UITP EUROPE

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BETTER URBAN MOBILITY: GETTING IT RIGHT WITH PUBLIC TRANSPORT

UITP input to the EU Urban Mobility Framework

Cities host 75% of the European population and are centres of economic and social activity. Cities are also key actors when it comes to reaching climate neutrality. Considering that urban mobility accounts for 40 per cent of CO2 emissions related to road transport, there is a huge potential in addressing people's mobility habits and encouraging the use of more sustainable transport modes in their everyday life. Public transport companies are becoming multimodal mobility providers, offering new and data-based mobility services in addition to traditional mass transit services.

In its Sustainable and Smart Mobility Strategy (2020), the European Commission recognised that technological change alone would not be sufficient to reduce CO2 emissions from transport. The broad deployment of new technologies takes time, and demand for transport will continue to grow. **UITP urges the European policy-makers to go beyond "business as usual". A tangible modal shift towards the most efficient and sustainable modes of transport is needed**. As global warming progresses, it is high time to move from declarations to implementation.

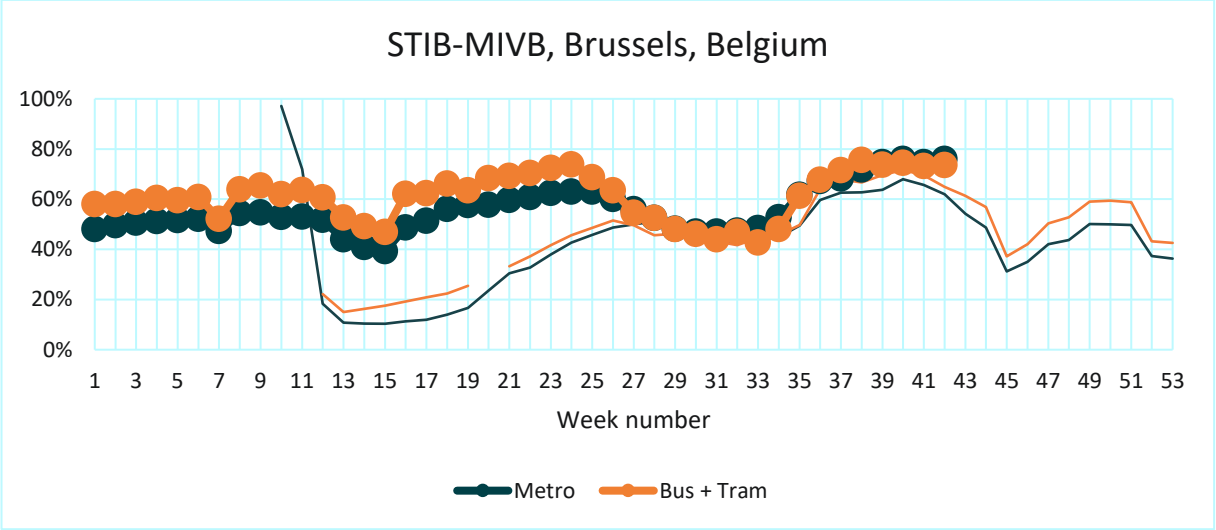
In the decade following the COVID-19 pandemic, the challenge the public transport sector faces is threefold: it needs to decarbonise, digitalise and grow its services simultaneously. All three areas of transformation require political support and additional investments that go beyond a mere continuation of what is available today.

