HOW TO BUILD SUCCESSFUL CITIES

STRENGTHENING THE INTEGRATION BETWEEN LAND-USE AND MOBILITY PLANNING

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INTRODUCTION

The integration of land-use and mobility planning to create sustainable, inclusive and resilient cities is well understood as a means for shaping city development around walking, cycling and public transport. However, in many cities, there is still much more to be done to further strengthen the integration of these planning processes.

This Policy Brief is addressed to city leaders, decision makers, urban planners, transport authorities and mobility service providers who wish to understand and improve the relations between public transport and land use in order to build an integrated and holistic approach of planning, and move towards the UN Sustainable Development Goals (SDGs). The paper looks at the evolution of urban and mobility challenges in the last 20 years and reminds us of the need to integrate territory and mobility planning to build successful and sustainable cities.

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THE CHALLENGE: CREATING CITIES FOR PEOPLE

SHAPE AND DENSITY MATTER

Cities exist to enable human interaction. The shape and density of a city determines how easy it is for this interaction to take place. The denser, more compact and connected a city, the easier it is for people to do business, exchange ideas and knowledge, innovate and increase the economic productivity and social wellbeing. Prosperous cities have traditionally been those with high density, where interactions and connections are easy, where people have an easy access to basic services, jobs, schools, leisure activities and businesses.

Up until the introduction of the car, cities tended to be reasonably compact with dense cores. However, from the mid 20th century onwards, we measure the consequences of having planned city mobility around its spatial expansion and the individual car, with the unsustainable negative externalities and consequences that we know: Urban sprawl, segregation, congestion, air and noise pollution, lack of space, traffic, road casualties and premature death linked to pollution and road accidents. This expansion is of course also the result of a model of economic and social development process which, in developing countries, pushed the most disadvantaged to the outskirts of the city.

In the early 2000's, a common awareness of the limits of car transport and of economic growth around oil came as evidence as air pollution, traffic accidents and congestion reached dramatic levels. Cities and decision makers must now face the results of 50 years of urban developments around the car and deal with the massive challenge of how to change behaviours, slow down urban sprawl, improve air quality, reduce noise, increase public space, free the existing space of cars and make sure that investments taking place today will bring positive effects in 30 years time.

In addition to inheriting car-based plans from the post-war period, cities have had to address an increasing range of trends and challenges over the last 20 years. These include an acceleration of trends from urban growth, digitalisation, micromobility and shared mobility, to efforts to fight climate change, decarbonise and densify without expanding. City administrations have had to review and revisit their urban and mobility plans to make sure their urban and infrastructural developments will enable to move towards decarbonisation targets, while maintaining their economic and social dynamism and preserving green spaces.

Key characteristics of a compact urban environment

HIGH DENSITY

High concentration of users and buildings in small areas

MID-RISE BUILDINGS

Buildings of seven storeys maximum

MIXED USE OF BUILDINGS AND TERRITORIES

Combination of residential and commercial functions within one building or district

PRIORITISED ACTIVE MOBILITY AND PUBLIC TRANSPORT

Less private car dependence

SOCIAL INCLUSION

Urban life comfort and safety

ECONOMIC EFFICIENCY

Business development and enhanced labour productivity

MANAGERIAL EFFICIENCY

Efficient use of urban infrastructure

CONSUMING LESS RESOURCES AND CHOOSING GREEN SOLUTIONS

Mitigating environmental impact

Source: Dileman & Wegener, 2004

TWENTY YEARS OF INVESTMENTS BUT STILL A LONG WAY TO GO

When analysing changes around mobility in the last 20 years, what is interesting to see is that older cities are returning to developments that were on the rise in the early 20th century which were focusing on mass transport (railways, metro systems and tramways). To reduce the negative consequence of car traffic in cities and develop sustainable modes of transport, we have seen:

- Investment in long-term mobility planning and development of urban rails and bus services: Since 2000, 86 new metros have opened and around 150 bus rapit transit (BRT) systems, the majority of which were built in the last 15 years.

- The establishment of transport authorities or other governing bodies that will create a vision and implement the right mechanisms to financially organise, plan, support, manage and regulate the mobility systems. Then integrate them with the city/regional land-use planning while leveraging funding mechanisms to finance initiatives and sustain their operating costs over time.

- The densification of cities around public transport corridors and land value capture (LVC) techniques, especially in the Global North.

- The development and implementation of Sustainable Urban Mobility Plans (SUMPs) or Transit Oriented Developments (TODs), which have been strongly incentivised in many countries through technical and financial assistance[1].

- The interoperability and intermodality of transport services.

- Investments in Mobility as a Service (MaaS) and digitalisation.

- Car restriction access policies and Urban Vehicle Access Regulations (UVAR).

- Investments and policies in walking and cycling infrastructures, traffic calming measures and focus on public realm improvements.

- The cooperation between public and private entities to provide an alternative to car use[2].

