ACEA Position Paper
Sustainable European Urban Mobility Policy

November 2019
EXECUTIVE SUMMARY

Cities are places of innovation, the drivers of our economy and the places where wealth and jobs are created. At the same time, urban areas are characterised by density: of people, activities, interactions and economic, social and cultural functions. Cities are thus where the opportunities and threats to sustainable development meet. In this context, green mobility, safety, efficiency, accessibility and affordable mobility for all Europeans all need to be treated as priorities.

On the basis that there is no one-fits-all solution, European policy makers should continue to support the development of common standards and best practices, discussed and agreed between all stakeholders. They should support optimisation of all modes of transport and their consistent integration within Sustainable Urban Mobility Plans (SUMPs). SUMPs can help ensure policy coherence between local and national levels, and should set up coordination mechanisms between the various authorities in charge of delivering on urban mobility policy and planning.

New forms of mobility have the capacity to complement traditional mobility and transport solutions; potentially generating positive impacts, particularly those based on shared mobility, supported by advanced technologies, intermediation services and innovative business models. Policy makers should encourage these new mobility solutions, by identifying current good practices of local regulations and governance models.

Connected vehicles, Intelligent Transport Systems (ITS) and connected infrastructure can provide solutions to the mobility challenges facing cities today – including accessibility, congestion, energy efficiency, emissions and road safety. However, connected solutions require the construction of a supporting infrastructure to ensure that the connectivity-related services are actually delivered and are interoperable using established technologies. Cities have to become part of this ‘ecosystem of new connected vehicles’ and should support the development of Cooperative ITS (C-ITS) and automation with further pilot and trial projects.

Cities and regional transport authorities should also become more aware of autonomous vehicles (AVs), to begin thinking about which policies are needed to ensure a positive outcome from AVs. The impacts of automated and connected vehicles, as well as the new business opportunities this will create, could transform how mobility and transport are provided in the future and the way in which people travel and goods move. Both automated and connected vehicles will have an impact on demand for road space and how vehicles are managed in an urban environment.

The delivery and collection of goods in urban areas, particularly in old city centres, has a major impact on the economic power, quality of life, accessibility and attractiveness of cities. Changes in consumer demand result in changes in the types of goods demanded, the size of individual orders, their distribution and the organisation of deliveries. Improved compliance with loading and unloading rules, adapted infrastructure, and expanded and individualised delivery time slots contribute to better urban freight distribution. New solutions for urban freight distribution should be considered.
Access restriction schemes (ARS), when implemented, should fit seamlessly with the sustainable urban mobility plans of the cities. They should not hinder necessary and appropriate infrastructure improvements or provisions. The implementation of such ARS should not disrupt businesses, increase inequalities between city residents and suburban commuters nor hinder the free movement of people and goods throughout the EU. Information on these schemes should be transparent, reliable and easy to consult. This is particularly true for investment/operating costs, environmental impact and liveability (fairness when it comes to residents versus commuters).

A low-emission zone (LEZ) is one type of ARS. Cities should use LEZ schemes as tools to help them meet EU air quality legislation. They should be embedded in a broader local mobility strategy that considers regional, national and other urban mobility measures and objectives and should be based on vehicle emission types. In the EU, vehicles are classified according to their environmental performance using the Euro standards. When introducing LEZs, there should be clear, harmonised and measurable objectives.

The recently-set CO2 reduction targets for cars, vans and heavy-duty vehicles are highly demanding, particularly as their successful implementation does not depend solely on the auto industry. That is why, in addition to member states, individual cities should urgently adopt policy measures that incentivise the use of low-carbon vehicles. They should also roll out the infrastructure required for charging and refuelling alternatively-powered vehicles. Dedicated fuelling and charging infrastructure should be deployed for cars, trucks and buses, all of which have different requirements.

The European automobile industry’s investments in innovation keep it ahead of global competition. The auto industry is, and will remain, committed to maintaining its leadership in sustainable mobility, integrated vehicle safety and vehicle connectivity. In addition, Europe’s automobile manufacturers are dedicated to ensuring that their solutions are affordable for consumers and transport operators, now and in the future.

