

Public transport: the smart green solution!

2025=PTx2

Doubling market share worldwide by 2025

Bring everyone
everywhere!

Help
the planet breathe!

Empower
the economy!

Alleviate
congestion!



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International Association of Public Transport

PUBLIC TRANSPORT: THE SMART GREEN SOLUTION

Cities and governments have a crucial role to play today in fostering economic development and wealth creation.

Public transport needs to be put forward to tackle the urban mobility challenges currently faced by our cities instead of continuing with the construction of new highways and encouraging car use.

Ambitious and visionary strategies are essential to change radically current mobility patterns. The public transport sector has the competence and ambition to improve the urban environment both for citizens and business, as it already does in number of urban centres.

To take up these challenges, the International Association of Public Transport (UITP) is aiming at doubling the market share of public transport worldwide by 2025.

To make this growth concrete, all stakeholders have to take up their responsibilities to organise the market and provide the appropriate means. Investing in efficient and sustainable transport networks will help stabilise the global energy market; contribute to alleviating the role of transport in climate change and support economic growth as well as quality of life in cities by relieving congestion and offering mobility to all. Public transport means progress for societies.

This is the right moment for:

- > **Operators** to boost business development through quality delivery, innovation and entrepreneurship;
- > **Governments** to recognise public transport as part of the solution, to earmark appropriate resources and to organise the sector judiciously;
- > **Cities and local authorities** to define ambitious market share objectives and develop sustainable mobility as part of integrated urban policies;
- > **Investors** to support the real economy and mobility as one of its major drivers;
- > **Industry** to develop innovative, reliable and cost efficient products and solutions;

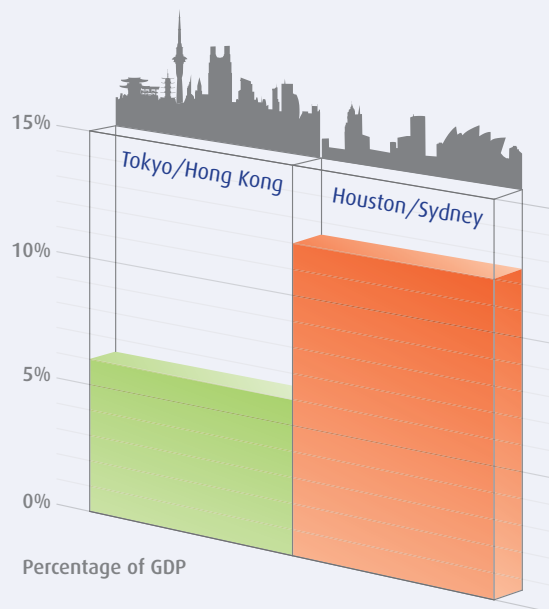
The power to forge together a better mobility for our cities is in our hands!

Public transport empowers the economy

The impact of the financial and economic turmoil revealed a systemic crisis calling for an in-depth change. This is the right moment to trigger a societal change and abandon the car-dependent lifestyle.

- > Public transport provides green local jobs. In many cities the public transport network is one of the major employers, and such jobs can not be delocalised.
- > In Europe, public transport operators alone create 1,200,000 direct jobs and every direct job in public transport is linked to four jobs in other sectors of the economy. Public transport represents between 1 and 1.2% of European Union GDP.
- > Every euro of value created from public transport is linked to a further value creation of 4 EUR in the total economy.
- > A massive shift to public transport and sustainable mobility helps economies to reduce their dependency on fossil fuel and improve their balance of payments.

In cities with a high share of public transport, walking and cycling, the cost of transport for the community is half that of cities where this share is low. The cost of transport represents only 6% of the local GDP in Tokyo or Hong Kong but more than 12% in Houston or Sydney. Efficiency gains from this can be valued at around 2,000 euros per inhabitant per year.



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Geneva (Switzerland)

Geneva adopted an ambitious public transport development policy at the beginning of the decade. If no action had been taken, mobility development projections showed that private motorised mobility would have increased by 42% between 2006 and 2020. The authorities set out to cap this growth at 25% which implies **doubling public transport ridership by 2020**. The public transport master plan envisages a 26% increase in public transport supply between 2006 and 2010, following an increase of 25% between 2002 and 2006. Enabling measures include an increase in supply of tramway services, closer matching of supply to mobility needs throughout the day, the improvement of operational efficiency, and further steps towards the development of a comprehensive suburban railway network (CEVA project).

