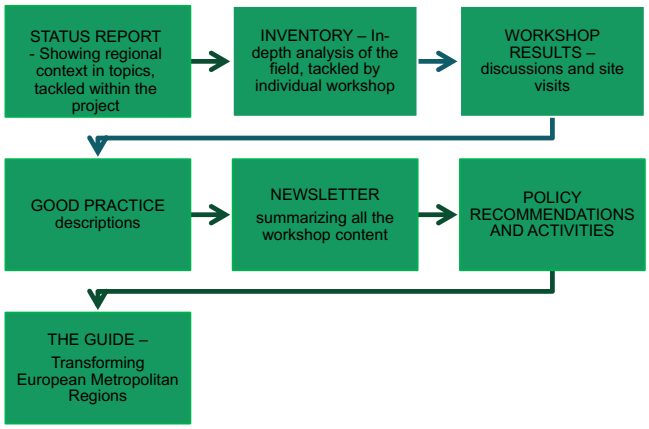
Picture: Veikko Somerpuro/City of Helsinki

NEWSLETTER **9** | **DECEMBER 2020**

When the End is a New Beginning

The content-related activities of the SMART-MR project came to an end in December 2020, concluding a five-year co-operation among eight European metropolitan regions. During this time, partners organized seven workshops, one political meeting, the final conference, and numerous regional stakeholder meetings. The partners were not the only ones participating in the activities, as numerous stakeholders and experts also attended, ensuring the most qualified and most relevant people gathered at each individual event, which has provided the best possible results. Through this, the project has enhanced interregional co-operation and co-operation within each metropolitan region, joining regional stakeholders in improving regional mobility.

Some of the notable project outputs include the **Status report**, summarizing the information on the project-related topics from all the partner regions, the detailed **Infoletters**, analysing the content tackled by each specific workshop, and the **Workshop reports**, summing up the results of the discussions we had at the workshops. After each workshop, we prepared a content-related **Newsletter** and described two **Good practices**. The main project messages are compiled in the project guide **TRANSFORMING EUROPEAN METROPOLITAN REGIONS: Smart Mobility for Better Liveability.** The structure of the guide follows the Kotter steps for leading the change, which we found useful for giving step-by-step instructions to metropolitan regions on how to address their mobility issues.



The SMART-MR methodology.

SMART-MR
Interreg Europe

European Union
European Regional Development Fund

SMART-MR (Sustainable measures for achieving resilient transportation in metropolitan regions) is an Interreg Europe project running from April 2016 until March 2021 with a total budget of approximately Euro 2,2 million.

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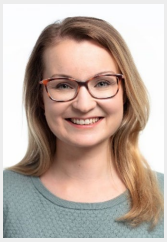

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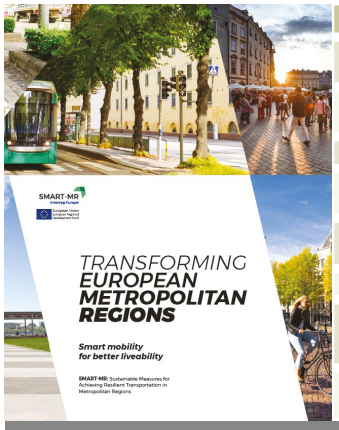


Kotter's steps for leading change	Chapters in this publication
Establishing a Sense of Urgency	2 The Sense of Urgency: The Climate Is Already Changing
Creating the Guiding Coalition	3 Joining Forces to Face Climate Change in Metropolitan Regions
Developing a Vision and Strategy	4 Creating a Vision and Strategy
Communicating the Change Vision	5 Communicating a Vision and Empowering New Habits
Empowering Employees for Broad-Based Action	6 Paving the Way to Long-Term Effects
Generating Short-Term Wins	7 Generating Short-Term Wins
Consolidating Gains and Producing More Change	8 Integrating Measures to Build Better Liveability in Metropolitan Regions 9 Policy Recommendations
Anchoring New Approaches in the Culture	10 Making the Shift toward Better Liveability in Metropolitan Regions

The guide and respective Kotter steps.

In the final two years, we further deepened some aspects discussed in the project, namely the **Station Area Concept**, which is presented in one of the following chapters. We also found it necessary to react to the current situation and have updated the table of activities published in the guide with additional **COVID-19-related** measures, so that they might help metropolitan regions address mobility during the pandemic crisis.

To disseminate the project results more easily, we have prepared several **Videos** presenting various topics addressed by the project. The project results were further presented at the **Political Meeting** and the **Final Conference**.

At the regional level, the partners organized several **Stakeholder Meetings** to discuss relevant mobility issues and prepare regional **Action Plans**. The partners have been realizing the action plans in the last two years and the main results are presented on the following pages. All the information and outputs can be found on the project's website: www.interregeurope.eu/smart-mr/

We could use several indicators to assess the project's performance: the number of stakeholders participating at our events, people with enhanced capacities, additional funds that were triggered by the project activities or specific indicators, presenting the impact the project activities have had at the regional level.

I am sure the results are impressive. Yet, I choose to evaluate the project by the interesting discussions we had, many of them taking place during coffee breaks or at dinners, by the project activities and co-operation among the partners, that has exceeded the activities planned in the Application Form, and by the enthusiastic testimonials of some partners, like the one stating that the co-operation between the regions was nice, but what really counts in the project was that the stakeholders at the regional level started to cooperate. This co-operation will continue long after the SMART-MR project is finished.

These results could only be achieved by the committed and highly professional partners and I would like to express my sincere gratitude to all the colleagues working on the project during the last five years. Special thanks also goes to the numerous stakeholders that have supported our activities with their knowledge and expertise. Finally, let me also thank our policy, financial, and communication officers at the Joint Secretariat of the Interreg Europe programme: Verena, Aleksandra, Virginia, Alexis, and Irma for supporting us during the project implementation and encouraging us to achieve the best possible results.

As we approach the end of the project, I am confident the future will bring new project ideas and plenty of opportunities for the follow-ups. Thus, I would conclude with:

To be continued!

Janez Nared

The SMART-MR team. Photo: SMART-MR.

Capitalization of the SMART-MR Project on Regional Spatial and Mobility Planning in the Ljubljana Urban Region

An absence of an administrative authority at the regional level, as is the case in Slovenia, could lead to significant difficulties in practice when coordinating the planning and development of the related transport infrastructure. This means regional spatial and mobility planning is carried out by regional development agencies of every development region in Slovenia independently. The sustainable urban mobility plan, developed in the project, for the Ljubljana Urban Region (SUMP LUR) is positively affecting inter-municipal co-operation and the implementation of innovative measures in the field of sustainable mobility and spatial planning in the Ljubljana Urban Region (LUR).

Stakeholders meeting, SMART-MR project. Photo: Archive RRA LUR

Based on the knowledge and experience gained from the SMART-MR project, SUMP LUR was a step towards a comprehensive and strategic sustainable mobility document at the regional level in Slovenia. It was the first regional document demonstrating the possibility of a successful integration of land use and transport planning at a regional level. The main aim of the regional spatial plan, which is placed within the Spatial Planning Act (Official Gazette of the RS 61/17 – ZUreP-2), is to define spatial development projects, assess the spatial situation, and act as a planning guideline; SUMP LUR acts as its introductory policy document. Since SUMP LUR also addresses integrated spatial and mobility planning within the Ljubljana Urban Region, lessons learned from SMART-MR proposals are also observed within the activities of regional governance system. It positively influenced the policy proposals for Regional Development Programme (RDP) for 2021-2027 programme period and Regional Spatial Plan (RSP; that is to be drown-up within the following years).

Policy recommendations adopted within the SMART-MR project also indicated the need for harmonization of transport development with other development interests at the level of the region. Strategic planning at the regional level will now reflect in more harmonised inter-municipal documents, for example in spatial plans, in the expansion of settlement areas, the provision of social infrastructure, employment and institutional activities, together with good accessibility to the whole region.

As part of the preparation of RSP, the interests of transport development with other development priorities at regional level should be harmonised. Strategic planning at the regional level must also be reflected in more harmonised municipal documents, for example in spatial plans, in the expansion of settlement areas, the provision of social infrastructure, employment and institutional activities, together with good accessibility.

Not only from SUMP LUR but also trough participation of stakeholders within the SMART-MR project, it came apparent that provision of funds for further integration of spatial and mobility planning is essential. At the implementation level, regular sources of funding and harmonisation of regulations need to be provided, so that the municipalities can more effectively implement measures related to sustainable mobility.

