



TOPIC GUIDE

INTEGRATING MOBILITY MANAGEMENT FOR PUBLIC AND PRIVATE ORGANISATIONS INTO SUMPS



Imprint

About:

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Guide to the reader

This document provides guidance on mobility management for public and private organisations in the context of Sustainable Urban Mobility Planning (SUMP) and its implementation process to achieve a shift in favour of more sustainable modes of transport.

It applies the concept of SUMP, as outlined in the European Commission's Urban Mobility Package¹ and described in detail in the Guidelines for developing and implementing a Sustainable Urban Mobility Plan (2nd edition)².

Sustainable urban mobility planning is a strategic and integrated approach to dealing with the complexity of urban transport. Its core goal is to improve the accessibility and the quality of life of citizens by achieving a shift towards sustainable mobility. SUMP advocates fact-based decision-making guided by a long-term vision for sustainable mobility. It requires a thorough assessment of the current situation and future needs and trends, a common vision with strategic objectives, and an integrated set of regulatory, promotional, financial, technical and infrastructural measures. Implementing these measures to deliver the objectives should also be accompanied by reliable monitoring and evaluation. In contrast to traditional planning approaches, SUMP emphasises the involvement and cooperation of different levels of government with diverse groups of citizens, and public and private stakeholders. It also emphasises the coordination of policies between different sectors (transport, land use, environment, economic development, social policy, health, safety, energy, etc.). The revision of the TEN-T Regulation³ requires that 424 major cities ('cities') on the TEN-T network have sustainable urban mobility plans by 2025 to align their mobility developments. SUMPs contain measures such as the promotion of zero-emission mobility and the greening of the urban fleet.

Mobility management is a concept to promote sustainable transport and manage the demand for car use by changing travellers' attitudes and behaviour, in particular at the level of companies, organisations and institutions⁴. Mobility management does not need a SUMP to exist – as it can be a stand-alone measure – but it is highly recommended that it is integrated into a SUMP. It can be included in every step of the SUMP cycle planning process⁵. At the core of mobility management are 'soft' awareness-raising measures, such as information, communication, marketing and behavioural change campaigns. These measures do not necessarily require large financial investments and can provide cities with good value for money⁶.

Mobility management has been gaining attention as a part of efforts to improve urban mobility and urban environments as a whole. It has many benefits. These include: less congestion, resulting in a reduction in air pollution and in time wasted in traffic; better accessibility, due to a greater variety of transport solutions; a more efficient use of existing transport infrastructure, resulting in less public spending on unnecessary infrastructure; more efficient land-use management; cost savings for local authorities, private companies and individuals; and last but not least, healthier life styles and less stress from more active modes of transport. Mobility management can also support the reduction of unnecessary trips, thereby optimising transport demand⁷, and hence contributing to the EU's goal of decarbonising urban transport by 2030. With SUMPs and mobility management both seeking to achieve the same overall goal – namely the increased use of sustainable modes of transport – measures associated with mobility management form an essential part of any SUMP.

¹ Annex 1 of COM (2013) 91

² Rupprecht Consult (editor), Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan, Second Edition, 2019.

³ <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM%3A2021%3A812%3AFIN>

⁴ Staff Working Document accompanying the Urban Mobility Framework (SWD(2021)470): <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021SC0047&from=en>

⁵ <https://www.eltis.org/in-brief/news/sump-processes-updated-cycle>

⁶ European Platform on Mobility Management: <https://epomm.eu/home>

⁷ <https://www.lunduniversity.lu.se/article/most-effective-ways-reducing-car-traffic>

This Topic Guide is the output of the third Policy Support Group of the CIVITAS ELEVATE Support Action, with the involvement of five experts from selected organisations and entities (EPOMM, Klimaaktiv mobil, Tisséo Collectivités, Alba Iulia Municipality, Gdansk Municipality), the CIVITAS Policy Advisory Committee City of Karditsa), TRT (Trasporti e Territorio), and a group of stakeholders from the mobility management sector. An open call for feedback took place in November 2022, allowing a wider group of stakeholders to also contribute to the Topic Guide.