GREEN, ACCESSIBLE, AFFORDABLE, SAFE AND EFFICIENT

The proportion of the European population living in urban areas has increased from 71% in 2000 to 74% in 2018. This trend is expected to continue, reaching 82% by 2050. Citizen migration to the suburbs is creating settlement structures requiring greater travel distances. Hence, European cities increasingly face the resulting transport-related challenges.

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1 United Nations, Department of Economic and Social affairs, World urbanisation prospects: the 2018 revision
opportunities and threats to sustainable development meet. In this context, green mobility, safety, efficiency, accessibility and affordable mobility for all Europeans all need to be treated as priorities.

In the future transportation landscape, private cars, buses, commercial goods vehicles, pedestrians, bicycles, mopeds, scooters, trams and metro will be woven into a connected network. This will save time and resources, reduce emissions and congestion, improve safety, provide affordable and convenient mobility and transport, and promote more efficient land use.

On the basis that there is no one-fits-all solution, European policy makers should continue to support the development of common standards and best practices; discussed and agreed between all stakeholders. These should be used to develop Sustainable Urban Mobility Plans for creating operational frameworks for mobility systems. Policy makers should support optimisation of all modes of transport and their consistent integration within SUMPs.

KEY RECOMMENDATIONS

1. Cities need to plan for comprehensive mobility and land use based on SUMPs in order to improve green mobility, accessibility, affordability, efficiency and safety.
2. European policy makers should continue to support optimisation of all modes of transport and mobility services and their consistent integration into SUMPs. This includes developing common standards and discussing and agreeing the exchange of best practices between stakeholders in order to create operational frameworks for mobility systems. All relevant stakeholders should be part of this process, none should be excluded.

GREEN MOBILITY

Technology neutrality is key for innovation

Preserving technology neutrality is essential to supporting innovation. Given that technological developments are, by definition, not always entirely predictable, European automobile manufacturers believe that no technology options should be discarded as yet, nor should any ‘winners’ be prematurely declared. Progress through one technology can reduce progress in another field. This risks compromising the potential for overall technological progress.

Sustainability

Collaboration between all stakeholders is crucial for maximising emission reductions, distributing the regulatory burden more equally as well as for avoiding discrimination and barriers. Opportunities to reduce emissions should be promoted widely, such as harmonisation and improved use of CO2-based taxation for vehicles and vehicle labelling, support for eco-driving and improving consumer behaviour. There should also be improved road infrastructure and appropriate refuelling and charging infrastructure for all types of alternatively-powered vehicles.
Encourage fleet renewal while preserving affordability

The environmental and safety benefits of new technologies will increase as newer vehicles progressively replace existing ones. European automobile manufacturers stress that renewing the current vehicle fleet will contribute more significantly to reducing emission levels and improving safety than the application of new technology alone.

Cities can choose to offer direct incentives for purchasing vehicles (both passenger cars and commercial vehicles) that are alternatively-powered or for deploying the required charging and refuelling infrastructure. They can also offer non-financial incentives such as (privileged) access to parking, fast lanes and low-emission zones as well as tax incentives, as has already been seen in a number of member states. The role of the EU should be to ensure that incentives are positive and do not hamper mobility. Supporting company mobility plans should help to accelerate uptake of alternative fuels and powertrains.

Support virtuous behaviour to initiate breakthrough mobility solutions

New forms of mobility have the capacity to complement traditional mobility and transport solutions and to potentially generate positive impacts; particularly those based on shared mobility, supported by advanced technologies, intermediation services and innovative business models. However, regulations are often fragmented, inadequate and incapable of adapting sufficiently to these evolutions. This creates conflicts and difficulties in deploying new services.

Policy makers should encourage these new mobility solutions in a number of ways. They should identify, and subsequently share, the current good practices of local regulations and governance models for new mobility solutions. They should also analyse the geographical, social, transport, economic and technical variables that influence establishing suitable governance models for urban areas. In addition, they need to identify the key aspects – such as open data, tariff schemes and ticketing integration – where public institutions can support the uptake of new business ideas. This includes lowering regulatory barriers through harmonisation and defining collaborative models among education, research and business.

