

Mobility as a Platform: A Springboard for Innovation

Major disruptions within an industry can stem from external developments, making horizon scanning outside of one's industry an essential element of our approach to innovation.

There are numerous examples of this — the world of retail is being disrupted by smartphones and telecommunications developments that enable online transactions. The music industry was disrupted by unprecedented changes in the cost of digital storage, first in consumer devices and then, alongside developments in networking, in the cloud.

In this vein, an emerging cross-sector megatrend is the transformation of transportation for people and goods through new mobility trends. Transportation is inextricably linked to all aspects of our economy, and forms a material component of the cost structure of businesses and spend by households. When this cost frontier changes, opportunities emerge — both to change the way we do business and to create new business.

L.E.K. Consulting's framework "Mobility as a Platform" (MaaP) provides a lens through which businesses can leverage mobility to drive growth through customer acquisition, customer experience and loyalty, and transformation of business operations.

Bending the cost curve — transport trends

MaaP is enabled by significant improvements in the cost structure of transportation, underpinned by three key new mobility dynamics:

1. Sharing and autonomy. The mission statement of shared mobility disruptors (Uber, Lyft, Zipcar, etc.), and indeed the strategy of some original engine manufacturers reacting to these trends, is to displace car ownership. This seeks to effectively monetize the 95% of unused capacity that consumers pay for when they buy — but don't use — a car.

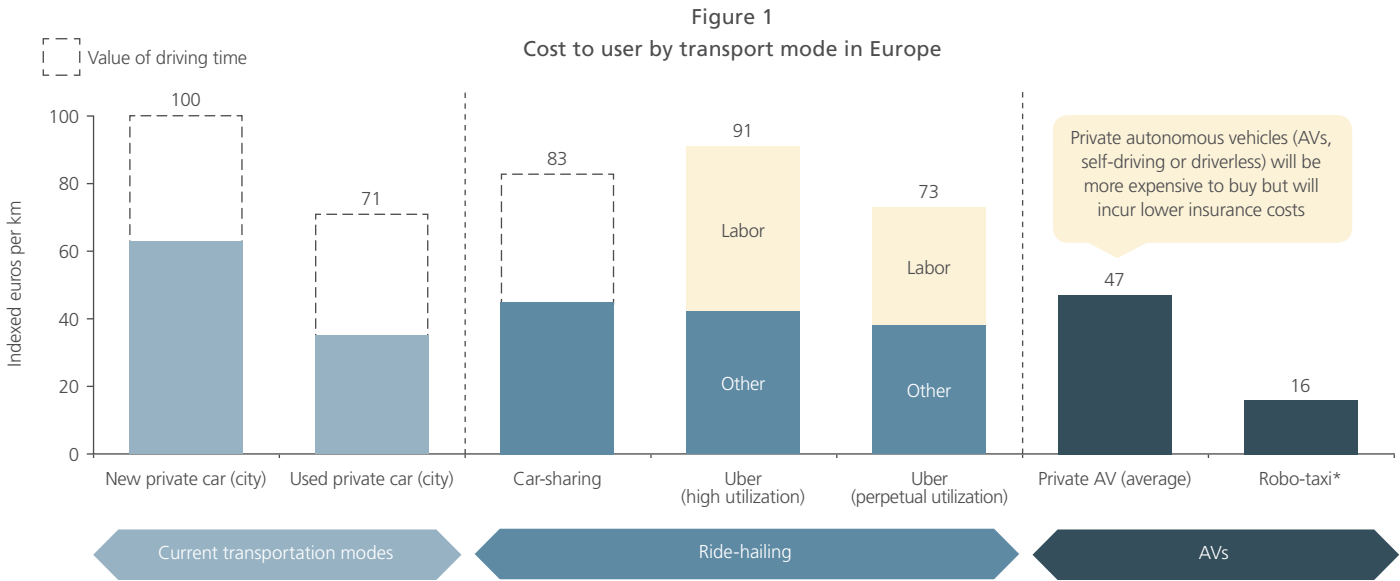
Improved utilization and, eventually, autonomous driving will change the cost such that a consumer could use on-demand transport at a significantly more favorable cost point than owning a vehicle (see Figure 1).