Active participation of SMART-MR stakeholders led to selection of measures for sustainable mobility planning in LUR. Besides others, main measures within SUMP LUR for the area sustainable mobility planning are as follows:

- The harmonisation and establishment of common strategic foundations for the development of mobility (e.g. harmonisation of regulations, method of granting concessions, participation of the state in the design and implementation of measures, etc.) that will be able to be realised in practice;
- Coordination between municipalities/ the region and companies (employers, etc.) for the implementation of measures by the employers: reducing the number of daily commuters (e.g. providing jobs at the place of residence, enabling work from home, etc.);
- Preparation of mobility plans for major traffic generators in the region (companies, employment centres, schools, University of Ljubljana and faculties, University Medical Centre Ljubljana, etc.);
- Balanced planning of investments and spending with long-term financial resources for the implementation of soft sustainable mobility measures, in particular an increase in public transport use (e.g. financial incentives, subsidies for users or employers).

Besides the proposed measures in regional spatial planning within LUR, SUMP LUR proposed the establishment of a joint

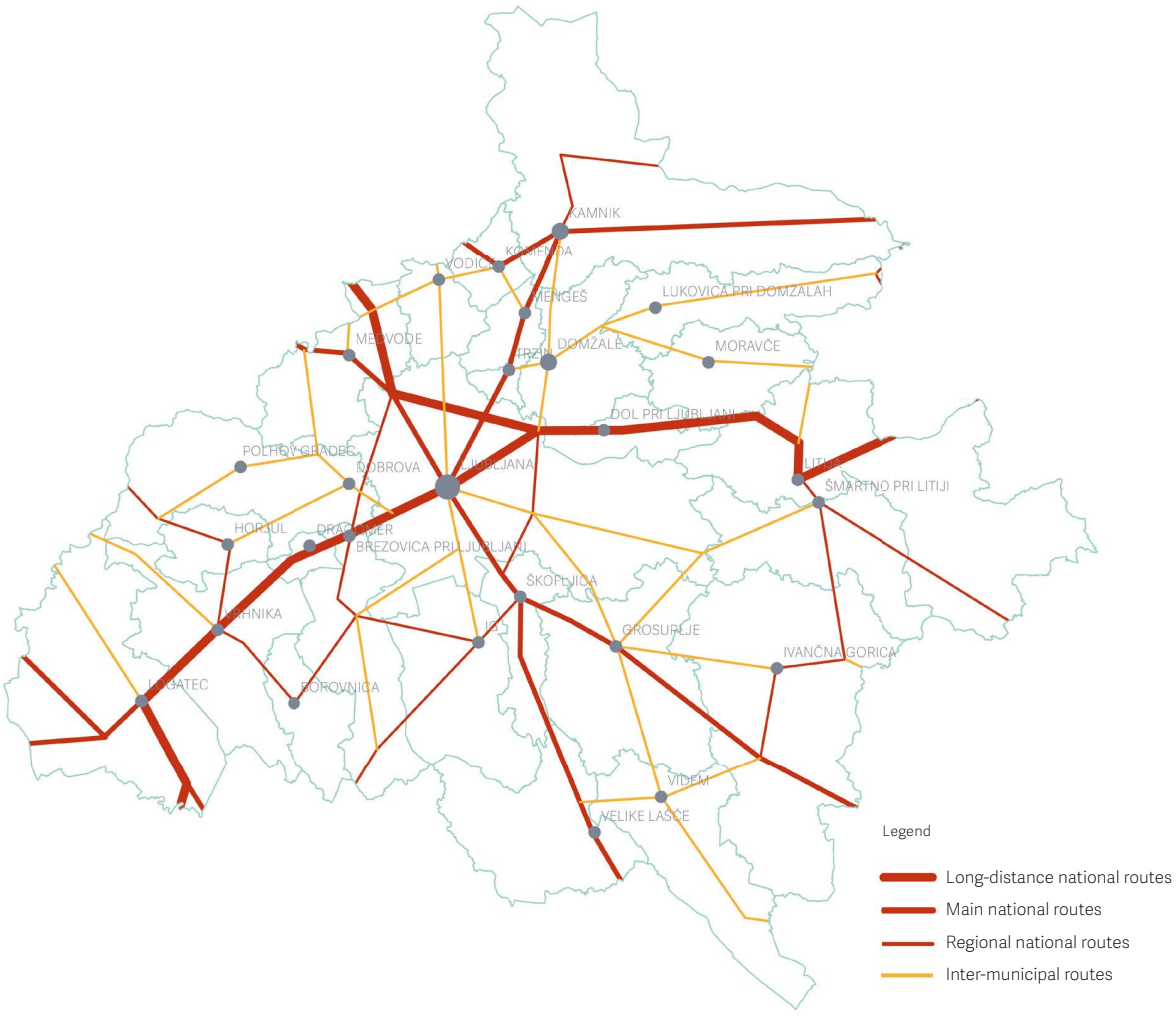
coordinating body for a more effective coordination of transport development within the LUR. With the signed agreement in September 2020, the Committee for Sustainable Mobility is a newly established regional body providing constructive initiatives on sustainable mobility, accelerating mobility actions within the region, and providing additional funds for sustainable mobility within the LUR. Comprised of proactive mobility mayors in the LUR, the committee will further capitalize on the results and deliverables of the SMART-MR project to the local authorities in the LUR.

In addition to the policy recommendations and incentives gained through the SMART-MR project, the RRA LUR is actively participating in the implementations of regional cycling connections financed through the Regional Development Agreement. Two new cycling routes are in preparation in the phase of the spatial placing of the routes. The SUMP-based mobility planning and the active involvement of the RRA LUR in regional spatial planning and mobility also led to four additional Park & Rides systems being established in the LUR.

First session of the Committee for Sustainable Mobility in the LUR. Photo: Jana Roštan

Klemen Gostič

MAP OF CYCLING ROUTES



Map of cycling routes in the LUR.

Project-Related Results in the Oslo Region

The SMART-MR project has enabled the project partners in Oslo and Akershus and their stakeholders to meet professionals from 7 other metropolitan regions across Europe. The workshops offered insights that would have been difficult to gain without discussing land use and transportation issues with peers and without experiencing some of the physical manifestations firsthand. Seeing that professionals in other metropolitan regions face similar challenges and learning from their work has been the biggest contribution of the SMART-MR project for the project partners in Oslo and Akershus.

The theme of the third workshop of the SMART-MR project in Oslo in 2017 was low-carbon logistic planning; however, this still is a sector where the private goods distributors play a big part and the authorities have limited competence. The City of Oslo is now

Experiencing low-carbon logistics in Oslo. Photo: Janez Nared

Experiencing low-carbon logistics in Oslo. Photo: Janez Nared

Workshops and city walks: an important arena for new insights. Photo: Marc Iglesias Perez

preparing a comprehensive Sustainable Urban Logistic Plan (SULP) for 2021/2022 based on the political goal "zero climate emissions" from the transport of goods by 2030. In order to find an acceptable approach that ensures Oslo reaches the goal of emission-free goods transport by 2030, a comprehensive plan is needed for a SULP. The expected increased freight transport heightens the need to identify focus areas, utilize the distribution network more efficiently, and propose new solutions within urban logistics (freight of goods, equipment, and waste). Through investments in the "Car-Free City Life", the city centre has become more adapted to recreation and walking. In order to avoid disadvantages for the transport of goods, it must be planned as a good interaction between city life and distribution in which both private and public actors participate. The complex set of actors often lead to conflicting interests. Because of this, a preliminary project will be carried out that will prepare the ground for a SULP. The pilot project will map the status, requirements, and framework conditions for urban logistics, define the objectives for an urban logistics plan, as well as describe the barriers, requirements, and opportunities that must be examined in such a plan.

In 2018 and 2019, Akershus County conducted three seminars for the municipalities to enable a better planning and understanding between the levels of government. The seminars were attended by representatives from all sectors of governance, as well as private developers and entrepreneurs. This was a part of the first action in our action plan in the SMART-MR project. Simultaneously, the county refined the participatory process for the four-year transport investment plan in Akershus. It was also important to make a decision and construct a framework for how the county and municipality could collaborate to develop roads in urban dwellings close to Oslo, mainly commuter-heavy areas that are seeking to improve the liveability of the area. A political decision was made by the county transport committee and the municipality to reclassify a county road to the municipality. This gives the municipality the authority to decide on the function and form of the road, which in this case means a more urban development of the road. The county did not have the financial means to transform the road in a manner that was desired by the municipality. This is a direct follow-up to the regional land use and transport plan, action H10, for agreements on low-carbon development of the regional towns between the county and municipality. We cannot say this is a direct product of the SMART-MR project, but the staff working on the agreement have been following the SMART-MR project, so it can be claimed they were influenced by it.

Birte Adelaide Mobraaten, Terje Grytbakk, Liv Maren Bjørnstad

The SMART-MR Project in the Gothenburg Region: What Have We Gained?

With 13 municipalities, the Gothenburg Region (GR) is experiencing a yearly population growth of about 1.5%. This has resulted in population growth both within the administrative borders of the region and with an increasing of the functional area. Over the past years, the local labour and housing functional area has expanded to a further 5 municipalities and now encompasses 22 municipalities. Due to this expansion, more and more inhabitants seek employment outside of their own municipality. The inhabitants also relocate to new housing that is more suited to their family situation. These location preferences have resulted in an increase in commuting and the need to find new sustainable mobility solutions.

