also technology trends, transitory lifestyles, changing regulatory conditions, improved public transport, and the rise of ridehailing and carsharing.

The rapid decline of vehicle ownership

For a variety of reasons, consumer attitudes are quickly shifting. **Within the next decade, not owning a vehicle will become the norm — not just accepted, but embraced by a new generation of mobility users (no longer called ‘drivers’). This defines an end of the car industry as we know it, and a rise of new choices for consumers, for employees, and for corporations.**

Relative to their combustion-engine counterparts, electric vehicles will be much cheaper to maintain and use. On top of this, sharing vehicles implies a reduced cost-per-mile travelled for both businesses and end-users. Add gradual automation of vehicles (and a resulting reduction in accident rates), and you have a trifecta of economic factors driving a mobility revolution.
The extraordinary rise of carsharing and ridehailing

Ridehailing and carsharing are two of the most significant and fastest-growing shared mobility services that are enabling an end to car ownership. Carsharing — whereby users have access to a fleet of cars they can (still) drive themselves — is forecast to grow into a US$4 billion market, just in Europe by 2024. Ridehailing — a sector that includes companies like Uber, Lyft, Careem, Didi and Grab — is even forecast to grow from US$1.2 billion in 2017 to US$133.5 billion in 2023, according to Statista and Graphical Research (Figure 1).

Carsharing and ridehailing are succeeding precisely where car ownership is failing: cost and ease of use. The burden of cost and maintenance that comes with owning a vehicle is a yoke that younger generations (and many older people too) are unwilling to bear. This appeal and simplicity is not lost on corporate users. Uber has triumphed over car-rental and taxis on business trips, and has become the single biggest recipient of corporate travel expenses among US companies (Figure 2) — ahead of all hotel chains, restaurants, and airlines.
In Bank of America Merrill Lynch research across over 60,000 respondents, close to one-quarter of respondents in Europe (and one-third in Asia) said they’d get rid of their private car and rely on mobility-services instead (Figure 3). Furthermore, 42% of respondents globally believed that driving will be replaced by mobility services (Figure 4).

Key takeaway #1

Given the cost and ease of use benefits, organizations should consider shared mobility solutions — their employees and customers have already embraced them.
Money talks: Tax laws, incentives and TCO

The corporate mobility industry is driven not by purchase price, but by a total cost of ownership (TCO) that comprises the depreciation of a vehicle, insurance, maintenance, interest and fuel costs. Often, it also includes parking, repairs, and taxes. Indeed, in some cities road and fuel taxes alone may account for up to 25 per cent of the TCO of a vehicle, making both electrification and vehicle sharing attractive to companies, just the same as individuals.

In order to meet environmental targets, as well as regulatory requirements and global agreements, many governments across Europe have already introduced tax incentives for hybrid and electric vehicles. In Germany, for instance, an annual vehicle tax is dependent on both the displacement (€9.50 for diesel and €2 for petrol per 100cc) and CO2 emissions (€2 for every gram above 95g CO2/km). In the Netherlands, EVs are exempt from registration tax. France has significant subsidies available (up to 27 per cent of purchase price) for low-emission vehicles. The success of electric mobility in Norway — where over half of new vehicles are fully electric — can also attributed to their being able to use bus-lanes, and park in the city for free.
Cities and citizens are demanding change

We’ve all heard the stat that over half of the world’s population now lives in cities, and, according to the UN, that 68% will do so by 2050. This is already the case in most of the developed world: In Northern America (82%), Latin America and the Caribbean (81%), Europe (74%) and Oceania (68%), more than two thirds already live in urbanized areas, and the numbers are increasing. City planners are overwhelmed with challenges of driver and pedestrian safety, traffic congestion, air pollution, and climate change.

EU law states that every citizen has the right to clean air, yet the daily congestion caused by ICE vehicles has led to illegal pollution within countless European cities (not to mention in parts of Asia and South America). Rather than building more roads (which actually induces more demand and exacerbates congestion), cities in Europe have increasingly introduced urban access restrictions to help reduce congestion and pollution, improve efficiency for business, and improve the general quality of life for residents and visitors.

Low Emission Zones (LEZs) aim to regulate vehicular access to reduce pollution in the worst areas — usually by banning, or charging, vehicles with higher emissions. Germany operates one form of LEZs in over 80 urban areas, Italy in 20 regions. London launched its Ultra Low Emissions Zone (ULEZ) in April 2019, and the Paris Crit’Air scheme is perhaps the most advanced scheme of them all.