However, despite the efforts and political commitments in many cities and regions around the world, results are still far from sustainable[3]. Investments in road networks have substantially increased in metropolitan areas, the situation is worsening in terms of urban sprawl, traffic congestion, air pollution, number of privately owned cars, and inequalities in almost all cities in the world. While the expectations are very high, actions to reach the SDGs targets are often faced with multiple political, economic, social and environmental constraints. In fast-growing cities, urban developments often grow faster than the formation of the institutional regulations needed to build and manage planning of mobility structures to serve new citizens. The lack of political willingness, pressure from developers, the informality of development, the lack of coordination between urban developments and mobility, the strong lobby of car industry on politics and society, incentives and policies to support the purchase of cars, and the lives and habits of citizens themselves make it very hard to slow down the trend.

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The European Commission's 2020 'Special Report on Sustainable Mobility in the EU' indicates that although there have been initiatives to expand the quality and quantity of public transport, there has been no significant reduction in private car usage. Additionally, some air quality indicators have improved but greenhouse gas emissions from road transport is still increasing. Between 2014 and 2017, emissions linked to road transport increased by 5% and congestion has worsened in many cities.

This can be attributed to population growth, the reliance on informal transport systems that rarely meet environmental standards but are central to transport services in most cities in Africa, Asia and Latin America such as minibuses, scooters and shared taxis[4]. As well as to an increase in car ownership per capita as people are moving away from public transport, bicycles or scooters. Additionally, the rise in freight traffic due to increase in e-commerce is exacerbated traffic and congestion all around the world.

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1 UCLG & UITP. May 2019. *Mobility and the SDGs*, GOLD Policy Series #01. ● 2 Check out the European Commission funded research project, **GECKO**, with recommendations for new regulatory approaches. ● 3 Sustainable Mobility for All, 2019. Annual Report ● 4 Check out UITP's Knowledge Brief, *Key insights into transforming the informal transport sector*, with key conditions for targeting the negative externalities and redefining the sector to complement formalised transport.

Technological and societal changes create new opportunities but also new challenges to which society must adapt, such as competition for space, micromobility, boost of e-commerce and privacy concerns. These new trends put pressure on the public transport industry and increases the volatility of the mobility market.

Cities must have an integrated approach towards land-use and transport planning
in response to the SDGs and move towards more inclusive, liveable and economically competitive urban areas.

COVID-19: A THREAT TO THE SECTOR OR A CHANCE TO BUILD BACK BETTER?

The pandemic has globally impacted people's mobility and will have long-term changes to traffic patterns, from commuting to city centres to moving more locally. In many developed countries/territories we estimate that between 40-70% of jobs can be performed from home. This will impact transport systems, which will need strong political support to advance sustainable mobility and not to lose market share against cars. But it also gives a chance to increase public transport quality and attractiveness, and regain spaces taken from cars[5]. Initiatives around tactical urbanism, such as pop-up bike lanes and larger pavements, slow and shared zones provided examples of sustainable mobility solutions that can be quickly implemented at low cost[6].

BUILDING AN INTEGRATED APPROACH BASED ON ACTIVE MOBILITY AND MASS PUBLIC TRANSPORT

A STRONGER AND INTEGRATED APPROACH IS NEEDED

Some progress has been made over the last 20 years to try to reduce or limit the expansion of cars and car dominance in some cities. But if we are to go further, we need to strengthen our approach to ensure that city growth is based around walking, cycling and mass public transport as well as using policies to limit car traffic such as parking restrictions.

Contemporary urban planning is about forecasting where people will live, work, how they will move around in the city and planning the necessary infrastructures to re-spond to their needs. It has political, economic and social dimensions. **It means preparing the city for the future.**

One of the main elements of urban planning is transport planning which sets up the rules and actions that governs mobility planning, and defines a vision, a strategy to implement an efficient mobility system. Urban planning and transport infrastructure planning are intertwined and there are several tools that exist to move towards a more integrated approach and facilitate the coordination and achievements of the targeted objectives (TODs, SUMPs).

HOW CAN PLANNING SHAPE CITIES AROUND SUSTAINABLE MOBILITY?

The focus of land-use and transport planning needs to use development to create cities that are less dependent on cars: Cities where most travel is by walking, cycling and public transport. This means:

📍 **Influencing the location of development:** Promoting new buildings where there is or could be good connections by public transport, walking and cycling, and discouraging it via strategies (e.g. land pricing) where this is difficult to provide.

Practical steps include:

❯ Identify the boundary of the built-up area and limit development beyond.

❯ Publish a binding report by the mobility department for any land-use development.

❯ Promote TOD within 800m of a rail station, and other areas with very good public transport connectivity and links for active mobility.

5 UITP, 2020. *Cities for People: Public Transport for Better Lives.* Policy Brief. ● 6 UITP, 2020. *Mobility post-pandemic: A strategy for healthier cities.* Knowledge Brief.

