



APRIL 2016

# POLICY BRIEF

## PUBLIC TRANSPORT AT THE HEART OF THE INTEGRATED URBAN MOBILITY SOLUTION

### INTRODUCTION

*If you want healthy, competitive and sustainable cities, efficient and clean mobility is vital. And if you want people to walk, cycle, car- and ride-share more, advance public transport.*

### WHAT IS HAPPENING IN THE TRANSPORT SECTOR?

There are a number of transformative trends evident. The rhythm of urban life is increasing rapidly; modern dense urban economies are reliant on excellent connectivity and citizens want to move around freely whenever and wherever they need to.

The demand for high quality connectivity is increasing, not least as the world urban population is expected increase by 50% by 2050.

But congestion, poor air quality and lack of space resulting from an over-reliance on private cars as the predominant mode of transport are choking our cities, leading to a decline in quality of life and threatening economic growth and productivity.

In parallel, trends show that younger generations are less interested in owning a car or getting their driving licence. Citizens are now seeing **new mobility solutions** emerging, making personal car ownership particularly in developed countries less attractive. So the relationship with the private car is fundamentally changing and

this opens up new opportunities. On top of this **demotorisation** trend in many industrialised countries and the growing importance of cities, advances in the **take up of digital solutions**, **environmental pressure** and **changing consumer spending** due to the difficult economic context are also impacting the urban mobility landscape.

In fact, a digital tsunami is hitting the transport sector: mobile broadband, location detection, smartphone penetration and social media are enabling new services to develop. For example, in the medium term to long term, autonomous driving is likely to play a key role in urban mobility.

**New players** are entering the mobility market and citizens are reconsidering their mobility options. But not only are urban development, market and technology-driven factors changing the mobility landscape but also the political agenda which is now increasingly reflecting **concerns about air quality, physical health and wellbeing**.<sup>1</sup>

For example, municipalities and governments are actively developing mobility policies to favour active modes, encouraging citizens to walk and cycle more.<sup>2</sup>

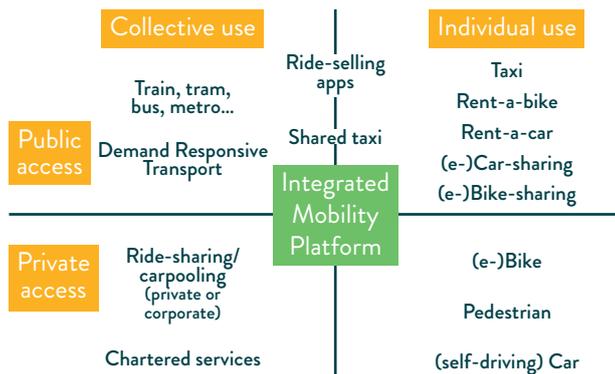
► *Healthy, competitive and sustainable cities rely on efficient high capacity public transport*



<sup>1</sup> Effect of increasing active travel... on costs to National Health Service, Lancet, June 2012

<sup>2</sup> See for example, work undertaken by Transport for London on the transport and health agenda <https://www.london.gov.uk/what-we-do/health/priority-areas/transport-and-health>

► Overview of urban mobility solutions



► In Brussels, Belgium, the public transport operator STIB is a shareholder of the local car-sharing company Cambio



© stib

## REDUCING CAR DEPENDENCY IN THE CITY?

### Combined Mobility is the key...

For most cities with long standing infrastructure, increasing road space to accommodate greater car usage is not an option. **Optimising the efficient use of existing road space** is therefore a key principle to appraise the requirements of competing user groups.

In cities with strong public transport, complemented with services like car-sharing, bike-sharing, bicycle parking, shared taxi services, ride-sharing etc. one can more easily move around. This model of urban mobility offers citizens the travel flexibility and convenience of the private car, without its negative externalities, such as congestion, emissions and wasteful parking requirements. In fact, it is the offer of an integrated combination of sustainable urban mobility services that most effectively challenges the flexibility and convenience of the private car. **A broader mix of mobility services is the answer** to ever more complex and intense mobility needs. Therefore, the backbone of every mobility strategy remains an efficient public transport system. Public transport has the broadest customer base and as a sustainable public service it is the natural integrator of all these services. Nevertheless, there will always be situations where car usage is not only necessary but also justified.

In these situations, car-based services and especially car-sharing are the obvious services that complement public transport as they offer the benefits linked to car usage without the need to own the car.

In a fast moving environment, **access to information** about options for travel that is instant, easy to use, attractive to customers, and authoritative is vital and therefore a one-stop-mobility shop acting as personal mobility assistant is the key to offer our citizens an alternative that challenges car ownership.

