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The role of Mediterranean cities and regions in building urban health policies, in particular through sustainable urban mobility measures

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Acronyms and abbreviations

GHG	Greenhouse gas emissions
ICE	Internal Combustion Engine
LEZ	Low Emission Zone
PMUD	Plan de Mobilité Urbaine Durable
PNMU	Politique Nationale de Mobilité Urbaine
SdVT	Stratégie de Ville de Tunis
SUMP	Strategic Urban Mobility Plan
WHO	World Health Organisation

Summary

With fast urbanization rates and growing multifaceted pressure on cities, urban health has become a paramount issue to be addressed at the institutional level. As such, the Mediterranean region is no exception, facing additional challenges related to its peculiar geographic and historical nature.

The urban mobility sector plays a key role in determining the degree of people's health in cities. Issues like traffic congestion, air and noise pollution, road safety and land consumption have in fact a direct impact on the creation of healthy urban environments, as well as the likelihood of citizens to develop diseases, high levels of stress and unhealthy lifestyles.

Rabat and Tunis represent two examples of how Southern Mediterranean capital cities are trying to address these issues, promoting urban health by means of sustainable mobility measures. Both cities are currently implementing positive concrete actions in the framework of wider strategic planning, that are expected to improve the quality of people living in the cities by enhancing the mobility and transport sector.

As key recommendations drawn by the two case studies and other European best practices, such measures shall be integrated into overall urban health strategies, in order to monitor their implementation and directly link their success or needed improvement to the achievement of clearly measurable targets. In this sense, local and regional authorities should deploy adequate resources to monitoring the impact of their policies, while promoting a participatory approach aimed at raising awareness among citizens, as well as at deeply understanding the needs of the communities impacted by their policies. To promote the translation of plans into action, it is key to ensure stable financial and political commitment, as well as a clear identification of responsibility within the implementing institutions.

I) State of play of urban health issues in the Mediterranean region

As over 55% of the world's population live in urban areas – a proportion that is expected to increase to 68% by 2050 (*WHO*), urban health is becoming a growing concern to be addressed at the institutional level. The issue is very present in the Mediterranean region, as this area shows one of the fastest urbanisation rates in the world, while facing challenges related to migration and refugees, which add further pressure on urban areas. Currently, 60% of the region's population is estimated to live in cities and is expected to increase by an additional 22.5 million by 2030 due to migration away from rural areas and endogenous urban growth.

Urban development and planning interact with health in a number of ways. Some may argue that urban residents enjoy better health and well-being than people living in rural areas, as cities provide -for instance- a better access to health services – the so-called "urban health advantage" (*EC – Urban Data Platform Plus*). However, this vision is being increasingly challenged towards the so-called "urban health penalty", especially in areas with high rates of urbanisation as the Mediterranean region.

Among others, some of the key drivers that provide a negative impact on urban health can be identified as follows:

- unhealthy living environments,
- air pollution,
- physical inactivity,
- climate breakdown,
- noise and
- mental health.

From the above, it is clear how the urban mobility sector plays a critical role in determining the degree of people's health in cities. Not only road transport is a significant source of GHGs emissions, with consequences on air pollution and climate change – bearing in mind that warming in the Mediterranean region is 20% faster than the global average (*MedECC, 2020b*); it also directly impacts other aspects of the urban living such as road safety, noise pollution and the availability of space for active living (e.g. walking and cycling).

In this context, the main challenge is developing transport systems that can be more integrated, multimodal, efficient, interoperable, sustainable and resilient, as well as cleaner and more inclusive.

II) Challenges and opportunities faced by LRAs in building health policies, in particular related to sustainable urban mobility

The concept of sustainable mobility embraces environmental, social and economic considerations and can be synthetically defined as a system supporting the needs of a society in the least damaging manner for the environment, while not impairing the needs of future generations.