Alternatives fuels and powertrains: market uptake and infrastructure

The recently-set CO2 reduction targets for passenger cars, vans and heavy-duty vehicles are highly demanding, particularly as their successful implementation does not depend solely on the auto industry. That is why, in addition to member states, individual cities should urgently adopt policy measures that incentivise the use of low-carbon vehicles. They should also roll out the infrastructure required for charging and refuelling alternatively-powered vehicles. Dedicated infrastructure should be deployed for cars, trucks and buses, as the required infrastructure is not the same for all vehicle categories. Finally, local authorities should make the best use of available funds, European and
national, to support the widespread deployment of this much-needed infrastructure.

The electrification of road transport – which includes full battery electric vehicles, plug-in hybrid electric vehicles and hybrid electric vehicles, as well as fuel cell electric vehicles – is an important solution for decarbonising Europe's mobility and transport system, particularly when combined with renewable energy sources. Further stimulating the uptake of these vehicles in cities requires clear local plans for the deployment of charging and refuelling infrastructure.

Although all automobile manufacturers are expanding their offer of electrically-chargeable and other alternatively-powered vehicles, modern vehicles with a highly-optimised internal combustion engines (ICE), supported by fleet renewal policies, will also help cities comply with air quality targets. Indeed, ICE vehicles will remain important for reducing CO2 emissions in the short and medium term, particularly in the case of heavy-duty vehicles.

KEY RECOMMENDATIONS

1. Implement and promote technologically-neutral policies in order to avoid market fragmentation and the misallocation of resources.
2. Support new forms of mobility solutions by identifying and sharing good practices in local regulations and governance models.
3. Encourage fleet renewal to stimulate the uptake of cleaner and safer vehicles, while maintaining affordability.
4. Support the deployment of infrastructure for alternatively-powered vehicles in urban mobility planning, in particular by ensuring the necessary investment and high-quality maintenance aspects.

ACCESSIBLE MOBILITY

Optimised vehicle use and mass transit

The wider uptake of shared mobility solutions and new logistics concepts will contribute substantially to making mobility more sustainable, as will using inter-modal and multi-modal mobility services as part of day-to-day travel and commuting.

Individual transportation will remain an attractive – and, in some cases, the only – solution for those living in residential areas. In city centres, the best solutions for enabling local inhabitants to reach their destination safely and efficiently will be many and varied. Thanks to ITS and mobile devices, more people are now able to share vehicles, making for more efficient use of the fleet throughout the day. Scarce parking space is used more effectively, enabling integrated mobility service solutions. These solutions can be part of smart sustainable city concepts and SUMPs.

Micro-mobility concepts (personal vehicles that can carry one or two passengers – ie bicycles, small cars, scooters and mopeds) can provide a solution to the first-mile and last-mile challenge faced by many residents of cities. The recent proliferation of such vehicles calls for a more detailed
assessment of the opportunities and challenges that these offer to users and their contribution to efficient urban mobility. This should include an assessment of their positive and negative externalities.

Buses are the most widely-used form of collective transport in urban areas, while also serving suburban and rural inhabitants. In cities, they are often the most cost-efficient and flexible form of collective transport. Buses are an important link in the multimodal mobility chain. However, collective transport might not always be the most efficient option (from an economic and environmental point of view) in sprawling suburban areas.

Bus transport and individual and shared vehicles complement each other, that is why these vehicles must become an essential component of SUMPs and company mobility plans. The use of buses should also be further promoted by providing adequate sufficient funding schemes and incentives for low-emission bus systems at member state and EU levels. This is particularly important for meeting the targets of the EU’s Clean Vehicles Directive, which require a very high share of new alternatively-powered buses that need specific charging and refuelling infrastructure.

Optimised urban freight delivery and logistics

The delivery and collection of goods in urban areas, particularly in old city centres, has a major impact on the economic power, quality of life, accessibility and attractiveness of cities. Changes in consumer demand result in changes in the types of goods demanded, the size of individual orders, their distribution and the organisation of deliveries. Improved compliance with loading and unloading rules, adapted infrastructure, and expanded and individualised delivery time slots contribute to better urban freight distribution. New solutions for urban freight distribution should be considered.