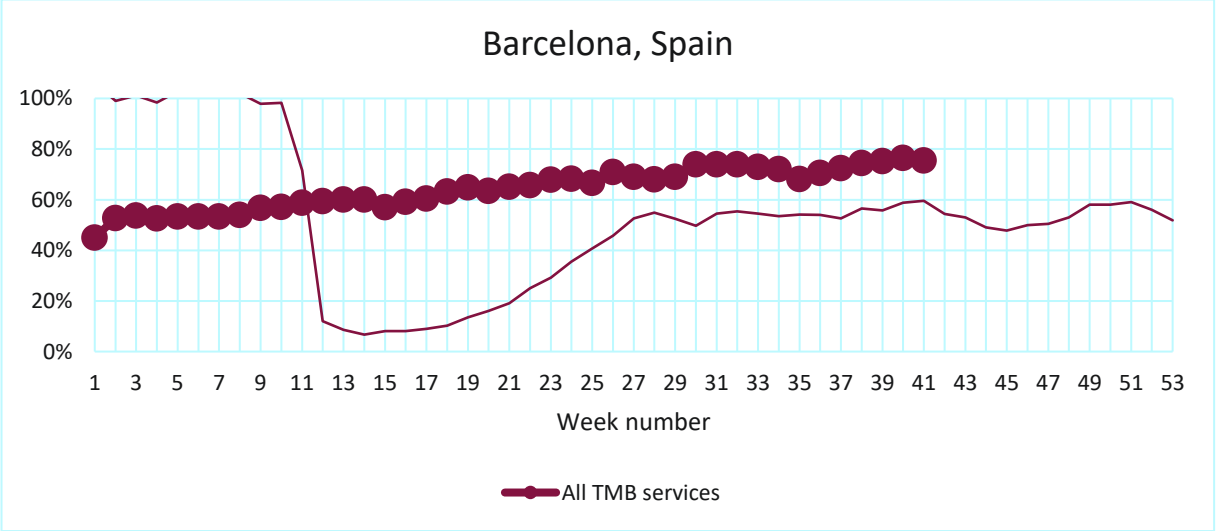
PUBLIC TRANSPORT BENEFITS
Besides its ecological advantage, public transport also has multiple social and economic benefits, which may help cities and regions overcome the COVID-19 crisis and tackle other local challenges. Visit: http://publictransportbenefits.uitp.org

1. THE IMPACT OF COVID-19 ON PUBLIC TRANSPORT

The COVID-19 pandemic had a severe impact on public transport across the continent. It caused a drop in ridership of up to 90 per cent during the first wave (spring 2020). By summer 2021, ridership levels had recovered to approximately 60-70 per cent of pre-COVID levels. Despite the loss of passengers, public transport maintained essential services throughout the pandemic and implemented extensive measures to protect passengers and staff. **According to UITP calculations, in 2020, farebox revenue losses across the European Union amounted to at least €30 billion. In addition, the losses for 2021 turned out much higher than initially expected, amounting to another €20-30 billion this year.** In 2022, the passenger numbers will still not reach the level of 2019. In some EU Member States, public authorities implemented rescue packages that provided financial compensation for some of these losses. While the loss of passengers and farebox revenues continues to be a considerable challenge for the public transport sector, the current level of ridership after three lockdowns nevertheless shows that urban public transport remains a significant component of daily mobility.

Ridership development in two exemplary European public transport networks (2021, 2020): *The thin line shows ridership levels in 2020, the thick line in 2021.*





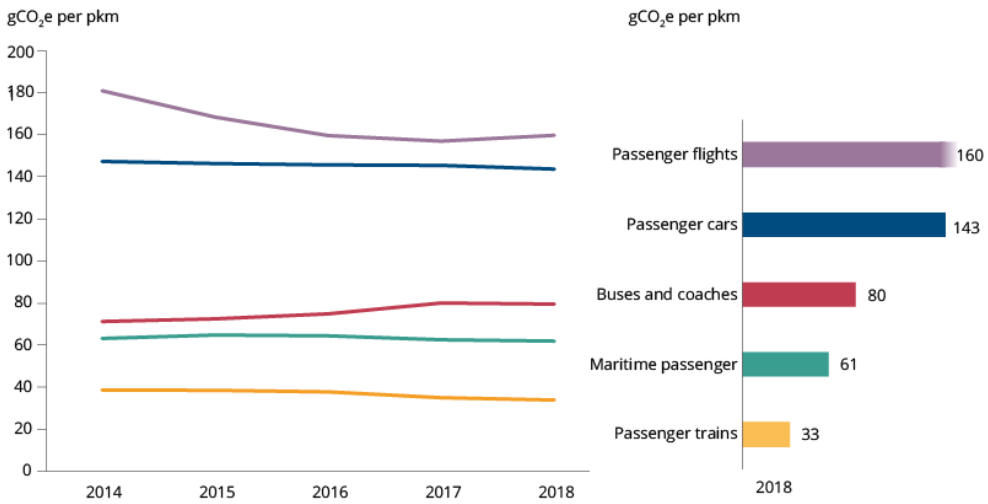
Besides financial losses, other effects the pandemic had on the public transport sector include:

- Drastic and lasting reduction of passenger numbers entailing a change of modal split in favour of cars
- Reduced income from other activities (advertising, retail fees in stations, etc.)
- Delays in specific projects, often resulting in increased project costs
- Additional costs for hygienic measures
- Push for internal digitalisation of companies (due to teleworking requirements)
- Changing lifestyle (work from home) impacts passenger numbers in the long term

Despite the negative public perception about the safety of using public transport during the pandemic, several studies in different countries showed that **public transport is COVID-safe**.[1] In addition to dramatically increased hygienic measures, strict rules apply to passengers in stations and vehicles, who wear masks and are not usually engaged in activities that spread droplets (such as eating, drinking, singing, talking, physical activity) while commuting.

Public transport companies are putting effort into winning back passengers – this must be underpinned by political messaging and support for communication campaigns at EU and national level. The sector needs more resources and technical knowledge to improve air quality on board vehicles, and in parallel, communication campaigns to emphasise the low infection risk in public transport. For cities, it is imperative that current trends towards motorised private mobility do not last and that passengers re-gain trust in collective mobility. Urban mobility needs to become more sustainable, and public transport should serve as a strong backbone for this. However, for public authorities, a rapid transformation of urban mobility is challenging in the post-pandemic context as they experience a shortage of revenues and at the same time additional expenses due to the COVID-19 crisis. In the long term, however, the advantages of a modal shift to public transport and active mobility outweigh the initial costs.

2. CLIMATE-NEUTRAL CITIES WITH PUBLIC TRANSPORT



CO2 emissions per passenger-kilometre

Source : EEA, 2021

[1] UITP policy brief: Public transport is COVID-safe. https://cms.uitp.org/wp/wp-content/uploads/2020/10/Policy-Brief-PTisCOVID-Safe.pdf

The European Green Deal calls for drastic greenhouse gas (GHG) reductions in the transport sector. Most transport-related emissions stem from road transport, particularly private cars.

One of the critical tasks now is to involve all actors, including cities and citizens, in reducing GHG emissions. UITP advocates for the "**avoid – shift – improve – pay**" principle to transform the transport sector successfully. All four aspects need to be considered and pursued to reach a tangible result.

Avoiding transport can mean reducing the number of empty runs, grouping transport users together instead of solo-use of private vehicles, or finding alternatives to substitute trips (e.g., video conferences). The COVID crisis has shown a vast potential for avoiding non-essential trips and transport altogether. The legacy of this experience must be preserved, and new, more ecological habits should replace previous, unsustainable ones. Europe needs mobility, but with less traffic.

Modal shift towards the most sustainable transport modes (public transport by railways, trams, metros, and buses, and active mobility) has been recognised for many years as the best solution towards decarbonisation of the transport sector and improved mobility at the local level. 2 Now, European cities must move from declaration to implementation. This means creating more capacity in public transport through massive investments into services such as commuter railways, bus, bus rapid transit systems, metro and tram systems, and more dedicated infrastructure. These measures can make services more attractive, punctual, and reliable. Furthermore, these investments lead to positive economic effects and to a creation of new local jobs. Further steps to increase the sector's attractiveness (for example, passenger information, or the integration with new mobility offers) can help "pull" new customers into collective clean mobility. This effort must be accompanied by "push" measures to discourage private car usage, such as parking restrictions, low emission zones, urban road tolls, etc. Transport authorities shall benefit from all levers and funding opportunities to analyse their mobility patterns, identify shortcomings and problems, and set ambitious targets ("zero growth" or modal split targets) for themselves. Citizens must also see the benefits of changing the way they move; further support at EU and national level for innovative campaigns to encourage behavioural change is required.