► Instant access to travel information for all options is crucial, as with the SMILE multimodal app in Vienna, Austria



© neue urbane mobilität wien gmbh

*... but it will not work without an efficient public transport system.*

Walking, cycling but especially new urban mobility services such as ride selling apps (Uber, Lyft), free floating carsharing (car2go) or ridesharing apps (Blablacar) to name but a few are on everyone's lips. They form an important part of the solutions in the urban mobility system, but on their own these new mobility services do not have the capability or capacity to meet citizens' mobility needs or solve traffic congestion. As an example, in San Francisco, the well established home market of Uber and Lyft, they represent only 1-2% of all trips<sup>3</sup>. They need an efficient public transport system to work well, particularly where mass transit is required between locations across densely utilized urban spaces.

► *Uber and Lyft represent only 1-2% of all trips in their home market of San Francisco, USA*



© flickr Mark Warner

► *Public transport is the only alternative to individual private car use able to fulfill the lion's share of trips*



© Meinzahn

## HERE IS WHY PUBLIC TRANSPORT SHOULD BE AT THE HEART OF THE INTEGRATED URBAN MOBILITY SOLUTION

*High quality public transport is the only superior alternative to individual private car use able to fulfil the lion's share of trips by using a minimum of space: It is good for the city, good for the environment and good for the economy.*

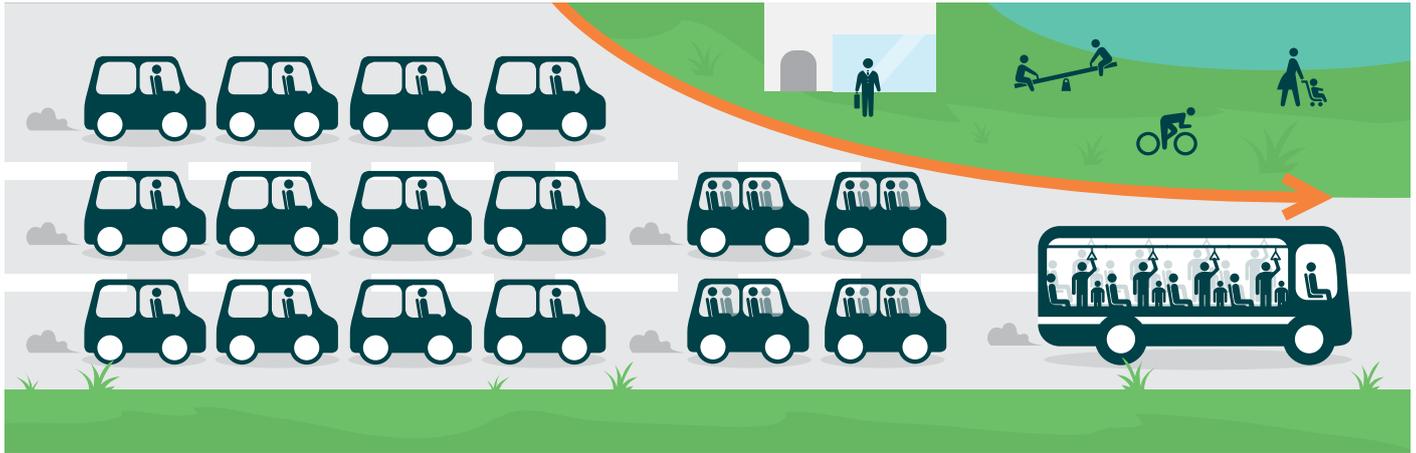
Urban space is one of the most precious resources in a city. Private cars are parked 95% of their lifetime and waste that valuable urban resource. For instance, a car takes up the parking space of at least three bikes. And during the 5% of the time that they are driven, they are much less efficient users of roadspace than bus, cycle or walking.

Yet citizens need to move... and the growth of cities will mean increasing numbers of journeys: daily trips in urban areas world-wide are forecast to rise from 7.5 billion in 2005 to 11.5 billion in 2025. Public transport is the easily most efficient in terms of capacity and space consumption on the scale required to enable modern urban economies to function productively. In particular on major corridors and during peak hours, high capacity public transport services are – and will remain – the only viable solution and this should be reflected in the long term planning of urban areas. Currently public transport accounts for 1.2 billion trips per day.

Scenarios exploring future urban mobility with shared and autonomous vehicles developed by the International Transport Forum show that the most effective combinations of modes – with respect to the number of cars removed from the road or kilometres driven – always include high capacity public transport at their core. Public transport will continue to outperform all other modes in the efficiency of the use of space for moving a maximum number of people.

<sup>3</sup> Figures for 2014, from San Francisco Municipal Transportation Agency, SFMTA

▶ Public transport outperforms all other modes by using a minimum of space to move a maximum of people and hence frees up valuable urban space



© UITP

Berlin is considered as the capital of free-floating carsharing with three providers (Drive-now, car2go and Multicity) boasting the largest operating area and the largest free-floating carsharing fleet. Yet, according to the Civity study<sup>4</sup> it only represents 0.1% of the Berlin modal split. But this is exactly the point: although the number of car-sharing customers are growing very fast, kilometres driven by car decrease as with car-sharing people walk, bike and use public transport more and use a car only when it is absolutely necessary.

