# TRANSPORT REVOLUTION
# – THE FUTURE OF ACCESSIBLE
# PUBLIC TRANSPORT IN
# URBAN AREAS

The report *Transport Revolution – The Future of Accessible Public Transport in Urban Areas* investigates ways to make public transport accessible and useful for everyone by applying modern mobility solutions.

## WE NEED TO START PLANNING TODAY
## FOR NEW MOBILITY SOLUTIONS

New mobility solutions need to be included in the earliest stages of urban planning, since these solutions may significantly change the need for public space – for example, use for car parking and roads. New solutions may also increase possible travel range for residents of areas that are currently poorly served by traditional public transport.

Combined mobility solutions are on the rise. These services are based on allowing citizens to access a variety of mobility solutions and select the vehicle that is relevant to the specific trip.

## HOW PREPARED ARE COMMUNITIES
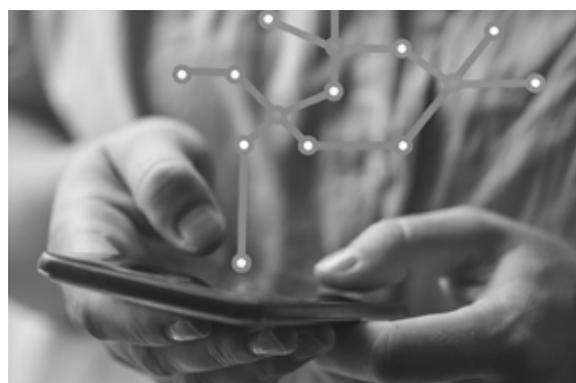## FOR NEW MOBILITY SYSTEMS?

The increased interest in new mobility solutions in Europe is based on trends linked to digitalisation, changing values and lifestyles. Shared mobility and new technology can increase people's travel options. But how prepared are communities for the new mobility systems that are emerging and the sustainable infrastructure that needs to be developed?

According to Eurostat, 49 per cent of residents of large European cities used public transport to get to work.[1] Although this is a relatively high percentage compared with other parts of the world, there is still great potential to increase the use of public transport in our cities. Today, public transport is unavailable to some citizens due to poor accessibility, and some choose not to use public transport because it does not meet their needs.

Several European cities currently offer Mobility-as-a-service (MaaS) solutions, with various packages of public transport, car-sharing, car hire, cab, rent-a-bike and/or walking. Vienna, Helsinki and Hannover are examples of cities where MaaS solutions are already in use.

| MaaS solutions per city | Vienna | Helsinki | Hannover |
|---|---|---|---|
| Public transport | 🚌 | 🚌 | 🚌 |
| Car sharing service | 🚐* | 🚐* | 🚐* |
| Cab service | 🚕 | 🚕 | 🚕 |
| Bike sharing | 🚲* | 🚲* | |

The illustration shows the offer of MaaS solution per city, with different transport forms that are combined in a single payable service. Asterisks indicate forms of shared mobility transport.

1) https://ec.europa.eu/eurostat/documents/3217494/8222062/KS-HA-17-001-EN-N.pdf/eaebe7fa-0c80-45af-ab41-0f806c433763 - p. 240

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**KEY FACTORS TO INCREASE ACCESSIBILITY**

With today's transport solutions it is difficult to provide good accessibility for all travelers. By combining new mobility solutions and high capacity public transport, we can create a transport system that is accessible — and beneficial — for all. The distance from a person's home to the nearest public transport is a key factor in determining whether that person will use public transport. Access to vehicles is also vital; for example, ramps to trains and buses create accessibility for people with disabilities, parents with prams, and people unable to use the stairs.

**URBAN STRUCTURES ARE A RESULT OF AVAILABLE TRANSPORT OPTIONS**

Public transport is a cornerstone of sustainable urban development. The way a city is built influences the way people travel. The opposite is also true: citizen's travel patterns influence the development of cities and their attractiveness as places to live and work.

An urban structure is mainly a product of the dominant transportation system in place during the city's most important period of growth. This can be illustrated by looking at the size of urban areas that make up different cities. The illustration below shows the areas of Atlanta and Barcelona. The cities have similar sized populations, but as Atlanta expanded during the era of the private car, it covers a huge urban area. Barcelona was founded and grew as a city much earlier, in an era without cars. This contributed to Barcelona's very dense city centre.

| ATLANTA | BARCELONA |
| --- | --- |
| Population:<br>5.25 million | Population:<br>5.33 million |
| Urban area:<br>4,280 km² | Urban area:<br>162 km² |
| 7.5 T $CO_2$/ha /an<br>(public + private<br>transport) | 0.7 T $CO_2$/ha /an<br>(public + private<br>transport) |

Atlanta and Barcelona have similar populations, but the size of the urban areas and emissions from the transport systems differ significantly. Newman & Kenworthy 1999[2].

"New transport solutions should be included in the earliest planning stages of urban development. This will give more of the city's residents access to alternative modes of travel, and reduce people's dependence on the car," says Sara Polle, traffic expert at Sweco.

**FOUR THINGS COMMUNITIES CAN DO FOR AN SUCCESSFUL PLANNING OF ACCESSIBLE PUBLIC TRANSPORT**

1. Stopping and reversing urban sprawl is one of the most important measures to provide better access to public transport, given today's typical public transport solutions.

2. A transport system that is easy for users to understand is an important factor to persuade more people to use public transport. Proximity, access to vehicles, and transport system complexity are key factors to increase accessibility.

3. Mobility solutions need to be included in the earliest stages of urban planning, since these solutions can significantly alter the need for public space (e.g., use for car parking and roads).

4. Accessibility through public transport is closely linked to the time and cost. It is vital for the functioning of our cities that new technologies and services supplement, rather than replace, well-functioning public transport.

Discover the *ongoing transport revolution* and how future public transport in urban areas needs to start planning today for new mobility solutions.

2) Newman, P & Kenworthy, J. (1999): Sustainability and Cities: Overcoming Automobile Dependence.

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