In 2009, an agreement was concluded with the government regarding infrastructure investments (the West Swedish Infrastructure Package). This package involved a rail link with a tunnel under Gothenburg connecting the radial tracks. This will enable a more effective commute by rail and create regional connectivity. Among numerous other initiatives, the package included longer platforms at all stations providing for higher capacity and longer trainsets. Separate bus lanes have been added to some of the motorways/highways leading into Gothenburg, giving commuters by bus not only a quicker journey, but also a predictable travel time, as the bus will not get caught in traffic. In order to increase the efficiency for commuters living further afield from train stations or bus stops, new Park & Ride sites have been established.

Part of the financing of the West Swedish Infrastructure Package comes from the congestion tax. This will encourage commuters to reduce their car use and facilitate more sustainable travel modes.

The infrastructure package is a strategy that might change the preferences in mobility, but a further strategy is needed: housing and workplaces that have an easy access to public transport or are in reach by walking and cycling.

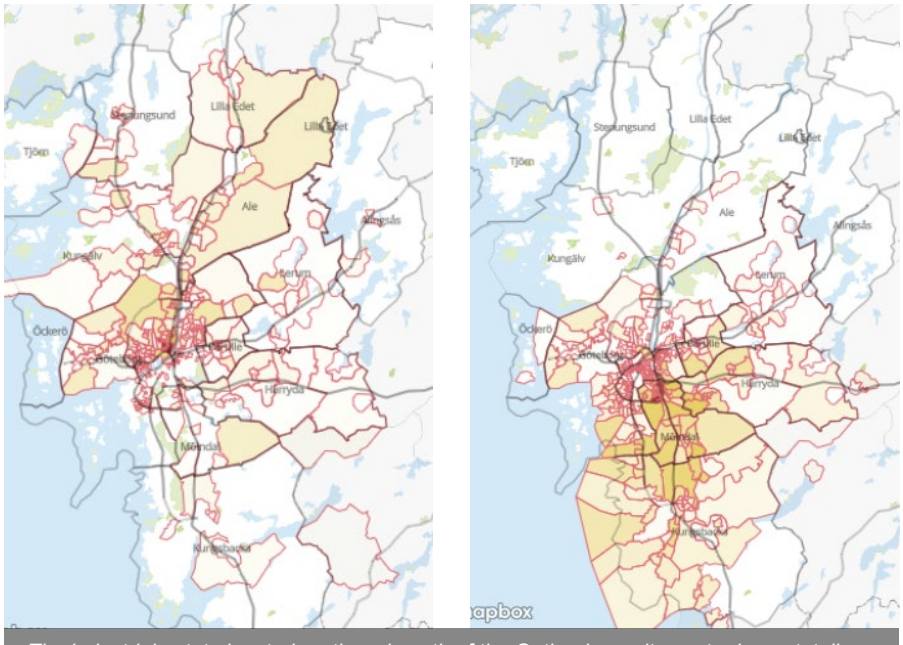
Input for Other Projects

Transport models focus on finding the balance between supply and demand for road and track capacity. Congestion is either solved by building an increased capacity or, as in the Gothenburg case, with a pricing model reducing the demand. Inspired by the SMART-MR project, the GR started to investigate the demand for mobility and the reasons behind it by conducting a Regional Analysis. The SMART-MR study “Sustainable Density in Station Communities” (GR 2017) found that by increasing the density of housing and workplaces in a station area, it is possible to calculate the number of inhabitants and workers within 1 km of a station who have regional access. The regional analysis showed how big the potential is for inhabitants and workers to travel to work by rail. The analysis also showed the potential capacity the station area has for new housing and workplaces using the recommendations in the study. Further studies have been conducted to establish the potential of cycling to work. This has resulted in a “Regional Plan for Cycling” (GR 2020), connecting station areas with regional cycle tracks.

The Kungälv Municipality used the study “Sustainable Density in Station Communities” to develop the masterplan for the Ytterby station area. The study used Ytterby as an example, showing the potential an increase in sustainable density could have. The masterplan could increase the development significantly compared to a traditional planning approach.

The Gothenburg Region has been developing the station area concept in the SMART-MR project as well as in other studies, most notably the “Urban Station Community” project. This project has picked up and implemented ideas from the SMART-MR project in local projects within the Gothenburg Region.

A study entitled “Practical Guide on the Implementation of the Station Area Concept” has been written as an additional activity in the SMART-MR project. The Station Area Concept combines the two station area development perspectives, the LCD concept (Helsinki), and the LOAD (GR) to create joint guidelines for developing station areas. The study tested the concept on the Grosuplje station area near Ljubljana. These guidelines will also be disseminated to local planners and stakeholders in the Gothenburg Region.



The industrial estate located north and south of the Gothenburg city centre has a totally different hinterland for workers.

The Gothenburg Region Action Plan

The action plan for the Gothenburg Region has been designed to influence "Sustainable growth, goals, and strategies focusing on regional structure" and specifically, the Structural Illustration towards including a recommendation for sustainable density in the station areas. The regional governance structure in the Gothenburg Region formulates such changes during regional consultation rounds. As explained in newsletter 8, this has not been implemented as intended. Instead, the SMART-MR action plan has been included in the annual budget as a focus for 2020, developing the structural illustration regarding the station communities.

Structural illustration.

Per Kristersson

The SMART-MR Project in the Helsinki Metropolitan Area

The Helsinki metropolitan area is growing rapidly. As the urban structure densifies, the need for mobility increases, but the space available for traffic does not expand. To the contrary – the competition for land use grows. Our aim is to create liveable urban areas with more inhabitants and businesses by densifying the urban structure and that requires an efficient transport system that is able to move as many people and goods as possible in as small a space as possible and as sustainably as possible.

All the cities in the Helsinki Metropolitan Area have committed to be climate neutral by either 2030 or 2035, which is an ambitious goal and puts pressure on planners to find new and concrete measures in urban planning to make a sustainable metropolitan area a reality. Global warming is happening now and measures for its mitigation and adaptation cannot wait for tomorrow. The SMART-MR project supports local and regional authorities in improving integrated planning policies and providing sustainable measures for achieving resilient low-carbon metropolitan areas.

Interregional and Local Exchange of Experiences Creates a Shared Understanding of Mobility Challenges

The Helsinki Region has contributed to knowledge sharing with good practices from the region, such as HLJ2015 − Integrated planning process of land use plan, housing strategy, and transport system plan. By combining these planning processes, we can steer the governance of financial investments in new urban areas and densified areas, which are being developed with improved public transport connections and improved local services. The aim is to provide attractive urban areas with mixed housing and avoid urban sprawl on the outskirts of the metropolitan area. A systematic and determined joint planning process can secure a balanced and sustainable development of the region. A multi-tiered participation process with all the municipalities of the region participating insures they are committed to major transport and land use projects, also financially.

Metropolitan areas are facing similar challenges and valuable knowledge has been gained through SMART-MR workshops, sharing of good practices, study trips, and inventories for solving some issues faced in the Helsinki Metropolitan Area, such as:

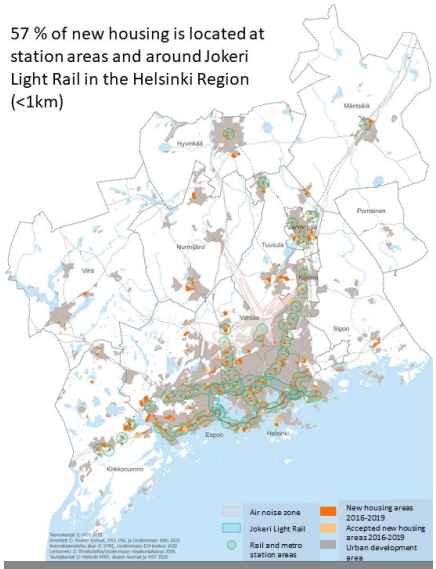
- how to regulate sharing-economy services as part of the public transport system;
- how to develop local and regional logistics plans and strategies and ensure sufficient competence on logistics transport among local and regional authorities;
- how to implement the principle of redesigning public open space in favour of pedestrians, cyclists, and public transportation.

Local Actions to Create a Network of Low-Carbon Station Communities

Since 2018, the HSY has worked together with the cities in the area and other regional and national actors, as well as the SMART-MR international partners to create the Low Carbon District concept for developing station areas. Also, the principles of Liveability-Oriented Development (LOAD) have been disseminated throuhout the region. The project has contributed by streghtening regional and local networks, knowledge sharing among cities, and making a commitment towards a shared goal of prioritizing station areas as starting points for low-carbon area development and replicating them to other areas, creating a sustainable metropolitan area.