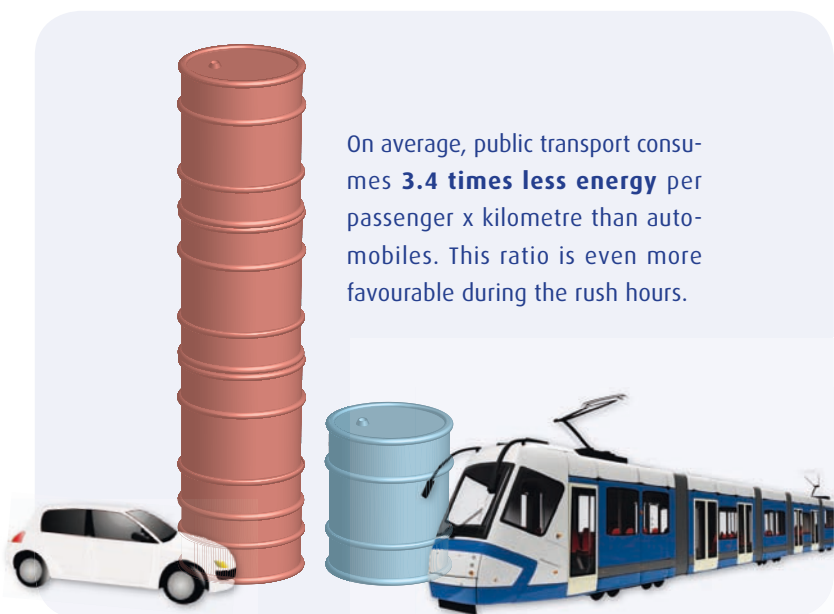


Public transport creates **25%** more jobs than the same investment in building roads or highways.

Public transport helps the planet breathe

The global energy demand for transport has increased fivefold since the 1950s. Transport is responsible for approximately 23% of energy-related CO₂ emissions on a global level and 13% of all greenhouse gas globally. The introduction of new clean technologies has simply been outstripped by the growth in the number of vehicles and journeys. Behavioural change is the only solution to reach immediate results and yield major benefits in the long term.

- > Worldwide, greenhouse gas emissions from the transport sector are the fastest-growing of all economic sectors, and road transport currently accounts for the majority of all emissions from transport (90%).
- > Considering the average life of vehicles, cleaner fuels and vehicles will not bring significant change before 2040.
- > Policy-driven strategies in favour of public transport are much more effective than purely technological solutions to tackle energy efficiency, local pollution and climate change.



On average, public transport consumes **3.4 times less energy** per passenger x kilometre than automobiles. This ratio is even more favourable during the rush hours.

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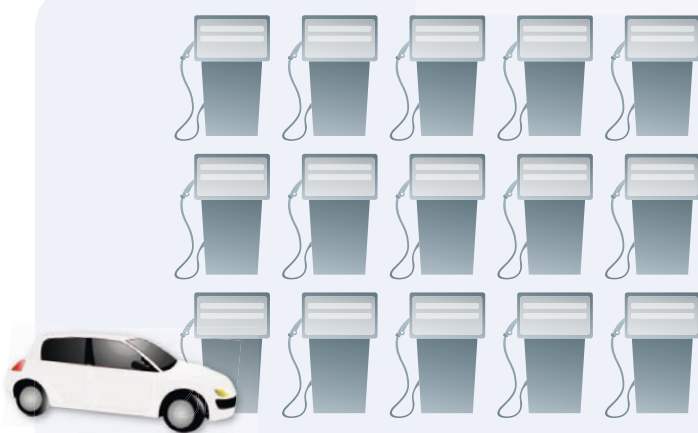
Vienna (Austria)

Public transport supply density in Vienna is about 75% higher than the average for West-European cities and is increasing by about 3% per year. Sustained efforts, coupled with strongly integrated public transport and urban planning have resulted in steadily increasing public transport modal share: 29% in the mid 1990s, 35% today, and an expected 40% by 2020. Public transport ridership in Vienna currently stands at about **500 journeys per inhabitant per year**, a performance which is, with Zurich and Munich, a European benchmark.