- Focus development in town centres, where local amenities enable walking and cycling.
- Encourage redevelopment of inefficient users e.g. car parks in areas with good public transport provision.
- Plan and reserve land for transport corridors in future development areas, in particular redeveloping brownfield sites where large-scale change can happen, and transport improvements planned from the beginning.
- Integrate existing poorly-connected communities with the city.
- Do not plan new homes based on building new roads as this is likely to embed car travel.
- Ensure that legislation and regulation maintains basic service provision and supports sustainable development in cities.

HOW TRENDS INFLUENCE COMPETITION

Changes in consumer behaviour, the growth of instant delivery and e-commerce, along with traditional goods movements, all amplified by the COVID-19 pandemic, are causing pressure on cities. One reason is the lack of available and appropriate space for these operations. To reduce congestion, achieve sustainable mobility goals and improve deliveries efficiency, it is essential to consider the freight flows from the beginning, both in mobility plans and in the management of public space[7].

One concept is the 'Shared-Use Mixed Zones' (SUM Zones). SUM zones can be defined as areas where parking management, urban vehicle access regulations and freight management are integrated, and combined with flexible kerb management concepts.

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Influencing the type of development: This comes in various forms. Firstly, denser areas of a city are associated with more sustainable travel, so denser development can reduce the need for car travel by supporting services within walking distances.

Practical steps include:

- Promote mixed-use development to reduce the distances people need to travel e.g. avoid zoning different areas as purely residential, commercial, or shopping areas which necessitates travel between the two.
- Design new streets and public spaces as part of new developments to support active mobility with infrastructure prioritising safety, comfort, low noise, greenery, social interactions, and attractive for all ages.
- Require all developments to plug into and improve local connectivity for active mobility and public transport.
- Provide a minimum quantity and quality of cycle parking for visitors and residents.
- Abolish minimum car parking requirements and applying maximum permitted levels instead, particularly in well-connected places. This is a critical way of reducing the impact of new development and increasing the number of new homes (as parking takes up a lot of space).
- Create continuous pavements with no kerb drops giving signal that streets are for people not cars. When parking is needed it must be space efficient.
- Promote 'car-free' development in the locations with the highest levels of amenities and public transport connections (e.g. city and town centres).
- Coordinate deliveries and servicing to minimise the number of necessary movements, using cleaner, safer vehicles, and avoiding peak times.
- Identify logistics spaces used for transhipment of loads on vehicles with reduced environmental impact serving specific areas of the city.

7 UITP, 2020. *New mobility and urban space: How can cities adapt?*. Policy Brief.

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Capturing the value of development: Development usually enhances the value of the land enabling developers to make a profit. It is crucial that some of this uplift in value is captured to support improvements that make the development possible. This land value capture (LVC) mechanism can be a win-win. For example, public transport improvements can boosts the connectivity of an area which makes higher density feasible, fosters economic life and brings more revenue for the developer. Some of this revenue can be captured to fund the public transport improvements[8].

Practical steps include:

- Apply LVC mechanisms, particularly where large infrastructure projects are expected to create such a transformation in connectivity that land values are likely to rise significantly as a direct result.

8 UITP, 2019. *The value of public transport: How to implement land value capture*. Policy Brief.

- Levy charges on specific categories of development that can be used for specified or general transport investment anywhere in the city.

- Developers are required to study the likely impacts on public transport, active mobility and the road network, and identify mitigations accordingly such as contributing financially to increase local bus frequencies.

This approach and practical steps are complementary and mutually reinforcing.

It is also important to remember that the developments put in place where connectivity is high should also pay an integral role in healthy, equitable and resilient cities and not create disparities or unaffordable areas.

PRACTICAL STEPS IN FAST-GROWING CITIES

In fast-developing cities, the urban structures can be fragmented in their forms and their development unplanned because of the high population growth. Additionally, transport networks and land use are not necessarily integrated with each other. This can result in very long travel distances, poor infrastructures for non-motorised transport and high dependency on motorised modes. The creation of satellite towns or gated communities are becoming prominent in many global cities. These cities may not be a successful model to achieve carbon-zero future due to the lack of strong public transport infrastructure, lower density, lower business activity levels, and travel between these areas are mainly through private car.

Strong planning around public transport infrastructure and densification to create vibrant and inclusive cities, considering the diversity of users, is a better approach for sustainable development. From a transport perspective, the main challenge is to move from informal transport which directly affects sustainable mobility, to a more formal form under the regulation of an authority or co-

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ordinating agency. This is a complex process that needs resources and specially a socio-cultural change to build the institutional, political and financial framework.

On the other hand, there are opportunities. It is relatively inexpensive to apply the principles above to new development, compared to compensating for the location and design of existing buildings. Buses and segregated bicycle lanes can be relatively inexpensive to deliver, while developing cities can avoid the mistakes of the past that are difficult to correct, such as large urban motorways. In addition, it is estimated that promoting more compact and connected cities based on a sound public transport infrastructure will lower investment requirements by 10%[9].

If planned well, fast-growing cities have high demand for public transport, walking and cycling. The return on investments for high capacity public transport systems can be realised in a shorter period than in slower growing cities. However, it requires strong public policies and stakeholder engagement processes to transform informal fragmented services.