Station areas are developed as nodes of sustainable mobility and growing living and working areas. Photo: Lassi Sarlos, HSY.

The need to develop urban nodes is a current topic in the Helsinki Metropolitan Area. The newly prepared Helsinki-Uusimaa Land Use Plan 2050 guides the regional land use planning with a focus on accessible areas by public transport, especially rail transport. Several rail projects have been planned both for the near future and for the long term. There are also many rail connections being constructed, like Ring Rail and Western Metroline.



New housing development at station areas in the Helsinki region.

Synergies have been identified for combining station area developement perspectives to create joint guidelines for developing station areas and have been complied in collaboration with project partners from Gothenburg and Ljubljana. These guidelines will be disseminated to planners and stakeholders locally.

Public co-operation on different administrative levels and over various sectors is not the only thing that is needed, but also new ways of private-public co-operation. As part of the SMART-MR action plan, the Smart Station project mapped the needs and potential of low-carbon services in station areas and conducted a field analysis of low-carbon business operators. New co-operation models for low-carbon service experiments have been implemented at station areas. Station areas should be developed and promoted as pilot platforms for new solutions that can contribute to low-carbon daily life, smoothing trip chains and making circular and sharing-economy solutions possible.

Aino Hatakka

The Main Benefits of the SMART-MR Project for the Budapest Urban Region

Just as the SMART-MR project addressed numerous areas in the field of low-carbon economy, local and regional transportation, as well as land use and transport issues, the main benefits of the project have also been manifold for the BKK Centre for Budapest Transport, representing the Budapest Urban Region.

One of the main goals in the Budapest Urban Region is to enhance regional co-operation between the local and the state (regional) level. Transport organization in Hungary currently runs on two main levels: local municipalities are responsible for local transportation (in Budapest, this is the Municipality of the City of Budapest), while the state is responsible for regional and long-distance transportation (represented by the ministry responsible for transportation, currently the Ministry of Innovation and Technology); no regional level exists. To a great extent, the transportation and health problems of the Hungarian capital originate from the metropolitan area outside the city. In order to solve transportation issues and create a liveable environment, it is of great importance to have a close co-operation between the city and the metropolitan area. In this regard, BKK defined two actions in their action plan: one to enhance regional institutional co-operation and the other to expand the strategy-making process to the regional level.

The positive changes began in 2018, when the governance structure in Hungary changed slightly. A new state secretariat was established within the Prime Minister's Office, named the State Secretariat for the Development of Budapest and its Agglomeration. The aim of this new institution is to coordinate national developments in and around the Hungarian capital. Following this change, close negotiations began between the new state secretariat and the Mayor of Budapest. As a result, a new council was established (FKT, Fővárosi Közfejlesztések Tanácsa – Council for Public Investments of Budapest) in November 2018, outlining a closer co-operation on development projects between the Municipality of Budapest and the government. The state established a new body (BFK – Centre for Budapest Development) to manage the development projects chosen by FKT on the state's side. On the city's side, BKK is involved in transport-related developments. A working group consisting of local and government officials prepares the FKT meetings. The topics consisting of local and national developments are proposed by both sides. The two main political stakeholders of the FKT are the Municipality of the City of Budapest and the state, including the Ministry for Innovation and Technology (responsible for transportation) and the Prime Minister's Office (hosting the State Secretariat for the Development of Budapest and its Agglomeration). The two most important professional stakeholders

Regional co-operation should be expanded even further. Photo: Simon Nyirö, BKK

are the BKK Centre for Budapest Transport at the local level and the Centre for Budapest Development at the national level. These two bodies meet regularly to discuss expert issues regarding transportation, which is a great result compared to the situation before.

Another major topic of the SMART-MR project for the BKK was the importance of public consultations. The newly elected city government (the city council, the mayor, the deputy mayors, etc.) sets priorities that differed from the previous regime. They put great emphasis on public participation, consultations, and discussions in general, thus increasing the importance of public consultations in the past year. Previously, only those consultations had been carried out that had been made compulsory by legislation, with the exception of our SUMP (BMT), where large public and institutional involvement had been achieved. Recently, smaller scale concepts or investments have also been made available for public consultations on different forums, and the aim is to carry on with this new measure to involve the public more in the decision making. An example are the measures taken in the pandemic situation, where temporary bike lanes were put in place, taking advantage of the decreased car traffic caused by the lockdown. After the school holiday ended and the pandemic situation eased in the beginning of September, a public consultation was carried out on what people thought about the future of these "temporary" bike lanes. After the consultation, modifications were made to the original layout due to the citizen feedback.

Temporary bike lane to be established on one of the main streets of Budapest. Photo: Simon Nyirö, BKK

Sharing economy was another example where the BKK benefited from the SMART-MR project. At the beginning of the project, the phrase "sharing economy" was neither commonly known among the general public nor among transport experts. Many forms of "sharing" have evolved since then, a couple of them within transportation. Car sharing and bike sharing have become common modes of transport nowadays and the BKK considers them not as strange forms of mobility, but as part of the transportation system. Currently, the City of Budapest and the BKK are thinking about new ways and negotiating how to further integrate them into the city transportation. Other challenges and tasks we face are regulating different forms of shared services, such as scooter sharing and moped sharing.

Balázs Fejes

Mobility point for shared mobility services in Budapest. Photo: Simon Nyirö, BKK

The Participatory Process in Preparing the SUMP of the Metropolitan City of Rome Capital

Participation is an essential part of an effective planning process, because it reduces the gaps between different perspectives, shapes satisfactory solutions for all social groups, and promotes informing participants on the decisions affecting them. The importance of this subject matter was confirmed by the decision to kick off the SMART-MR project with a workshop on participatory planning that allowed us to benefit from the best practices learned by the European partners who have been applying participatory processes in their planning tools, which helped us adopt them in the development of our own Sustainable Urban Mobility Plan (SUMP).

SUMP is one of the most effective mid-long term strategic planning tools available to metropolitan areas to define development strategies for contributing to the transition towards low-emission mobility models (greenhouse gases, pollutants, noise), improving the quality of life of their citizens, reducing the diseconomies caused by the inefficiency of the current transport system, and by making metropolitan areas more resilient. The fact that the participatory process should be applied to SUMP development has already been confirmed by the new European Guidelines for developing and implementing a SUMP, as well as the national guidelines for SUMPs, approved by the Italian Ministry of Infrastructure and Transport.

The actions to be included in the SUMP of the Metropolitan City of Rome will be developed starting from the strategic framework and based on the minimum macro-objectives provided by the ministerial guidelines, to which one or more measurement indicators and the set targets have been associated. Starting from the macro-objectives, four macro-dimensions of sustainability were identified:

1. Accessibility: entering and circulating easily in an area, accessing its spaces, functions, and services;
2. Liveability: living in a pleasant, safe, and healthy area, ensuring a mobility system with motorised-traffic free spaces and a low level of accidents, noise, and health-harmful air pollutants;
3. Environmental sustainability: minimising the negative impacts of mobility on natural resources and the environment, promoting a mobility system with low levels of greenhouse gas emissions, land consumption, and waste production;
4. Economic sustainability: reducing citizens' expenses for public and private mobility, increasing efficiency in the management of mobility systems and the sustainability of investments.

The participatory process in SUMP, October 2019. Photo: Metropolitan City of Rome Capital

An additional pillar of widespread sustainability was added to these dimensions, since it was considered that the Metropolitan Area of Rome suffers from imbalances mainly due to the centripetal role of the capital that strongly penalises widespread transversal relations between the metropolitan municipalities.

The macro-dimensions of sustainability in the SUMP of the Metropolitan City of Rome Capital.

Stakeholder selection is one of the most delicate aspects of the process, because finding the right balance between not having an excessive number of stakeholders, representing interests, and weighting the representation levels is not an easy operation, especially in very complex realities such as the Metropolitan City of Rome.

In the first phase, public administrations in charge of planning sustainable urban mobility were involved in a participatory process that was structured in three successive stages:

1. The first cycle of meetings for presenting and discussing the SUMP construction process. During the meetings, the guidelines and the results of the territorial analysis were illustrated and the general and specific objectives that make up the strategic orientation were proposed;
2. An online survey for prioritizing the objectives and collecting critical issues, proposals, and suggestions from the territories in a structured way;
3. A final cycle of local meetings for presenting and evaluating the results of the online survey, discussing the main operational strategies and the main concepts of the plan.

The drafting phase of the plan is about to begin, and the following stakeholders are going to contribute, in addition to those who already contributed to the first one:

a. Associations, in particular those representing citizens (e.g. neighbourhood committees), production (trade unions and representatives of companies and workers), and other across-the-board sectors of collective life (e.g. environmental, cultural, consumer associations);
b. Transportation, i.e. transport companies (LPT, infrastructure management companies, etc.), user representatives (e.g. commuter committees) and other lobbies (pedestrian, cyclist, motorist associations, etc.).

