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BUSINESS OPPORTUNITIES IN URBAN MOBILITY

- + **Mobility in tomorrow's cities:** How technology, telecommunication and infrastructure companies can unlock market potential
- + **Current and future challenges:** Survey of 200 city planners shows most urgent fields for action
- + **Partner for success:** Why collaborations between companies and cities will shape the future of urban mobility

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01 MOVING THE CITY OF THE FUTURE

Cities provide their inhabitants with a variety of goods, from housing space to areas for working and leisure activities. More than ever, mobility constitutes an essential pillar of urban living and an engine for economic prosperity. Mobility solutions need to keep pace with customers' changing requirements concerning flexibility, comfort, and ecology.

Currently, cities and their representatives face a variety of challenges in realizing forward-looking mobility. On the one hand, they have to deal with short-term congestion and the provision of peak capacities, while sensitivity and regulations for ecological sustainability are increasing. On the other hand, the mobility landscape is changing as customers demand ever more flexible, customized, and integrated mobility solutions. Cities have to find ways to bring these diverse demands together holistically.

Fresh ideas for affordable, efficient, and connected mobility solutions are already emerging. Such solutions place greater emphasis on forward-looking concepts such as asset sharing concepts, electromobility, and autonomous driving. In the future, we can anticipate a further integration of technology and service offerings leading to ubiquitous connectivity of people, things and infrastructure. Based on innovative physical and data infrastructure, total connectivity will redefine how we move people and goods around.

The future mobility ecosystem will draw on extensive amounts of data, system interfaces, and cooperation between public and private market participants. These are dramatic changes which require new approaches for private-sector companies to manage complexity and to create value for shareholders and society.

We believe that managing this complexity and the way people move around poses dramatic challenges, but also opportunities for companies that are actively embarking on a journey to address the emerging needs of cities and customers.

To date, there has been little analysis of what cities and city planners want. To explore urban mobility, we therefore did not just draw on our own project experience. We consulted with leading industry experts and, importantly, **surveyed city planners in Germany about their urban mobility objectives**. Among others, the responses provide insights into:

- *the type of project these cities currently prioritize*
- *where they see a need for action in the future*
- *who their preferred partners are*
- *what sources of funding they have and what solutions suit them best*

The feedback clearly shows that **the city of the future offers excellent market opportunities** – both short- and long-term – for companies in the technology, telecommunication and infrastructure space. In this study, we outline the prospects and provide steers on how players should best position themselves now to capitalize on the opportunities as they emerge.

Key insights

In this study, we surveyed planners from 200 cities in Germany with between 50,000 and 500,000+ inhabitants to determine their views on the most urgent fields for action on urban mobility. In addition, we conducted qualitative interviews with selected experts for city planning (quoted as city experts) and business insiders from the telco and technology industry (quoted as industry experts) to find out their take on the urban mobility market.

The interviews with city representatives showed that their requirements revolve around three core challenges:

- **INCREASING THE EFFICIENCY**
of mobility by optimizing traffic flows based on the existing infrastructure
- **MASTERING THE SHIFT**
from individual mobility solutions to integrated solutions connecting different modes of transport
- **FINDING A TRUSTED COLLABORATION**
partner for the realization of mobility projects

Overall, our research suggests that there remains a lot of scope for improvement for private companies – especially technology, telecommunications, and infrastructure players – in addressing the needs of public stakeholders. They must position themselves as solution providers who help manage the enormous complexity that arises around future urban mobility. To unlock this market potential, companies should consider five key steps:

- 01 Create awareness and develop markets**
- 02 Build ecosystems**
- 03 Reduce uncertainty for cities**
- 04 Explore new business models**
- 05 Move up the value chain**

The following chapters provide practical guidance for companies on how to master each of these steps and leverage the business opportunities that await them on the urban mobility market.

02 BEYOND FRAGMENTED TRANSPORT

CITY EXPERT VOICE

» *Private transport will increase in the future but will no longer mean a car of one's own. The new approach will be 'use, not own', and people will instead book places in the city's gigantic fleet of vehicles.* «

PROF. DR. ANDREAS KNIE
Mobility researcher at
WZB Social Science Center Berlin

Urban mobility in the digital era means more than just individual vehicles, such as cars, buses, and bikes, moving people and goods around in the urban space. Digitalization reinforces interconnection between vehicles, underlying infrastructures (roads, rails, sensors and networks) as well as transport operations and value-added services, such as integrating platforms.