STRENGTHENING THE RELATIONSHIP BETWEEN LAND USE AND TRANSPORT AUTHORITIES

All cities and metropolitan areas should aim to create an integrated land-use plan and transport authority with the power to ensure city development is based on active mobility and mass public transport. As a minimum, this is ensuring coordination between departments on strategic and detailed planning matters. Ideally, it means creating a unified authority with a comprehensive vision and the statutory power to put the mechanisms in place to achieve the vision.

CREATING AN INTEGRATED AUTHORITY AND REINFORCING THE COOPERATION BETWEEN LAND-USE AND TRANSPORT PLANNING

Cities and metropolitan areas should aim to create a unified planning process through efficient cooperation between public bodies and, when possible, a transport authority covering the whole area and all the transport functions within it. In cases where the city is bigger than just one political territorial organisation like a municipality, district or borough, the integrated authority should include all the municipalities that are part of that metropolitan area. This metropolitan entity should address each municipality's interests and adapt it to best meet the needs of the integrated area.

9 New Climate Economy, 2018. *Unlocking the inclusive growth story the 21st century.*

CREATING AN ORGANISING AUTHORITY IN LIMA, PERU

In Lima, two key recent institutional reforms have provided the required framework for integrated and sustainable urban transport development: The creation of an Urban Transport Authority (ATU) in December 2018, with the approval of a National Urban Transport Policy (NUTP) in 2019. The ATU's legal and institutional framework has an objective to address the following topics:

- Urban transport planning
- Transport integration
- Infrastructure provision
- Service concessions
- Fare policy

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Ideally, the unified authority should bring together the multiple actors involved in the planning and operational phases that need to be coordinated, both public and private. Of course, each city has its own governing bodies and creating an authority is one efficient solution. The below provides an idea of the most common set-up:

> **Cities, regional authorities and governmental agencies:** They are generally in charge of land-use planning with the regional authority whose task is to integrate land use to the planning of a larger area. From a mobility perspective, they could be also in charge of planning and managing infrastructures such as public spaces (streets, roads), railways, stations, interchanges etc, if they are not already the responsibility of a transport authority.

⊙ **Public Transport Authorities (PTA) or other govern-mental body in charge of mobility:** They are generally in charge of arranging public transport in the city or metropolitan, planning infrastructures and defining rules and conditions for the operations. The PTA can either be wholly responsible for the entire public transport system or the overall mobility, as well as road management and design and the coordination of land-use and infrastructure planning.

The unified authority will be effective with a sound, supportive and agile legal framework. It should also have a range of required and appropriate stable funding sources and collection mechanisms and powers. Additionally, to help the integrated authority be effective, there should be strong cross-party government support and commitment. Interdepartmental, multi-sectoral collaboration between transport, urban planning and other policy areas should as well be encouraged. Mechanisms should be established to facilitate cross-boundary planning, for example with neighbouring regional and national planning authorities and there should be a clear decision hierarchy.

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INTEGRATION OF REAL ESTATE AND PUBLIC TRANSPORT DEVELOPMENTS

In heavily commercial business models such as those used in Singapore, Hong Kong or Tokyo, real estate developments and public transport development are integrated and linked into a specific contract. This integration can either be managed privately or with a strong involvement of the authority who becomes responsible for the development of some parts of a city. This requires that the city or the authority commits to early urban strategic planning for all developments to integrate land use and transport. As an example, in Singapore, with the Clementi or Dhobi Ghaut hubs, a more integrated approach has been adopted to design urban development projects around transport nodes.

Creating an integrated transport authority is one efficient solution but it is not the only one.

Having an integrated planning process and a reinforced cooperation between the public and private bodies, having coherence between land-use plans and transportation plans as well as good integrated processes, and having structures at the planning and execution levels are also efficient mechanisms that can be put in place to achieve sustainable mobility goals.

STRENGTHENING PLANNING PROCESSES AND CAPABILITIES

CREATING A SINGLE LAND-USE AND MOBILITY PLAN FOR THE CITY

The key planning function of the integrated authority is to produce a unified city plan focused around the principles of densification, mass public transport, active mobility, and car restrictions policies. The plan could ideally include a spatial map, showing the principal areas for employment growth, housing development, and the existing and planned transport infrastructure. Development of the plan must include communities in the discussion at an early stage as community support and participation at early concept stage is key for its success. The plan would be consulted on and have the statutory power when possible to shape any local municipal masterplans and mobility strategies, and to guide planning decisions.

As a starting point, an **Integrated Mobility Plan**, or a wider city/regional plan, will ideally cover the catchment area of most commuting trips and define public transport as the backbone of the sustainable urban mobility system. Drawing up the plan will bring different stakeholders from all sectors together around the same table, thus helping to understand challenges from different angles.