It is part of a compendium of SUMP reference materials, complementing the revised second edition of the SUMP guidelines. They elaborate on difficult planning aspects in more detail, provide guidance for specific contexts, and focus on important policy fields. Two types of guidance documents are available: 'Topic Guides', which provide comprehensive planning recommendations on established topics; and 'Practitioner Briefings', which are less elaborate documents and address emerging topics with a higher level of uncertainty. There are published guidance documents on how to address the following topics in a SUMP process:

- Planning process: Participation; Monitoring and evaluation; Institutional cooperation; Measure selection; Action planning; Funding and financing; Procurement.
- Contexts: Metropolitan regions; Polycentric regions; Smaller cities and towns; Neighbourhoods; National support.
- Policy fields: Safety; Health; Energy (SECAPs); Logistics; Walking; Cycling; Parking; Shared mobility; Mobility as a Service; Intelligent Transport Systems; Electrification; Access regulations; Automation; Resilience; Social impact assessment; Gender and vulnerable groups; Micromobility; Public Transport; Urban Air Mobility; Time Policies.

Together, they form a growing knowledge database that is regularly updated with new guidance documents. The latest documents are available in the 'Mobility Plans' section of the European Commission's urban mobility observatory *Eltis*⁸.



⁸ <https://www.eltis.org/>

Executive summary

This Topic Guide highlights the ways in which cities can better integrate mobility management for both public and private organisations into Sustainable Urban Mobility Plans (SUMPs), to trigger behavioural change of residents and employees from individual car use to sustainable modes of transport. The document reflects the concepts of SUMPs as outlined by the European Commission's Urban Mobility Package⁹ and described in the second edition of SUMP guidelines¹⁰, as well as the concept of mobility management proposed by EPOMM (European Platform on Mobility Management)¹¹.

Mobility management is a concept to promote sustainable transport and manage the demand for car use by changing travellers' attitudes and behaviour, in particular at the level of companies, organisations and institutions¹. Mobility management measures usually promote and improve the attractiveness of using public transport, cycling, walking, carsharing, flexible working or a combination of these as alternatives to drive-alone journeys. It should be considered as a dynamic process where a package of measures and campaigns are identified, piloted and monitored on an on-going basis. Mobility management can lead to a reduction in car journeys; an increase in the number of people who share their journeys by car; a reduction in the need to travel, especially during the rush-hour periods; and enable citizens and staff to use alternative modes of transport.

Against the background of Russia's war on Ukraine, mobility management can also provide an answer to fuel dependency by reducing car use and hence, oil demand and fuel costs. The energy crisis is an opportunity for cities to speed up the transition towards climate-neutral mobility solutions for energy savings and health benefits, with mobility management helping to achieve a synergy between environmental, health, efficiency and economic effects.

Through measures tailored to the needs of an area(s) of a city or a work site(s), mobility management brings together transport and other staff and site management issues in a coordinated manner. While enhancing the quality of life of residents due to better air quality, accessibility and inclusiveness, it can also boost the competitiveness of companies by reducing transport costs for both the employer and staff and contribute to a more conducive working environment.

The pandemic has provided an opportunity to re-think mobility management and SUMPs. For instance, new teleworking rules have impacted mobility patterns in cities. Therefore, public authorities should take the lead and promote sustainable urban mobility and teleworking among their employees to reduce congestion. Offering free Wi-Fi instead of free parking places is, for instance, a new avenue to explore.

When mainstreamed in the SUMP process, mobility management can have a significant impact on sustainable development and the achievement of reduced car dependency. It should therefore be included in all stages of the SUMP design and implementation process.

This Topic Guide offers support to urban mobility practitioners, policy makers, school management, and public and private employers to help them understand how SUMPs can better include mobility management in the following five areas:

- urban development
- public authorities
- companies
- the education sector
- the tourism and leisure sector.