TOWARDS THE BLENDED JOURNEY

Analyzing existing and upcoming urban mobility solutions, we see a development continuum. At one end are **individual solutions** that address one aspect of urban mobility: parking apps or e-scooters, for instance. Development is progressing along the continuum toward more **integrated solutions**. Google Maps, for example, is moving in that direction. In selected regions, it now permits users to create blended journeys that combine transit directions with different modes of transport such as biking and ride-sharing segments¹.

At present, it is the individual solutions that are having the most immediate impact on urban mobility. As the sharing economy gains traction, the popularity of services comprising concepts such as car sharing, bike sharing, ride sharing, and smart parking has exploded. Most notably, car sharing has surged in Germany, growing from just 116,000 registered users in 2008 to 2,460,000 in 2019². While the market for on-demand, free-float car sharing is experiencing further consolidation, as illustrated by BMW's and Daimler's creation of the common platform ShareNow, smaller players have emerged that are tapping into the growing field of car sharing communities

1) Google Maps will now let users combine transit directions with biking and ride-sharing. The Verge 2019: <https://www.theverge.com/cdn.ampproject.org/c/s/www.theverge.com/platform/amp/2019/8/27/20835131/google-maps-combine-transit-biking-ride-sharing>

2) Statistics on car sharing in Germany, German Car Sharing Association 2019: https://carsharing.de/sites/default/files/uploads/datenblatt_carsharing_in_deutschland_stand_01.01.2019_final.pdf (only available in german language. For translation support contact: marketing@goetzpartners.com)

and private sharing services. Car sharing communities such as SnappCar, Drivy or Turo today offer private individuals a portal to offer and find vehicles.

E-scooters, legal in Germany since June 2019, have now also joined the mix of public and private transport options in cities³. Finally, people in urban areas are rediscovering the bicycle, either in the traditional form, or as e-bikes or cargo bikes, which are even on the verge of being subsidized by some cities in Germany.

TRANSFORMATION AHEAD...

However, the potential of digitization is not fully exploited, and profit margins can hardly be realized with capsuled solutions. New market players are therefore currently using individual solutions more as an entry point to position themselves for future offerings.

Truly game-changing solutions are those that take a big-picture view on urban mobility – and interconnect infrastructure, vehicles, operations, and additional services. Rather than tweaking one aspect of the mosaic, they focus on concepts that optimize the overall urban mobility system. Solutions are emerging, for example, around active traffic management technology, with sensors and variable traffic signals, to optimize traffic flow and prevent congestion. And providers like Wololo in the UK have launched city travel subscriptions that include access to e-bikes, scooters, public transport, car sharing, and more. Likewise, the city of Vienna also plans to offer multimodal urban travel subscriptions via the app Whim, which was already successfully launched in Finland's capital Helsinki by

3) E-scooters get the green light on Germany's roads, The Local 2019: <https://www.thelocal.de/20190517/e-scooters-get-the-green-light-on-germanys-roads>

CITY EXPERT VOICE

» *What cities will most urgently need is a combination of large-scale transportation with solutions such as carpools or ride sharing, for personal door-to-door transport. There needs to be a single app to integrate access, use, and billing.* «

PROF. DR. ANDREAS KNIE
Mobility researcher at
WZB Social Science Center Berlin

the private company MaaS Global. In Germany, cities such as Berlin with its new app BVG Jelbi or Dusseldorf in cooperation with Moovel are testing the bundling of mobility services. However, these pilots usually still address only a part of urban mobility as important mobility providers do not cooperate or infrastructure is missing. Cities are still struggling to establish an integrated solution that fully connects different modes of transport.

... BUT UNLOCKING THE MARKET IS CHALLENGING

So far, there is no solution that connects all layers of the value chain from infrastructure to services and manages switching between different modes of transport holistically.

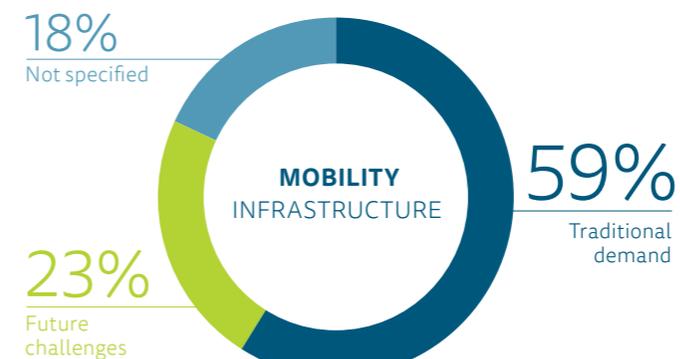
The reason lies in the enormous complexity: complexity in terms of technology, the business case and – not to be underestimated – stakeholder alignment as well as path dependency. The aim is to connect all stationary and movable objects, and to optimize them holistically based on the resulting flood of information. This requires considerable upfront investments not only in research, but also in infrastructure. The associated risks can only be managed by developing solutions in close cooperation with the public sector.