An Integrated Mobility Plan must include the following aspects:

⊙ Shared and consistent vision

⊙ Effective governance

⊙ Long-term commitment

⊙ Strong links with land-use planning and economic development

⊙ Long-term funding commitment

SUSTAINABLE URBAN MOBILITY PLANS (SUMPS)

Sustainable Urban Mobility Planning is a strategic and integrated approach to dealing with the complexity of urban transport. Its goal is to improve accessibility and quality of life by achieving a shift towards sustainable mobility. SUMPs advocate for fact-based decision making guided by a long-term vision. As key components, this requires a thorough assessment of the current situation and future trends, a widely supported common vision with strategic objectives, and an integrated set of regulatory, promotional, financial, technical and infrastructure measures to deliver the objectives. SUMPs place particular emphasis on the involvement of citizens and stakeholders, the coordination of policies between sectors (transport, land use, environment, economic development, social policy, health, safety, energy…), and broad cooperation across different layers of government and with private actors.

Cities usually have different sectoral plans, partly overlapping, on which they can rely to build an integrated mobility plan. These plans can be regional integrated land-use and mobility plans, municipal masterplans, mobility plans for public transport, cycling, walking and road network plans. Specific plans with short to medium timescales such as traffic plans, public transport plans, parking plans, freight plans, cycling plans and pedestrian areas plans could be derived from the Integrated Mobility Plan and their progress monitored.

In integrated land-use and mobility planning it is very important not only to set a timeframe and define how the plan will be financed but also identify land policy and measures to implement the plan. Investments and planning responsibilities should be tied together and synchronised. There is no use in making plans without exploring and setting up the necessary financial and institutional arrangements for their implementation. Additionally, it is also important to give some space to innovation and disruption which can stimulate ideas and solutions for the benefit of citizens.

To promote the implementation of plans of any sort of urban growth, agreements on land use, housing and transport are extremely important. They are binding agreements between national, regional and municipal authorities on how to develop land-use and transport systems towards overarching goals. Additionally, the evaluation of the planning process must play an essential part in the planning process as it helps in identifying both the successes, weaknesses and areas to adapt[10].

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DEVELOPING THE PLAN TOGETHER

To ensure a successful, integrated planning process it is important to follow the below elements:

1. Understand the context of planning:

   ✓ Objectives: What do we want to achieve?

   ✓ Parties involved: Identify stakeholders, decision makers and other actors

   ✓ Map the different actors and their needs

   ✓ Explain the objectives and understand what other policies to consider in the planning process (interfaces, educational policies, national plans)

2. Understand the process of planning:

   ✓ Build a good project management

   ✓ Define clear milestones

   ✓ Define a clear communication strategy

   ✓ Ensure enough resources and skills

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10 UITP, 2018. *Public transport and business: Empowering our cities*, Policy Brief.

3. Evaluate and monitor:

✓ Evaluate the progress on a regular basis

✓ Measure if objectives are achieved or if there are deviations

✓ Adapt if needed

✓ Measure satisfaction

The integration should be done both through a vertical and horizontal approach. In the vertical approach, collaboration and integration continues from the political level to the operational level. In the horizontal approach integration is seen at the regional or geographical level, in territory/metropolitan area and in aligning the objectives of the regions/cities. Also, integrating mobility and land-use policies with health programmes can support public transport and other sustainable modes[11].
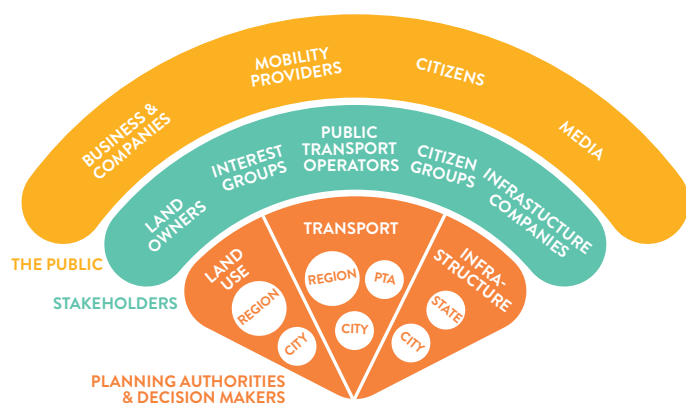
▶ *Roles of actors in land-use planning and transport planning*

USING PLANNING TOOLS TO SHAPE THE PLAN

To efficiently plan for mobility and developments, cities can refer to different planning tools and combine them for a better understanding of travelling patterns, travel needs and activities. Every urban and mobility strategy and policy should start with a diagnosis, using relevant and reliable data. Here is a short overview of transport models and planning tools:

❯ **Integrated land-use and transport models:** They provide a high-level evaluation of the potential relocation impact of people or activities, following a suggested policy affecting the overall cost of infrastructure, such as the building of new transport infrastructure and the location cost (e.g. property taxes). They can also be used to understand and control the determinants of urban sprawl.

❯ **Strategic transport demand models:** They are used to predict the impact of changes in modal split and traffic patterns due to changes in development levels, demographics, and the transportation system itself. Behavioural models in transportation planning are also used to understand the determinants of decision-making regarding travel choices in relation to passenger preferences such as price, travel time, comfort, accessibility.