For freight forwarders and logistics companies, it presents new, but not insurmountable challenges. Any business looking to operate trucks in London’s Ultra-Low Emission Zone, for example, has to make sure its vehicles are Euro 6 compliant or face hefty charges. On the other hand, compliant fleets have an opportunity to differentiate and gain competitive advantage.
Doing good: A new focus on Corporate Social Responsibility

Today's consumers, particularly younger generations, put a greater focus on ethics in the brands they choose. They look for an alignment of values, including sustainability. **Fleet managers — who previously have mainly considered total cost of ownership as their key metric — are now tasked with decreasing emissions, often even more so than costs.** This also presents an opportunity for early adopters.

Deutsche Post DHL, for example, operates the largest electric fleet in Germany, and has even developed and manufactured its own vehicles inhouse — including vans, e-bikes, e-trikes and its own bespoke ‘StreetScooter’ vans. The company plans to replace its entire mail and parcel delivery fleet in the mid-term with electric vehicles that are charged with electricity generated from renewable energy sources.

**Key takeaway #2**

Companies that take the initiative and switch to electric and alternate-modes of mobility are positioned as CSR leaders, and can generate both public and employee loyalty.
Opportunity knocks: Multi-modal and corporate mobility

With cars increasingly disincentivized in major cities, we will see a shift towards car use on a needs-only basis, through services such as carsharing and ridehailing. This often correlates with higher use of public and active transport modes, better air quality, and improved public health.

Karsten Crede, CEO Mobility Solutions, ERGO Digital Ventures AG notes that in urban areas:

“Mobility providers and platforms will gain in importance where a higher diversity of fleets will co-exist. This will also result in a different structure of corporate fleets. Corporate mobility offers will change in the sense that fleet managers will not only provide cars, but additional modes of transportation to their users. The flexibility of this offering and the intelligent orchestration of mobility services will be key success factors in the future.”

The overall target is of “seamless multi-modal mobility,” adds Crede. “This will clearly increase the comfort of traveling and commuting at an affordable price. Key challenges here, however, are the integration and standardization of multiple transportation systems and the optimization of routing and ticketing to provide a real customer value.”

Key takeaway #3

To take advantage of shared mobility opportunities, CEOs and fleet managers should integrate additional modes of transport into corporate mobility plans, open fleets up to sharing, create new business models from shared assets, think ahead to an autonomous future, and work with cities to improve quality of life for all.
Chapter 2: What shared mobility means for fleet managers
Sweating assets and fostering employee engagement

Corporate carsharing (CCS) is both an efficient way to keep employees mobile, and a means of maximizing vehicle utilization within a given fleet. Benoit Laflamme, Head of BNP Paribas Rental Solutions, offers contract vehicle hire and full lifecycle support to large corporate clients, typically with fleets of 50-plus heavy-goods vehicles (HGVs). BNP Paribas also owns Arval, the car and light commercial vehicle (LCV) leasing provider. According to Laflamme, “The new reality in our industry is we are in an optimized chain, similar to a just-in-time delivery concept,” he explains. “More and more of our clients closely follow their vehicles’ usage and are optimizing them around their depots.

Every vehicle is important and last mile is very important — now they are questioning, ‘do we need to get into the city or do we just drop in a depot and have another type of energy do that last mile?’”

For CCS to run smoothly — whether it be perk-cars or utility vans — planning reliability is essential. It typically requires a separate software solution for companies to profit from all the benefits of car sharing fleets: to easily manage a vehicle pool from electric bicycles to haulage trucks, employees need to be able to comfortably book vehicles via computer or smartphone.

“In terms of accessibility, we have super computers in our pockets that give us location information. If you live in a big urban environment, this is a reality now,” says Laflamme. “More and more companies are opening up their fleet of corporate vehicles to share with employees during the weekends and evenings, to sweat those assets, get better use out of them.”
Managing the mobility needs of the company and community

City planners foresee a near future in which ridesharing and public transport will merge into a web of on-demand transport solutions. Fleet managers (whether they know it or not) are on a journey from managing grey fleets to outsourcing and leasing, ending with carsharing, mixed mode mobility and, eventually, overseeing a shared autonomous fleet.

At BNP Paribas, this is the ‘direction of travel’ that Benoit Laflamme sees, too: “I think society is realizing that investing in steel parts on a road that are used only 20% of the time and generate parking tickets and expenses, is no longer relevant in a world where you can have a van when you want a van, a car when you need a car, and a more comfortable car for longer journeys.”