⁹ Annex 1 of COM(2013) 91

¹⁰ Rupprecht Consult (editor), Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan, Second Edition, 2019.

¹¹ <https://epomm.eu/home>

A summary of key recommendations for including mobility management in a SUMP for each of these five areas is provided below:

Urban development:

- Propose a clear and long-term vision;
- Define a clear action and monitoring plan and key performance indicators for the evaluation of mobility management measures;
- Ensure strong horizontal cooperation within the city administration, working with several relevant departments, such as planning, buildings, environment, etc.;
- Ensure wide public-private cooperation at the master planning stage (with estate developers, construction companies, architects, citizens and residents, etc.);
- Set up mobility centres to offer support for citizens;
- Consider using parking policies to encourage sustainable mobility.

Public authorities:

- Ensure the existence of a regulatory and guidance framework that supports sustainable mobility and mobility management;
 - Find political will and administrative capacity;
 - Seek regional and national support;
- Ensure public authorities lead and act as a role model;
- Develop Commuter Master Plans.

Companies:

- Investigate the mobility needs of the employees;
- Develop an action plan and set targets based on employees' needs;
- Involve employees and ensure support from corporate management;
- Create incentives to shift away from individual car use;
- Test new mobility management policies;
- Nominate mobility managers;
- Educate employees about the impacts of mobility management;

- Develop a corporate mobility management plan;
- Conduct awareness campaigns and offer reward schemes;
- Communicate and make it fun!

Education sector:

- Analyse mobility patterns of pupils/students/parents/teachers travelling to schools/universities;
- Develop a school/university travel plan;
- Improve public transport routes and active mobility facilities for schools and universities;
- Educate students on safety and sustainability in primary but also secondary schools and universities;
- Carry out training, awareness and behavioural-change activities within schools and universities, e.g. road safety training sessions and workshops with parents' associations.

Tourism and leisure sector:

- Understand the specific tourist and leisure visitors' needs of the different target groups (e.g. difference between overnight stays and daily visits, families, single travellers, cyclists, young people, etc.);
- Take into account the mobility needs of the local population;
- Identify strategies to enhance local attractions coordinated with visitors interests and combined with sustainable behaviour;
- Coordinate with the private sector and the region;
- Include the mobility management component into tourism and leisure offers and communicate about it;
- Educate the sector's staff to successfully apply the mobility management offer;
- Make more use of information systems to communicate mobility management for tourism and leisure;
- Introduce an open data policy.



1. Introduction

1.1 Objectives of this Topic Guide

The main objective of this Topic Guide is to provide guidance to urban mobility practitioners, policy makers, school management, and both public and private employers who wish to implement mobility management measures in their jurisdictions.

The Topic Guide's policy focus is the integration of mobility management for public and private organisations into Sustainable Urban Mobility Planning (SUMP) and the implementation process to achieve a modal shift towards more sustainable modes of transport. It delivers on the commitments of the New EU Urban Mobility Framework¹², which outlines the following main message to support mobility management: 'Public and private organisations such as companies, hospitals, schools or tourist attractions and destinations should be encouraged to develop mobility management plans and actions that promote low- and zero-emission means of mobility such as public transport, active mobility or shared mobility.'

How can we ensure that an increasing urban population does not translate into more traffic, congestion and pollution in European cities? Mobility management offers solutions to this issue. With its 'soft approach', mobility management is highly adaptable in promoting sustainable transport in different local circumstances. It provides cities with value for money and can complement infrastructure interventions, which ultimately reduce transport-related pollution and congestion.

This Topic Guide provides a comprehensive overview of the concept of mobility management and proposes key recommendations for its implementation through sustainable urban mobility planning. They are separate for the following five areas: urban development, public authorities, companies, the education sector, and the tourism and leisure sector.

The recommendations are based on the successful mobility management interventions implemented in several cities across Europe. They are illustrated by a set of good practice examples.