Naturally, such a process does not aim to exclude the wider communities of citizens and stakeholders, who will be an active part of the participatory process in the actual development phase of the SUMP.

Gianluca Luciani, Annabella Bucci, Renzo Liburdi

CITTÀ METROPOLITANA DI ROMA CAPITALE
Per una sostenibilità diffusa

The Porto SMART-MR Action Plan Helps Revolutionize the Intermodal Tariff System

The action plan of the Porto Metropolitan Area (AMP) contained two main activities: the first was to develop a Sustainable Urban Mobility Plan for the metropolitan region, and the second was a simplification and reduction of public transport prices.

As the SMART-MR partnership recommends in the Guide: Transforming European Metropolitan Regions, the idea of this simplification and reduction of public transports prices was to implement a measure that generates short-term wins.

Starting in April 2019, the AMP reduced public transport prices, which led, in our opinion, to a revolution in the intermodal tariff system of public transport involving all public transport operators with services in the metropolitan area of Porto: busses, light rail, and heavy rail. This revolution can be essentially explained in three steps:

1 – EXTENSION – the intermodal public transport is spread to the entire territory of the metropolitan area, 2,040 square km (an increase of around 57%) and to the large majority of the transport operators (20 operators).

2 – SIMPLIFICATION – One Metropolitan Public Transport Pass (to travel in the entire metropolitan area) and a Municipal Pass (to travel in one municipality) instead of multiple passes. In fact, the ticketing system had been considered very complicated and confusing, not only because the intermodal ticketing system has more than one hundred zones, but also because the majority of operators were not on the intermodal system and the ticketing system was based on the travelled distance. This meant that, for instance, a monthly pass, regardless of whether it was intermodal or just for one operator, could only be used to go to a single general area. This resulted in the majority of passengers using public transport for just one of their many travel needs, and, sometimes, they would need more than one monthly pass to go, for instance, to work.

3 – REDUCTION OF THE PUBLIC TRANSPORT PRICE – All frequent passengers of public transport have more transport possibilities available at a lower cost. The metropolitan pass costs EUR 40 and the municipal pass costs EUR 30.

These three steps contribute to:

For the transport authority:

- Better monitoring and control compared to the previous situation with the single-mode tariff.
- Improved coordination
- Available information

For the operators:

- A more advanced system and no more worry about the sales network

For the passengers:

- An integrated use of different transport modes (this action is in progress) that the citizens can use for their different travel needs for an affordable price.

The short-term wins were quite relevant in that they increased the number of public transport users, but we have already written about that in the previous newsletter. But just when everything was going so well, a bigger challenge demanded that we adapt our target.

COVID-19 Confinement

On 18 March 2020, a state of emergency was declared in Portugal, based on the verification of a situation of public calamity caused by the COVID-19 pandemic. The consequence was new legislation, which enforced several restrictions on the exercise of certain activities and the mobility of citizens and authorized the adoption of measures that were adequate and necessary to limit the circulation of collective means of transport in order to preserve public health.

Our reaction was to use the financing that we had from the "Tariff Reduction Support Program" to help support the offer of services by the transport operators, financing them according to the historic data.

Imposing Minimum Essential Services

With activities slowly reopening, there has been a consistent and gradual increase in demand. This however, does not generate enough revenue to replace services that support supply levels in line with the demand pressures generated by the resumption of activities. These services also allow the safeguarding of public health, namely, through a wider offer of schedules, but, above all, through the reinforcement of the offer during peak hours, namely, in the morning.

So, the AMP came up with an imposition of minimum transport services, starting in July 2020, allowing the option of rapid modifications to the network, so that it can be adapted to the extraordinary and transitory period in which we live, thus ensuring the existence of essential passenger transport.

Today more than ever, we need to have the capacity to manage the public transport system so that it can be rapidly adapted to new situations, the changing of travel needs—changes in school and work schedules, part of the territory confined, schools or factories going to remote work or suspending work contracts, curfew—this dictates that we can no longer have a plan network with a determined frequency without no possible adjustments.

This is a lot to accomplish for the Metropolitan Area of Porto, but it is probably the best chance to position public transport at the core of urban mobility.

Carmo Tovar, Mobility Planning and Management Division, Porto Metropolitan Area

Gaia river front. Photo: Maria José Pinto Leite, CM Gaia.

SMART-MR Wins in the Barcelona Metropolitan Area

The Barcelona Metropolitan Area (AMB) is a local administration at the supra-municipal level that actively promotes sustainable mobility. It does so through the development of new mobility services, transport policies, and other important initiatives in its 36 municipalities, providing healthy living conditions for our inhabitants. Moreover, the AMB participates in various European projects and events in order to learn from successful experiences throughout Europe and improve its own metropolitan context. In doing so, it strengthens the competencies the AMB has in regards to sustainable mobility.

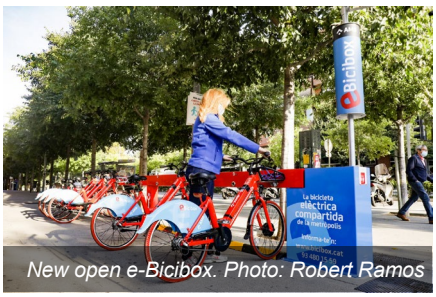
Transport in the AMB region causes significant congestion, as well as large amounts of greenhouse gas emissions, posing enormous challenges for local and regional authorities. To help address these challenges, the AMB has taken part in the SMART-MR project where it was able to gain firsthand knowledge on key mobility issues from seven other European regions. This was achieved with an initial exchange, which took place within the SMART-MR framework between 2015 and 2018. This exchange strongly inspired a process of internal mobility planning in the AMB, especially during the drafting of the Urban Mobility Metropolitan Plan (PMMU), which was initially approved on 26 March 2019.

The PMMU incorporates many of the central elements covered in the SMART-MR project, including the most relevant aspects of mobility planning, the central treatment of participation in transport planning, the logistics approach from a decarbonisation perspective, the definition of low-carbon areas, and the proper regulation of sharing mobility services. As such, SMART-MR has had a big influence on the AMB's mobility planning policies as well as on the process of validation of existing mobility policies deployed by the AMB.

Furthermore, it has become increasingly clear to the AMB that there is a strong need to be more demanding in the push for our desired mobility policy results in order to improve the living conditions in our public spaces through, for example, the improvement in air quality and reduction in noise. The SMART-MR project has also highlighted that as a public administration, we must continue to ensure that such activities are promoted and implemented in each of the 36 metropolitan municipalities.

One such activity is the Barcelona Ring Road LEZ www.zbe.barcelona, the first policy to restrict traffic to the most polluting vehicles in our territory, born as a coordinated policy between 5 municipalities. Since January 2020, the Barcelona Ring Road LEZ restricts circulating in the inner area during working days from 7h to 20h to vehicles without an environmental label. There are plans in place to extend the the Ring Road LEZ restrictions in order to achieve new, more ambitious goals and to lay the groundwork for the transition to an Ultra-Low Emissions Zone. This policy of vehicle restriction was broadly developed through the SMART-MR framework in order to achieve the Interreg Europe programme goals, with a particular focus on the goal of decarbonisation of transport and mobility.

Barcelona Ring Road LEZ. Photo: Robert Ramos



New open e-Bicibox. Photo: Robert Ramos

Barcelona Ring Road LEZ last communication campaign.

The strategy of developing a proper environment for soft transport modes was prioritized within the framework of the SMART-MR project. In line with this strategy, the AMB launched a bicycle-sharing service called e-bicibox www.bicibox.cat, focused on the promotion of bicycle usage as a clean and sustainable mode of transport. The metropolitan service e-bicibox is yet another SMART-MR linked service that aims to increase and enhance public spaces dedicated to pedestrians and cyclists.

Furthermore, SMART-MR aims to simplify multimodal trips by making a variety of solutions available to citizens. As such, the integration of new technologies in the management of urban mobility has been adopted by the AMB as a core principle, as it works to make all its mobility services and their management as integrated as possible.

One example of this contribution in the AMB activities is the Metropolitan Parking Platform, which represents the integration of new technologies in the management of parking-regulated areas. By creating an unique and public application for smartphones (AMB Aparcament), which allows managing and paying in the regulated areas of ten different municipalities of the metropolitan area of Barcelona, unregulated parking spaces are declining, thus reducing free parking spaces and putting pressure on the use of private car mobility. In addition, the regulation conditions of parking-regulated areas are being homogenized, thus creating simpler municipal services for its users.

In short, we have been experiencing a consolidating policies process in the AMB in recent years, with the goal of promoting sustainable multimodal urban mobility and adaptation measures with a mitigation effect, all of them strongly and clearly aligned to the central elements addressed by the SMART-MR project.