Shippers and retailers should be able to use tailor-made urban logistics solutions that meet their specific needs and to have access to affordable storage capacity. They should be incentivised to provide and use daily combined deliveries and loading/unloading facilities in city centres. Freight carriers should have simple, full access to information on potential traffic restriction policies; which should be based on EU guidelines, set up in collaboration with all transport stakeholders.

Carriers should have real-time information systems fitted in their vehicles and access to logistics management systems from their shippers. They should be able to make full use of efficient loading units, thanks to flexible regulations (eg allowing for use of the European Modular System). Policymakers should advance efficient and cost-effective city logistics measures that promote the use of low-emission and appropriately-sized urban freight vehicles, maximising the safety of road

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2 Directive (EU)2019/1161 of 20 June 2019 on the promotion of clean and energy-efficient road transport vehicles

3 The European Modular System also allows for creating shorter vehicle combinations using existing equipment (vehicles and modular load units), which can be easily adapted to local conditions for city deliveries.
users and pedestrians.

Faced with an expansion of e-commerce activities and small businesses, new last-mile delivery solutions should be implemented that improve efficiency and reduce the cost of this – expensive – part of the supply chain. Last-mile delivery vans will need to be adapted to improve consumer service, security and quality of delivery using connectivity technology, while accounting for environmental and economic constraints.

It should become mandatory for urban planning to include providing sufficient storage and urban delivery centres, which need to be integrated in SUMPs and land planning. Local authorities should build upon the potential of C-ITS to support low-emission delivery prioritisation (for example, by giving such vehicles access to loading/unloading bays, privileged time windows, etc).

**Urban access restrictions**

Access restriction schemes (ARS), when implemented, should fit seamlessly with the Sustainable Urban Mobility Plans of the cities concerned. They should not hinder necessary and appropriate infrastructure improvements or provisions. The implementation of such ARS should not disrupt businesses, increase inequalities between city and suburban residents nor hinder the free movement of people and goods throughout the EU. Information on these schemes should be transparent, reliable and easy to consult. This is particularly true for investment/operating costs, environmental impact and liveability (fairness when it comes to residents versus commuters and other non-residents).

Decisions on whether to introduce Urban Vehicle Access Regulations (UVARs) are taken at regional or local level, while national frameworks are also being established in some EU member states. Here, there is a clear need for a European source of information on these schemes to allow road users to access the information they need to move freely. Meanwhile, policy makers at local, regional, national and European levels should get to know, assess, compare and understand the current situation and the policy trends surrounding UVARs.

A low-emission zone (LEZ) is one type of ARS. LEZ schemes should be based on vehicle emission types. In the EU, all vehicles are classified according to their environmental performance using the Euro standards. This information should be clearly mentioned in a vehicle’s registration documents, which is not the case in all member states today. Low-emission zones should be based on these Euro standards, as this is a technology-neutral and non-discriminatory approach that places compliance with existing emissions standards at the forefront. This way, previous investments made by consumers and operators are safeguarded.

When introducing LEZs, there should be clear, harmonised and measurable objectives. So far, local authorities across Europe have sought to answer urban mobility challenges with relatively disjointed measures, which are creating difficulties and uncertainties for consumers as well as local and international businesses. Moreover, the real social, environmental and economic impacts of every
LEZ should be systematically assessed by the cities.

Cities should use LEZ schemes as tools to help them meet EU air quality legislation. They should be embedded in a broader local mobility strategy that considers regional, national and other urban mobility measures and objectives.

KEY RECOMMENDATIONS

1. Examine the opportunities and challenges that micro-mobility concepts may offer to users and to an efficient urban mobility.
2. Ensure that urban logistics are given proper consideration in urban mobility strategies at national level and in SUMP.
3. Set up adequate funding schemes and incentives for the deployment of low-emission bus systems, with a view to compliance with the targets of the Clean Vehicles Directive.
4. Prepare, along with all stakeholders, non-binding guidance to help cities implement UVARs that are effective, fair and justified. They should be based on stability, integration and acceptability; supported by a pan-European UVAR information source.