03 CITY PLANNER CHALLENGES AND EXPECTATIONS

CURRENT PRIORITY: TRAFFIC MANAGEMENT

At present, city planners are arguably firefighting when it comes to solving the urban mobility puzzle: they must balance different modes of transport to optimize traffic flow and reduce environmental pollution simultaneously. Moreover, solutions should be able to deal with historically grown infrastructure. As 59% of interviewed city planners say, their **cities are designed to serve traditional mobility demands** with a strong focus on motorized individual traffic, rather than being designed to also enable fulfilment of future requirements.

IS MOBILITY INFRASTRUCTURE IN YOUR CITY DESIGNED TO SERVE TRADITIONAL DEMAND OR TO TACKLE FUTURE CHALLENGES?



CITY EXPERT VOICE

» *Around two-thirds of German cities already have a long-term mobility development plan. Strategic implementation is failing in a number of cases due to a lack of funding or priority being given to solving acute problems with short-term solutions.* «

DR.-ING. WULF-HOLGER ARNDT
Head of research unit "Mobility and Space" at
Technical University of Berlin

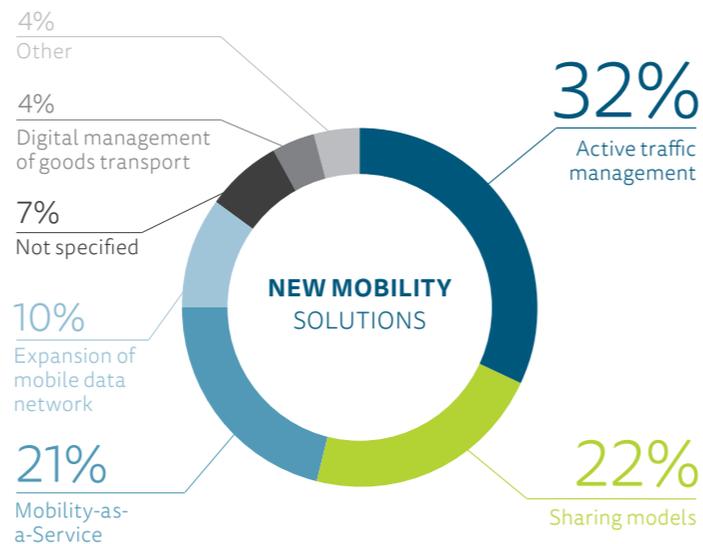
CITY EXPERT VOICE

» For cities, the search for new mobility solutions for inhabitants is becoming a question of survival in view of urban growth. Amsterdam, for example, is already staging a radical shift from private car and public transport to cycling. «

LARISSA GUSCHL
City Planner
We Love the City

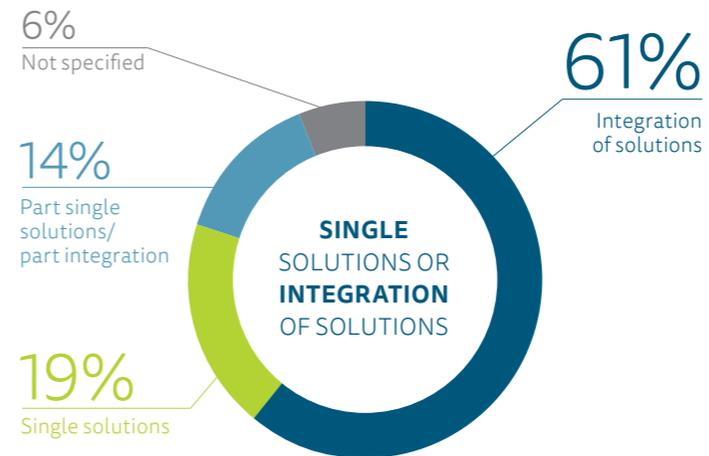
Active traffic and congestion management is cited as the most urgent urban mobility issue by the city planners we surveyed, with 32% putting this top of their to-do list. Actively managing traffic flows enables cities to increase peak capacity of mobility infrastructure and to react instantly to emission hot-spots (e.g. dynamic routing and variable speed limits based on current traffic and pollution conditions). Also, city planners aim to reduce the number of individually used and owned vehicles by favoring sharing models (22%) and Mobility-as-a-Service solutions (21%). In this context, the importance of a reliable and capable mobile data network is seen to enable new mobility solutions (10%).

IN WHICH AREA DOES YOUR CITY NEED NEW MOBILITY SOLUTIONS NOW?