“The company car as a benefit is under question,” he says. “In the car contract hire space, we see regulations changing, people are questioning the tax impact. With the addition of flexibility and availability of multiple transport modes, mobility is becoming more attractive — especially for workers who are not on the road all the time, who live in main cities.”
The business case for shared fleets

As fleet managers begin to share vehicles in a more efficient way, the business rationale becomes clearer and clearer. The MIND-SETS Knowledge Centre (MSKC), a European intelligence facility for shared mobility, suggests corporate carsharing:

- Eliminates the high overhead and maintenance costs of a company vehicle fleet
- Reduces the need for staff to bring a car to work
- Offers operational advantages over previous fleet-based models
- Can optimize vehicle utilization during periods when the demand for personal use of carsharing services is low
- Adds flexibility through increased mobility options
- Is effective as a transportation demand management and parking management tool

All of this offers fleet managers multiple cost-savings, CSR benefits and employee-friendly options to take to the CEO.
Chapter 3:
The advantages of shared mobility for CEOs
As with any underused asset in an organization, fleet vehicles now deserve renewed attention from the CEO. Attention, not because they are a cost-item to the company that can be reduced, but because they can actually be made to generate income for the organization.

A trillion dollar opportunity and a new value chain

Mobility-as-a-service, or MaaS: It’s been quantified as anywhere from a $750 billion to a $9 trillion opportunity, and it’s forcing a rethink of every part of the automotive, public-transport, and urban infrastructure industries.

In short, a new value chain is emerging, and it looks nothing like what automakers (or even fleet operators) have known before. Whereas before, the OEM sold its vehicles via dealers (and financial services companies) to end-customers, in the new value chain, the OEM sells vehicles into shared-mobility fleets. Fleet management has a central role to play, as it in-fleets, de-fleets, maintains, cleans, repairs, and recovers vehicles on behalf of mobility operators such as Uber and Lyft.

Mobility operators and MaaS aggregators such as Citymapper, Alexa, Google Maps and Moovit are closest to the end customer — they are the ones who maintain contact to the customer, while on the left of the value-chain, are contributors and suppliers to the OEMs. When customers only ever use their smartphones to command transportation, it’s the aggregators that give them the choice — operators (ridesharing, ridehailing and carsharing) merely execute it.
Advantage 1: From cost center to revenue driver

Mobility operators can also include corporate carsharing (CCS) providers — which means this could be a win-win for CEOs. Fleets shouldn’t be cost centers. Like any other asset, they can be made to sweat — and generate a profit. **What appears as a necessary evil in your business today, can be a revenue driver within the new, mobility-as-a-service value chain tomorrow.**

Implementing electric and shared vehicles is a sensible first step for CEOs. According to the CB Insights paper, *Auto & Mobility Trends in 2019*, “A growing number of companies are reshaping the way people move themselves, offering mobility solutions as on-demand services to cater to individual travel needs.”

Such measures are not just about shaving off single figure cost percentages — they may be increasingly needed to meet mandated carbon targets, too. The additional, incurred cost of emissions trading or carbon tax on the vehicle fleets can potentially be recouped by corporate carsharing.
Advantage 2: Optimized assets and staff satisfaction

Another opportunity is to add additional modes of transportation and enable corporate fleets for out-of-company sharing.

For urban workforces, the ease of shared mobility is becoming a key employee engagement driver. Access to electric vehicles is even more attractive to employees, especially for the Millennial generation. To enable the switch, most fleet management and mobility companies are now offering corporate customers turnkey solutions — which includes the option to install electric charge points at employees’ homes, as well workplace car parks and depots. Private usage and charging is then charged separately to the workplace usage, even directly out of the payroll, offering employees a seamless user experience.

Shared mobility can further impact reliance on a personal vehicle, especially for first- and last-mile connections, using micro-mobility options such as bikes and scooters.
Advantage 3: The right software provides a path to profit

The MaaS space is rapidly growing, and automakers have launched a number of services, including car-sharing (GIG Car Share and ShareNow), ridehailing (myTaxi, Blu Smart and Clever Taxi), parking (ParkNow and Parkmobile), electric vehicle charging (ChargeNow and Digital Charging Solutions), and on-demand mobility (such as VW’s MOIA). Still, their activities pale in comparison to the levels of investment from the largest global mobility providers, including Uber, Didi, and Grab. A surge in investor interest follows rapid consumer adoption, as micro and electric vehicles provide short-distance transport solutions for urban dwellers.
Mini Case Study

Ridecell’s award-winning platform powers Madrid’s largest carsharing system: Zity’s all-electric vehicle carsharing fleet.