Ruth Lamas Borraz, Viveca Danielson

SMART-MR
Interreg Europe

Practical Guide on the Station Area Concept and Implementation

Introduction

Mobility planning strongly depends on land-use planning and settlement. To achieve sustainable development at the regional level that would decrease the need for private cars, a settlement must be linked to existing public transport corridors. In the SMART-MR project, the development of transport nodes and their surroundings was discussed in the fourth workshop in Gothenburg in December 2017, addressing the development of urban station areas as an example of the densification of settlement and services in urban station areas. The Gothenburg Region (GR) used the case of Ytterby to develop a densification study that has supplemented the Transit-Oriented Development concept (TOD) with the sustainable density principle, as proposed by the UN-Habitat. The methodology addresses the mobility and land use of particular areas and combines them to present station areas as nodes in a polycentric spatial development structure. In addition to this, station areas are not only densified, but as was proposed by the fourth SMART-MR workshop in Gothenburg and the fifth SMART-MR workshop in Helsinki (in April 2018), they should be developed so that they provide the maximum possible liveability. In light of climate change mitigation and adaptation, sustainable modes of transport and sustainable density are therefore not the only factors, but rather the principles of low-carbon urban development (discussed in the fifth workshop in Helsinki) should also be emphasized. In this regard, the GR developed a Liveability-Oriented Area Development (LOAD) concept that addresses the liveability of urban station areas, while the Helsinki Region Environmental Services Authority (HSY) developed the Low-Carbon District (LCD) concept that is focused on four main areas (land use, housing and living, business and services, mobility) and addresses them through four main aspects (climate change mitigation, resilience, circular economy, and social sustainability and health).

To achieve the maximum output from the LOAD and LCD concepts, we decided to merge them into a single development concept: the Station Area Concept (SAC). With the financial support of the Interreg Europe program, partners from Gothenburg, Helsinki, and Ljubljana have further developed the LOAD and LCD concepts and interconnected them into the joint Station Area Concept in the form of guidelines other metropolitan regions could use to make their regions more sustainable.

The sense of urgency

Metropolitan regions face numerous challenges and climate change seems to be one that will profoundly transform our way of life, mobility, planning; actually, the way metropolitan regions act and develop in general.

Climate change mitigation requires an enhanced understanding of all the consequences it brings, a shift towards a climate-friendly lifestyle, stronger commitment to low-carbon targets, and at the final stage, adaptation to climate change by achieving a behavioural change and a shift towards more sustainable development patterns.

Climate change has long remained underestimated. There is a lack of infrastructure promoting sustainable mobility due to the long-lasting priority given to individual transport. A shift towards more sustainable solutions is needed, supported by new land-use patterns and integral planning.

In enhanced urbanisation, a polycentric settlement structure could reduce the need for mobility and prioritise local development. By densifying station areas—both as housing and business areas—and by creating a high-quality urban environment, station areas might become the backbone of polycentrism at the metropolitan region level and could contribute to greater liveability in these areas, ensuring attractive living conditions supporting a high quality of life, mixed land use, sufficient public services and supply, as well as sustainable forms of mobility where rail and active forms of mobility (walking, cycling) become the backbone of mobility.

Station area development supports economic sustainability, as density increases economic productivity in urban areas. There is an untapped service development potential to develop low-carbon services at station areas together with sustainable mobility.

The Station Area Concept as a Comprehensive Answer to Planning Challenges

A station area is defined as the area in and around a railway station (or equivalent transport nodes in a regional express bus system), mostly using 500 meters and 1000 meters buffer zones as an easy approximation for accessibility. Station areas are recognized as a development priority for mobility, urban development, and reaching climate targets. They are the starting points for expanding the urban environment from low-carbon station areas to low-carbon metropolitan regions.

Station areas or public transport hubs are the key focus for transit-oriented development (TOD). The main TOD drivers are reducing car use, congestion, and pollution by avoiding urban sprawl. At the same time, TOD aims to increase regional accessibility by acquiring well-connected and affordable land for development in transport corridors.

The Station Area Concept redefines the TOD concept by adding a sustainable density criterion, as defined by UN Habitat. The aim of sustainable densification and compact areas is both to increase the population within a given space and also to maintain a well-defined division of land use that ensures a high-quality and accessible urban area with an optimal land-use mix (Figure 1).

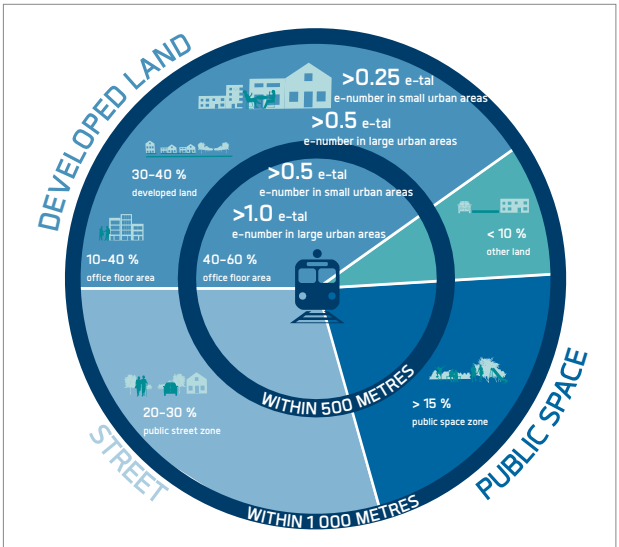


Figure 1: Land-use recommendations (Nordström, Swartz, and Ståhle 2017).

The TOD concept has been supplemented with low-carbon principles, enabling planners to meet climate targets. The concept will help cities develop low-carbon station areas both in the existing urban structure as well as when planning new station areas. The concept addresses four perspectives on low-carbon station areas: land use, housing and living, mobility, and businesses and services. In addition, there are four cross-cutting themes: climate change mitigation, resilience, a circular economy, and social sustainability and health. Technology integration and leadership have also been recognized as essential for the transformation. More than seventy different criteria will help planners and city developers transform low-carbon areas step by step (Figures 2 and 3).

From a business operational viewpoint, station areas have ample untapped potential as a marketplace. Improving and strengthening services at station areas will increase the added value of trip chains, make rail transportation more attractive, and also reduce the need for travel. Enhancing the service palette of the stations makes people's everyday lives easier and encourages movement approaching low-carbon mobility. Last-mile transport services, low-carbon city logistics services, and mobility as a service (MaaS) in a station also reduce emissions. A vibrant station area also makes a sharing economy possible. Sharing and circular economies and new models of ownership can be seen as a means to reduce consumption.

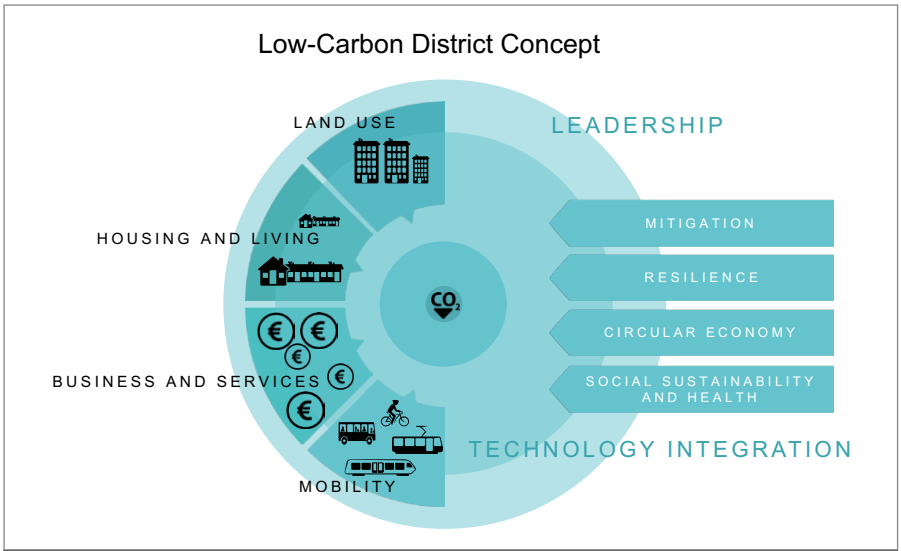


Figure 2: The low-carbon district toolkit for station areas includes planning criteria in four themes and four cross-cutting perspectives.