However, city planners are already looking ahead – and beyond more single mobility solutions – and companies will need to prepare to meet these requirements. **What city planners want is the integration of mobility solutions:** 61% indicate they need solutions that combine different modes of transport to provide more efficient and customer-tailored mobility.

DOES YOUR CITY NEED MORE SINGLE SOLUTIONS OR INTEGRATION OF SOLUTIONS?

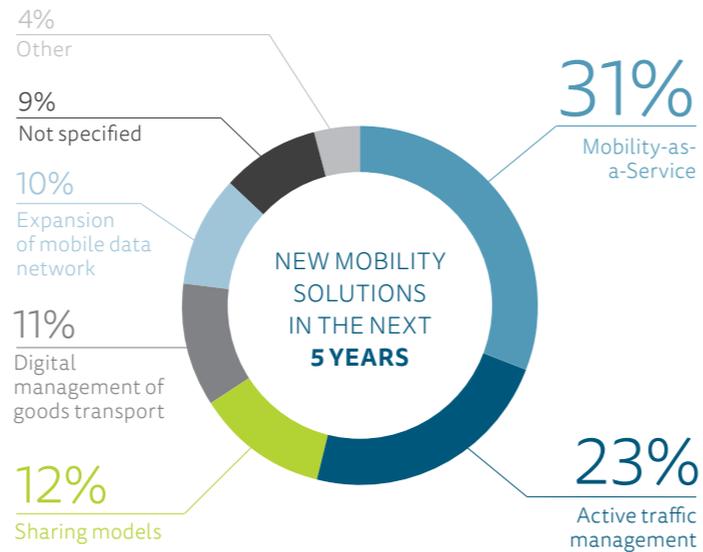


City planners are already looking ahead...

Looking five years ahead the **demand for integration is even stronger as additional mobility solutions will gain importance:** Mobility-as-a-Service is cited as the most urgently needed (31%), pushing traffic management (23%) into second place. The reasons are that active traffic management potentially leads to further discrimination against motorized individual traffic so that alternative mobility solutions are needed. Moreover, the further development of the infrastructure allows cities to turn their attention to new solutions. Besides passenger transport, the integration of goods transport will move into focus.

... **5**
years from now

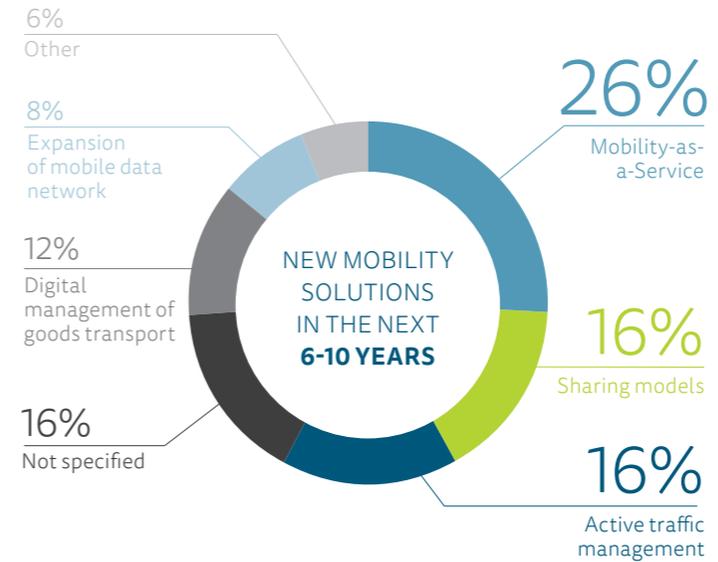
IN WHICH AREA DOES YOUR CITY NEED NEW MOBILITY SOLUTIONS IN THE NEXT 5 YEARS?



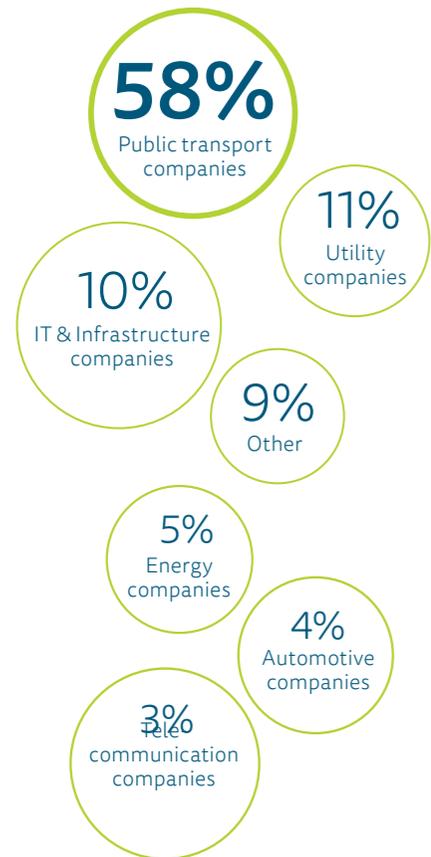
Six to ten years from now, **Mobility-as-a-Service still tops the list** of city planners, although priorities are then more evenly distributed between various areas, still including sharing models and traffic management.