More sustainable urban mobility systems constitute a central element to improve citizen's health and their overall quality of life. In fact, they contribute to the reduction of harmful vehicle emissions and psycho-physical stress conditions, as well as to the mitigation of climate change-related negative impacts. Furthermore, through the development of active mobility modes (i.e. cycling and walking) they contribute to reduce the risk of disease linked to sedentary lifestyles. Sustainable mobility also provides for more liveable cities and this can further translate into greater economic competitiveness, due to the capacity to attract more investments and human resources.

The main urban mobility challenges and criticalities, often interconnected, faced by cities in the Mediterranean region are constituted by:

- congestion;
- inadequacy of public transport;
- air pollution and climate change;
- road safety/road traffic accidents;
- noise pollution;
- land use consumption.
- affordability, accessibility, and inclusiveness of mobility;

Congestion, which includes parking difficulties, is linked to several negative impacts affecting the environment, the performance of the mobility system and the economic competitiveness of the city. Congestion, in fact, worsens the negative environmental impact generated by Internal Combustion Engine (ICE) vehicles by increasing pollutant and noise emissions, responsible of several health problems as well as of climate-altering CO2 emissions. Furthermore, it implies significant loss of time for road users which, on the one hand, translates into a

reduction of economic productivity[1] and, on the other, generates conditions of psycho-physical stress. Due to the crowded traffic conditions and drivers' stress, congestion is also responsible of an increase in road accidents.

Public transport is a fundamental component of urban mobility systems, due to its capacity to both serve the productivity and competitiveness of the city and provide for social equity. A non-adequate public transport offer, which also determines conditions of over-crowding, not only affects socio-economic conditions, but generates negative impacts also on user's health through travel discomfort and long-commuting stress.

According to WHO, poor air quality exposure leads to diseases including stroke, ischemic heart disease, chronic obstructive pulmonary disease and lung cancer. Notwithstanding, in many cities air pollution very often exceeds the limit values for the protection of human health. Pollution also has a negative impact on biodiversity. Climate change generated by CO2 emissions, besides health, has a global impact on different sectors of society such as environment, infrastructure, food.

Road accidents are linked to huge social costs including both economic considerations, such as the loss of productivity for society, and human aspects, such as suffering from physical-psychological injuries and human losses. Road safety in urban environment is particularly relevant for the so-called 'vulnerable road users', such as pedestrian, elderly, non-motorised transport users (in particular cyclists).

Land use consumption, due to the presence of roads and parking spaces as well as other transport infrastructure and facilities, implies a loss of green and livable spaces with consequent degradation of environment and life quality (including health) of citizens.

Affordable, accessible and inclusive mobility attains to the need of eliminating economic, social and physical barriers, in order to ensure equal opportunities to all citizens with particular attention to elderly and impaired people.

When addressing such challenges, the Mediterranean region deals with some peculiarities, compared to the European territory as a whole, which require

- [1] In EU the economic cost of congestion is estimated at €270 billion per year.

additional policy efforts, namely the urban structure of the cities (with narrow spatial patterns), the presence of significant historical and cultural heritage, the environmental fragility and high biodiversity. In particular, the history of cities, including the presence of cultural heritage and a dense urban texture, determines a constraint with respect to certain initiatives promoting 'urban health' (e.g. space for bicycle paths, green areas, etc.).

In the next section, two case studies are presented to showcase some practical examples of how Mediterranean cities can tackle the above challenges and promote urban health policies, specifically in the field of sustainable mobility.
Given the scope and timeline of this paper, the case studies have developed by means of the information made available online by the relevant authorities, as interviews and direct surveys could not be implemented.

While the choice of Rabat was one of the requirements of the paper, Tunis was selected as a valuable comparison candidate, given its similar socio-economic conditions, as well as comparable layout of the overall mobility system.

III) Case studies

RABAT

The capital city of Rabat has a population of about 580,000 inhabitants, which reaches over 2 million in the metropolitan area.