While this is true for consumer transportation, autonomy and sharing trends are equally applicable in the transportation of goods. Deliveroo and Uber Eats have leveraged technology to drive down the cost of last-mile logistics, while Nuro and Starship are seeking to invent autonomous delivery platforms at a lower price point than is possible today.

2. Car and truck electrification. The transition from fossil fuels to alternative fuels — in particular electricity — could drastically reduce fuel costs. U.K. businesses and consumers currently spend about £50 billion on diesel and petrol every year; the equivalent in the U.S. is about \$530 billion (or \$4,200 in ultimate costs borne per household, on average, every year). As electric vehicle (EV) "total cost of ownership" economics approach parity with internal combustion engine vehicles, the transition to electricity — including renewable sources — will accelerate and could materially reduce costs related to transportation.

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3. New modes. There is a plurality of modes emerging, underpinned by cheaper battery and autonomy advancements. This includes e-scooters and e-bikes, drones carrying goods and eventually people, and electrically powered conventional aircraft concepts that are starting to emerge with viable cost points — there is already a belief that vertical take-off and landing (VTOL) urban trips can compete effectively with road transportation for some segments of demand. These all offer the opportunity to rethink transportation services.

System economics

As transportation costs deflate, the key question is how the value chains of other industries are impacted and what business opportunities emerge. One of the key lessons learned from mobility disruptors to date is that carefully considering system economics, rather than focusing on direct costs and opportunities alone, can help unlock much larger revenue and profit opportunities.

As an analogue in the real world, looking at direct costs alone might deter a restaurateur from paying for a patron's ride to the restaurant, but the trade-off could be very different when considered in combination with the improved coverage of fixed costs in off-peak periods, and margin expansion opportunities that may emerge from alcohol consumption. CompareTheMarket in the U.K. leverages this low-utilization dynamic, aggregating supply in restaurants and cinemas and offering it as an incentive in its quest to sell a product in a very different category — insurance.

MaaP — L.E.K.'s framework for mobility-inspired innovation

L.E.K.'s MaaP framework allows organizations to identify opportunities for business model innovation, leveraging new

mobility services and their associated lower transportation costs (see Figure 2).

1. Mobility as a customer acquisition platform

Consumer-facing businesses have a common objective of new customer acquisition. Could mobility provide part of the solution?

As sharing, automation and electrification dramatically reduce transport costs per mile, the reach of new mobility providers among consumers is improving significantly. Mobility platforms already touch a large proportion of consumers in big cities; more than 3 million (out of 9 million) Londoners have used a ride-hailing service, and more than 30 million North American riders used Lyft services in 2018. Providers in China and India are several steps ahead in sheer numbers. In a short period, mobility platforms have already established trusted touch points with a large, addressable customer base.

What if one could identify and target in the real world a captive audience with disposable income and a willingness to experiment? This is what Cargo is seeking to achieve with its global collaboration with Uber. Consumer brands from confectionary to electronics are having their products sampled or purchased in a new and relevant channel, bypassing traditional convenience retail channels, and creating a data-rich interaction with end customers. As an important benefit, it also improves drivers' earnings and increases the viability of their profession.

There are a large number of high fixed-cost businesses whose economics could significantly benefit from even a modest increase in utilization. An empty cinema complex on a weekday afternoon, a restaurant chain in the business district on weekends, a theme

Figure 2
Mobility as a Platform



Source: L.E.K. analysis and research

park with idle capacity in non-school holiday periods — all examples where even funding the “customer acquisition costs” of a mobility fare to/from the venue (within reason) could markedly improve business performance.

Even in its fledgling days, Waymo is already citing evidence of business interest in its proposition for customer acquisition. The CEO was quoted as saying in 2018, “Businesses are telling us, ‘Hey, we’ll pay Waymo to bring customers to the mall, or to the hotel.’”

2. Mobility as a customer experience and loyalty platform

An essential first/last leg of any customer experience journey is typically associated with transportation. Propositions leveraging mobility to truly enhance the customer experience can create powerful economics for businesses, and in turn improve customer value and loyalty.

Cabonline in Sweden recently started a pilot program to enhance the customer experience of online shoppers with its Reliver program, looking to tackle one of the core problems of online shopping — returns. Taxis in low-utilization periods helped significantly enhance the return logistics of online shopping, resulting in a superior customer proposition and a cost-effective platform for merchants.

