Allianz Partners

New Mobility States of Mind

Understanding the latest trends and changing perceptions of new mobility users

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Introduction

We are mid-way through a mobility revolution. Innovation is everywhere. The rapid rise of EVs, the growth of micro-mobility (including e-scooters and e-bikes), and the radical changes in the way people are accessing and paying for mobility are transforming the sector. At the same time, national and local governments are changing the policy and regulatory environment. All this is set against the backdrop of increasingly stringent targets on carbon reduction and major efforts to improve the air quality in the world's urban areas.

A series of mindset shifts is underway among the wider public and world at large, alongside the technological, economic, and environmental factors driving these changes. This report aims to provide a better understanding of just how perceptions, expectations and experiences of mobility are changing.

It explores three key mindset shifts in detail: the public's growing appetite for greener transport options, the move away from ownership of vehicles towards mobility-as-a-service (MaaS), and people's increasing openness to new forms of micro-mobility. In examining how public opinion is changing in these areas today, the report looks to the future and how these trends are likely to develop – and what needs to be done to support change.

As well as drawing on Allianz Partners' proprietary research with more than 25,000 consumers, the report is based on the insights of two global experts in mobility: Alejandro Agag, founder and Chairman of Formula E and Extreme E, and Michael Maicher, Global Partner and Director, and Global Chief Sales Officer for New & Micro-Mobility at Allianz Partners.

Understanding people's States of Mind on New Mobility: Key Takeaways

Mindset Shift 1: Embracing greener transport

Falling costs, increasing environmental awareness and ever-improving performance have accelerated adoption of EVs in recent years. The appetite for further growth is huge; Allianz Partners' research found that 60% of drivers are likely to make their next car electric or hybrid, including 75% of those aged 25-40 with children.

However, it remains a long road to decarbonise the privately owned fleet. Rapid investment in charging infrastructure is essential to address current limitations in many regions, and policymakers must continue to provide a supportive environment for the further acceptance of sustainable modes of transport. Breakthrough technology – such as ultra-fast charging and the successful application of AI to significantly improve battery chemistry – could prove to be the real gamechangers. But these are by no means guaranteed, and action on greener transport will be required across the board.

Mindset Shift 2: From vehicle ownership to usage

Since the first mass produced motorcars rolled off the production line over a century ago, owning a vehicle has been inevitably linked to personal freedom and aspiration. But for the generation of today, mobility-as-a-service (MaaS) is becoming much more attractive. That's down to a combination of push and pull factors, including rapid inflation and high vehicle running costs, as well as significant improvements in what's on offer from MaaS providers.

Looking to the future, further improvements in the consumer propositions from MaaS companies is highly likely, especially as interconnectivity and collaborations between MaaS platforms improves. The introduction of autonomous vehicles (in the form of 'robo-taxis', for example) would further accelerate the trend away from ownership and towards shared usage.

Mindset Shift 3: Micro-mobility goes mainstream

The rapid growth in the use of e-scooters and e-bikes has taken micro-mobility from niche to mainstream. In many cities, transport systems are undergoing a transformation as more people adopt micro-mobility modes of transport – attracted by its low costs and flexibility. However, there remains limited knowledge about rules and regulations governing micro-mobility – as well as a lack of clear public policy in many places. Thirty-two percent (32%) of people don't know if they are required to take out insurance when they're using an e-scooter. Similarly, 31% of people are unsure if insurance is required to use an e-bike.

These issues have the potential to limit the effective adoption of micro-mobility and could prompt more public backlash, despite the clear consumer appetite. In the future, there is the opportunity to integrate public transport and micro-mobility, as well as to increase interconnectivity across platforms. This could involve the availability of all service providers being provided on one platform, thus ensuring micro-mobility services are always both convenient and accessible.

About the Report

These trends have been developed from a combination of Allianz Partners' proprietary Customer Lab research, in-house consumer behavioural insights, and research from across the mobility ecosystem – all of which is referenced throughout the report. The report also draws extensively on input and analysis from two leading mobility experts:

Alejandro Agag has been at the forefront of innovation in mobility for more than two decades. As the founder and Chairman of the Formula E, Extreme E, and Extreme H racing series, he brings a unique perspective on the technological developments, political realities and commercial imperatives that are shaping mobility today. Alejandro established Formula E (the world's top electric racing series) in 2014 following a highly successful career in business, sport and politics. He served as an advisor to the Spanish prime minister at age 25 and was elected to the European Parliament in 1999 aged 28.