Rabat faces, as other large Moroccan cities, negative effects of mobility affecting citizens' health and wellbeing, such as air pollution, traffic congestion, accidents and noise. This condition is driven by a constant urban growth and sprawl, accompanied by an increase in car ownership and car travels. The vehicle fleet is growing by 5% per year in Morocco, with half of such fleet being registered in the region of Rabat and Casablanca.

On the other side, public transport, with some exceptions, is not perceived as a competitive and appealing transport mode, therefore not responding to the citizens' needs, in particular those of the most economically and socially vulnerable ones; this translates into low modal share.

The Roadmap for Sustainable Mobility in Morocco, developed in 2017 under the supervision of the Ministry of Equipment, Transport, Logistics and Water, aims to develop a shared vision of mobility for people and goods that provides access to economic and social opportunities, is affordable, efficient and energy-efficient, with low emissions and respectful of the environment and the population. The roadmap emphasises the need for action in the urban environment and provides a reference for present and future policies and interventions by cities. For example, the roadmap underlines the importance to systematise, accelerate and synchronise the development of multimodal, low-emission Urban Travel Plans. The Sustainable Urban Mobility Plan (PMUD) being developed in the city of Rabat, presented further on, responds to this need.

The Roadmap is also intended to be a participatory process that brings together all different mobility stakeholders, public, private and from different sectors (transport, energy, urban administration, etc.).

The Roadmap targets a 2050 long-term vision to steer public and private decisions towards sustainable mobility and is composed by the following axes:

- Synergistic urban transformation – Development of attractive cities by integrating 'Urban Planning' and 'Mobility; Strengthening public transport, soft modes, shared mobility and multimodality; Reducing emissions and increasing the electrification of urban transport;
- Low carbon energy – Co-development of energy and mobility strategies and policies; Development of an electric mobility ecosystem; Promoting the adoption of electric mobility ecosystem;
- Optimising the efficiency of modes and systems;
- Defragmenting and shortening supply chains – Development of integrated industrial zones;
- Reducing unnecessary travels – Reducing displacements to improve productivity and quality of life;
- Solutions for the rural world – Enhance the role of mobility of people and goods in the rural world as a lever for development policies;
- Construction and adaptation of infrastructure – Increasing the transport infrastructure resilience to natural hazards;
- Regulatory and financial tools – Creating suitable conditions supporting sustainable and fair mobility;
- Road safety – Increasing road safety as a lever for sustainable and low-carbon mobility and as a social lever.

In line with the National Roadmap, Rabat has recently put in place several measures to support sustainable mobility, although these are not part of specific urban health policy.

The city adopted the Municipal Action Plan for the period 2018-2023, which includes a strategic axis devoted to urban mobility, namely Axis n.3: '*Rabat as a balanced and modern urban mobility space'*. The latter aims to:

- Improve the quality of urban transport and ensuring the link between transport modes;
- Improving the quality of street furniture;
- Improving signage and making urban mobility safer;

Rabat has also invested in a modern tramway system, operated by the company Rabat-Salé Tramway (STRS), that connects the capital with the nearby city of Salé, connecting several important locations in both cities. The length of the tram network is approximately 19.5 kilometers (with 31 stations) and is served by a fleet of modern, air-conditioned vehicles operating on a regular schedule

throughout the day. The system helps to reduce traffic congestion and improve air quality in the city. According to ALSTOM company, over 10% of residents within tramway's perimeter of influence in Rabat use it to go to work or school, while in Salé it is used for work and education-related trips by respectively 25% and 33% of inhabitants in the served areas. Finally, the tramway seems to be a competitive alternative to car, considering that about 49% of tram users in Rabat also have their own vehicle.

For what concerns pedestrians, in some parts of the city pedestrianization measures have been implemented in order to exclude motorized traffic and create a safer and more enjoyable space.