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Singapore

Travel demand is expected to jump from 8.9 to 14.3 million trips a day by 2020. Due to limited available space, the increase in travel demand must largely be met by public transport. Authorities have set the objective of a **70% modal share for peak hours by 2020** compared to 63% today and 67% in 1997. Key public transport strategies to achieve this objective are the centralisation of bus network planning and the extension of the mass rapid transit system (an additional 140km to reach a total of 278km by 2020). Another objective is that 85% of public transport commuters complete their journey within 1 hour compared to 70% today. Singapore's strategy is also based on demand and road use management, as well as on the meeting of diverse needs (low income groups, community engagement, etc.)



Each citizen in cities where the modal share of public transport, walking and cycling is high **saves 500 to 600 litres of petrol per year; equivalent to 15 full tanks.**

Public transport alleviates congestion

Urban space is a precious commodity and public transport makes a better use of it than a car-dominant society. Vehicles that keep moving enable the space to be freed up for other uses and for all members of society to enjoy. Moreover, congestion makes cities unattractive places to live and work in. Considering the continuous urbanisation and the increasing mobility demand in urban areas today, congestion around the world will continue to worsen unless the approach to mobility undergoes a structural change.

- > The direct cost of congestion is estimated at around 2% of GDP. This represents billions of euros every year.
- > Congestion invades cities: a journey from home to work by car consumes 90 times more urban space and community financed infrastructure than the same journey made by metro, and 20 times more space than if it had been made by bus or tram.
- > If everybody travelled to work by car, the total space needed for parking cars would be as great as the space needed for business activities. Indeed employees need approximately the same amount of space to work in their offices as they need to park their car (about 20m² per person).
- > The investments needed to improve mobility and accessibility are at a level far below the costs of congestion. The divide is even greater if we take into account the external costs and social impacts of congestion.

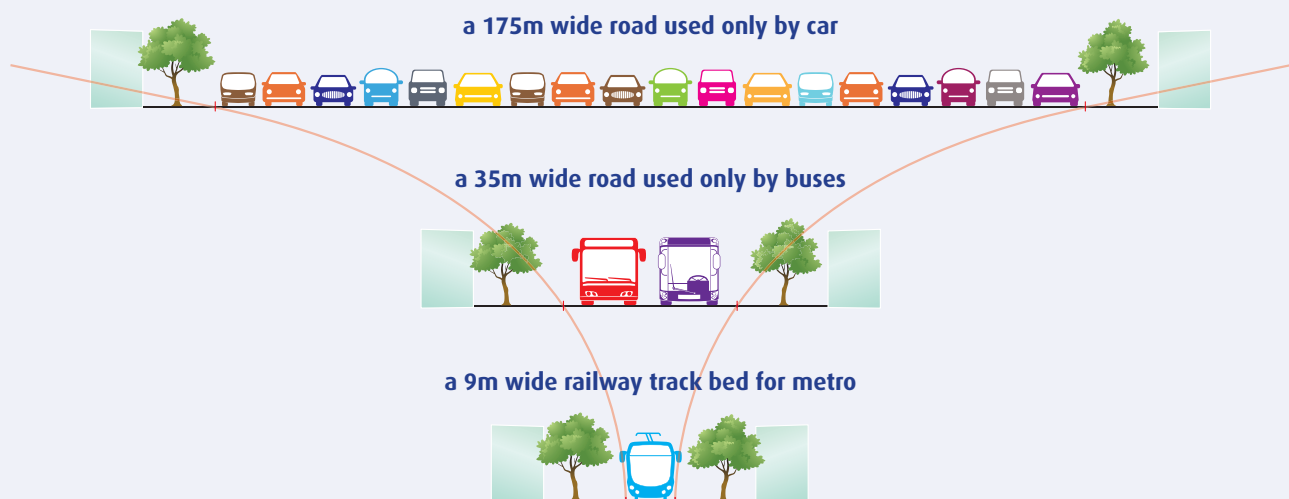
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Perth (Australia)

One target of Perth's metropolitan transport strategy is to **double by 2029** the modal share of public transport within the Perth metropolitan region – from 6 to 12%; as well as increase the proportion of morning peak period trips by public transport into Perth CBD from 35 to 65%.

According to UNEP, 1,000 new vehicles register daily in Beijing. This represents two additional soccer fields of parking space every day.

