

# SMART MOBILITY FOR BETTER LIVEABILITY

## REGIONAL AND LOCAL ACTIONS AND POLICY RECOMMENDATIONS

The transport sector represents nearly a quarter of Europe's greenhouse gas emissions. There has not been a gradual decline in its emissions, as has been made in other sectors. Emissions from the transport sector started to decrease only in 2007 and they remain higher than in 1990. Within the transport sector, road traffic is by far the biggest source of CO<sub>2</sub> emissions.

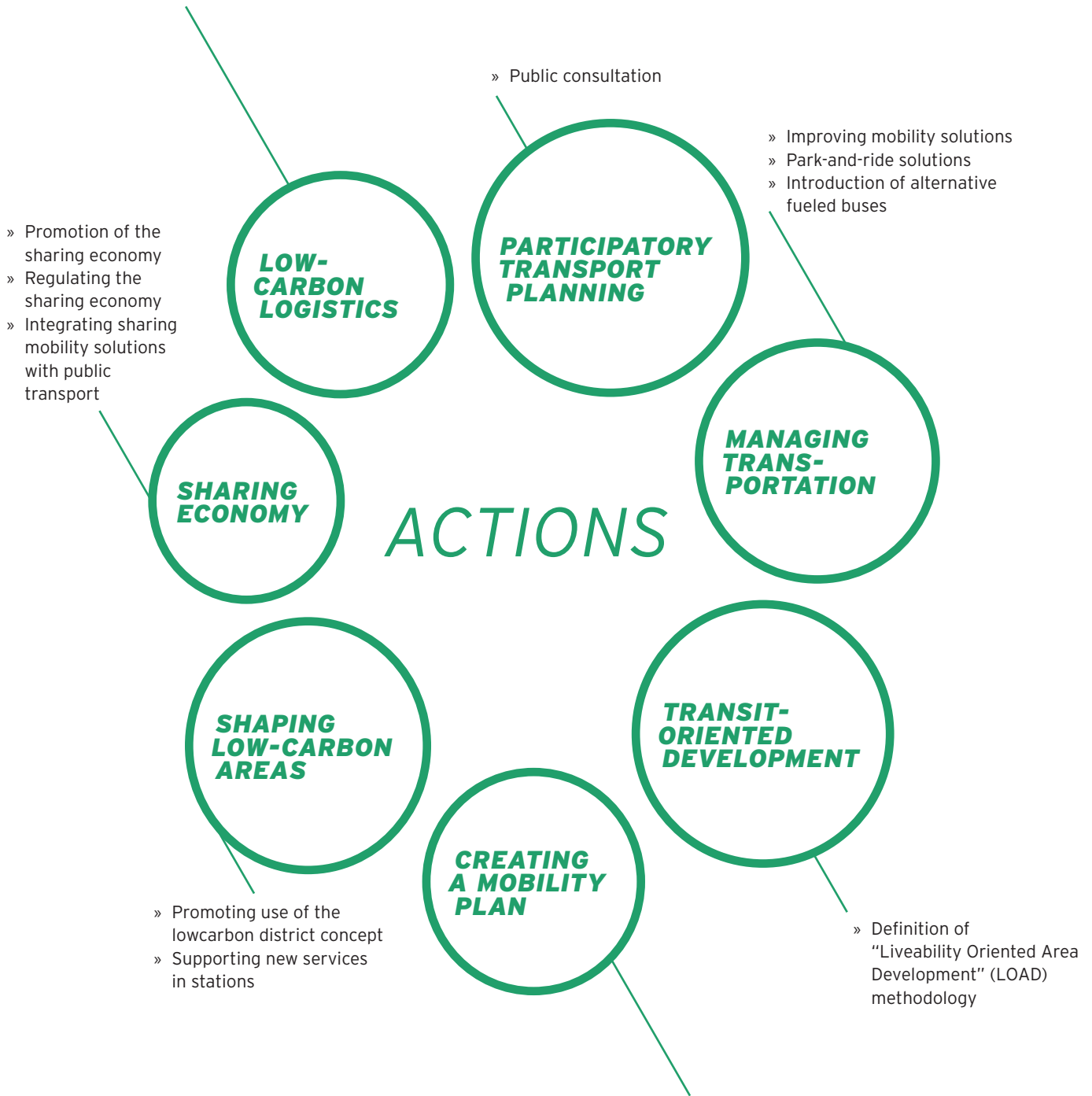
Aiming to ensure that Europe remains competitive and able to respond to the increasing mobility needs of people and goods, the European Commission (2016) has adopted a strategy for low-emission mobility. The main elements of this strategy are built around increasing the efficiency of the transport system, promoting multi-modality, the deployment of low-emission alternative energy, and moving toward zero-emission vehicles. The objectives of the strategy can further be supported through smart mobility planning and by decreasing the need for mobility. This requires the knowledge of how to develop metropolitan areas, densify urban structure, and enhance sustainable mobility in metropolitan regions.