In addition to the above, in order to address the challenges generated by population growth and the increase in the number of journeys, STRS is developing a Sustainable Urban Mobility Plan for Rabat-Salé-Skhirat-Témara (PMUD) 2021-2035. Such agglomeration is the second metropolitan area of the country, with a population expected to increase of about 27% by 2040 (reaching 3 million inhabitants) and displacements up by 52% in the same period.

The PMUD should deploy a transport organisation scheme over a period of 15 years for the metropolitan area. According to the information available so far, potential lines of action could be constituted by:

- Working on the governance of inter-modality
- Unifying the tram and bus networks
- Building an urban cable car over the Bouregreg from Chellah
- Professionalising the *"khtafa"* (informal transport), in the form of cars or three-wheelers
- Pursuing the dynamic towards a light conurbation Rabat-Salé-Témara-Skhirat.
-

Furthermore, the PMUD should support the development of soft/active modes of transport such as cycling and walking.

TUNIS

The Tunisian Ministry of Health, in cooperation with WHO, has developed from 2012 onwards national health programmes which, although not referring specifically to transport policies, nevertheless focus on issues that can also be improved through sustainable urban mobility measures.
In particular, such programmes defines the following objectives:

- Improving access to healthcare services and their quality, particularly for underserved populations;
- Promoting healthy lifestyles through public health campaigns that encourage physical activity, healthy eating, and smoking cessation;
- Enhancing environmental health, including reducing air pollution and ensuring access to safe drinking water;
- Strengthening disease surveillance and response to detect and respond to outbreaks of infectious diseases;
- Improving health infrastructure including hospitals, clinics, and health centers, to improve the delivery of healthcare services.

In this respect, more sustainable mobility systems can contribute from different angles, such as:

- Reducing air pollution caused by vehicle emissions;
- Promoting active transportation (cycling and walking) and related physical activity, through which preventing chronic diseases such as obesity and heart diseases;
- Improving road safety for all road users and reduction of the related human costs;
- Increasing the access to healthcare for vulnerable categories of the population who may not have access to private vehicles;
- Promoting social inclusion by providing affordable and accessible options for people who may not be able to afford private vehicles.

Therefore, the above-mentioned objectives defined by national health programmes should inform the development of regional and local sustainable mobility policies aimed at improving health conditions in urban areas.

In this context, the city of Tunis has developed some interesting measures that, despite not being directly linked to the wider scheme presented above, still serve as a valuable example to be presented.

The capital city of Tunis has about 1 million inhabitants and a territory of about 104 sq km. Its metropolitan area (2,668 sq km), the Greater Tunis, encompasses four governorates, namely Tunis, Ariana, Ben Arous and Manouba, and more than 23% of the national population.

As many other cities in the Mediterranean area, Tunis faces mobility issues such as traffic congestion, air pollution and limited access to public transportation. These issues have a direct impact on air quality: according to the World Health Organisation (WHO), the annual average concentration of PM2.5 (fine particulate matter that can penetrate the respiratory tract) in Tunis is around 29 micrograms per cubic metre, which by far exceeds the WHO air quality guideline of 10 micrograms per cubic metre.

To address these mobility challenges, in recent years Tunis has implemented several initiatives that contribute to a more sustainable mobility system. One of the most significant ones is the expansion of the Tunis Light Metro system, also known as Tunis metro, which is a modern, high-capacity rail network that serves the city and its suburbs. The Tunis Light Metro system is designed to provide fast, reliable and affordable transportation to residents and visitors, while also reducing traffic congestion and air pollution.

Tunis has also been investing in cycling infrastructure. In particular, in 2019 the Tunisian government announced a plan to develop 1,000 km of cycle paths across the country by 2021, including in the capital city. However, at the moment the network of cycle paths in Tunis is still rather limited, with an extension of around 8 km. Bike racks were also installed in public areas of Tunis and several public bike-sharing schemes launched.

The city has also encouraged the use of electric vehicles by installing charging stations in various locations across the territory.