Michael Maicher is Global Partner & Director and Global Chief Sales Officer for New & Micro-Mobility at Allianz Partners. With more than 25 years of experience in the insurance industry and previous leadership positions, he gained leading insights working across various countries around the world for Allianz Group. In his current position, Michael addresses digital disruption of traditional industries and on-demand economy with a focus on mobility and platform marketplaces. He follows the vision to build a vibrant and productive ecosystem of partners - across Mobility, Travel, Home & Living and Care, with specific focus on the Digital- & Sharing Economy.

Alejandro and Michael took part in a detailed discussion exploring the data and the recent trends in health and healthcare. Quotes from their discussion are included throughout this report.

About the Customer Lab data

Allianz Partners' Customer Lab is a proprietary quantitative database of consumer insights. The 2022 data was collected in Spring 2022 and involved surveying over 25,000 consumers across ten major markets: Australia, Belgium, Brazil, Canada, China, France, Germany, Italy, UK, and USA. Data is analysed at a country and age group level, as well as at the total sample level.

Mindset Shift 1: Embracing greener transport

"With the development of AI, we're at the forefront of the biggest technology revolution in history. The combination of AI with quantum computing - which is coming soon - is going to massively advance the speed of processing and achieve transformative breakthroughs in areas such as battery energy density."

– Alejandro Agag

Increasing consumer interest in sustainable mobility

Over recent years, consumer interest and concern about sustainability in general – and climate change specifically – has been well-documented. That interest has had a significant impact on the mobility sector.

Allianz Partners' Customer Lab data revealed that 60% of road users are likely to make their next car electric or hybrid, with 75% of those within the 26-40 age demographic with a family being likely to do the same. Sales of electric vehicles (EVs) increased by 60% in 2022, according to Quartz.

While increased public awareness of issues such as climate change are an obvious motivation for this trend, there are many other reasons contributing to a greater adoption of greener transport. Cost is one key factor affecting the use of cars. Just as EVs have become more affordable in recent years due to advancements in technology, the price of fossil fuels has increased.

Likewise, micro-mobility forms of transport – which includes e-scooters, electrically-assisted pedal cycles (e-bikes) and electric mopeds – have become a convenient and low-cost form of transport to which individuals are turning as an alternative for cars.

The need for bold policymaking

These changing dynamics create a fertile environment for the decarbonisation of transport. But the sheer variety and scale of change required means policymakers are often left playing catch-up. Policymakers aren't always given time to learn and adapt to new developments due to the ever-evolving nature of the industry. There remains a need for further improvement of regulatory frameworks to make e-mobility more attractive to customers, while making combustion engine models less attainable.

Legislators have set the overall direction of mobility. The European Parliament recently voted to ban the sale of combustion engine vehicles by 2035. European policymakers also established rules which aim to reduce emissions by 55% for new vehicles sold in the EU by 2030. However, these developments were resisted by some countries - most notably Germany, who subsequently reached an agreement with the European Commission to continue selling combustion engines that run on synthetic e-fuels after 2035.
Meanwhile, the United Kingdom and Denmark are planning to ban the sale of new combustion engine vehicles by 2030.

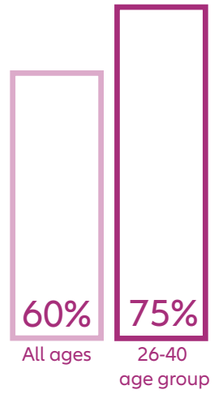
The United States have committed to a ban by 2035 after President Joe Biden signed an executive order in 2021, with policymakers in China making a similar commitment.

Despite those commitments, further incentives are needed to accelerate the transition to greener forms of transport. Introducing subsidies and tax breaks for those opting to use greener transport is a natural starting point. Parking incentives can also be introduced, particularly in cities with a shortage of parking facilities. A bold move by some policymakers involves closing city centres to all vehicles but EVs. Rome, for example, has recently introduced car-free zones on Sundays, with exceptions being made for EVs and hybrids. In other cities such as London, the cost of driving a non-EV car in the city is very high.