Another example is Tesco, one of the market-leading supermarket operators in the U.K. Tesco recently launched an initiative to install 2,400 EV charging stations across 600 sites, with a promise of “free” trickle charging and paid upgrades to fast charging. On a stand-alone basis, breaking even on large charging infrastructure is unlikely to be possible for some time. However, when considering

system economics — becoming the shopping destination of choice for EV owners (thus improving the customer experience and loyalty) and increasing dwell times while the customer waits for adequate charge to be achieved — the trade-off becomes more compelling, with potential for both customer volume increases and like-for-like shopping basket increases.

Businesses could significantly enhance their customer proposition by leveraging the new high-reliability and low-cost mobility backbones. Where shopping baskets are of a relevant size, a paid enhancement to the customer experience can help improve overall revenues by stimulating volumes and market share gains. Enterprise famously created the “We’ll pick you up” promise, which helped cement its position in off-airport car rental locations. But this service was not perfect — calls had to be made at least two hours in advance. On-demand mobility changes this paradigm. ViaForBusiness and Uber4Business are already creating this functionality for business engagement with their B2B customers to help fulfill their overall mission of engaging with the end consumer.

3. Mobility as an operations platform

Perhaps the opportunities closest to home and easiest to deliver are in the rewiring of operations to benefit from the developments in the mobility industry. Opportunities range from incremental to substantial (resulting in new use cases and transformations of business models).

For example, the U.S. Medicare-funded healthcare system is estimated to face system costs of \$150 billion annually due to missed appointments, in part due to patients being unable to arrange transportation to their appointments. Lyft and Uber are already

providing an important logistics backbone in a number of areas to tackle this problem, where the costs incurred in funding these on-demand rides are modest in comparison to the cost of a missed appointment.

In Rwanda, Zipline pioneered the usage of low-cost drones to solve a critical problem for the healthcare system. It delivers blood on demand in a low-cost manner from a central distribution hub to hospitals in a wide geographical area, optimizing inventory requirements as well as time to delivery. This is just the tip of the iceberg in the use of mobility to solve critical logistics problems.

Finally, Diageo, the international manufacturer of beverages, has partnered with Deliveroo and Uber Eats to deliver alcoholic beverages to consumers' homes on an on-demand basis. This experimental channel is allowing a traditionally B2B2C company to increase its B2C presence and is enabled by last-mile mobility. From a system costs perspective, bypassing the traditional distribution channels saves significant distribution costs while also reducing pricing pressure that is typically present in FMCG-retailer negotiations.

These examples are illustrations of how on-demand mobility could serve as a logistics application. In reality, there are likely to be a number of use cases where the fleet requirements for either part (e.g., peak or last-mile service) or all of a distribution venture could be served by more appropriate on-demand modes in a cost-effective and sometimes carbon-effective manner.

Mobility as a green operations platform

A further area that is ripe for exploration in the operations domain is the MaaP potential to enable the corporate social responsibility agenda for large corporates. Carbon footprints, air quality and plastics consumption are all hot-button areas where the transition to electric, shared and on-demand mobility could dramatically change the economics of closed-loop supply chains. A steadily growing number of retailers (such as Waitrose and M&S) are announcing plans for transitioning to electric fleets, and last-mile food delivery firms are considering the usage of electric vehicles.

Early days, but huge potential

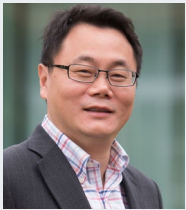
The democratization of air travel over decades created a whole range of new businesses and opportunities — from destination holiday resorts, which acquired a new and vastly enlarged cohort of customers, to new business models such as Airbnb and TripAdvisor, and aggregators that stitch the travel value chain together (e.g., Expedia). Similarly, it allowed businesses to create distributed and dispersed supply chains, changing how we go about business today.

In comparison, while it is still early days for the development of new mobility backbones in our cities, these touch vastly larger populations and journeys. The impact of mobility will be transformational to the real economy in the coming decade, and businesses would be well served to leverage L.E.K.'s MaaP lens to consider where and how they might use mobility as a stimulus change to drive profitable growth.

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