Tunis has also prioritised pedestrian-friendly infrastructure by implementing walkways, bridges and pedestrian crossings, in order to increase the overall safety conditions of pedestrians, which constitute a vulnerable road user category. Car-pooling initiatives have also been launched, to encourage residents to share rides, thereby reducing the number of cars on the road and the associated emissions.

Current and future sustainable mobility investments in Tunis are framed within the National Policy of Urban Mobility (Politique Nationale de Mobilité Urbaine

– PNMU). The PNMU aims to find solutions to the constraints in urban areas, such as deteriorating infrastructure, continuous traffic congestion, insufficient public transport coverage and low levels of user safety. The Tunisian PNMU includes the development of an action plan for the period 2019-2025 oriented around the achievement of seven strategic objectives:

- Develop a more low-carbon urban mobility;
- Improving urban accessibility for all;
- Improve road safety in urban areas;
- Support the ongoing decentralisation in the urban mobility sector through creation of local administrative entities;
- Strengthen and sustain financing for sustainable urban mobility;
- Strengthen capacities and governance tools in the field of urban mobility;
- Clean up, reform and improve public transport.

As part of the implementation of the PNMU, Tunisia is counting on the establishment of a metropolitan authority to regulate urban mobility in the Greater Tunis area.

In addition to the above, the project 'A'SIMA Tunis: Strategic planning and multilevel governance for a resilient metropolitan city' (2020-2024), funded by the European Commission, aims to promote integrated urban development while contributing to several Sustainable Development Goals, in particular SDG n.11 (sustainable cities). This project also marked the beginning of the City of Tunis Strategy (SdVT), an under development strategic plan that, through a wide stakeholder engagement, focuses on environment protection and citizens' well-being, including the sustainable management of mobility. In particular, according to the document defining the strategic framework (released in November 2022), actions should be focused on:

- Organisation of metropolitan transport and mobility meetings addressing several aspects such as: passenger transport/collective transport; urban logistics; parking; soft mobility; inter-modality; articulation with urban functions; dependence on mobility; comfort; cost; carbon footprint;
- Metropolitan programme for the promotion of soft mobility;
- Peripheral metropolitan mobility corridors;
- Sustainable mobility project in the central axis.

IV) Policy recommendations

The paper provided an overview of how urban health has become a highly significant topic for policy-makers at the local and regional level, in order to improve the quality of life for people living in cities. As this is generally true in most of the world, the Mediterranean region faces additional challenges related to a strong concentration of population living in cities, as well as one of the fastest urbanization rates in the world.

Additionally, Mediterranean cities tend to be characterised by narrow spatial patterns connected to historical urban textures, which in a way can be seen as factors that may make the creation of a healthy urban environments more difficult. In this context, the urban mobility sector is deemed to have a strong impact on the quality of life of people living in cities, and therefore on fostering (or discouraging) urban health. For this reason, policy makers shall focus on promoting sustainable mobility measures, as these are expected to lead to improvements on key drivers of urban health such as:

- Air quality and noise pollution, linked to the number and type of vehicles in the urban network;
- Safety of urban citizens, linked to the number of accidents involving both drivers and pedestrians;
- Healthier lifestyles, linked to the promotion of non-motorised modes of transport;
- Inclusiveness, linked to the potential of collective modes of transport to enhance accessibility for people not able to afford their own vehicles:
- Stress levels, often linked to traffic congestion and lack of parking space.

The two case studies reported in the previous section presented the attempt of two Southern Mediterranean capital cities to promote and implement sustainable mobility policies aimed, among others, at enhancing the urban health and overall quality of life of their citizens.