Coping with climate change requires intensive co-operation among all administrative levels, sectors, governmental and nongovernmental bodies, academia, and the public. A broader perspective is needed, integrating relevant sectors, new technologies, and new

solutions. Establishing a healthy and liveable environment for future generations in transportation, land-use planning, and environmental protection requires sustainable measures that ensure short- and long-lasting effects toward a low-carbon society and liveable metropolitan regions. Measures must be interlinked and coordinated, thus preventing from undesired effects. Moreover, presented measures and policy recommendations are not sufficient if not accompanied by behavioural shift, ensuring the sustainable modes of mobility and sustainable ways of behaviour are inherent to all the inhabitants.

Transportation in urban areas, particularly metropolitan regions, generates congestion and vast greenhouse gas emissions, and thus imposes enormous challenges upon authorities in providing healthy living conditions and a supportive environment for businesses. Thus, the overall objective of the SMART-MR project was to support local and regional authorities in improving transport policies and providing sustainable measures for achieving resilient low-carbon transportation and mobility in metropolitan regions. To tackle this issue, ten project partners from eight metropolitan regions (Oslo, Gothenburg, Helsinki, Budapest, Ljubljana, Rome, Porto, and Barcelona) have shared their experience in transport and mobility planning by holding seven topically interrelated workshops.

- » Planning low-carbon logistics - multilevel governance - involvement of stakeholders
- » Low-carbon last-mile pilot projects: - establish consolidation centres for last-mile freight
  - Transition to e-vehicles in last-mile freight - transition to bikes in last-mile freight
  - Extended use of ICT tools - reduce kerbside parking for private vehicles
- » Establish charging infrastructure adapted for freight vehicles (vans)
- » Establish low-/zero emission zones



- » Promotion and implementation of interventions to organize and manage the demand for mobility of people and goods
- » Regulation of access in some zones (and/or parking)
- » Support for intermodal nodes and infrastructure planning for both passengers and freight
- » Informatization of mobility, provision of real-time data on public transport and traffic; integrated ticketing systems on mobile and personal devices
- » Promote diffusion of and experimentation with collective services such as car sharing, carpooling, bike sharing, etc.
- » Increase in the size of areas and uninterrupted paths for bicycles and pedestrians

# POLICY RECOMMENDATIONS

## Adapt participation processes to each specific regional or local context

Planning processes at the local and regional levels depend greatly on the local or regional context: the government structure, natural and social features of the area, the legal framework, stakeholders' engagement, and so on. For this reason, the participation process must always address local specifics by raising the right questions, involving relevant stakeholders, and following local and regional traditions and habits. The participatory process should have clear rules agreed upon from the beginning. A combination of participatory inputs and data should be used for decision-making.

## Develop personalized communication campaigns for different stakeholders

Public authorities need to develop communication campaigns focused on different stakeholder groups, emphasizing the benefits that each of them will experience from the actions to be implemented. Sometimes effective solutions to certain problems require unpopular measures that might not be positively accepted by the public. In order to avoid this, focus can be placed on communicating the objective and not the measure itself, so that the acceptance rate will be higher, with people being aware of a greater cause. The participatory process realized should also be communicated.

## Ensure sufficient competence on logistics transport among local and regional authorities



Increasing municipalities' knowledge and information about the impact of logistics in cities and business is crucial for low-carbon logistics planning. Ensuring that authorities have knowledge about the impact of each policy or measure before implementation is also recommended. Urban logistics should be given increased priority in public administration. Recruiting staff with logistics competence and having such skills inhouse makes the authorities able to work collaboratively with logistics firms without relying exclusively on industry experiences to guide their decisions.

## Develop local and regional logistics plans and strategies

Logistics planning should be part of low-carbon urban mobility and land-use plans because space is an important factor. This will crystallize in developing sustainable urban logistics plans. A combination of regional and municipal planning is key in providing comprehensive logistic plans. By developing pilot projects, transparency and knowledge of new logistics solutions will be transferred.

## Regulate sharing-economy services as part of the public transport system



Local legislation should provide a regulation framework for the management of sharing economy services as part of public transport. If sharing-economy services remain a private model, competition between operators (e.g., periodic calls for licenses), defining drop-up zones, and the obligation for sustainability (e.g., fleets of zero-emissions vehicles only) need to be ensured, and mobility information should be shared with the public authorities.