AFFORDABLE MOBILITY

The mobility needs of low-income people should be at the centre of cities’ inclusive mobility policies, which should be supported by EU, national and local incentives.

When planning transport systems, cities need to evaluate the proportion of income that disadvantaged households spend on transport as well as understanding transport patterns in residential location, travel distance and travel modes.

High real estate prices in urban centres frequently force low-income households to relocate farther out. This has consequences for how urban agglomerations develop and the subsequent effects on the levels of motorisation, congestion and local air pollution.

SAFE MOBILITY

A comprehensive approach is the most efficient way to further improve road safety in Europe. In addition to improvements to vehicle technology, safer urban (road) infrastructure, improved road-user skills and behaviour, increased enforcement of existing legislation, and the interaction and networking between all of these factors will greatly improve road safety in cities.

Take new mobility trends into account: involving VRUs in safety system

Mobility patterns are changing. Cycling, walking and other micro-mobility solutions are being encouraged, meaning there are greater numbers of vulnerable, unprotected road users in our cities. Measures encouraging such mobility choices also need to systematically consider the safety implications of this new mobility trend.
The benefits of innovations in vehicle safety will increase as new vehicles progressively replace older ones. Shared car fleets are newer and better-maintained than the average private car fleet, i.e. they can make a positive contribution to safety. Safe use of the proliferating free-floating sharing schemes for bicycles, e-scooters and mopeds needs to be seriously considered and a framework for achieving this needs to be proposed.

An ageing population means that safe mobility should be inclusive to the needs of those with restricted mobility, such as the elderly and disabled people. Cities should make it a priority to address inclusive mobility solutions in their smart city concepts and SUMPs.

**Promote the infrastructure required for green, efficient, safe and connected urban mobility**

Urban infrastructure design can create antagonism between motor vehicles and other road users. There is no doubt that better engineering can improve urban road users’ conditions by making infrastructure safer, more convenient and more complete. For example, multi-function road management should allow for the use of certain sections of road for different activities at different times of the day (bus lanes, general traffic lanes, freight lanes, loading/unloading areas for commercial vehicles, parking by residents, etc).

**Improving urban road safety through connected and automated mobility**

Connected vehicles, Intelligent Transport Systems (ITS) and connected infrastructure can provide solutions to the mobility challenges facing cities today – including accessibility, congestion, energy efficiency, emissions and road safety. However, these connected solutions require the construction of a supporting infrastructure to ensure that the connectivity-related services are actually delivered and are interoperable using established technologies. Cities have to become part of this ‘ecosystem of new connected vehicles’ and should support the development of Cooperative ITS (C-ITS) and automation with further pilot and trial projects.

Mobility as a Service (MaaS) and Transport as a Service (TaaS) concepts offer access to mobility and transport solutions for people and goods based on their specific travel and logistics needs via a single gateway that manages the entire journey. Many pilot and trial projects, as well as a great deal of research effort into various scenarios and associated impacts are required, as are debates on how to regulate these concepts in ways that encourage their uptake and implementation.

**KEY RECOMMENDATIONS**

1. Address new mobility patterns (micro-mobility, ageing population) and road safety issues within SUMP, to make mobility more inclusive.
2. Ensure that cities become part of an ‘ecosystem of new connected vehicles’ and that they support the development and deployment of C-ITS, vehicle connectivity and automation with further pilot and trial projects.
3. Encourage implementation of MaaS and TaaS concepts through pilots, trials and research. These should consider various scenarios and associated impacts, including how to regulate these concepts in a way that encourages their uptake and implementation.

4. Develop road safety indicators at the most-detailed level possible and gather and disseminate best practices.

EFFICIENT MOBILITY

Policies to improve traffic fluidity

In city centres and residential areas, shared mobility should be implemented as a central part of SUMPs and as a new step in delivering first-mile and last-mile solutions for transport in suburban areas, for example by creating mobility hubs in the city’s belt.