Improvements in all transport modes also help reduce GHG emissions. The decarbonisation of the public transport sector is well underway but requires additional resources over the short to medium term. For decades, intercity railways and urban rail systems have been the forerunners of electro-mobility; therefore, the development of urban rail projects should receive the EU's support to help decarbonise urban mobility. In addition, the number of electric and other clean buses are increasing as public transport operators (PTOs) and authorities (PTAs) apply the revised Clean Vehicles Directive. However, the Clean Vehicles Directive is silent about the required infrastructure for these buses. UITP is requesting political support (e.g. through the Alternative Fuels Infrastructure Regulation) and targeted funding programmes at the EU and national level; this would further accelerate the deployment of zero-emission buses in particular. Last but not least, any technological transition must be coordinated with the EU's industrial

[2] EEA (2021): https://www.eea.europa.eu/publications/rail-and-waterborne-transport/rail-and-waterborne-best/d3b-eea-ghg-efficiency-indicators/view

strategy to enable the industry to produce what is needed by the sector, and include more opportunities for research, innovation, and deployment of modern public transport systems.

Offsetting (payment) rules come into focus as the first 100 cities strive to have net-zero emission, as suggested by the EU's Sustainable and Smart Mobility Strategy (2020). When aiming for carbon-neutral urban mobility, cities must either ban all fossil-fuel powered vehicles from the city or (more likely and more publicly acceptable) continue to generate certain emissions and offset these. In line with international standards for offsetting, this could require investments in specific sectors or third countries. UITP would instead like to see this money invested in local transport systems. For example, reducing energy demand in public transport through energy efficiency measures and improving public transport operations should be eligible priority projects within urban areas. Offsetting should encourage the establishment of attractive local carbon offset markets that would improve the own mobility infrastructure and offer, including the prioritisation of the public transport network. It should not exclude 'soft' projects such as behaviour change initiatives with less tangible carbon savings.

3. LIVEABLE CITIES WITH PUBLIC TRANSPORT

Many larger and medium-sized cities in Europe are actively engaged in mobility planning and transformation, and UITP supports the SUMP concept of the European Commission. The urban mobility framework should strengthen SUMPs and provide incentives for cities to engage in **sustainable urban mobility management in line with the EU climate goals that puts people – and not cars – at the centre of cities' strategies.** Three areas require specific attention: improved management of scarce urban space, providing mobility for all, and improving citizens' health.

MANAGING URBAN SPACE

Traffic has increased over time, and most European cities experience some congestion level, which costs Europe approximately 1% of its GDP annually. Taking the example of Paris, half of the city's public space has been dedicated to motorised transport, whereas cars only make up 13% of trips.[3] In contrast, well-designed public and green spaces have many benefits: improved air quality, microclimate regulation, safety, social integration, and enhanced public health. Urban space management directly impacts the quality of life, and changes in mobility infrastructure will entail a different mobility behaviour.

Public transport systems are much more efficient than individual motorised mobility in terms of using public space. A single bus lane with one bus every 90 seconds at peak times is much more efficient in terms of passengers carried than two street lanes full of cars. The capacity of a light rail track is equivalent to 5 or 6 street lanes, while a regional metro like the Paris RER Line A can serve on one track as many travellers as 20 expressway lanes. In addition, public transport reduces the need for downtown parking spaces. **A different distribution of urban space, which benefits collective public transport, pedestrians and cyclists, is vital in influencing daily mobility**

[3] Breteau, P.: A Paris, la moitié de l'espace public est réservée à l'automobile. Le Monde, 2016.

in the city and making it more sustainable and safer.[4] The European Commission already understood this issue years ago.[5] The recent pandemic brought this topic to the surface again. Public transport needs dedicated infrastructure, such as reserved lanes, traffic light priority, etc., that allows it to increase its commercial speed and become more competitive compared to the private car.

Implementing short- and long-term changes at the local level requires a vision, knowledge and capacity within the administration and financial resources. It is worth noting that proactive urban space management will help prepare cities for a future with autonomous vehicles (AVs). According to the European Commission's Sustainable and Smart Mobility Strategy, AVs will be deployed at a large scale by 2030. Several studies have found that autonomous vehicles will increase traffic in cities unless somehow regulated or charged per kilometre.[6] It will be necessary for local authorities to anticipate this and encourage shared mobility, limit single car occupancy, and consider road tolls to put a price on traffic.