❯ **Spatial accessibility models:** They are used to measure the relative difficulty an individual (or more generally a geographic area) can face when attempting to reach a facility or a resource, according to the structure and the parameters of the transport networks (network density, travel time, distance, cost, congestion, convenience of use, etc.). Knowing where the sectors with good (or poor) accessibility are located for different modes of transport allows the transport planner to determine the benefits to develop or to upgrade a transport infrastructure or service, or inversely which is the best location for a planned new equipment.

❯ **Data sources:**

1. **Conventional sources of data** such as census data, socio-economic data (population, age structure, level of income/education…), land-use data (housing density), observed data (road traffic, public transport patronage…), surveys etc. Most of this data is usually gathered within a geographic information system (GIS). The use of a GIS facilitates the analyses and the sharing of its findings, particularly for stakeholders who do not have the underlying theoretical knowledge.

2. **New/emerging sources of data** such as the use of mobile phone data, GPS data and data/queries collected by the new digital mobility applications (MaaS apps, route planners…). Also of importance are qualitative data sources such as geolocation data about the perceived level of security from crime to influence navigation route recommendations (e.g. for women on foot).

The collection of data and use of planning tools is paramount for a sound strategy. However, conventional planning models are still mostly based on traditional motorised transport and do not take into account the new forms of mobility such as micromobility and e-commerce data in the theoretical framework. This data should be made available to cities to help them understand travel patterns and plan properly[12].

11 WHO & UN HABITAT, 2020. Integrating health in urban and territorial planning: A sourcebook for urban leaders, health and planning professionals. ● 12 UITP, 2020. *Sharing of data in public transport: Value, governance and sustainability.* Report

USING SMARTPHONES IN KAMPALA, UGANDA, FOR PUBLIC TRANSPORT IMPROVEMENTS

An analysis of a proposed design for a Bus Rapid Transport corridor in Kampala showed that the levels of passenger demand was under-estimated. UN-HABITAT initiated a city-wide participatory mapping of travel demand for public transport using smartphone applications. This resulted in the Kampala Mobility Map, a resource to facilitate better public transport planning in the city. UN-HABITAT worked with the Kampala Capital City Authority (KCCA) and the Ministry of Works and Transport (MOWT) to conduct public consultations on the map. This will enable better operational planning of public transport services including service frequency, vehicle capacity, station, and infrastructure design for a modern high-capacity bus-based public transport system. UN-HABITAT also worked with KCCA to make the data accessible to online platforms so that commuters can better plan their trips through popular portals such as Google Maps.

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LONDON, UNITED KINGDOM

After decades of decline, London's economy and population began grow rapidly in the late 1980s. However, without a citywide authority able to plan for this growth, roads and public transport quickly became extremely congested and crowded, threatening London's economic viability and quality of life. The national government identified that London needed an integrated authority to coordinate planning across the city and established the Mayor of London and the Greater London Authority (GLA) in 1999.

The Mayor of London leads the GLA and is responsible for the development of 'The London Plan' which brings together land use, transport and other infrastructure plans in to one document. The Mayor oversees delivery of The London Plan through planning processes and the development of transport in London through the GLA's functional body, Transport for London.

Since the GLA was established in 2000, London's population has grown by almost two million, while car use has reduced by 15% and the pre-COVID-19 modal share for active mobility and public transport had increased from 52% to 63% of all trips in the city.

HELSINKI REGION, FINLAND

The Helsinki Region defines how to develop land use, housing, and transport in the coming decades; it presents the desired future, sets out goals and concrete measures. The 15 municipalities in the region and state organisations are involved in developing the plan. Helsinki Region Transport (HSL) is responsible for the transport system planning, and municipalities for land use and housing planning. Together, they draw up the plan every four years.

The plan describes:

- ❯ Where housing will be built in the future
- ❯ How the transport system will be developed to best serve the needs of the entire region
- ❯ How sufficient housing is provided while ensuring the quality of both housing and the living environment

After each plan, the agreement is signed by all municipalities, HSL and the government. The agreement consists of measures over four years in housing, zoning and transport investments.

STRATEGIC DEVELOPMENT PLANNING IN MONTREAL, CANADA

Published in October 2020 by Montreal Regional Public Transit Authority (ARTM), the Public Transit Strategic Development Plan gives a vision for the development of the public transport system in the coming years for the Greater Montreal area. This strategic plan has been developed in collaboration with the Quebec Department of Transport, the Greater Montreal Community, the municipalities and the public transport operators (PTOs).

The Strategic Development Plan aims to:

- Increase public transport services by 60% by 2035
- Enhance the structural public transport network by developing new metro, tramway and BRT lines
- Encourage land-use intensification and compact development along the main public transport corridors and access points in order to attract 60% of the metropolitan population growth and economic activities
- Ensure harmonised coverage of public transport services throughout the metropolitan area and improve the passenger experience

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ZERO GROWTH TARGET IN OSLO, NORWAY

Together with three other Norwegian cities, the Oslo Region has committed to an agreement with the national government to ensure that all growth in private transport is to be served by walking, cycling and public transport. The instruments in this agreement include governmental funds and toll revenues to invest in public transport infrastructure and services, bike lanes, parking restrictions and land-use policies. Not only Oslo, but the municipalities surrounding the city, commit to a strategic land-use and transportation plan, with densification in community centres and around public transport connection points.