## Redesign public open space in favour of pedestrians, cyclists, and public transport



In metropolitan regions, an integrated design process according to sustainable mobility principles (e.g., TOD principles) guarantees transport development toward sustainability-oriented objectives. Traditionally, public open space has been adapted to cars. Therefore, a revision of public space is required, giving priority to public transport and soft transport modes such as walking and cycling. In general, by applying a substantial

reduction in road capacity for motorized traffic in favour of green space, lower pollution levels and greater liveability standards of public space are achieved.

Use station areas as pilot platforms for new solutions that can contribute to low-carbon daily life, smoothing trip chains and making possible circular and sharing-economy solutions

Prosperity of station areas can be strengthened by supporting the allocation of services at a station or close to it. Therefore, co-creation of services between private and public actors is recommended to add value to trip chains and attractiveness of low-carbon rail-based transportation. It is also recommended to identify the challenges of station areas as business environments and to map the customer needs in the region. Furthermore, a culture of experimentation should be supported in order to identify customer needs and regional challenges, and to create new solutions with an emphasis on using open data, big data, and digitalization. Station areas should be revitalized and developed especially as circular and sharing-economy platforms and city logistics hubs. Services could be up-scaled and transferred to other areas in metropolitan regions.

## Implement the Liveability-Oriented Area Development (LOAD) concept in local master plans

The Liveability-Oriented Area Development (LOAD) concept is recommended for implementation in local master plans. Developing areas near railway stations with dense housing, mixed use, and liveability features creates attractiveness. An increase in population, embracing both residents and workers, gives businesses a basis to develop services in the area. Dense housing development makes possible non-car-based mobility. In addition, other transport modes within the community can be used, such as walking, cycling, and mobility sharing. Adding to attractiveness, regional accessibility will be within a short distance. Therefore, it is important to define the land-use potential of station areas and to set priorities for it.

## Develop an accessible regional network of LOAD communities



Developing a fast, frequent, and reliable public transport network, integrated by different transport modes, will make sustainable mobility possible. A regional network of public transport that connects LOAD communities will be the basis of an effective mobility structure. Residents will be able to choose where to live, work, and recreate according to their personal preferences without jeopardizing solutions addressing climate change mitigation.

## Prioritize station areas as starting points for low-carbon area development











Land-use and transport planning need to be integrated in metropolitan regions and urban infill should be located near railway stations. A regional low-carbon-roadmap based on regional challenges should be worked out in order to build cooperation between stakeholders and prioritize the implementation of the measures listed. Station areas should be the starting point for actions and pilot projects regarding low-carbon-area development. This development should be based on the concept of the low-carbon district concept, which embraces climate-change mitigation, resilience, a circular economy, social sustainability, health, and technology integration. Recommended actions should include the improvement of liveability, walkability, and the public transport environment, as well as smoothing trip chains. By improving the quality of public open spaces, safety and liveability of station areas will also be improved. Land areas for circular and sharing economy solutions should be revised in land use planning.







Metropolitan region	Partner
<b>Ljubljana</b>	Research Centre of the Slovenian Academy of Sciences and Arts 
	Regional Development Agency of Ljubljana Urban Region  RRA LUR <small>regional development agency of Ljubljana urban region</small>
<b>Oslo/Akershus</b>	City of Oslo, The Agency of Urban Environment  City of Oslo Agency for Urban Environment
	Akershus County Council  <b>AKERSHUS</b> County Council
<b>Göteborg</b>	Göteborg Region Association of Local Authorities  The Göteborg Region Association of Local Authorities
<b>Helsinki</b>	Helsinki Region Environmental Services Authority  <b>HSY</b>
<b>Budapest</b>	BKK Centre for Budapest Transport  <b>BUDAPESTI KÖZLEKEDÉSI KÖZPONT</b>
<b>Rome</b>	Metropolitan City of Capital Rome  Città metropolitana di Roma Capitale
<b>Porto</b>	Porto Metropolitan Area  amporto
<b>Barcelona</b>	Barcelona Metropolitan Area  <b>AMB</b> Àrea Metropolitana de Barcelona

Interreg Europe project SMART-MR (Sustainable measures for achieving resilient transportation in metropolitan regions) supports local and regional authorities in eight European metropolitan regions to improve mobility policies. It also aims to provide sustainable measures for achieving resilient low-carbon transportation and mobility in metropolitan regions of Barcelona, Budapest, Göteborg, Helsinki, Ljubljana, Oslo/Akershus, Porto and Rome. Project will be running from April 2016 until March 2021 and coordinated by Anton Melik Geographical Institute of the Research Centre of the Slovenian Academy of Sciences and Arts and founded by European Regional Development Fund.