To carry 50,000 people per hour per direction, you need:



Public transport brings everyone everywhere

Mobility is a basic requirement for efficient and modern societies. Today, no city can function efficiently without a public transport system. Considering the true cost of mobility to the community, public transport is clearly the most cost-effective mobility offer for all layers of the community in cities.

Public transport allows access to education, health services, economic activities, while enabling them to function correctly. It is an essential tool to re-connect socially excluded citizens to the social and economic structures of society. This issue is even more crucial for the poorest countries where urban population is soaring. Public transport is one of the first steps to get rid of slums in the less developed countries.

Furthermore, it is crucial that it becomes the preferred mode of choice regardless of wealth or the purpose of a journey. Indeed, the availability of a private vehicle does not guarantee mobility, and the vast majority of citizens of the growing and congested urban areas around the world will also rely on public transport to move.

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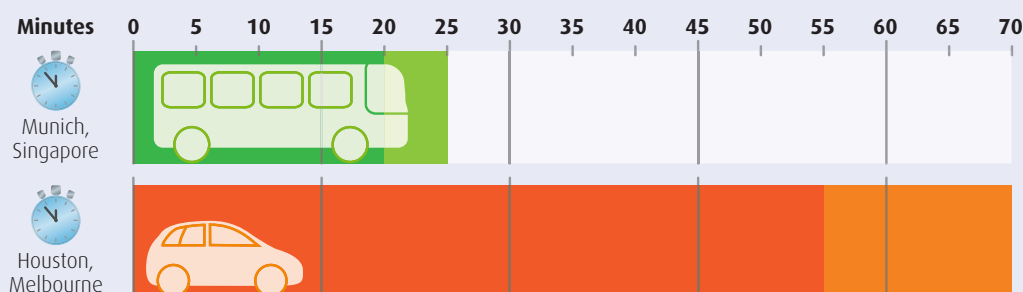
Tehran (Iran)

Under the development of Tehran's long term urban rail plan, the modal share of trips made by public bus and metro is expected to **double between 2004 and 2030**. The urban rail network is expected to expand from 180km to 430km by 2030.

- > Public transport links people to their jobs:
people from all class levels need to be able to choose a form of mobility that is affordable, clean and pleasant. This choice can only exist thanks to a stringent land-use policy.
- > Public transport brings people together: it provides better social inclusion for the whole population, regardless of revenue or location.
- > Public transport improves the health of the city by ensuring better safety for all and by promoting healthier life styles.

You are 10 times more likely to be involved in an accident travelling by car than by public transport. Therefore, public transport is clearly a safer mobility choice. A drastic modal shift will significantly diminish the number of fatal traffic accidents in urban areas.

The access time to 500,000 jobs varies from 20/25 minutes in cities with a high modal share of public transport, walking and cycling, such as Munich and Singapore to 55/70 minutes in cities such as Houston or Melbourne which heavily rely on private car.



Develop visionary integrated urban policies

Integrated urban policies optimise the benefits of public transport and enable citizens to enjoy a pleasant urban life.

To guarantee quality of life and sustainable development of cities and regions around the world, it is essential to develop an integrated approach to urban policies underpinned by economic, social and environmental values for citizens and business. A well functioning and integrated public transport system is the cornerstone of such policies.

Coordinate the different policies

Any public transport policy can only succeed if it is effectively coordinated and integrated with other urban policies (e.g. land use, policing, parking, fiscal etc.). This interaction brings benefits to both the public transport sector and other urban policy areas. National and regional governments play a major role, by providing a coherent and integrated legal administrative framework and strong support for local governments. As a result local authorities are empowered to ensure and oversee the proper functioning of the sector. It is essential in this case that regional and local authorities hold the relevant powers to ensure that the policy goals set at the national level can be achieved.

Coordinate the different modes of transport

To meet the economic, social and environmental ambitions of society, different transport modes and companies need to be coordinated in order to create an integrated public transport system with all actors pulling in the same direction. Action should be taken at the level which will be most effective for the local conditions and can contain areas with different regions and policy backgrounds. Without this coordinated approach, results will not live up to the expectations and ambitions because mobility zones often stretch beyond strict administrative boundaries.

At the same time a balance is needed to ensure that intervention leaves room for the business-oriented activities of the operator without sacrificing the social functions of public transport. The design of appropriate regulatory and institutional frameworks ensures that both objectives are met.