MOBILITY FOR ALL

In Europe, just like everywhere else in the world, the social division is growing – a situation that has become more severe during the COVID-19 crisis. The income level affects the variety of mobility choices and the level of certainty about reaching one's destination. Public services strengthen social cohesion by offering affordable, shared, reliable, and high-quality mobility choices to all citizens.

Public authorities should also be mindful of demographic change, as the share of elderly people in the population is growing over the next decade. They especially need a good geographical accessibility to public transport. Likewise, to achieve a fully inclusive society, all private and public transport services should be accessible for persons with disabilities and with reduced mobility to the extent possible.

Mobility in rural areas is currently another problem, as the public transport network is not very dense and citizens living in these areas rely heavily on their private cars. Rural areas and suburbs require special attention to provide equal opportunities and access. They can become a suitable ground for innovative transport systems, based on digitalisation, with new forms of on-demand public transport or shared mobility services.

IMPROVING CITIZENS' HEALTH

Air pollution is a big concern in many cities and has been recognised as the most significant environmental health risk in Europe. Caused to a large extent by car traffic, all people suffer the consequences – including those who mostly walk, cycle, or use public transport. There is evidence that the pandemic-related reduction of traffic in 2020 has also reduced the number

[4] UITP Policy Brief: New Mobility and Urban Space: how can cities adapt? https://cms.uitp.org/wp/wp-content/uploads/2020/05/Policy-Brief-New-mobility-services-and-urban-space.pdf
[5] See, for instance, a handbook by DG Environment: https://ec.europa.eu/environment/pubs/pdf/streets_people.pdf
[6] ITF / CPB: „Lisbon study" on how shared self-driving cars could impact city traffic: https://www.itf-oecd.org/sites/default/files/docs/15cpb_self-drivingcars.pdf ; University of Stuttgart: "MEGAFON" study and simulation how AVs will affect traffic in Stuttgart, Germany: https://www.isv.uni-stuttgart.de/vuv/publikationen/downloads/MEGAFON_Abschlussbericht_V028_20161212.pdf

of deaths in road traffic.[7] Public transport encourages an active lifestyle, as most journeys involve walking or cycling at the beginning and end of the trip. The health benefits of active travel include positive impacts on diabetes, mental health, dementia, obesity and a decreased risk of cardiovascular disease and different types of cancers.

If cities want to become liveable and attractive places, they must invest in public transport and put active and collective mobility at the heart of their mobility strategy.

4. MULTIMODALITY PROVIDED BY PUBLIC TRANSPORT

Public transport companies and authorities are aware of the opportunities and challenges of digitalisation. They are increasingly becoming multimodal mobility providers themselves, offering new and data-based services on top of traditional mass transit services. Thanks to digital tools and data processing, internal processes, such as vehicle or infrastructure maintenance, energy management and operations, can become more efficient, just like external processes such as customer services, ticketing, and cooperation with third party mobility providers. However, the digitalisation of previously analogue processes (such as tariffs and tickets) requires additional investments and time. Public transport operators also need to provide digital services in addition to traditional channels to remain accessible for all citizens. At the same time, new actors do not experience these constraints and enter the mobility market with purely digital offers.

While public transport is no longer the only shared mobility option available in cities, it remains the reliable, inclusive and affordable service option for all citizens. Thanks to their long-standing experience in city and transport planning, PTOs and PTAs are best suited to integrate new services and modes in their systems, both digitally and physically, and provide integrated mobility offers. When combining different offers in an efficient system, new mobility solutions should not replace but complement mass transit services. Multimodality must serve the citizens as end users of the system, as well as public policies.

It is not enough for policy-makers to look at the digital side of multimodality. At the end of the day, what counts is the physical trip and the emissions or congestion caused by it. Mobility as a Service (MaaS) matches supply and demand digitally without creating more capacities on the ground. It does not encourage people to choose the most sustainable mobility options unless prescribed to do so. However, if designed in certain ways, MaaS can become a valuable tool to support public authorities in transforming mobility patterns in their area. **Multimodality must be established both digitally and physically, enabling efficient digital and physical connections, with public transport at the system's core as the provider of collective mass transit**. **Public transport authorities need to become multimodal transport authorities that manage all players by setting rules that will optimise the overall traffic situation and the use of urban space**.