In Rabat, the development of a Sustainable Urban Mobility Plan (SUMP, or alternatively PMUD in its French acronym) constitutes a key opportunity to increase the overall sustainability of the transport system at the metropolitan level, and significantly contribute to an improvement in urban health. As highlighted above, the PMUD is expected to contribute to reduce air pollution by promoting the use of sustainable transportation modes, such as cycling and public transport, therefore increasing air quality and reducing the risk of respiratory and cardiovascular diseases. By making it easier and safer for people to walk, cycle, or use public transport the PMUD can also promote the reduction of obesity, heart disease, and other chronic illnesses associated with a sedentary lifestyle. When

properly addressed, road safety criticalities can be mitigated or eliminated reducing the number of accidents, saving lives and preventing injuries. Furthermore, the reduction of noise pollution through the promotion of less noisy transportation modes, such as electric vehicles and bicycles, can lead to improved mental health and reduced stress levels for citizens living in urban areas. Finally, the Sustainable Urban Mobility Plan can contribute to improve access to health care by making it easier and more affordable for people to travel to health care facilities; this can help reduce health disparities and improve overall health outcomes for citizens.

According to the information available, the PMUD for Rabat-Salé-Skhirat-Témara is being built by means of a wide stakeholder engagement, which is broadly recognized as an essential factor in the development of successful policies. In fact, stakeholders such as local residents, business owners, transport providers, and non-governmental organizations, have unique knowledge and expertise about the transportation challenges and opportunities in the community and can therefore provide valuable insights and perspectives. Furthermore, the stakeholder engagement can ensure inclusivity and equity, build support, promote innovation and creativity, improve transparency and accountability. As such, Rabat is proving to be a positive example in its approach to developing a Sustainable Urban Mobility Plan.

Furthermore, among the measures already implemented, the most significant contribution to a more sustainable mobility system and better urban health conditions in Rabat has been provided by the tramway development. The tramway, in fact, created an appealing public transport alternative to private vehicles (mainly cars), with positive impact on traffic conditions, environment, safety.

For what concerns Tunis, current and future sustainable mobility measures are framed within the National Policy of Urban Mobility, which defines strategic objectives relevant for urban health such as: development of low carbon urban mobility, improvement of road safety, clean up reform and improvement of public transport.

Like the national policy, the City of Tunis Strategy (SdVT) is expected to provide a useful guidance for the definition of effective sustainable mobility policies, through which also improve urban health.

In addition to this, the engagement with international partners and experiences through the A'SIMA project constitute a valuable trait of policy making. By means of such engagement, local administrators have in fact the possibility, for example, to learn from best practices, understand how global trends can impact

their local community, build fruitful partnerships and develop innovative solutions to local issues.

Finally, the wide stakeholder engagement on which the development of the SdVT strategy is based, is expected to enable a better identification of local needs and priorities, inform the definition of effective measures of sustainable mobility and increase the overall social acceptance of the policies, while providing for inclusivity and equity.

Summarizing the experiences of the two case studies, the capital cities of Rabat and Tunis are both characterised by the virtuous orientation towards the adoption of broad strategies, such as the PMUD and SdVT, addressing the key issues of sustainable mobility.

This is deemed a key point to highlight, as strategic planning allows to align transportation goals with sustainability objectives that ultimately reflect into improved urban health, such as reducing greenhouse gas emissions, improving air quality, and promoting active transportation modes like walking and cycling. At the same time, it should involve the integration of various policies and measures (e.g., land use planning, public transit, and active transportation infrastructure) ensuring a combined contribution to the achievement of the set goals. Strategic planning should also define measurable targets and benchmarks through which tracking and evaluating progress over time, while building consensus and supporting policy initiatives via stakeholder engagement. Finally, it should enable an effective allocation of available resources.

As such, the SUMP constitutes a new powerful approach to sustainable mobility and, compared to traditional planning, is expected to allocate greater attention to the stakeholder engagement, the intersectoral policy coordination and the cooperation with private subjects, all elements that are expected to result in a more effective policy formulation.

