Urban (im)mobility

Informed choices, growth, congestion and regulation impact the world's cities to drive a shift to more sustainable and efficient transport options.

Although all cities are in many ways different in terms of layout and structure, and consequently have different transport options, many share similar issues and challenges around sustaining growth without gridlock setting in. With increasing recognition not just of the efficiency and emotional problems resulting from congestion but also of the environmental implications, many leading mayors and supporting administrations have been taking steps to encourage citizens to make alternative choices. In many developed-world cities, primary challenges include encouraging people to change their existing habits and behaviours, while in the developing world it is often a case of encouraging people to make different choices about mobility than others have made in the past. With car ownership rising steadily in many nations, this is no easy task.

The challenge of future urban transport was examined in a number of different workshops within the Future Agenda programme – in Bangalore, Brussels, New Delhi, London, Melbourne, Shanghai and Singapore. Across all these discussions it is clear that the answer 'is not simply about stopping people using cars, but is about improving the efficiency of car usage and providing viable alternatives'; nor is it just about 'encouraging people to travel less by better co-locating home, work and leisure' or 'developing wider eco-literacy'. It is actually about all of these and more: urban transport is a complex issue driven by many different factors on top of the geographic and cultural differences present.

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There will be an additional 300 million car drivers added to the world over the next decade, most of them in cities in the developing world. According to a recent Shell/Transport Research Laboratory study: 'Today in London, car journeys account for 40% of journeys and cycling 2%. In Shanghai, car journeys account for 5% with cycling accounting for 33% of journeys.' In comparison with many US cities, London is a relatively good example of sustainable developed-world urban transportation, albeit not as good as places like Munich, Amsterdam and Vienna. At the same time, Shanghai today is by no means an exemplar. In many ways, London and Shanghai can be considered as typical, average examples of developed- and developing-world urban mobility. The key challenge is that as London in 2020 seeks to be more like Shanghai in 2010, can we stop Shanghai becoming more like London? As was mentioned in a Singapore event: 'In Asian cities, the car is more

Urban Mobility Comparisons

Transport Parameter	Asian Cities	European Cities	US Cities
Car ownership (per 1000 persons)	109	392	608
Specific road length (m per capita)	1	2	7
Road density (m per urban ha)	122	115	89
Walking/cycling/pedicab (% of work trips)	19	18	5
Role of public transport (% of all km)	48	23	3
Car use per person (km per capita p.a.)	1,397	4,519	11,155
Energy use per person (MJ per capita)	6,969	17,218	55,807

Source: TRL / Shell

than just about transportation. It is a status symbol. Especially in India and China, even though people don't need a car, they aspire to owning one.' In a world where access to personal transportation is a cultural ambition, a status symbol and, in many places, a major advance, many of the discussions in the Future Agenda programme looked at how this conundrum can be accommodated.

Any global blueprint solution has to consider the range of already defined constraints such as city design. For example, with the benefits of its high density, Hong Kong can spend around 5% of its GDP on its transport systems, with people typically spending between thirty and sixty minutes a day on public transport, whereas in Houston, where 15% of its GDP (so, three times as much pro rata) is spent, daily transportation time in cars is up to three hours for each person. As Europe and the US are focusing more on regeneration for city planning, Asia is creating brand new cities and extending existing ones, but 'in several Asian cities, urbanisation is happening at a rate that is much faster than transportation can cope with'. Urban design is clearly both a constraint and an enabler of more effective urban transport. In Singapore (an often cited example), one important realisation early on was that 'urban transport planning has to be integrated with the urbanisation policy to create efficient and sustainable cities'.

Given that the majority agree that 'cities should be focused on people, not cars', one much-debated solution is clearly to regulate against the car. While congestion charging, road pricing and lane prioritisation for multi-passenger and low emission vehicles has become increasingly popular in many cities, others have tried alternative approaches. For instance, a reduction of the number of car parking spaces is under way in London and Beijing. However, if this happened in India, a place where labour is still cheaper than land, according to one workshop comment, 'the result would be more cars on the road as people's chauffeurs merely drive around while their employers attend a meeting or go shopping'. In a world of such variety, legislating against cars has severe limitations, even though more people are recognising the issues including 'the negative health aspects of cars in cities'.

In terms of alternatives, many in Europe advocate walking and cycling and so, over the next decade, we can expect ever more dedicated cycle lanes within and around cities. However, in Delhi many of the pavements are in a dangerous condition, while in a number of US cities they are non-existent. Cycling might be an attractive option in places like Amsterdam, Bogotá and San Francisco, but, in temperatures of 40°C and high humidity, persuading people that it is a progressive option for transport can be an uphill struggle. What many agree upon is the role of an integrated public transport system that fits the purpose. However, whereas in such places as Copenhagen, Shanghai, Bangkok and Melbourne this may mean buses, trams and trains, in other places

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there may already be better answers: tut-tuts are perfectly suited to India just as rickshaws are to Vietnam and Indonesia. Several people in workshops argued that with perfectly flexible, efficient solutions already in place, the need for monorails and metros could be questioned. Although many cities are investing in high-profile urban transit systems, there is still the 'last mile' challenge for those not directly on the network.

Looking forward over the next ten years, it is clear that 'the solutions must be different for different countries'. In Asia, a common aspiration is to create a multilevel approach where underground transit systems move people around the cities quickly, cars are put up in the air on flyovers and the ground is for people. In many of the new cities being built, and some of the existing ones that are being upgraded, this option has many supporters and will, de facto, become the future. The new Chinese cities of 2020 have already been designed and so have their transport options. However, elsewhere, many commentators see that a more sustainable urban transport future can only be achieved if more informed choices are made by governments and organisations as well as individuals.

The recognition that 'in most OECD countries, transport usually accounts for over 25% of total greenhouse gas emissions' is increasingly influencing planning policy for regeneration as much as new-build. As such, pedestrianisation and cycle routes, for example, are both on the increase. However, while 'policymakers believe that car users are able to reduce their car use, many are unwilling to do so'. As it seeks to break the vicious circle of transport growth and decouple the linkage between it and economic growth, mobility management has to therefore consider structural and attitudinal change. In terms of influencing personal behaviour, the recent Shell/TRL analysis highlighted the impact that smarter choices can have – from better travel plans, improved taxi services, changing access to vehicles through car clubs and car-sharing schemes and increased awareness of alternatives to the car, a reduction in car use in the UK of up to 20% was forecast. Whether or not they start with transit system plans or shifts to cycling, all discussions on future urban transport ended up highlighting the need to reduce car use. In the developed and the developing worlds, in new and old cities, the big push that is evidently building momentum is to use manifold means to constrain movement by car and reward alternatives. By 2020, although globally we will clearly have more drivers in the world, the hope of the planners is that the overall miles travelled by car will be stable and that the increase in numbers will be offset by a reduction in distance.

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