6-10
years from now

IN WHICH AREA DOES YOUR CITY NEED NEW MOBILITY SOLUTIONS IN THE NEXT 6-10 YEARS FROM NOW?



WHICH PLAYERS ARE THE PREFERRED COOPERATION PARTNERS FOR SOLVING YOUR CITY'S MOBILITY CHALLENGES?



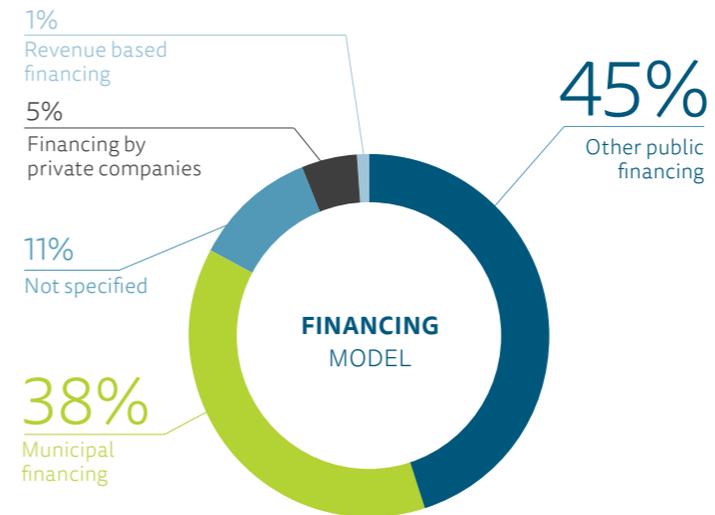
PRIVATE SECTOR HAS TO BUILD BRIDGES

As city planners realize, future urban mobility is not just about new and integrated mobility services. Traffic management, integrated Mobility-as-a-Service offerings and smart goods transport all rely on the ability to collect and transmit data – interlinking the systems is what generates the value. In ensuring smooth data transfer, W-LAN technology, as well as **mobile networks will play a critical role**. Even though coverage of today's 4G network must be expanded, the 4G standard is enough to enable many urban mobility applications. Nevertheless, any kind of integrated platform and especially autonomous driving with vehicle-to-X communication will benefit from the bandwidth, low latency, security, and stability of the new 5G network.

Infrastructure as well as mobility services provide rich opportunities for companies to help cities overcome current challenges and build future-oriented mobility ecosystems – most feasibly in cooperation with other technology and transport providers. **58% of city planners consider their own public transport companies to be the most important cooperation partner** for those tasks. A further 11% would look to their utility companies and 10% named IT and infrastructure companies (such as network and cloud service providers). Just 3% stated that telecommunications companies are their most important partner. This means telecommunications companies, in particular, have some important bridge-building to do if they intend to gain acceptance as valuable project partners.

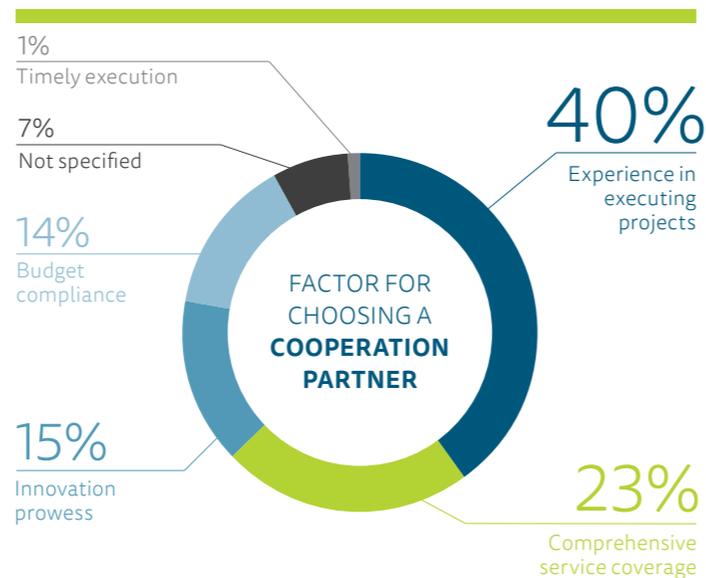
Corresponding to the partner preferences, public sources are currently also preferred for funding mobility projects: a huge majority (83%) of the cities in our survey indicated that public money – either their own municipal funds or other public-sector investment – is the most common source of funding. Just 5% also turn to private-sector enterprises for funding. Compared to other countries and public areas, the survey reveals that there is **considerable room to promote private-public-partnerships** regarding urban mobility in Germany. A company that presents a convincing business case for private funding models could unlock a rich opportunity.