A failure to follow up with a transport-oriented land-use development results in the risk of losing necessary funds, whenever the agreement is negotiated every second year.

So far, the zero-growth target in private car usage has been reached every year from 2008 to 2020, making Oslo one of the most successful cities in the world for public transport growth.

URBAN REGENERATION AROUND TRAMWAYS IN RABAT-SALÉ, MOROCCO

In the last 20 years, major Moroccan cities have seen a substantial demographic increase, placing pressure on road networks and transport capacity. In response to this demand, counter the increase of vehicles, reduce emissions levels and provide a higher quality of life to citizens, urban mobility policies and urban development plans have been implemented.

In line with an urban development policy to restructure part of the city around the public transport networks, the cities of Rabat and Salé had new tramway lines built to

link the two cities more sustainably and respond to transport needs.

The Rabat-Salé agglomeration has a high population growth. At the end of 2006 both cities authorities pushed for the creation of a tramway network, leading to the creation of a transport agency called "Société du Tramway de Rabat-Salé". They were in charge of funding, managing and providing the regulatory framework for the network. Today, two lines are in operations to serve the most populated areas of the cities, linking them to businesses, administrative, leisure and educational services. More than 100,000 passengers are transported daily, of which 50% are women.

Further extension projects are ongoing, with an additional 30km network. Once fully completed, the project will see the operations of five tramway lines responding to the transport demand along the main transport corridors of the cities and within the agglomeration.

The project's long-term objectives are:

❯ The development of the tram network and transport offer

❯ Urban regeneration within the tramway catchment areas

❯ Air and noise pollution reduction

❯ Traffic reduction and time saving for users, through the financial incentives (park and ride possibilities)

❯ Social valuation of areas within the catchment area of the tramway and improvement of social cohesion

The improvement of the transport network has led to high investments in other major urban infrastructures which link the two cities around the development of cultural activities. For example, the development programme of the city of Rabat as "Rabat Ville Lumière, Moroccan Capital of Culture". These developments include the Hassan II bridge, a 1,200m long bridge on which the tram operates, the Base Nautique Bridge and the Great Theater. The three of them are impressive pieces of art and architectural design.

© Societé du Tramway de Rabat Salé

SUPPORTIVE POLICIES AGREEMENTS IN VANCOUVER, CANADA

TransLink, Metro Vancouver's regional transportation agency, and a project's host municipality have signed Partnership Agreements to support the success of major transportation investments.

The Supportive Policies Agreement (SPA) is a key component of these partnership agreements and is required prior to funding approval for a major transportation project in the region. Key areas addressed in a SPA include rapid transport-supportive land-use and transportation planning and policy, affordable housing strategies, transport demand management, and the implementation and monitoring of the SPA. The land-use planning includes all types of development, with commitments by the host municipalities to deliver plans that are supportive of rapid transport investment.

While the project is rapid transport, the SPA commits to working together on other multimodal access, including cycling, walking, and transport demand management (TDM). A key focus of the SPAs is to ensure collaboration between partners on relevant initiatives, particularly land-use plans and housing policy development, to help achieve the best possible land use/transportation outcomes.

Monitoring of the SPAs includes formal reporting to decision makers annually on both the status of the commitments and the related outcomes. This monitoring process is an important tool to hold partners accountable for ensuring the success of major regional investments.


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GREEN TRANSPORT ZONES IN SEOUL, REPUBLIC OF KOREA

Seoul Metropolitan Government (SMG) has been promoting green and sustainable mobility by designating Green Transport Zones (GTZ) within the city and implementing special measures for the zone. GTZ is designated to transform an area with high traffic congestion and greenhouse gas emissions (GHG) into a more environmentally sustainable area. SMG designated the city center as GTZ in 2017 and will expand the zone to cover Gangnam and Yeouido which are some of the busiest areas in Seoul.

In 2018, SMG established a comprehensive plan to prioritise sustainable transport in GTZ with an objective to reduce GHG emissions by 40% and traffic volume by 30% by 2030. The plan aims to promote sustainable transport in GTZ based on five strategic priorities:

❯ Restrain the traffic entering the GTZ

❯ Expand spaces for green and sustainable mobility

❯ Encourage more people to use public transport

❯ Facilitate the use of sustainable modes of transport

❯ Implement stronger transport demand management

As part of this plan, large-scale road diet projects are underway in Seoul. One of the major projects is taking place on Sejong-daero, a large street running across downtown Seoul. The 12-lane road will be reduced to a 7- to 9-lane road to create more pedestrian walkways, bike lanes and green spaces. The project is expected to create a flagship walkway in Seoul with more greenery and improved connectivity between pedestrian ways.