As much as the initiatives described above are expected to provide a positive impact, neither city seems to have a sustainable mobility policy integrated into a wider urban health strategy. This integration would for sure allow for a more effective definition of sustainable mobility measures, in terms of expected benefits for citizens' health, through a more specific identification of needs and targets to be achieved.

Looking at the wider picture, Europe has invested more and more in sustainable mobility policies and measures over the past years. Besides the development of the SUMP approach, the following measures can be mentioned as positive examples to be extended at the Mediterranean level:

- Public Transit: European cities have developed extensive public transit systems, including light rail, buses, and subway systems, to provide sustainable and efficient transportation options. Many cities, such as Stockholm and Zurich, have integrated their public transit systems with active transportation modes to provide seamless and sustainable mobility options;
- Active Transportation Infrastructure: European cities have invested heavily in active transportation infrastructure, such as bike lanes, pedestrianized streets, and bike-sharing schemes, to promote sustainable mobility and improve public health. For example, Amsterdam is known for its extensive network of bike lanes and bike-friendly streets;
- Low Emission Zones (LEZs): several European cities, including London, Barcelona, and Berlin, have implemented LEZs, which restrict access to high-polluting vehicles in certain areas. LEZs have been shown to improve air quality, reduce traffic congestion, and promote active transportation modes;
- Car-Free Zones: Many European cities, including Oslo, Madrid, and Brussels, have implemented car-free zones in city centers to reduce traffic congestion and promote active transportation modes. These zones are typically pedestrianized and may include bicycle and public transit infrastructure to facilitate sustainable mobility.

Building on the experience of the two case studies presented in this paper, as well as of the wider European scene, key recommendations can be provided for national and local/regional authorities in the Mediterranean area aiming to build urban health policies, particularly by means of sustainable urban mobility measures.

At the National level (e.g. Ministerial Departments):

- Sustainable mobility policies should be integrated into general urban health policies, in order to better define intervention priorities, objectives and targets;
- The development of urban health policies should be supported by adequate financial resources and overall awareness by the urban population about their importance;
- Urban Health policies, and more specifically sustainable mobility measures, should be subject to continuous monitoring in order to verify the achievement of the objectives and the possible need for their reformulation;
- Mass public transport should continue to receive adequate resources in order to maintain its role as the backbone of the mobility system;

For what concerns regions and cities:

- Sustainable mobility policies should be developed within Sustainable Urban Mobility Plans, in accordance with national guidelines, as well as with the best practices at European level, safeguarding the specificities of the local context;
- Particular focus should be given to providing adequate human and financial resources for monitoring the achievement of set targets – in this sense, KPIs should be clearly identify during the strategic planning phase.
- Actions of education and awareness should be conducted among citizens in order to promote a change in habits, in the direction of more sustainable behaviour;
- In this sense, a participatory approach should always be ensured in the development of sustainable mobility measures aimed at enhancing and improving urban health, as this is expected to ease the shift from planning to concrete actions.
- To promote the translation of plans into action, it is key to ensure stable financial and political commitment, as well as a clear identification of responsibility within the implementing institutions.
- LRAs should be transparent and share information about the implementation and advancement of urban policies (e.g., mobility plans); this while increasing the accountability of decision makers, would also raise citizen awareness, strengthen the support of local communities, and allow to receive indications for the improvement of actions.

In terms of concrete measures that can be implemented:

- In urban areas, particular attention should be given to the reduction of motorized transport activities (the 'Avoid' dimension within the Avoid - Shift - Improve paradigm);

- Electric mobility (shared or individual) development should be supported, albeit as a component of the many measures aimed at the sustainability of transport, starting with the reduction of 'unnecessary' motorized journeys;
- Micro-mobility (shared or individual) should be considered as an effective mean of solving the ‘first and last mile’ issue in urban areas and increasing the attractiveness of public transport;
- Adequate safety conditions should be ensured for the promotion of active modes (cycling and walking). This is both in relation to the infrastructure and the behaviour of other road users;

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