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Madrid (Spain)

Since the creation of the regional transport authority in 1986, **public transport patronage in the Madrid region has risen by 70%** while the population has grown by 25%. Significant infrastructure developments have taken place since 1995, with over 200km of metro and light rail line built in Madrid and its suburbs.

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Toronto (Canada)

The new regional transport plan of the Greater Toronto and Hamilton area set out ambitious objectives for public transport with a 25 year timeframe. It plans to build 1,200 km of rapid transit (over three times what currently exists!) so that over 80% of residents in the region live within two km of rapid transit (compared to 40% today). The plan advocates investing CND 2bn a year on public transport projects during the period. An initial CND 11.5bn has already been pledged by the regional government. It is expected that in 25 years, public transport will cover 26% of the trips to work compared to 16% today and **ridership should grow by 130%**. As a result, emissions from transport should halve within the period.

Call for action

- > Adopt a clear regulatory framework that provides business stability, supports sustainable mobility and leaves room for commercial activities besides traditional public transport provision.
- > Integrate all aspects of urban mobility and shift from isolated decision making to integrated mobility management.
- > Provide urban centres with ambitious sustainable mobility plans and targets with monitoring tools.
- > Coordinate all modes of public transport (different modes, services and operators) in the territory.
- > Foster single pricing or ticketing policy, compatible timetables, collective marketing and optimise networks and interchanges.
- > Coordinate local and regional levels.
- > Ensure that no one is excluded from using public transport (availability, affordability and awareness of services).

Create a new business culture

A favourable business and regulatory framework allows public transport to thrive and to be attractive to customers, to investors and to the workforce.

Public transport is a net contributor to global and local development economically, socially and environmentally. As our consumption patterns are severely questioned, the sector is at the forefront of the sustainable revolution required by our urban centres. More than ever public transport remains an important source for sustainable, green, local jobs, and a strong support to local economy.

Besides the traditional public transport approach comprising public service requirements and a social function, innovative, profitable and diversified business models will attract entrepreneurship, capital and talent.

A fair and transparent regulatory framework is necessary for the sector to offer quality mobility solutions to various market segments. The production of services needs to be properly defined, monitored and remunerated whatever the service, be it “traditional public service” or newer mobility services.

Call for action

- > Leave room for operators to develop competences, innovation and entrepreneurship.
- > Change the corporate culture from a fleet manager and production activity to a service industry fully focused on customers. To this end:
 - Introduce new management models, processes and tools to achieve high performance.
 - Develop innovative human resources practices to attract talented people, motivate and develop staff loyalty.
 - Use integrated management models, strategy maps and values to ensure alignment of objectives and actions, transparency, and staff motivation and performance.
- > Use management contracts to specify and balance the responsibilities, competences and risks of the various parties.
- > Define a desired and affordable level of quality and introduce a system of mutual bonus/malus into contracts.
- > Use codes of ethics to increase awareness of social responsibility and transparency.

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Bogota (Colombia)

Based on previous policies supporting the development and the organisation of public transport in Bogota, the Mobility Master Plan, which provides orientation for the next 20 years, sees public transport as the backbone of the mobility system.

Priorities include the full integration of the traditional and high capacity public transport systems, the development of new routes for Bus Rapid Transit, and the development of public transport interchanges to improve connectivity. It is planned that **by 2020 85% of the city will be within 500 metres of the trunk public transport system**, the rest being covered by feeder lines.

The Mobility Master Plan also covers the improvement of travel conditions for pedestrians and parking management measures.

Lagos (Nigeria)

The transport authority for the Lagos metropolitan area (LAMATA), established in 2003, has put together a Strategic Transport Master Plan with ambitious targets for the development of public transport. **Seven railway corridors, seven BRT lines, and eight waterborne connections are planned by the year 2020.** A transport fund was created to gather the necessary resources. The implementation of these projects is expected to significantly reduce congestion and increase traffic speed. About 200,000 passenger trips are currently made daily in the first BRT corridor (22km) which was launched in 2008. Travel time in the corridor has halved since the opening of the BRT.