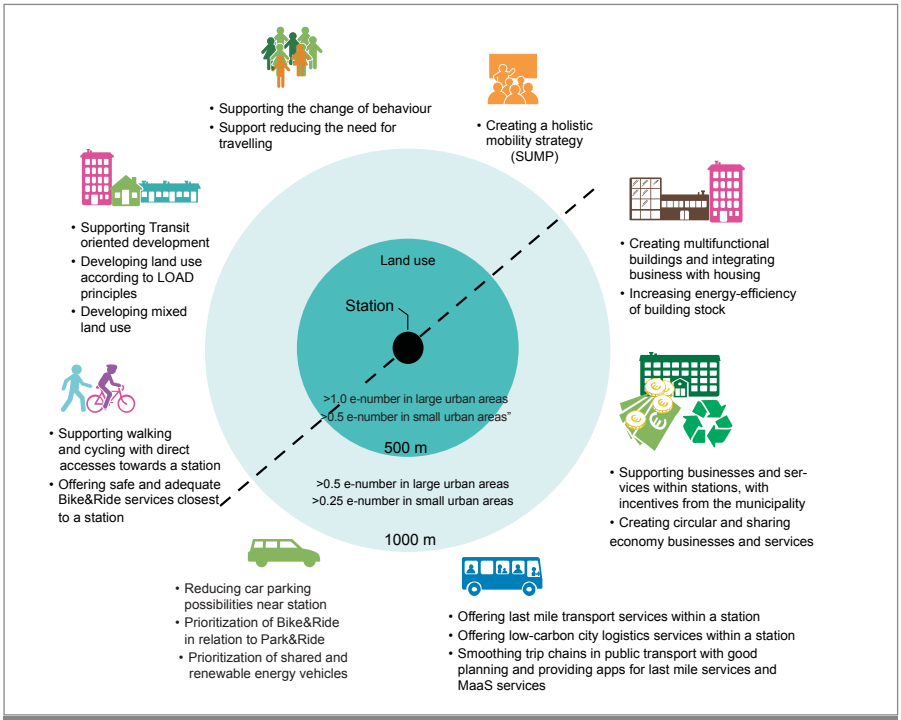


Figure 3: Low-carbon district toolkit for developing climate-friendly station areas.

The public sector is considered to have a key role in encouraging and facilitating companies to position themselves close to stations and introduce new types of low-carbon business operations. New business operation models may arise from new types of public-private partnerships. The public sector is also involved in encouraging and facilitating the public's initiatives. Developing station areas supports economic sustainability while providing access to affordable low-carbon mobility for all. Station area development is also a means to mitigate the negative impacts of segregation. Thus, social sustainability is an important theme in developing liveability-oriented station areas.

If the active development of station-based services is further enhanced, the added value of the trip chains can be strengthened, encouraging people to use public transport. Developing station areas as small hubs for city logistics can be part of modern e-commerce and its logistics handled in a centralized way that reduces the number of trips.

The development of public space and safety are considered to be key measures for improving station areas. Upgrading public space in particular is the most focused measure to increase station areas' usability and safety.

Locating services centrally on ground floors at the station and nearby also increases social activities and enhances safety. As a minor measure, increasing smart and energy-efficient lighting and enhancing underpasses and overpasses also increases the feeling of safety.

Planning Steps in Station Area Development

The conditions may differ between and within metropolitan regions, so each station area must be developed in a unique way to address the particular needs of a specific area. However, the planning steps are universal and can be followed regardless of the spatial context of an area.

To enhance the planning of station areas, we developed guidelines with consecutive planning steps, combining various planning approaches, from desk research to participatory planning. The starting point of the process is the SMART-MR guide – Transforming European Metropolitan Regions: Smart Mobility for Better Liveability (2019) that is based on Kotter's (1996) steps of transformative change.

The planning steps are:

1. Defining a polycentric structure at the regional/national level

In this step, the planers evaluate the regional spatial structure and define potential locations for station areas based on:

- transport corridors with a sufficient public transport provision (sufficient frequency and capacity of the public transport)
- provision of public and private services
- a need for supplementary areas based on the population growth (demographic projections).

2. Regional/station area analysis and benchmarking

A thorough analysis is conducted in this step, focussing on the main pillars of station area development (e.g. land use, housing, businesses and services, transport provision, etc.). This helps define the basic facts, starting points, and critical issues to be further discussed in the participatory process.

3. Getting the political support for the participatory process

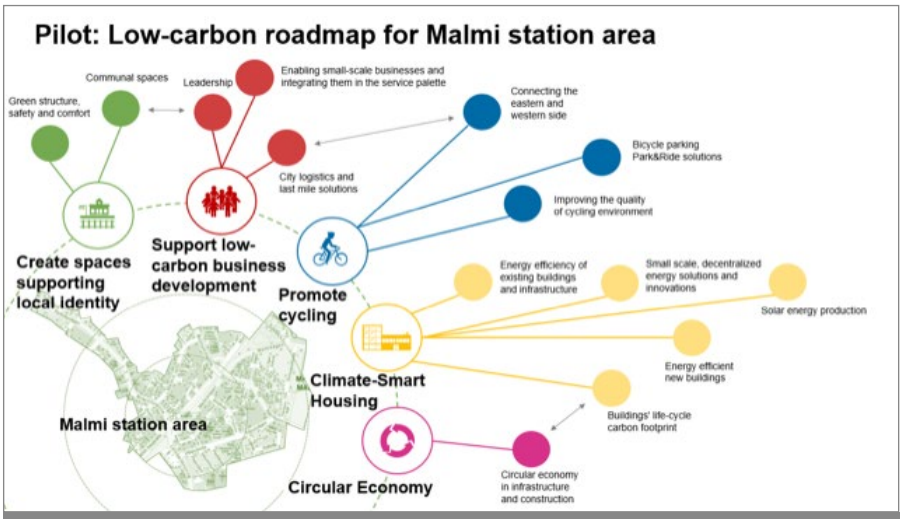
Before starting with the participatory process, it is necessary to gain political support for such a process, so as to ensure the results of the process are taken into consideration and used to the maximum possible extent in the planning and decision-making process.

4. Identification of stakeholders and their perspectives

To ensure the best possible results, the stakeholders in the participatory process must be carefully selected to ensure all the stakeholder groups and their perspectives are adequately represented. Particular focus should be given to marginal groups that have limited resources and knowledge to participate.

5. Implementation of the participatory processes

Various forms of public participation are used to identify the main challenges, build a common vision, the short-term and long-term effects/measures, and to propose priorities to be followed during the development of the station area.



Low-carbon roadmap sets priorities for low-carbon development in Malmi centre and station area.

6. Re-evaluation of the participatory process results vs. regional analysis

The results of the participatory process must be confronted with the results of the regional analysis (step 2) to ensure the decision-making is data-based and to prevent the final decisions from being predominantly influenced by stakeholders that are louder, more powerful, or possess more resources, knowledge, and skills to influence the discussion.

7. Defining detailed measures, responsibilities, timetable, and roadmap

A detailed plan is prepared based on the previous steps, containing detailed measures, responsibilities, timetable, resources needed, etc., enabling the development of the station area in an organized and transparent way.

8. Communication of goals and measures and political decisions

In this step, the final decisions are shared with the public, focussing on the goals the planned measures aim to achieve, advocating for a greater support for the measures despite their potential unpopular elements (e.g. disincentives for personal car use).

9. Successful implementation

The plan developed in step 7 is implemented, guiding the development of an area in a sustainable way to ensure the objectives foreseen with the development of the station area are duly reached.

10. Monitoring system and constant evaluation

During the implementation of the plan, the activities are regularly monitored and assessed to ensure they are successfully implemented and especially to confirm the planned and implemented measures have the positive impacts that had been planned with the development of a station area.

The Practical Guide on Station Area Concept and Implementation can be found on the project's website: www.interregeurope.eu/smart-mr/

Janez Nared, Aino Hatakka, Irma Karjalainen, Per Kristersson

Potential COVID-19-related measures

The COVID-19 pandemic has had numerous economic and societal effects on metropolitan areas and has exposed the need for novel approaches to mobility management and planning. Therefore, the project partners upgraded the table of potential activities from the guide with potential COVID-19-related measures.

Additional COVID-19-related activities (in red) across the fields of intervention.