Data sharing and open data policies affect business models and can distort competition between various service providers. As public transport companies become integrators and

[7] German statistics agency: 10.6 percent less road traffic victims in 2020. https://www.destatis.de/DE/Presse/Pressemitteilungen/2021/02/PD21_084_46.html

provide increasingly multimodal mobility services, they will increasingly use mobility data to develop this part of their service portfolio further. Contrary to this, some of the European Commission's data policy in recent years seemed to consider the public sector as a data provider for third parties without fully considering such a data policy's effect on mobility policies or competition in the transport sector. Mobility data exchanges and data hubs involving several companies – whether public or private – should follow **the principle of reciprocity (data exchange and liability)**. Local and regional authorities also need to get easier access to privately-held mobility data to manage mobility in their territory better.

5. FINANCING THE MOBILITY TRANSFORMATION

Public transport is a vital service that requires public investments just as much as the contribution from individual users. Because of the COVID-19 crisis, many networks still face reduced passenger numbers, which will last for several more months. In addition, the medium to long-term public sector funding for public transport is uncertain and may put future investments and plans to expand the service at risk. Tight public budgets, possibly reduced income from certain taxes, and the hesitation of many local authorities to charge individual mobility (e.g. parking and road tolling) and to earmark revenues for public transport all contribute to a situation of uncertain financing beyond the next decade. However, long-term funding and commitment to public transport are vital for the sector.

At the city level, public administrations should thoroughly analyse the situation and assess the city's revenue streams and expected expenses over the short, medium, and long term to improve its financial resilience and long-term security of funding streams. If necessary, cities should set up new revenue streams based on international best practices (e.g. urban vehicles access restriction (UVAR) schemes or real estate projects). They might also earmark certain contributions, e.g., parking charges, city tolls or taxes, to improve and expand their public transport system. They might also allow the operators to be more entrepreneurial (e.g. via advertisement, naming rights, development of retail and housing, etc.).

Member States should look into ways to ensure that sustainable urban mobility thrives at the local level. This requires a thorough analysis of the financial situation in the country and the availability of resources over the short, medium, and long term, and a commitment to provide funding and regulatory support and capacity creation for local authorities.

The European Union should further strengthen its investment in infrastructure and assets, as well as its research funding for sustainable urban mobility and collective transportation: for instance, via the Connecting Europe Facility (CEF) – increasing the share of EU funding for urban nodes –, the European Regional Development Fund (ERDF), Cohesion Fund (CF), and an array of other funding tools. Dedicated EU funds for advancing public transport can accelerate the transition to clean vehicles, foster digitalisation and enable flexible forms of public transport (such as on-demand transport). These funds could also help maintain, modernise and create infrastructure for public transport and improve its resilience to extreme weather and climate change.

The local public transport community welcomed the EU Recovery Plan and its Recovery and Resilience Facility (RRF) with a lot of hope and expectations. Not all, but many of the National

Recovery and Resilience Plans (NRRPs) already approved by the Commission feature substantial investment and policy reform measures dedicated to local transport solutions. With the current €72.3bn allocated to green mobility under the RRF, the monitoring of the NRRPs' implementation will be important. With such a massive investment portfolio spread across a relatively short time span (2021-2023), both the Members States and the Commission need to solve the challenge of absorbing the available recovery funds and other remaining financing programmes. This particularly calls for ensuring a well-functioning and transparent coordination between different funding and financing mechanisms for local mobility development. It would be interesting to analyse how much actually ended up in the public transport sector, and whether EU funding substituted or added to national funding.

To support the digitalisation of the public transport sector, it would help if the EU would set up a grant scheme for investments in smart public transport and digitalisation. Such a scheme could accelerate the deployment of ITS solutions that can improve energy consumption or enable transport integration (e.g. the digitisation of tickets).

Looking at the big picture, we encourage the European institutions to commission a study that evaluates what is needed to increase the share of public transport across Europe (for example, to double the capacity of public transport by 2040).[8]

Independently from this exercise – or based on this study and the recognition that public transport requires constant and increasing investments to grow and support reaching climate neutrality – the Commission should start a discussion involving Member States and cities about which new sources of funding might be found and, going beyond this, consider establishing a European investment fund for public transport.