In Madrid, Ridecell worked with French automaker, Renault, and Ferrovial Servicio, a Spanish infrastructure operator to launch ZITY, an on-demand car-sharing service made up of 650 all-electric Renault Zoe cars powered by Ridecell. In response to the city’s Zero Emission Zone that limits access to central Madrid to residents and all-electric vehicles only, each shared vehicle is expected to replace 9 to 12 privately owned cars. Gas emissions are expected to be reduced by 40 percent as a result.

With its 300-kilometer range, Renault’s Zoe allows ZITY to operate across central Madrid’s 96 km² area, one of the largest active car-sharing zone of any city. The car-sharing service was an instant hit with Madrileños rating the service on average 4 to 5 stars. Within a year, ZITY gained almost 200,000 users, covered more than 9.5 million kilometers and averaged 8 rentals per car, per day.

The better the back-end software, the more it will be able to optimize for demand-peaks and thereby predict use cases — both within working hours and outside of them. This may include corporate carsharing for daytime business trips, renting vehicles to Uber and Lyft drivers in the evening and at night, and enabling them for local and community use during the weekend. A fleet so optimized has the potential to truly ‘earn its keep’ for the fleet-owner.
Chapter 4: The corporate roadmap to shared mobility
Corporations who emerge as early adopters in this space have the opportunity to awaken and monetize a sleeping cash-cow. Stationary grey fleets can become roaming carsharing services for both urban and employee operations. This has the potential to boost employee satisfaction, CSR credentials and the bottom line, all at the same time.

**Shifting the paradigm**

Frost & Sullivan predicts a more than three-fold increase in carsharing globally within the next five years. It has the potential to satisfy individualized transportation demands in a sustainable and socially beneficial way, by decreasing the demand for cars, lowering emissions, reducing traffic and parking congestion, and increasing social cohesion amongst sharers.

The biggest (and fastest) transformation can be seen with corporate fleets — the benefits are scaled and fleets are cycled more quickly than for private consumers. However, legacy fleets and entrenched attitudes can remain a barrier. **The following sections contain three steps companies can follow to fully embrace the new paradigm.**
Step 1: Enable shared fleets

Corporate carsharing has emerged as a replacement for pool cars for many fleet managers, using the likes of Fleetster, Zipcar, and Enterprise Car Share. According to Morgan Stanley estimates, vehicles in carsharing fleets have the potential utilization rates of up to 50% a day, compared with 6%, or less than 90 minutes a day for single-user vehicles.

Both small and large business are primed to adopt and benefit from shared mobility models — for both people and freight. Uber Freight is a fast-growing part of the ridehailing giant, while local restaurants and retailers can already leverage the sharing model for everything from food delivery to business supplies, via Deliveroo, UberEats and GrubHub.

On-demand platforms for corporate enterprises also strategically position shared mobility as employee benefits. For the 18–34 age bracket, free or subsidized access to carsharing is an attractive offer as it is already part of their normal consumer behavior (Figure 4).
Separating drivers from dedicated fleet vehicles may seem a daunting task, but reducing time wasted by one-driver-one-car processes makes for a promising business case. The average car sits unused for more than 90% of the time, carries barely more than one person, and costs $8,500 a year to own and run. Each car occupies 150m² of urban land and thereby contributes to congestion — which costs the EU economy €100 billion annually. One US study indicates the global car fleet could be reduced by a third if sharing schemes were widely adopted.

Similar benefits are available when switching a corporate pool or grey fleet to a shared electric fleet. The corporate roadmap to shared mobility must therefore include getting employees accustomed to carsharing processes, including digital, app or intranets system for drivers and employees to access and book their fleet vehicle.
Step 3: Enable new business models in mobility

Across Europe, integrated concepts that combine public transport, carsharing, ridehailing, and bikesharing into a monthly flat-rate are emerging under the banner of “mobility-as-a-service” (MaaS). With more millennials moving into cities, the concept is taking off as a business model.

MaaS aggregators are aiming to add every mode of transport in a city available in a single smartphone app. The “father” of mobility-as-a-service, Sampo Hietanen, has launched his multimodal subscription app, Whim, in Helsinki, Antwerpen, and the West Midlands in the UK. Citymapper, Moovel, Moovit, Cubic, Transit and the German MaaS application Jelbi all include multiple transport options and are vying to include payments across all of the modes. A whole generation is more used to booking a ride via an app and jumping into shared transportation, than they are being at the steering wheel.