¹²https://transport.ec.europa.eu/system/files/2021-12/com_2021_811_the-new-eu-urban-mobility.pdf

1.2 Definition of SUMP and mobility management

EU guidance on SUMPs defines a SUMP as ‘a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life. It builds on existing planning practices and takes due consideration of integration, participation and evaluation principles’¹³. SUMP’s have been designed to tackle transport-related problems in urban areas more efficiently and contribute to reaching the European climate and energy targets set by EU leaders. They are a structured process whereby visions are created, objectives and targets are set, policies and measures are selected and active communication, monitoring and evaluation all take place. SUMP’s have been promoted by the European Commission as a new planning concept able to address transport-related challenges and urban area problems in a more sustainable and integrative way.

Mobility Management is a concept to promote sustainable transport and manage the demand for car use by changing travellers’ attitudes and behaviour, in particular at the level of companies, organisations and institutions

At the core of mobility management are ‘soft’ measures, such as communicating information, organising services and coordinating the activities of different partners. ‘Soft’ measures most often enhance the effectiveness of ‘hard’ measures within urban transport (e.g. new tram lines, new roads and new bike lanes). Mobility management measures (in comparison to ‘hard’ measures) do not necessarily require large financial investments, often take far less time than the implementation of infrastructural (‘hard’) measures and may have a high benefit-cost ratio.

1.3 The organisation of mobility management

1.3.1 General organisation

Generally, it is important to focus on the tasks required for successful implementation of mobility management. The principal tasks are linked to:

- a clear mission/vision with convincing leadership;
- good co-ordination between all stakeholders and creating ownership;
- securing adequate funding;
- involving qualified personnel and possibly external experts;
- involving and gaining the support of end users and ensuring user participation at every opportunity;
- formulating a mobility management plan based on a status-quo analysis, specifying realistic objectives, developing appropriate strategies, and identifying responsibilities and a timetable for staged targets;
- continual monitoring and evaluation leading to a revision of the plan where necessary.

1.3.2 Organisational levels

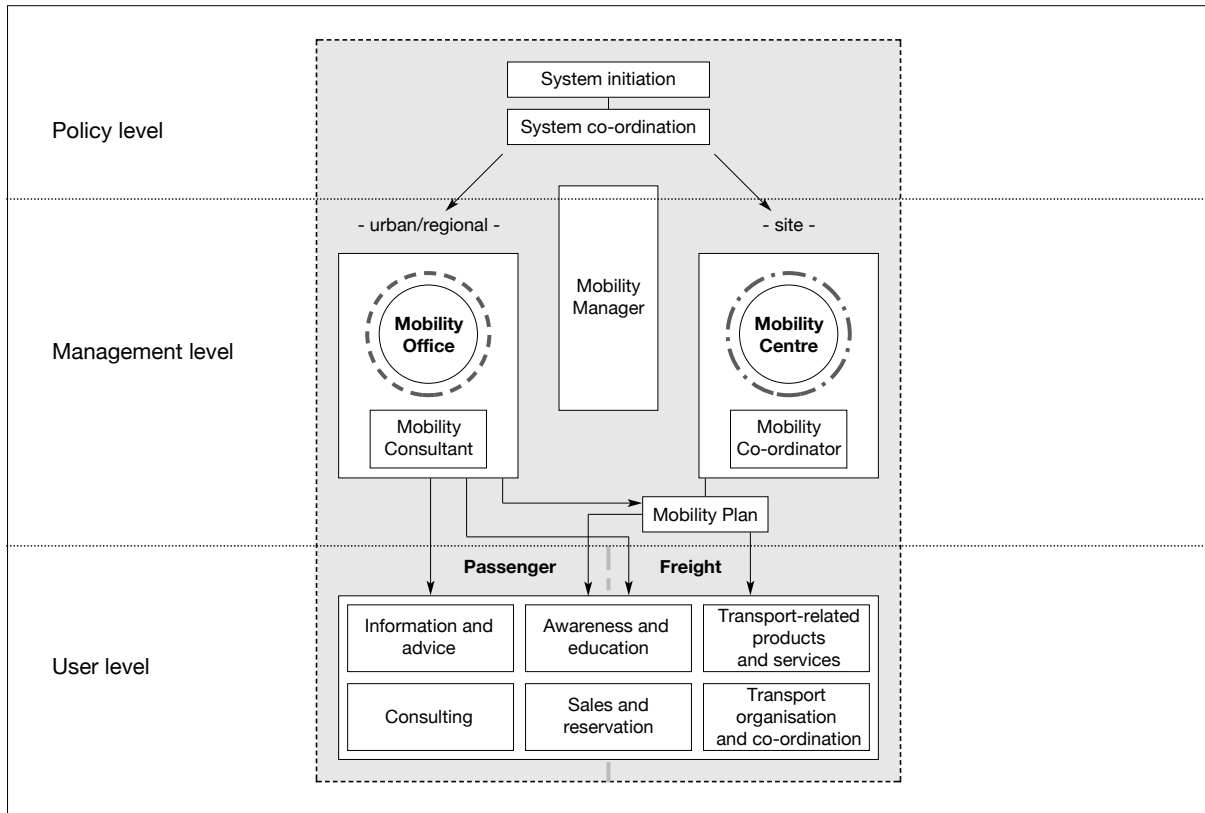
There are three different organisational levels within mobility management:

- policy
- management
- user.

The main elements involved in each level have been illustrated in the Figure 1. It is not necessary to begin mobility management with all the elements shown in the figure below. Depending on local conditions, mobility management can start at different points and be initiated to different levels. Resources can be concentrated on one element and built up from there step-by-step to a full-scale approach.

¹³ https://transport.ec.europa.eu/transport-themes/clean-transport-urban-transport/cycling/guidance-cycling-projects-eu/policy-development-and-evaluation-tools/sustainable-urban-mobility-plans-sumps-and-cycling_en

Figure 1 Project Momentum and MOSAIC (Source: Handbuch der Mobilitätsberatung – EPOMM Handbuch für Mobilitätsmanagement <https://docplayer.org/1685749-Mobilitaetsmanagement-handbuch.html>)



Policy level

This is where mobility management is initiated. Successful mobility management requires political frameworks that are highly supportive. There should be clear mission and/or vision statements that comprehensively address the mobility problem that is being tackled and demonstrate where there are possible connections with other issues or sectors. The preparation of a blueprint plan – showing key tasks and a provisional timeframe, rather than all the stages of the project in detail – provides a basis for subsequent project phases and assists in gathering support from stakeholders and funding agencies. Strong coordination and the involvement of different partners is essential at this level.

This is the level where laws/regulations are passed and directives for funding are agreed. For companies, this is the level where the employer(s) make decisions regarding the company’s commitment and funding.

Management level

This is the level where mobility management is organised, e.g. by mobility managers. The policy level is in charge of the political framework and guidelines, the management level is implementing. It can be done on an urban/regional level when the mobility services are provided for the general public in the area, typically cities/provinces. It can also be done at a site level with specific services for site users only, typically companies or organisations.

User level

Here, mobility management is in direct contact with the users. Target groups covered in this document are:

- citizens
- teachers
- pupils/students
- employees.

The user level includes all mobility services that are offered to the end users, both on an urban/regional or site level. In general, mobility services should be:

- specific to the target group
- cost-effective
- easily understandable and accessible
- motivating for the users.

1.3.3 Target groups

As mobility management is about services and the integration of transport modes, the managers will need to deal with different partners (e.g. promoters and supporters) who might have different motivations but share some of the objectives and aims mentioned above. The integration of all the relevant stakeholders from the beginning is crucial for the success of the project. Otherwise, delays or a counteractive atmosphere could hamper the smooth course of mobility management later and be harder to deal with. Consultation with development organisations and investors is also important. Public or private development companies and other stakeholders (architects and developers) should be involved and support the mobility management approaches that they will be developing on the ground, e.g. the development of parking spaces for cars and bikes, mobility services, etc. Developers and investors need to understand that mobility management can help them to optimise costs. Establishing a steering committee to ensure constructive coordination is advisable.