WHICH FINANCING MODEL DOES YOUR CITY USE MOSTLY FOR SMART CITY MOBILITY PROJECTS?



Mobility infrastructure and services projects as well as their business cases often are complex and highly interdependent – especially for innovative solutions. By favoring collaboration with municipal companies and public financing, city planners try to avoid additional risks of working with private companies. To position themselves as capable partners for cities, private companies need to bring in the right qualities. **The most essential criterion for cities when selecting a cooperation partner is the level of relevant project expertise** (40%). Our survey also showed that urban strategists attach importance to a comprehensive service coverage (23%) of the cooperation partner's offering that respects their cities' specifics.

WHAT IS THE MOST IMPORTANT FACTOR FOR CHOOSING A COOPERATION PARTNER FOR SOLVING YOUR CITY'S MOBILITY CHALLENGES?



This levels the playing field for companies seeking to enter the future urban mobility market: cities do not necessarily favor the economically optimal or most innovative partner – complex mobility solutions need trusted relationships between cities and companies.

04 UNLOCKING THE POTENTIAL OF THE FUTURE CITY

For companies wishing to enter the urban mobility market, the strategy to become a reliable partner is long-term – but the time to get started is now.

We have therefore identified five important steps that companies should consider when expanding their activities on the market:

CREATE AWARENESS AND DEVELOP MARKETS

To build relationships between companies and the rather risk-averse municipalities, first, **smart mobility projects should be based on existing infrastructure** within existing legal boundaries to convince city planners and decision makers. For instance, the German start-up Konux offers a predictive maintenance system for rail switches that can be easily installed in the field in a few minutes without any changes to the infrastructure⁴. It will take many of these small steps to develop the mobility market and its infrastructure – there will not be a big bang.

CITY EXPERT VOICE

» *New solutions will take entrepreneurial and pioneering thinking, rather than action by city administrations. Companies must not wait until cities demand solutions or put them out to tender. Instead, they must actively take progress to the cities.* «

PROF. DR. ANDREAS KNIE
 Mobility researcher at
 WZB Social Science Center Berlin

⁴) Actionable insights, Konux 2019: <https://www.konux.com/solutions/>



BUILD ECOSYSTEMS

Cooperative ecosystems between technology, telecommunications, and infrastructure companies as well as verticals will be key to developing connected services. In this ecosystem, network operators will become active partners, rather than merely the supplier of a data pipeline, as future solutions must be able to transfer data throughout the city in dedicated networks. **Companies should, therefore, establish the partnerships that will bring services to life** – for instance with car manufacturers and logistics companies. SK Telecom, for example, is working with Ericsson as a technology provider and BMW to create a 5G connected car⁵. Such partnerships enable companies to position themselves for future solutions.

Bringing together technical expertise is not the only rationale for cooperation: as trust is an important selection criterion for cities, **local partnerships can be beneficial**. By co-operating and working with local partners, companies can build detailed insights into the local scenario and challenges – and raise their own awareness of likely business opportunities.

5) SK Telecom and Ericsson conduct first multi-vehicular 5G trials with BMW, Ericsson 2016: <https://www.ericsson.com/en/press-releases/2016/11/sk-telecom-and-ericsson-conduct-first-multi-vehicular-5g-trials-with-bmw>

CITY EXPERT VOICE

» *Cities invest in what they know and can do: concrete and roads. Cities cannot invest in solutions that they do not yet have a legal basis for. Due to strict legal constraints, cities cannot be innovative in themselves.* «

PROF. DR. ANDREAS KNIE
Mobility researcher at
WZB Social Science Center Berlin



REDUCE UNCERTAINTY FOR CITIES

Our survey illustrates that technology, telecommunications, and infrastructure companies are not necessarily the preferred partners for cities, as cooperation with private companies entails additional risks in already complex projects. To become a trusted partner for cities, companies must position themselves as **reliable providers of assistance in managing the complexities and associated risks of mobility investments**. There are two main levers to reduce the risk exposure for cities: technical and financial plannability.

In contrast to the financial planning of public funds, technologies are developing and changing rapidly. **Cities need transparency on technological developments** to create financing strategies and evaluate the impact on their long-term mobility plan. Bus manufacturers, for instance, shared their roadmap for the electric bus product portfolio with public transport operators. The launch dates of products with different electric range enable public transport operator's long-term plannability in terms of financing and deployment planning.