[8] Similar studies were commissioned in some Member States (for example, Germany).

CONCLUSION

The number of challenges related to mobility is enormous – climate change, affordability, health, digitalisation, etc. – and one thing is clear: attaining most European policy objectives requires a modal shift to public transport. Daily urban mobility must be fundamentally transformed to become climate-neutral and improve citizens' everyday life. The development of public transport must become a priority. This requires creativity and commitment at all political levels: local, national, and European.

The question of financing is critical and needs to be addressed quickly. Public resources are scarce and farebox revenue is low due to the ongoing pandemic. Still, the public transport sector has to grow, decarbonise and digitalise. Succeeding in this triple challenge is vital to make daily mobility sustainable and Green Deal compatible. This transformation requires sound SUMPs and massive long-lasting funding and political support by the Member States and EU institutions and new approaches by cities to generate new resources.

European data policies should enable transport companies to become multimodal mobility providers, generate income through data-based services or data trading (while respecting data privacy regulation), and retain their customers. On the contrary, Mobility as a Service must be designed and regulated to promote the most sustainable and socially just mobility options, based first and foremost on public transport and active mobility.

About UITP EUROPE

UITP is the international association representing public transport stakeholders. In the European Union, UITP brings together more than 450 urban, suburban and regional public transport operators (PTOs) and authorities (PTAs) from all Member States. We represent the perspective of short distance passenger transport services by all sustainable modes: bus, regional and suburban rail, metro, light rail, tram and waterborne.

OUR VISION FOR URBAN AND REGIONAL TRANSPORT

The public transport sector represented by UITP is striving for excellence in delivering its mission of providing public services to all citizens. In the future, using public transport should become as easy as taking a private car today.

We want to be the preferred choice of citizens when it comes to their daily mobility.

This requires a change in the way individual mobility is treated; in the future, we hope that the public transport sector will operate in a favourable regulatory environment. With the support of the Green Deal, the public transport sector is sure to achieve **net-zero greenhouse gas emissions** at the latest by 2050.

UITP's vision of future public transport services includes the following characteristics:

AVAILABLE AND ACCESSIBLE

- Covering all parts of cities, suburbs and rural areas ("no blank spot without public transport"), providing better commuter opportunities between cities as "core" and the suburbs and the wider (rural) environment;
- Increased capacities to allow for safe distancing and to cater for additional passengers;
- Affordable services to all citizens including the elderly and persons with reduced mobility;
- Multiple, easy links to other modes of transport;

HIGH QUALITY

- Comfortable;
- Clean;
- Excellent quality of service, including up-to-date customer information;
- Improved commercial speed, frequency and reliability thanks to dedicated (bus/tram) infrastructure and public transport prioritisation;
- Providing new services and flexible capacities, depending on demand;
- Safe and secure for passengers, employees and third parties;
- Providing quick information and restoration of services in case of an incident;
- Customer friendly, offering positive human interactions with the staff;

SUSTAINABLE AND RESOURCE EFFICIENT

- Providing carbon neutral public transport by 2050;
- Fully applying the circular economy approach;
- Guaranteeing a sound financial management;
- Flexible services better adapted to the demand (on-demand mobility);

INNOVATIVE AND INTEGRATED

- Improving operations based on artificial intelligence and new tools;
- Smooth digital customer information, ticketing services and complaint/incident handling;
- Effective multimodal and cross-border cooperation;
- Traditional mass public transit with complementary, shared sustainable mobility options, all co-ordinated in a MaaS-like system with the oversight of a strong public regulator;
- Cooperation based on mutual and fair data exchange between all (public and private) actors involved;

RESILIENT

- Prepared for and able to withstand new crises linked to climate change, pandemics, changing mobility behaviour, flexible demand, etc.;
- Backed by sustainable public funding plans that guarantee that sufficient funding for the necessary investments and services is available in the short and long term;

GOOD EMPLOYER

- Offering safe jobs that cannot be delocalised;
- Employing people at all levels of education;
- Offering equal opportunities to people of all genders and backgrounds.