So, let us keep in mind that these new mobility solutions are not going to cover the main part of the citizen's trips, but they provide the key to less car ownership and in aggregate less car use. Whilst **shared modes are excellent in complementing public transport** in providing a door-to-door offer, they cannot provide a substitute form of transport for the bulk of mobility requirements.

**Without public transport, other sustainable & innovative mobility services cannot offer an affordable alternative to car ownership.**

As trends show that more and more citizens are making the choice not to own a car, we need to provide them with set of effective and integrated travel choices. Options that are flexible, affordable and convenient and that can cater for door-to-door mobility.

**Coordinating cycling and walking with public transport** is mutually beneficial, encouraging more bicycling and walking as well as more public transport use. Access to public transport helps cyclists and pedestrians make longer, more complex trips and can also provide convenient alternatives when people encounter bad weather, difficult topography, gaps in the bikeway network and mechanical failures. So investing in active travel modes, not only supports public transport use but contributes to health agendas that seek to increase levels of citizens' physical activity.

**Ride- and car-sharing** work best where public transport is strong! To work well, these services need to be well known and they need a critical mass of customers. Public transport has a large customer database with clients who are also potential customers for ride- and carsharing.

<sup>4</sup> Urban mobility in transition? by Civity Management Consultants, 2014

In New York, Uber and taxi have the highest pickup rates where public transport is a good option as well<sup>5</sup>. In Paris, 65 % of Uber trips start or end within 200m of a metro station<sup>6</sup>.

To facilitate the use of carpooling or ride-sharing services, especially dynamic ride-sharing, public transport hubs not only offer the critical mass of potential customers but are also convenient and easily accessible meeting points. In addition, whenever customers use ridesharing to travel to another city, they often rely on local public transport upon arrival.

In Berlin, the free floating carsharing hotspots are located within the city's rapid transit ring (S-Bahn), meaning that the highest vehicle use is made in an area that is also very well served by public transport. This is another indicator showing that ride- and car-sharing rely on efficient public transport.

A further important aspect is the need to offer our citizens **affordable mobility**. The price structure of car- and ride-sharing services offers the opportunity to use a car when it is needed, but it is not affordable to satisfy all the mobility needs of citizens, hence affordable public transport is a necessary complement of such bespoke service provision.

## *Public transport is the backbone of sustainable mobility and expert in the organisation of mobility solutions.*

As mentioned before walking, cycling and shared modes are excellent in complementing public transport to provide door-to-door transport options, but on their own they are not a substitute for public transport, primarily as they lack the capacity to cater for the sheer volumes required in densely utilised urban spaces.

Further, in order to become really attractive, the different sustainable modes need to be coordinated, planned and delivered in an integrated way. From a physical perspective (coordinated network planning, stations, urban planning) but also from an information perspective: a one-stop-mobility shop acting as personal mobility assistant offering travel information, booking and ticketing. Transport authorities and operators are experts in organising urban mobility solutions: **allow Public Transport to take the lead** in the coordination of tomorrow's mobility. Regarding electric mobility, keep in mind that any urban rail system is already e-mobile and can act as charging infrastructure network for e-mobility services, making public transport also the technical backbone. In cities like Hannover, Munich, Brussels, Vienna or Montpellier, public transport companies are initiators or also shareholders of shared mobility services.

► *The bike-sharing scheme in Montpellier, France, is well integrated with the tram network*



© Montpellier\_Agglomeration

► *Integrated mobility in Munich, Germany*



© MVG, Kerstin Groh

<sup>5</sup> Silver N. and Fischer-Baum R., Public Transit Should Be Uber's New Best Friend, FiveThirtyEight, 28 August 2015.

<sup>6</sup> Source: Uber

## RECOMMENDATIONS

1. Plan carefully to optimise the use of finite road space.
2. Develop high quality public transport solutions, as a viable alternative for mass transit as opposed to low capacity car journeys.
3. Use the innovation offered by technology to provide high quality, instant authoritative information systems, on which the travelling public can rely to plan their unique journeys that incorporate multiple modes.
4. Recognise that no single solution exists for connectivity and ensure that the planning framework includes public transport at its core.
5. Determine the right regulatory framework for local circumstances.
6. Grant public transport the capacity to test and develop new services so that it can drive changes in the mobility market.

## CONCLUSION

*The challenge is to offer an affordable, convenient alternative to car ownership and preserve high quality of life to stay attractive for citizens and businesses.*



© Transport for London (TFL) - Martin Breschinski

This is an official Policy Brief of UITP, the International Association of Public Transport. UITP has over 1,400 members in 96 countries throughout the world and represents the interests of key players in this sector. Its membership includes transport authorities, operators, both private and public, in all modes of collective passenger transport, and the industry. UITP addresses the economic, technical, organisation and management aspects of passenger transport, as well as the development of policy for mobility and public transport world-wide.

This Policy Brief was prepared by Combined Mobility Platform and the UITP Policy team.