Another way to increase plannability is to **switch to outcome-based mobility models**. In this model, the municipalities pay for the results the service provides rather than for the service itself. Cities will be guaranteed the availability and reliability of the respective mobility solution while the responsibility for technological infrastructure will remain with the provider. Selling outcomes is now possible for companies, as connected solutions transmit status data for predictive maintenance. In this way, companies can manage the complexity for cities. The transformation to outcome-based business models implies fundamental changes to a company's product development, service processes, and revenue flows. So, it is vital to develop and test the respective business models holistically.



EXPLORE NEW BUSINESS MODELS

INDUSTRY VOICE

» *Telcos in Germany so far only have very rough ideas how to monetize 5G. There is still a lot to learn from pilot projects.* «

Manager Digital Business,
Multinational telecommunications
company

In the current phase of rapid development and innovation, companies must be more willing to invest in new business models and partnerships. That also means **approaching cities and pitching ideas for a fresh take on urban mobility**, particularly in the light of the cities' focus on current challenges.

Companies should build expertise through pilot projects and stake out an early position in the market. In Dusseldorf, for example, 16 partners, including Vodafone and Siemens, are working on setting up and operating a test track for connected infrastructure and autonomous driving⁶. In Hamburg, the city government is testing autonomous shuttle buses in its famous HafenCity in cooperation with private partners, including Siemens and IAV, and plans to start fleet operations in 2020⁷.

Autonomous driving is an idea whose time has not yet come. But companies must position themselves in this space by contributing to policymaking initiatives and projects. These pilots are not only needed to strengthen technical competences, but also to influence regulations, develop new business models and build trusted relationships that convince partners and customers. This will give companies an early start when the solutions do enter the market.

As in the past, the great market potential of the urban mobility market will continue to attract new market players in the future. **Players in the mobility landscape should constantly review their business models to verify they are fit for purpose**, and keep a constant lookout for new ideas and ways to leverage technology innovation.

6) Kooperative Mobilität im digitalen Testfeld Düsseldorf, Komod-Testfeld 2019: <https://www.komod-testfeld.org/> (only available in german language. For translation support contact: marketing@goetzpartners.com)

7) First autonomous shuttle bus, IAV 2019, <https://www.iav.com/en/news/first-autonomous-shuttle-bus/>



USE DATA TO MOVE UP THE VALUE CHAIN

INDUSTRY VOICE

» *Telecommunications companies must not become data pipes and only provide bandwidth - they must be closer to the actual added value.* «

Group Director,
Multinational telecommunications
company

It is imperative for companies to deliver the base layer of solutions – the street infrastructure, sensors, networks, and computing power – to evolve from suppliers to urban mobility stakeholders. This means **moving up from the infrastructure layer to the services layer**, and strengthening their position and capabilities in this area.

Many companies already collect, analyze, and process data for marketing or other purposes, but should consider specifically **what value this data has to cities and to the urban mobility market**, and how it can be used as a basis for service provision.

But pinning one's hopes on data monetization will not work without full consideration of data protection. With regulations growing tighter (the EU General Data Protection Regulation GDPR is a case in point), and with customers showing dwindling trust in digital technology and increased awareness of data privacy issues, any provider in the digital space must take data protection seriously. **Companies should, therefore, take care to build trust with both the public and cities by engaging assiduously and transparently with data protection questions**, and thereby put distance between themselves and the big US tech companies. This will position the new players as responsible strategic partners for cities in urban mobility solutions that involve sharing data. Dialog between politics and business is also imperative, the objective being to create a legal framework that provides enterprises with legal certainty, and creates a basis to adequately address customers' concerns.

CITY EXPERT VOICE

» *Data is the central key for evolving urban mobility services. Mobile telecoms operators should, therefore, make their data available on a platform for cities. This would act as an enabler for services such as live reports on how crowded buses and trains are, information that could be channeled into improving services. This, in turn, makes public transport more attractive and helps to reduce the number of cars on the roads.* «

DR.-ING. WULF-HOLGER ARNDT
Head of research unit "Mobility and Space" at
Technical University of Berlin

Extensive data exchange will be essential for comprehensive integration of mobility services and provision of individual, condition-based Mobility-as-a-Service solutions. In order to make Mobility-as-a-Service platforms viable, the **public sector must demand and promote data exchange** – also between competitors (e.g. by providing a technical basis through municipal companies). For cities, this data integration also brings the advantage that digital twins of mobility infrastructures and solutions can be created that enable real-time simulation and optimization of traffic flows. For example, Singapore has started a project in which the entire city is digitally mapped so that, for instance, autonomous vehicles can even be tested without actually being on the road⁸.