"A lack of charging stations is holding back the green revolution at the moment and there is a need for both government and private investment. Institutional investors are still holding back because they are unsure of the regulatory frameworks. Once that's confirmed, the floodgates will open and long-term capital will flow in."

– Michael Maicher

Road users likely to make their next car electric or hybrid



Investment in infrastructure

Arguably, the single biggest change required is investment in charging infrastructure. A recent report by EY projects that EV sales will account for 55% of total global vehicles sales by 2030. An investment of USD $110-180 billion is needed by 2030 to satisfy this demand, according to a 2021 McKinsey report.

Setting a solid foundation on which to build this new ecosystem will require diverse infrastructure to cater for the many forms of green mobility. Micro-mobility vehicles, mobility-as-a-service (MaaS), green public transport vehicles and green delivery vehicles must all eventually be accommodated.

As more people transition to EVs, ultra-fast charging will be required to cope with the demand. Following the rapid uptake of EVs in Oslo, widely regarded as a pioneer in the transition to greener mobility, the city faced an availability problem with increased demand for charging points. Local authorities, in conjunction with private companies, devised a solution to the issue by installing charging points with faster charging speeds, ensuring a higher turnover of cars at every charging point and achieving greater efficiency. The introduction of indoor parking facilities for EVs only have also addressed this issue, speeding up the city's journey towards becoming fossil-free in the coming years. The Oslo model therefore offers an achievable blueprint from which other cities can follow.

The potential for game-changing innovations

The success of Tesla, a standard-bearer of EV engineering, has inspired the industry to embrace this evolution. Competition has increased in the industry; as well as most established automotive manufacturers investing heavily in the production of EVs, there are new entrants that focus solely on the production of EVs – such as Fisker, Lucid or Rivian. China, already today the largest EV market globally, is expected to play a leading global role with the gradual international expansion of its well established local brands, such as BYD, SAIC, NIO, Great Wall Motor and others.

This competition has sped up the pace of development, meaning customers wishing to invest in EVs have more choices than ever. According to the International Energy Agency (IEA), there were 450 models of electric cars available globally in 2021 – more than twice the number of models available in 2018.

Recent innovations have also seen manufacturers' profit margins on EVs increase, with those margins expected to match that of combustion engine models in the coming years. But while these are promising signs for the industry, there is much scope for improvement in terms of range and charging times. Technological progress on these fronts will likely remain linear, with only incremental improvements year-on-year, in the absence of a revolutionary AI advancement regarding battery technology.

A step-change in battery technology would have far-reaching consequences beyond the mobility industry, with batteries then having the capability to provide increased storage to local power grids and homes.

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The role of e-racing in shifting mindsets

Creating the more functional mobility ecosystem of the future will require a multifaceted approach. But as well as encouraging this mindset shift, any future mobility trends must be fun and aspirational. Building on these positive mindset shifts means making cleaner, greener mobility solutions attractive.

The growing popularity of events such as Extreme E and Formula E is a fascinating case study and fuel for inspiration. The events bring together cutting-edge innovation in green technologies with a compelling proposition to motorsport fans.

These events receive support from across the political spectrum and provide ways of engaging with public audiences who may be otherwise hard to reach. And in highlighting the importance of urban infrastructure and municipal governments in the transition to a lower carbon future, they demonstrate and underline the vital role that cities will play.

Mindset Shift 2: From vehicle ownership to usage

Moving away from ownership

Younger generations are less likely to own vehicles for a variety of reasons. For many – particularly those who live in cities – the use case for owning a car may be relatively weak. An Ellen MacArthur Foundation report found that cars in Europe remain parked 92% of the time.

Financial factors are also a key concern. Private ownership is expensive, particularly for younger generations whose disposable incomes may be squeezed by high inflation and living costs. Allianz Partners' Customer Lab data from 2022 revealed that 6.4% of road users had purchased their vehicle through leasing. However, 12% of road users were planning to purchase their next vehicle through leasing. The recent data also revealed that 18.6% of those aged between 18 and 25 plan to purchase their next vehicle through leasing.