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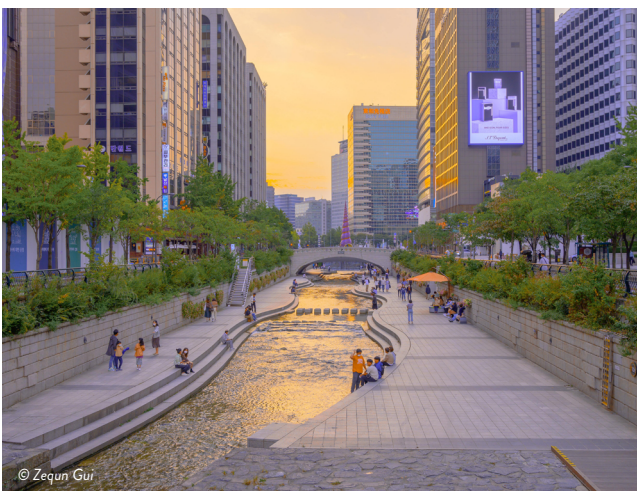
RECOMMENDATIONS

To create healthy, inclusive, economically competitive, zero-carbon urban areas, cities need to have an integrated approach to land-use and transport planning. This means, establishing cross-party political support and commitment, strengthening city visions and policies to be clear that the only means to a sustainable future is to sharpen our resolve to create cities based on walking, cycling and public transport. This also means strengthening and maintaining the provision of basic services and coordination between city authorities, so that these policies are effective in moving cities away from individual car dependence.

Practically, this means:

❯ Create a unified plan and vision for the city/metropolitan area focused on the principles of quality of life and sustainability, defining goals of densification, mass public transport, walking and cycling.

❯ Reinforce the cooperation between public and private bodies and strengthen the integration of land-use and transport planning in terms of processes and execution.

❯ Create a unified authority or public service enterprise responsible for transport and urban planning that brings together all the actors involved in the planning phase and that has a sound and legal framework and the appropriate funding to implement the strategy. Make sure that there is a clear division of responsibilities between the different actors and accountable contractual relationship between governments and service providers.

❯ Densify and concentrate new developments around public transport infrastructures and build a strong planning approach based on sustainable growth, meaning:

· Influence the location of developments where there is or could be good connections by public transport, walking and cycling.

- Influence the type of developments such as denser areas and mixed-used areas to limit mobility demand.

- Capturing the value of created growth through land value capture techniques to fund and improve mass public transport.

❯ Public transport should be the backbone of urban mobility across all exit strategies that aim to shift individual motorised transport in cities towards more sustainable modes as part of an integrated public transport system (administrative, modal, fare,...) that combines mobility services, provides door-to-door seamless journeys and eliminates the need for the private car.

❯ Provide convenient funding and financing for public transport investments and operations, in line with quality standards and frequency levels. Ensure both the legal possibility and the access to financial markets by local governments. Define and establish several funding mechanisms2 to cover the costs of operating and maintaining these public transportation systems over time.

❯ Advance mobility programmes to support specific developments and citywide development, that would typically include:

- Investing in mass public transport, cycling and walking

- Coordinating public transport and street management by integrating walking, cycling and public realm improvement

- Applying a systematic approach to optimise the overall transport system with all mobility actors

- Investing in traffic calming measures

- Building multimodal nodes

- Reinforcing parking policies, such as residential parking controls and charging for and limiting the supply of destination parking

- Charging urban car journeys

❯ Make use of (big) data to gather, analyse mobility data and understand travel patterns, needs and trends.

❯ Ensure there is a widely shared social agreement and vision about what constitutes a "good city". This is crucial as justification when priorities have to be set between incompatible wishes (e.g. space for cars versus space for people).

❯ Work collaboratively, in partnership, but do not shy away from difficult decisions. Engage in a democratic process so that people understand that the pursuit of the "good city" makes tough choices inevitable.

@ Charles Lewis

CONCLUSION

The last 20 years have seen an acceleration of challenges and trends. Growing urban populations is resulting in increased demand for mobility, housing and services. Carbon emissions, urban sprawl and traffic congestion are on the rise in almost all major metropolitan areas.

To build successful and liveable cities, it is essential to influence the type of development, using transport-oriented development policies, investing in public transport networks as the backbone of the mobility system, walking and cycling, public realm improvements, and limiting car traffic. Residential, work and leisure districts must be closely connected and intermixed.

Cities must prioritise accessible, safe, breathable, and walkable streets, putting people at the heart of their development, by implementing the careful coordination of land use and long-term mobility planning.

The COVID-19 pandemic crisis has shown how adaptable our societies are to change. Although the economic crisis will have long lasting effects, governments must seize the opportunity to rebuild our cities based on the principles of sustainable urban mobility planning that will participate in a dynamic recovery, liveability and in the fight against climate change. Increasing the liveability of our cities is the most important goal to reach.

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This Policy Brief has been prepared by the members of the Transport and Urban Life Committee, co-written with UN-Habitat and endorsed by UCLG. For more information, please contact Anne Mordret (anne.mordret@uitp.org)

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