Field of intervention	Activity	Short-term effects/wins	Long-term effects/wins	Indicators for measuring progress on the activity
Participatory transport planning	Public consultation	- New local knowledge and possible tailor-made solutions from stakeholders - Awareness raising - Mutual learning	- Better quality of plans/ strategies - Higher public acceptance	- Number of consultation rounds - People attending the consultations - General acceptance of the plan
Participatory transport planning – COVID-19-related activities	Online surveys	- Increased availability of data, enabling planning and decision-making - Received data are easier to analyse and structure - The definition of problems and search for solutions can be more systematic - Better time-management (everyone can answer at their leisure) - Enable more people to participate	- Evidence-based decision-making - Higher public acceptance	- Number of respondents - Share of inhabitants participating in a survey
Participatory transport planning – COVID-19-related activities	WEB GIS – enabling the stakeholders to locate the proposal or an urgent issue	- Spatialized data - Problems are spatially located, so the planners can easily search/define solutions	- Better visualisation of plans	- Number of incentives, problems reported
Participatory transport planning – COVID-19-related activities	Tailored groups of representatives (Charrette, focus group)	- Participants are experts in the field, which smoothens the process - Representing different perspectives with one representative per perspective eases communication and organisation	- By carefully selecting the answers that present a certain perspective, they can be more comprehensive - Better representation of vulnerable groups	- Number of sessions
Creating a mobility plan	Promotion and implementation of interventions to organize and manage the demand for mobility of people and goods	- Broad commitment to the principles of sustainable mobility - Involvement of relevant people	- Lower environmental impact deriving from traffic	- Number of travellers on public transport - Number of private goods transport operators involved
	Regulation of access in some zones (and/or parking)	- Fewer cars - Lower pollution/emissions - Less noise from traffic congestion	- Shift to public transport - Lower environmental impact from mobility	- Number of travellers on public transport - Shortening the time of trips - Measurable lower levels of pollutants in the air
	Support for intermodal nodes and infrastructure planning for both passengers and freight	- Multimodal approach to travel - Optimization of the use of means of transport (more passengers on each means of transport) - Less traffic - Less pollution	- Improvement of mobility - Improvement of resilience of the transport system (through multimodality) - Lower environmental impact from mobility - Better traffic flows	- Number of travellers on public transport - Number of private goods transport operators' trips, last mile - Time of trips - Levels of pollutants in the air
	Informatization of mobility, provision of real-time data on public transport and traffic; integrated ticketing systems on mobile and personal devices	- Optimization and simplification of multimodal travel	- Shift to public transport - Improvement of resilience of the transport system (giving best solutions in real time for travelling) - Lower environmental impact from mobility	- Number of travellers on public transport - Number of users of apps showing real-time data and giving tickets - Time of trips - Levels of pollutants in the air

Field of intervention	Activity	Short-term effects/wins	Long-term effects/wins	Indicators for measuring progress on the activity
	Promote diffusion of and experimentation with collective services such as car sharing, carpooling, bike sharing, etc.	- Optimization and simplification of travel in modal shifts - Fewer cars - Less congestion	- Improvement of mobility - Lower environmental impact from mobility	- Number of sharing/pooling service users - Levels of pollutants in the air
	Increase in the size of areas and uninterrupted paths for bicycles and pedestrians	- More soft mobility - Fewer cars - Less noise from traffic congestion - Better and healthier quality of life	- Improvement of mobility - Shift to soft mobility - Lower environmental impact from mobility	- Length of cycle lanes - Pedestrian areas - Levels of pollutants in the air
Creating a mobility plan – COVID-19-related activities	Informatization of mobility, provision of real-time data on public transport and traffic; integrated ticketing systems on mobile and personal devices	- Optimization and simplification of multimodal travel - Lower pollutant impacts from mobility - Reduced problem of crowding on public transport	- Improved resilience of the transport system (providing the best solutions in real time for travelling) - Alleviated long-term impact of COVID-19 effects	- Number of travellers on public transport - Number of app users showing real-time data and giving tickets - Levels of air pollutants - Percent of crowding on public transport compared to maximum capacity
Low-carbon logistics	Planning low-carbon logistics: - Multilevel governance - Involvement of stakeholders	- Shift to low- and zero-emission vehicles - Better use of existing infrastructure - Improved terminal structure - Shared data on freight	- Reduction in carbon emissions - Better air quality - Better acceptance and understanding among all stakeholder groups	- Share of low-carbon freight vehicles - Level of NOx and PM - Dialog between stakeholders and public authorities
	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	- Reduction in freight transport by vans - Better use of existing infrastructure - Modal split in favour of cargo bikes and e-vehicles - Improved efficiency in loading/unloading - Reduction in “search traffic” - Improved accessibility for deliveries	- Reduction in carbon emissions - Better air quality - Better use of existing infrastructure	- Share of low-carbon freight vehicles - Level of carbon emissions - Level of noise pollution - Amount of “search traffic” - Level of NOx and PM
	Establish charging infrastructure adapted for freight vehicles (vans)	- Transition to e-vehicles in last-mile freight	- Reduction in carbon emissions	- Share of low-carbon freight vehicles - Level of NOx emissions - Level of noise pollution
	Establish low-/zero-emission zones	- Modal split in favour of cargo bikes and e-vehicles	- Reduction in carbon emissions - Better air quality	- Share of low-carbon freight vehicles - Level of NOx emissions
Low-carbon logistics – COVID-19-related activities COVID-19 causes higher volume and demand due to internett shopping	Consolidation centres Requirement to use ‘full capacity’ in vehicles Delivery in residential areas Low-carbon vehicle/mode of transport demand	- More delivery providers in the market (not necessarily low carbon vehicles) - Increase in freight volume - Difficulties in involvement of stakeholders in a fragmented freight market - Traffic safety in residential areas	- Possible shift to higher share of internet shopping. - Possible store closures in the city centre, less city life - Densification less attractive	- Level of carbon emissions - Share of low-carbon freight vehicles - Passing of freight vehicles in the toll ring
Managing transportation	Improving mobility solutions	- Better mobility options - Accessible, reliable, and comfortable public transport	- Lower greenhouse gas emissions - More public space for people	- Modal split - Number of public transport trips made
	Park-and-ride solutions	- Increased parking capacity in station areas - Fewer cars entering the inner-city area	- Decreased congestion in the city centre - Healthier environment	- Number of park-and-ride sites - Number of park-and-ride spaces - Smaller number of vehicles in the inner-city area

Field of intervention	Activity	Short-term effects/wins	Long-term effects/wins	Indicators for measuring progress on the activity
	Introduction of alternative fuelled buses	- Cleaner diesel engines with reduced emissions - Hybrid technology for less fuel consumption	- Zero-emission buses for lower GHG emissions - Healthier environment	- Level of CO2 emission from public transport - Number of low-/zero-emission buses
Managing transportation – COVID-19-related activities	Promoting walking and cycling	- Fewer cars - Less crowding in public transport without increasing car traffic	- Better air quality - Reshaping public spaces in cities	- Modal split - Length of bike lanes - Increased pedestrian public space
Sharing economy	Promotion of the sharing economy	- New and innovative business models	- More mobility solutions	- Number of new business models
	Regulating the sharing economy	- Fair competition - Integration of new business providers with public transport (mobility as a service) - Allowing and encouraging sustainable new solutions and models	- Sustainable mobility - Wellbeing of people	- Existence of regulation at the local/metropolitan level
	Integrating sharing mobility solutions with public transport	- Enables travellers to gain access to public transport on an as-needed basis - Last-mile solutions	- Public transport sustainability	- Modal split (% reduction on private car)
Transit-oriented development	Definition of "Liveability-Oriented Area Development" (LOAD) methodology	- Integration of spatial and transport planning - Co-creation of the neighbourhood	- Higher regional accessibility - Reduction of car use - Reduction of congestion and pollution	- Existence of LOAD methodology
Transit-oriented development – COVID-19-related activities	Promoting sustainable density in station areas	- Possible negative attitude to densification due to COVID-19	- Increased level of mobility by private cars and urban sprawl as a preference of single housing increasing	- Location of new housing - Cost of housing decreases in central dense locations and increases in rural locations
Transit-oriented development – COVID-19-related activities	Promoting sustainable density in station areas	- Possible positive attitude to densification due to COVID-19	- Increase of mobility by walking and cycling due to the negative impact of using public transport during the pandemic. Mobility shift may be permanent.	- Calculating the shift of mobility modes
Transit-oriented development – COVID-19-related activities	Promoting sustainable density in station areas	- Enabling and promoting remote working from home or local facilities.	- Less commuting	- Level of commuter mobility - Survey of attitudes to remote working (workers and employers)
Shaping low-carbon areas	Promoting the use of the low-carbon district concept	- Lower emissions from the transport sector - Liveability of station areas - New businesses - Improved pedestrian and cycling environment in and around station areas - Preserving green areas and the development of green infrastructure	- Sustainable urban structure - Contributes to achieving regional low-carbon targets - Promoting low-carbon modes of transport	- Level of CO2 emissions - Modal split
	Supporting new services in stations	- Added value to trip chains - Improved social safety - New low-carbon business models (e.g. mobility solutions, e-commerce, remote working)	- Lively and attractive stations	- Service level
Shaping low-carbon areas – COVID-19-related activities	Supporting local development and local economy in station areas	- Maintaining economic activity	- Attractive living and working areas	- Number of SMEs

Metropolitan region	Partner
Ljubljana	Research Centre of the Slovenian Academy of Sciences and Arts
	Regional Development Agency of Ljubljana Urban Region
Oslo/Viken	City of Oslo, The Agency of Urban Environment
	Viken County Council
Gothenburg	Göteborg Region Association of Local Authorities
Helsinki	Helsinki Region Environmental Services Authority
Budapest	BKK Centre for Budapest Transport
Rome	Metropolitan City of Capital Rome
Porto	Porto Metropolitan Area
Barcelona	Barcelona Metropolitan Area

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/Viken, 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 funded by European Regional Development Fund.

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