The increased cost of buying a car leaves many with no other option than to purchase older second-hand cars that are more prone to unexpected expenses. With people looking to find more certainty in their expenses amid the current economic environment, vehicle maintenance and repairs are increasingly being seen as an unnecessary and costly burden.

In this context, many people are exploring mobility-as-a-service (MaaS) options as genuine alternatives to private ownership. It makes economic sense for those who aren't as financially secure as others, usually younger generations, to explore other options to private ownership. By 2030, shared mobility could generate up to $1 trillion in consumer spending, according to a McKinsey report.

MaaS is an increasingly attractive proposition

Despite the push factors that are reducing access to private vehicle ownership, psychologically, people are still attracted to the idea of owning their own car. Owning a vehicle provides a sense of freedom and flexibility that mobility-as-a-service forms of transport has often struggled with.

In response, the mobility-as-a-service industry is developing a more attractive proposition. Companies in the sector are making significant progress in tailoring the offer to their customers' needs – especially when it comes to accessing services. Some companies offer flexible car return policies with subscribers capable of picking up a car in one location before returning it to another station. Free parking in urban areas is another attractive offering for users.

Meanwhile, vehicle manufacturers such as Lynk & Co offer monthly subscriptions to consumers which allows them to share their car with others in their community for a fee, thus lowering their own individual mobility costs.

The supply of cars in cities is also increasing, meaning people are more assured of availability when they require a vehicle. New Mobility providers such as Bolt in Tallinn have accurately calculated how many cars the city needs to be more widely accepted by its users as a true alternative to car ownership and have reacted accordingly. Other car sharing operators, such as VULOG or Mobilize, have already started to test their concepts in Lyon in the hope of following suit. There have also been advances in the creation and management of parking spots for shared cars.

Any increase in the number of MaaS vehicles will need to come with closer engagement with municipal authorities. More interconnectivity will also be required between providers to ensure there are reliable platforms that can provide an overview of shared mobility availability at any one time. This is already being explored successfully on Google Maps. Convenience is paramount to consumers assessing the sustainability of shared mobility.

What the future entails

The most revolutionary development within the mobility-as-a-service industry in the coming years is set to be the widespread adoption of driverless cars.

The emergence of these 'robo-taxi' trips would transform the mobility ecosystem beyond recognition. Moreover, a McKinsey report estimated that the cost-per-mile of a 'robo-taxi' trip could be just 20% higher than that of a private non-autonomous car trip. Meanwhile, 'robo-shuttle' trips that can cater for an occupant capacity of up to 10 people could be 10-40% cheaper than private nonautonomous car trips.

With most manufacturers already developing autonomous cars, the implementation of the next phase of driverless technology is imminent.

"Interconnectivity between multiple providers will ensure more people will view shared mobility as a true and valuable alternative to private ownership. There may be continued multiple individual service providers in future, but only with a more unified one platform approach people will be allowed to look up and get access to availability easily."

-Michael Maicher

Mindset Shift 3: Micro-mobility goes mainstream

A new transport option

Despite the name, there is nothing small about the recent micro-mobility revolution. While still in the early years of its development, the industry has experienced enormous growth globally over the past five years. By 2030, the shared micro-mobility market could reach $50 billion to $90 billion, a roughly 40 percent increase each year between 2019 and 2030, according to a McKinsey report.

Digitalisation has helped to accelerate the growth of the industry, allowing new platforms to embrace intermodal mobility. Lime has opened its platform to competitors in the two-wheel mobility landscape, providing users with more choice and availability in cities around the world. Uber has done likewise, opening its platform to Lime, providing an even greater access and choice to users.

Meanwhile, Google has allowed people to access Lime, Uber and other companies' services via their platform, Google Maps. With the cost of micro-mobility ownership also quite low in comparison to other forms of mobility, the volume of users has skyrocketed in recent years. According to Customer Lab data, almost two-thirds of vehicle users aged 18-24 have used an e-scooter since the pandemic. Meanwhile, 41% of vehicle users reported having used an e-bike post-pandemic.

But the rise in popularity of micro-mobility has not been without issues. A recent referendum in Paris banned the use of e-scooters in the city, while there have been campaigns to introduce harsher restrictions in Brussels, Copenhagen and London.