Beijing (China)

The soaring population and economic growth of Beijing is resulting in a rapid increase in car ownership (400,000 new cars per year since 2002) and a deterioration in traffic conditions. The city authorities have developed an ambitious, long term urban mobility policy for Beijing based on the development of public transport and innovative traffic management measures, taking advantage of the momentum created by hosting the Olympic Games in 2008. The development of the public transport network triggered a **rise in the public transport modal share from 26% (64% cycling, 5% car) in 2000 to 34% (23% cycling, 33% car) in 2008 and the authorities are targeting 45%** (24% cycling, 18% car) in the future. One new metro line per year is planned to be added from 2009 to 2015. By then the metro network will be 560km long.

Secure stable funding and investment schemes

Diversified revenue, stable funding, enhanced efficiency and increased patronage are the four pillars supporting the financial robustness of the sector and helping reduce dependency on subsidies.

The demand for public transport has been growing and will continue to do so in most parts of the world due to urbanisation, energy prices or environmental concerns. Moreover, expectations from public transport are growing in qualitative terms as well (lifestyle, etc.)

This requires a drastic increase of capacity (notably to ease bottlenecks at peak time) but also additional resources to train staff, to develop innovations and to widen services portfolios to name a few. Securing more resources, on a structural basis, is essential to further develop and improve public transport and to sustain services in the long run.

However, an increased pressure on public budgets has resulted in underinvestment in public transport fleets and infrastructures for many decades. Excessive dependency on the public purse can therefore thwart the growth efforts of the sector.

Alternative funding streams and private investments are increasingly recognised as indispensable funding sources, but the recent financial crisis could jeopardise this contribution from private investors. A more commercial approach to service delivery and pricing (without compromising social policy objectives) will help reach a better cost coverage ratio and raise the financial attractiveness of the sector.

The ambitious aim of doubling public transport market share worldwide by 2025 reinforces this call for investment in public transport.

Call for action

- > Use latest available methods to demonstrate value for money of investment in public transport and communicate towards all stakeholders, including private investors, to position the public transport sector as strong and stable with good long-term prospects for investment.
- > Support the development of the right policy frameworks to ease the access to funding, notably adequate fiscal rules and accounting standards.
- > Develop new income sources from diversified transport services as well as traditional activities.
- > Invest in new technologies that add value to service and/or cut costs.
- > Urge governments to learn from the current financial / economic crisis to accelerate the shift towards more sustainable production and consumption patterns ("Green New Deal") and give incentives to the development and use of sustainable modes.
- > Improve the life-cycle cost of products.
- > Be prepared to get involved in Public-Private partnerships initiatives.

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Dubai (UAE)

Due to the rapid growth in the population and in built-up areas, mobility demand is expected to quadruple by 2020, to 22 million daily passenger trips. The challenge of providing "safe and smooth transport for all" in this context was taken up by the creation of an integrated transport authority (RTA) which set out to **increase the modal share of public transport from 6% currently to about 30% by 2020**. Ambitious public transport development plans include four metro lines (318km), seven tramway lines (270km), 90 new bus routes (2,500km), and five new waterways (210km), for a total investment of about USD10bn.

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New Zealand

The government has bold plans to promote sustainable transport within the country. Public transport ridership has already increased by almost 50% since 1999/2000 and patronage has approximately doubled in the country's second largest urban area, Christchurch, since 1998. However, due to the dispersed nature of the population, the annual number of boardings per capita is currently only around 28. The New Zealand Transport Strategy 2008 plans to more than **quadruple this figure** to 117 boardings per capita per year. This is possible if the projected growth rate of public transport in Wellington to 2016 continues to 2040, and secondly if Auckland and Canterbury achieve the same per capita level of use as Wellington in 2040.

Use carrot-and-stick tactics

Measures and policies that actively influence citizens' mobility behaviour are efficient and further encourage the use of public transport.

The management of mobility in cities can not be effective without demand-management measures as citizens' mobility behaviour is shaped by many factors. A number of these are independent from public transport policy such as the spatial organisation of the city, its socio-economic situation, the space and equipment devoted to each mode of transport (private motorised, public transport, walking and cycling); or the tax and pricing regime applied to each mode of transport.

More generally the political, operational and policy context of each area has an influence on mobility patterns and on the attractiveness of public transport. Acting on these factors and taking them into account in public transport policy helps influence mobility behaviour - in the short and the long term - and increases the demand for public transport.