Here, examples of policies and actions that improve traffic fluidity include increasing the availability of public and private sharing solutions (eg cars, bicycles, scooters, mopeds), implementing ITS systems to improve traffic control, enabling effective road infrastructure management, increase the range and quality of public transport services (including bus, tram and railway) and placing carpooling at the centre of company mobility plans.

Mode neutral, cost effective and coherent policies

An integrated transport system enables people to move between points, while addressing the need for suitable first- and last-mile solutions. As users switch between transport modes, they select the most appropriate technology for each step they take.

Traffic flows and mobility solutions come together at urban hubs – transfer stations for various modes of transport – and are linked with other urban services, helping to relieve strain on the city’s traffic levels.

SUMPs can help to ensure policy coherence between local and national policies; they should establish coordination mechanisms between the authorities in charge of delivering urban mobility policy and planning.

Interconnection with other modes and innovative transport concepts

Citizens should have increased access to co-modal mobility solutions. This will allow them to switch between transport modes depending on their specific needs, effectiveness (travel time), affordability (lowest cost), convenience (accessibility and comfort), availability, etc.

In this sense, innovative transport concepts and new mobility services encompass a number of options. These include urban carpooling services that bring together people travelling in the same direction, schemes encouraging individuals to share private vehicles for a particular journey,
rental/free use of public bicycles schemes in urban areas (as part of the public transport system, offering a highly-flexible option for inner-city trips) and new public transport services (adapting their itinerary and timetable to suit particular transport needs and demands).

**Supporting innovative business models**

City centres and residential areas should support pilot projects and testing of new automated mobility solutions. They should undertake multistakeholder assessments of these trials and suggest common approaches for the rules applying to such innovations.

Innovative approaches to city logistics include space management, making efficient use of existing infrastructure in urban areas while taking into account the specific needs of those that deliver goods in urban areas. These include night-time deliveries to businesses in inner-city areas, when the city is typically quiet and inactive as well as alternative solutions for last-mile delivery, such as alternative delivery locations (locker boxes, car boots, etc) or alternative re-delivery strategies.

A good way to support innovative business models would be to assess the positive impacts (eg reduced congestion and emissions, less use of public space, etc) of their deployment and to allow the companies introducing them to benefit from, or even be rewarded for, these positive externalities. Public authorities should start looking at ways of quantifying/monetising these positive impacts in order to allow new models to benefit accordingly, when consistent with city targets.

**Connected and automated vehicles within urban plans**

Cities and regional transport authorities should prepare for the upcoming roll-out of increasingly connected, automated and autonomous vehicles and begin thinking about the policies needed to enable and facilitate their deployment. Automated and connected vehicles, and the new business opportunities associated with them, will transform mobility and the way in which people travel in the near future. This will have an impact on demand for road space and the management of vehicles in urban environments.

**KEY RECOMMENDATIONS**

1. Acknowledge that efficient mobility and transport is essential in cities; policies should aim to improve, rather than restrict, traffic fluidity.
2. Ensure that all proposed policy initiatives are mode neutral, cost-effective and coherent with other targets. Develop new interconnections with other transport modes that are integrated with public transport as well as innovative concepts that take flexibility, quality, efficiency and affordability into account.
3. Provide a local policy framework and private-public partnerships that support companies launching innovative business models and new urban mobility technologies.
4. Local governments should support trial projects in their city centres and residential...
areas, allowing for the introduction of automated vehicles in line with their SUMP, while also suggesting potential common regulatory approaches.

5. Public authorities should start looking at ways of quantifying/monetising the positive impacts of new business models in order to allow the companies deploying them to benefit accordingly.
ABOUT THE EU AUTOMOBILE INDUSTRY

- 13.8 million Europeans work in the auto industry (directly and indirectly), accounting for 6.1% of all EU jobs.
- 11.4% of EU manufacturing jobs – some 3.5 million – are in the automotive sector.
- Motor vehicles account for €428 billion in taxes in the EU15 countries alone.
- The automobile industry generates a trade surplus of €84.4 billion for the EU.
- The turnover generated by the auto industry represents over 7% of EU GDP.
- Investing €57.4 billion in R&D annually, the automotive sector is Europe's largest private contributor to innovation, accounting for 28% of total EU spending.

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