The importance of education and regulation

As the popularity of micro-mobility forms of transportation is rising dramatically, there are many challenges in terms of safety and education. Policymakers have struggled to maintain pace with the trajectory of the industry. While some countries can still do more to tackle these issues, education and regulation is practically non-existent in others.

"Micro-mobility options are replacing not only cars but also, allow a more convenient and affordable access to public transportation with improving services to the first and last miles. This can help to further decrease pollution, noise and congestion levels, while using urban space more efficiently."

- Michael Maicher

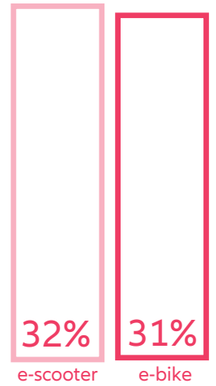
Customer Lab data reveals 32% of people don't know if they are required to take out insurance when they're using an e-scooter. Similarly, 31% of people are unsure if insurance is required to use an e-bike. Although the industry appears to be in a healthy state, it is essential to address these sorts of concerns and offer the appropriate embedded insurance solutions.

Some obvious steps can be taken to address the lack of education and regulation. As a starting point, the micro-mobility industry needs to be viewed as an ecosystem where every individual player is expected to actively engage in improving safety and security. There must also be a desire from all stakeholders to improve hardware and the overall product which must include options for regulation and education. Only then can confidence be built in a comfortable, safe and sustainable experience among more potential users.

Revolutionising the mobility sector

As micro-mobility continues to go mainstream, the traditional automotive industry will be forced to reassess their business models. In time they may need to transform from companies that produce vehicles to providers of mobility solutions that integrate mobility-as-a-service or micro-mobility, into their offerings. The same applies to public transport. The integration of micro-mobility with public transport networks is potentially transformative. Public transport systems are innovating too: Germany has introduced in May 2023 a ticket which allows for convenient travel throughout Germany by all means of local public transport for a flat monthly fee of just €49.

Percentage of road users unsure if they require insurance for...



These sorts of moves can further increase the uptake of micro-mobility. While rail travel is a convenient option for longer trips, e-scooters and e-bikes are convenient for short distances between passengers' departure and destination points and the train station, the so-called last mile transportation. Many passengers on both rail and bus networks are taking advantage of such an approach to travel, though more can still be done to integrate micro-mobility into these systems more effectively.

Micro-mobility infrastructure will need to be improved, particularly in urban areas. The introduction of regulations will help blend micro-mobility into the wider mobility system, but without assigned parking and charging points, micro-mobility vehicles may frustrate residents, pedestrians and other road users while causing accidents.

These services will ultimately need to be integrated into digital platforms with the ability to interconnect trips through various forms of mobility. This should be the natural next steps for the micro-mobility industry that will only become more pivotal to the wider mobility industry as the decade progresses.

> ***"Almost all politicians are committed to improving the environment nowadays, albeit with varying degrees of sincerity. It doesn't matter if you're from the right, the left or the centre, everybody is embracing sustainability. Everybody wants a cleaner city."***
>
> ***- Alejandro Agag***

Conclusion: The implications for insurance

The trends outlined in this report will contribute to the continued disruption of the mobility insurance sector in the coming years. Existing business models are already being rethought: the rise of telematics in vehicles already means that insurers are using driving behaviour to understand risk and price policies. But the growth in mobility-as-a-service and next generation driverless technology will have an even more pronounced effect on the industry.

Embedded insurance will become the new norm, with embedded insurance solutions either based on usage (such as MaaS) or at the point of purchase of the vehicles. Insurers will increasingly focus on insuring fleet owners, sharing operators and manufacturers, rather than individual motorists. The dominant era of individual drivers buying an annual insurance policy will gradually coming to an end over the next decades.

We will also see an increased focus on packaged insurance and assistance solutions that go beyond vehicles and road users. Electric vehicles will be a vital part of the clean energy ecosystem, providing homes with significant battery storage, linking into charging infrastructure and smart grids, and requiring clean energy in the form of domestic solar power. Insurers and consumers will be required to navigate this complex, interconnected environment in a holistic way.

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