



# factsheet

## Integrated Public Transport Network Planning



**Wuppertal  
Institut**

**UN HABITAT**  
FOR A BETTER URBAN FUTURE



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**Urban Electric Mobility Initiative (UEMI)** was initiated by UN-Habitat and the SOLUTIONS project and launched at the UN Climate Summit in September 2014 in New York.

UEMI aims to help phasing out conventionally fueled vehicles and increase the share of electric vehicles (2-,3- and 4-wheelers) in the total volume of individual motorized transport in cities to at least 30% by 2030. The UEMI is an active partnership that aims to track international action in the area of electric mobility and initiates local actions. The UEMI delivers tools and guidelines, generates synergies between e-mobility programmes and supports local implementation actions in Africa, Asia, Europe and Latin America.

**SOLUTIONS aims to support the exchange** on innovative and green urban mobility solutions between cities from Europe, Africa, Asia and Latin America. The network builds on the SOLUTIONS project and brings together a wealth of experience and technical knowledge from international organisations, consultants, cities, and experts involved in transport issues and solutions.

**The overall objective** is to make a substantial contribution to the uptake of innovative and green urban mobility solutions across the world by facilitating dialogue and exchange, promoting successful policy, providing guidance and tailored advice to city officials, fostering future cooperation on research, development and innovation.

**SOLUTIONS\_UEMI supports urban mobility** implementation actions that contribute to the Paris Agreement and the New Urban Agenda.

**Sustainable energy and mobility** can make positive contributions to a number of policy objectives, nationally and locally. In particular in cities there is a great potential to create synergies between for example safety, air quality, productivity, access and climate change mitigation. A UEMI resource centre will provide opportunities for direct collaboration on projects focusing on sustainable urban mobility and the role e-mobility can play in it. The UEMI will pool expertise, facilitate exchange and initiate implementation oriented actions.

**UN-Habitat, the Wuppertal Institute & Climate Action Implementation Facility** jointly host the resource centre for the Urban Electric Mobility Initiative, aiming to bridge the gap between urban energy and transport and boosting sustainable transport and urban e-mobility.

UEMI

Solutions

Aims

## **In brief**

The aim of integrated transport planning is to provide citizens with a high quality, easily accessible articulated network across a whole city or region. Travellers should be able to move using different forms of transport - such as rail, Bus Rapid Transit, buses, bicycles and even boats. The network should have a unified payment system and connections should be easy to reach, resulting in fewer transfers, reasonable costs, a reliable service, and convenient travel times.

## **Examples**

The most successful cities that have integrated transport planning are Madrid (Spain) and London (UK). Both cities rely on their different services to comply with the mobility needs of their users, whatever their travel purpose. Their stories are quite different but ultimately the solution aims towards the same objectives and goals: to provide convenient, high quality and integrated mobility systems with optimal connections between origins and destinations.

In Madrid, it was only after passenger numbers continued falling year-by-year that the transport agencies - which were competing to provide services to newly urbanised areas - stopped and analysed the problems. This resulted in the creation of the Transport Consortium of Madrid, an agency in charge of planning, managing, controlling and regulating the different modes of public transport in Madrid and nearby regions.

## **Results**

Integrated planning improves a city's connectivity, providing a better mobility service and shorter trips for inhabitants, and bringing people and places closer together. As part of this, cities should consider integrating fares, infrastructure and operations for integrated public transport planning, and create easy connections with non-motorised transport (such as walking and cycling).

The best examples show that by properly integrating public transport planning, the number of passengers goes up. This is because users get more value for money and they consider public transport as a more convenient mobility option. One of the main benefits is that integrated transport systems foster social equity, providing access to services, jobs, education and entertainment - in brief, access to the whole city. They also result in people using more sustainable modes of transport, which can reduce congestion, emissions, travel times and, if managed properly, even road accidents.

## **In brief**

## **Examples**

## **Results**

# Technical and financial considerations

## Technical and financial considerations

Most technical challenges relate to the ability to design a network that provides highly reliable and comfortable transport with a good information system and a minimum number of transfers. The challenge is greater when creating such a network with limited financial resources, with no subsidies, where only income generated by passenger fares covers the costs of the operation.

Recently, there have been discussions on providing subsidies to countries mainly in Asia and Latin America (although in some of these countries such initiatives already exist). This is because, depending on the size of the city, the first phases of developing an integrated network can be costly. Best practices show that subsidies for integrated public transport planning may result in better services, higher passenger numbers, and contribute to modal shifts (e.g. switching from the use of private cars to public transport).

## Policy/Legislation

As mobility is a fundamental element in the functionality of cities, which influences all sectors, integrated transport planning should be a part of every urban development plan, programme and project. This ensures that cities can develop their public transport networks without worrying about administrative changes at municipal, state and federal levels.

Sustainable Urban Mobility Plans could be an ideal way to provide the backbone for specific plans with short to medium timescales - such as plans for traffic, public transport, parking, freight or cycling.

## Institutions

Forming partnerships between all levels of government is the best way to address integrated transport network planning. Each jurisdiction should apply the prescribed principles and processes to reflect their specific needs, priorities and community aspirations for providing a sustainable transport system.

Other local policy areas, such as land-use planning and urban freight, and key sectors, such as environment, energy, social services and health, should complement and support a public transport system.

# Policy/Legislation

# Institutions

## Transferability

This type of solution is completely transferable to different cities, and advisable, as integrated planning optimises resources. In this case, the transferability does not rely on a specific context, but on the will of the different transport agencies to build upon one unique public transport system. It responds to the need of providing transport to satisfy the needs of mobility.

This becomes an issue of institutional coordination, but is strongly supported by political negotiation and leadership. The complexity may vary, depending on the scale of the city or metropolitan area and the numbers of stakeholders, which change according to the conditions established in each country. Stakeholders might include agencies from national, regional and local governments with different levels of hierarchy and competence.

Implementation might also include negotiations with unions, service providers and in most cases, require modifications to legal frameworks, regulations or public policies.

## Case Study: Intermodal public transport in Montpellier (France)

### Context

The population of Montpellier, in the south of France, has been constantly growing over the last 50 years. These brought difficulties because as the urban area increased, so did car ownership and CO2 emissions. To tackle these problems, the local government developed an urban mobility plan that considered urban planning and public transport in an integral way with the aim of avoiding urban sprawl and providing quality transport. The objective was to provide urban transport to the growing population; shorten distances in the city or region; and provide regional intermodal public transport.

### In action

To shorten distances in the city and region, Montpellier changed how it used its urban land, and began creating new urban hubs that enable diverse activities. It developed several commercial spaces, offices, housing, urban facilities and public spaces. Many areas of the city also changed their speed limits to make it safer for pedestrians and cyclists. This provided pedestrians with better access to different activities and services.

# Transferability

## Case Study: Intermodal public transport in Montpellier (France)

The local government promoted carpooling programmes and limited the number of parking spaces throughout the city. It improved regional transport by constructing four tramlines and creating an intermodal system with buses, trams, regional trains, bicycle parking and a bike-sharing system. Montpellier's transport company, TaM, operates the tram system, and oversees the public bicycle system, Vélomag, which has 1200 bicycles and 50 stations. The city also managed parking for private vehicles to make better, more efficient use of the road. All these measures, particularly the bike-sharing system, changed the experience of Montpellier dramatically and improved the mobility of citizens significantly.

Thanks to these efforts, the use of public transport more than doubled between 1998 and 2008. The tram network now has an extension of 56 kilometres, and the city is planning a fifth line for 2017.





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