This paves the way for full automation — the ultimate business model for ridehailing and automotive companies.
Chapter 5: The next revolution will be autonomous
A vision for the future

Elon Musk imagines a day when Tesla owners can sit back and let their car drive for them — and when they aren’t using it, let it roam the streets as a revenue-generating ‘Robotaxi’.

Chris Jackson, who runs one of Britain’s largest vehicle fleets as Head of Fleet Electric Vehicle Strategy at Centrica, agrees that autonomous fleets will be the next progression for fleet operators from the shared model. “Not only in the form of significant savings from the reduced number of vehicles,” he says, “but also from the combined benefits of increased productivity and reduction in stressful travelling this will bring.”

Intel and Strategy Analytics claim that autonomous vehicles will be responsible for US$7 trillion worth of economic activity and new efficiencies annually by 2050 — over half of which will come from driverless ride-hailing services. There are many other benefits and applications as well.

**Enhanced productivity**

Progressing toward fully-autonomous vehicles is integral to the overall, long-term MaaS vision. Users should be able to move seamlessly through a city or region, hopping from one transport mode or another.

“MaaS will ultimately mean fewer ‘traditional’ fleet vehicles, so seamlessly integrating other forms of transport into the overall asset mix should be seen as a logical progression”, says Chris Jackson. “Fleets will see shared mobility as a chance to add a layer of increased productivity due to less time lost while driving and also a generally more mobile workforce, and a good CSR benefit would be increased efficiency from more people using fewer vehicles”.

Another major transformation is just around the corner: autonomous vehicles. What will corporate fleets look like, and how will they be managed, when the act of driving itself becomes optional? Here’s a glimpse at some of the implications to the industry.
**Last mile robot logistics**

Accessing autonomous roaming fleets — either owned or provided by third party operators — will likely be of most interest for “last mile” logistics. Amazon has invested over $1 billion in autonomous technology, including by piloting delivery robots, and acquiring startup Aurora. It’s betting that shared and autonomous technology will be mutually supportive in logistics.

According to Adam Robinson of logistics company Cerasis, “Last mile automation and robotics can level the playing field between companies that built dedicated logistics networks with last mile delivery in mind and those new to the game or just beginning to embrace the technological revolution.”

**Commercial trucking applications**

Benoit Laflamme sees autonomy transforming the heavy truck space, too. “The big reality in transport is: we are faced with an aging [employee] population and an undesirable lifestyle for the younger generation. That is really shifting things. Most large companies are really keen on seeing developments in driverless vehicles because all of a sudden, those problems can be fixed.”

One of the most promising short-term applications of autonomous technology is **platooning for commercial vehicles**. Trucks traveling close together significantly reduce air-drag friction, facilitating emissions reductions and fuel savings up to 10%. It also may mean that only the lead vehicle requires a driver.

**New value for fleet management**

The fleet management industry has the potential to grow into an integral part of a new mobility value chain.

“**Autonomous vehicles have the potential to be a game changer to fleet management and car sharing along the dimensions of availability and profitability**”, says Karsten Crede, of ERGO Digital Ventures AG (who have also invested into Ridecell).

The connected fleet is enabled for greater availability, and as Krede notes, “Availability means longer operating hours as well as on-demand re-location of cars.”

**Safety in numbers**

The US and Europe each suffer around 35,000 annual road fatalities, from over 5 million vehicle crashes, respectively. **Over 90% of these fatalities are attributable to human-driving, and a significant number of these are of so-called vulnerable road users: bicyclists, pedestrians and motorcyclists** — often times overseen by ever-heavier and more isolated vehicles. There is reason to believe autonomous technology will reduce this.

Benoit Laflamme expects this to be the biggest impact in the HGV space, too: “If you are in an HGV, you are quickly presumed to be at fault if you hit a smaller vehicle or pedestrian. Eliminating human error will have a big safety and compliance impact.”
Ridecell: a good choice for fleet operators.

The cost and challenges of operating a fleet are seen as a necessary evil by many corporations. In the shared mobility future, Ridecell strongly believes this shouldn't be the case.

For the past 10 years, Ridecell has been in the shared mobility business developing the world’s only High-yield shared mobility™ platform. It can help organizations position themselves within the new Mobility-as-a-Service value chain, and put their fleet on the path from ongoing cost to potential for profit.

With our toolkit of intelligent software, services, and ecosystem partnerships, Ridecell customers are able to enable shared fleets, maximize operational efficiency and fleet utilization, better engage employees, boost corporate responsibility credentials, and open up potential new business models and revenue streams.

Most importantly, the Ridecell High-yield Shared Mobility platform helps future-proof businesses against disruption. No matter how or when it happens, Ridecell customers are covered.
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