However, data does not only play a role in enabling and optimizing mobility solutions: self-driving cars – once they become established – will transform how people move around. Despite an uncertain timeline, a disruptive change of this magnitude will create entirely new and different opportunities – and these are likely to be highly relevant to all players in the market. If drivers become passengers in their own self-driving cars, they will use the newly gained free time for other purposes. This will finally change behavior while traveling, and bring the big breakthrough for onboard infotainment, for example. Telecommunication companies can offer innovative infotainment services (also using augmented and

⁸) Meet Virtual Singapore, the city's 3D digital twin, GovInsider 2018:
<https://govinsider.asia/digital-gov/meet-virtual-singapore-citys-3d-digital-twin/>

virtual reality) with other mobility service providers (such as MOIA, Deutsche Bahn, and FlixBus in Germany), making full use of the opportunities of new broadband networks. This will lead to a twofold opportunity, as onboard entertainment, with streaming of videos to vehicles, will be unable to function with today's patchy 4G coverage: not only can telecommunication companies become the preferred partner for infotainment, they can also profit from fees on transfer of high data volumes.

» *Altogether, technology, telecommunication, and infrastructure companies that aim to be a key part of the urban mobility market will need to do more than get infrastructure in place. Success will mean building a position in the ecosystem of services that goes beyond their core business: by expanding the customer journey to include further services, providers can leverage new opportunities.*

05 SHAPING FUTURE URBAN MOBILITY

CITY EXPERT VOICE

» *When companies cooperate with cities, they have no choice other than to engage with mobility challenges and their impact on society.* ‹‹

LARISSA GUSCHL
City Planner
We Love the City

Creating a precise plan to shape future urban mobility in a market that is undergoing such radical change is simply asking to be proved wrong – but based on current trends on the mobility landscape, a general direction for the next 10 to 15 years can be identified.

Thanks to insights from pilot projects, autonomous driving will be on the verge of going mainstream – or at least be beyond the teething stage – and profitable, marketable solutions will be emerging. Smart traffic management will keep traffic flowing more smoothly. Sharing will have grown in popularity – the majority of vehicles (self-driving or otherwise) in cities could be shared. New forms of inner-city logistics and mobility are also being introduced, for example, drones delivering urgent air-borne parcels to the doorstep, and air taxis, relieving the strain on roads.

And public transport? **Multimodal platforms are also likely to be the widespread standard**, with passengers transitioning seamlessly between train, metro, and bus, with hire scooters or bikes for the last mile. Cities are likely to be cooperating with private-sector partners to create an integrated landscape of urban mobility services.

‘Mobility flat’ offers, with ‘all-you-can-travel’ packages across multiple modes of transport, could become standard. Orchestrated by cities as the transport provider, mobility flats would have the positive effect of eliminating a drawback of the sharing economy

for providers: cherry-picking by users of services that deliver the slimmest of profits or none to providers. With flat-rate packages already standard in telecommunications, this could be a case in which cities learn from their partners.

Making this happen will present superb business opportunities for companies in technology, telecommunication and infrastructure. If companies are to help shape the future of urban mobility, they will not only be part of a business ecosystem. How people move around in the urban space is also key to the quality of lives, and considerable responsibility will fall to companies as ‘corporate citizens’:

The will to make the future happen is certainly present – among cities and private-sector companies. There are substantial business opportunities in urban mobility for players who enter the market while cities are casting around for ways to resolve their most urgent mobility challenges. Proving oneself to be a valuable partner now will be the best way to play a starring role in the opportunities in a changing mobility landscape.

KEY STEPS TO SUCCESS ON THE URBAN MOBILITY MARKET

01 CREATE AWARENESS AND DEVELOP MARKETS

- Build a position as trusted partner for cities
- Base first projects on existing infrastructure within legal boundaries

02 BUILD-UP ECOSYSTEMS

- Establish cooperative ecosystems with other companies to bring connected services to life
- Create partnerships with local enterprises to gain on-site insights

03 REDUCE UNCERTAINTY FOR CITIES

- Position yourself as a reliable provider of technical and financial plannability
- Test and offer outcome-based mobility models

04 EXPLORE NEW BUSINESS MODELS

- Review current business models for new ways to leverage technology innovation
- Build expertise in new fields through pilot projects

05 MOVE UP THE VALUE CHAIN

- Expand your portfolio from infrastructure to service provision to evolve from a supplier to urban mobility stakeholder
- Work out the value of data for cities and share the insights to make integrated mobility platforms viable

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