Call for action

- > Plan networks according to long-term urban developments and planning.
- > Support the development of a policy framework which mandates the integration of public transport into urban planning decisions.
- > Control car use in cities through supportive parking policies, limited traffic zones, ban on through-traffic and on polluting vehicles.
- > Consider all options to reduce bottlenecks in rush hours: differentiated fares according to time of day or flex-time work schedules for employers and schools.
- > Incentivise employers to develop company travel plans.
- > Raise awareness among citizens about the consequences of their mobility choices.
- > Assess the acceptability of an urban toll to combat congestion and emissions.
- > Give public transport a competitive advantage over cars, in particular through segregated infrastructure, priorities etc.

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London (UK)

Major transport improvements since the beginning of the decade have led to a modal shift from car to public transport of five percentage points (currently car 41%, public transport 37%); a bus patronage increase of over 40% (to about 2bn trips per year); a decrease in car traffic in Central London of 20%; an increase in cycling of 90%. These achievements have increased funding, strong leadership and a clear strategy to thank.

The steady increase in population and employment is forecast to generate 5 million extra daily journeys in London in 2025, which represents more than the entire metro system today! **London's ambition is to cover these extra journeys only through public transport, walking and cycling.** To this end, the modal share of public transport should rise from 37% to 41% by 2025 through an increased capacity of bus and metro services. For instance, the peak capacity of the metro in Central London will undergo a 28% increase by 2020. This will be achieved by increasing the capacity of bus and metro services and the construction of new infrastructure, in particular a new cross London rail link – Crossrail - (costing GBP16bn). Additional measures include refining congestion charging and smoothing traffic flows.

Deliver lifestyle services to become the mode of choice for citizens

Customer needs and lifestyle are the drivers of planning, funding and delivering high quality mobility services.

Modern consumption patterns in society create new needs and habits. Citizens have an ever broader choice between different modes, and they also compare transport performance with other services. Their system of reference has become much wider, and influenced by the way they perceive quality in other sectors (e.g. Internet providers, night shops). Customer-orientation is essential to ensure that companies deliver the level of quality expected by customers.

Customers expect mobility solutions that are quick, safe and secure, convenient, clean and affordable, the whole wrapped up with understandable information. Well understood needs, quality delivery and innovation are the main drivers of successful service provision.

Customers also expect greater consideration and individual recognition. The respect and care that transport companies bring to their customers must be highly visible. This implies enhancing the travel experience and removing some negative connotations as well as psychological barriers. Global attractiveness is boosted by quality, affordability and flexibility and pleasant travel experiences lead to changes in behaviour and attitude. This shift in mindset is indispensable to turning public transport into the preferred mobility option of citizens.

Customer segmentation and customisation will help materialise high quality mobility solutions that will attract a much wider spectrum of the population far beyond the captive segment.

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Sweden

National public transport actors in Sweden set the ambitious target of **doubling the public transport market share by 2020**. Their strategy addresses the current fragmentation of the public transport sector through a legislative review. It also aims to transform public transport into a service-oriented business in contrast to its current production orientation. Based on models developed in the retail business, the intention is to create a new values-based service business model for public transport. Major infrastructure developments and advances in bus technology are also part of the programme.

Call for action

- > Respond to customers' needs, expectations and new lifestyle and develop a portfolio of mobility products and services targeting the traditional customer base as well as new segments.
- > Develop a more commercial price structure.
- > Become a true mobility provider: develop intermodal strategic partnership and alliances with taxis, bikes and car sharing, parking facilities, information providers and all major mobility generators.
- > Provide integrated services including information, tariffs, and fare products.
- > Use total quality management to ensure a service delivery in line with the planned quality and measure satisfaction and performance.
- > Elaborate marketing strategies and plans and monitor their return on investment.
- > Improve image and brand to make citizens proud of using public transport and staff proud to work in the sector.
- > Introduce innovation carefully, understand the needs of end users and share innovation risks fairly.

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Visit our advocacy tool box page (already available in seven languages) on our website to find out more details about PTx2:
www.uitp.org/advocacy

UITP is the international network for public transport authorities and operators, policy decision-makers, scientific institutes and the public transport supply and service industry. It is a platform for worldwide cooperation, business development and the sharing of know-how between its 3,200 members from 90 countries. UITP is the global advocate for public transport and sustainable mobility, and the promoter of innovations in the sector


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