Local or regional authorities should be involved in the process. Other stakeholders such as user lobbies, environmental, transport or consumer organisations, are also likely to be involved in the process. Other interest groups, e.g. neighbourhood committees, parent groups, children's lobbies, etc. can also develop a special interest. When approaching companies, support from the Chamber of Commerce or other business organisations can be helpful.

At the site level, specific groups of traffic generators, e.g. companies, schools, administrations, hospitals, shopping centres etc. will need to be consulted. Certain specific destinations at the site level, such as sports arenas, call for specific treatment due to their temporary character and the need for crowd management. Here action is much more focused and you will probably need to deal with fewer partners than at a wider local level. Again, potential partners might have different

motivations but share some of the objectives and aims mentioned above. In working with site owners/operators, a comprehensive concept of measures aimed at influencing the need for transport to and from the site can be included in a mobility plan.

Site owners and operators are key partners in promoting mobility management. Demonstrating the potential benefits to them, such as less demand for parking, better accessibility to different transport modes, better employee health from less stress linked to commuting, better customer service, image gains, etc. can help motivate them to establish mobility management within their organisation or take over (part of) the funding. Using successful examples from other sites can be helpful.

Another approach is to implement mobility management during an initiative that is driven by site users. For example, university students or a trade union could undertake some action. In any case, mobility management has the best chance of success if both owners and users cooperate in their efforts to alleviate mobility problems at and around the site.

Local authorities, should take the lead by taking the initiative to kick off a broader development at site level. They can be supported by commercial associations for instance. Transport providers are often needed for their services and advice.

It is important to have horizontal cooperation within the city council, working with several relevant departments, such as planning and building, traffic management, environment, legal issues, etc. Regular meetings and a coordinated approach are key to successful mobility management.

The scope of mobility management for urban development often has wider repercussions and should therefore include some form of cooperation with neighbouring municipalities and the region. Urban developments need to be connected to surrounding and peri-urban areas and planners should consult with residents from these areas to ensure smooth implementation of the mobility management approaches and avoid 'displacing' the mobility issues to another area.

Mobility management is also a national government issue, as the latter should provide a framework that supports cities to change mobility behaviours in favour of more sustainable modes of transport.

1.3.4 Support

There are various roles that can help in successful implementation of mobility management through SUMP. Their creation should be considered and adapted to the context in which mobility management is applied.

1. Mobility manager
2. Mobility consultant
3. Mobility coordinator
4. Mobility centre/Office
5. Mobility Management Plans.

Figure 1 illustrates at which levels of mobility management these roles can be helpful. Below, their potential function is described in more detail.

1. Mobility manager

The mobility manager is responsible for introducing and developing the scheme, as well as promoting it and gathering the necessary support. He/she is the key link between the policy level and the management level of the scheme in the city/region or at the individual site. As an intermediary between the different parties, the mobility manager has an important coordinating function, which could also include integrating passenger and freight transport.

The position should be viewed as a role which one or more persons could share. It is likely that the role will develop in stages, and not always be 'managerial'.

Where the mobility manager is based depends on the key promoter(s). It is likely to be a local authority, but other locations, such as a public transport company or a non-governmental organisation, are possible.

Mobility managers should be sensitive to the political environment in which they operate and maintain good links with all relevant parties. Mobility managers make the necessary strategic decisions to develop mobility management and introduce new concepts. They should also exchange ideas and experiences with other cities/regions.

2. Mobility consultant

An intermediary role at the management level in urban/regional mobility management is that of the mobility

consultant. This role includes project management (at a lower level than the mobility manager) as well as the provision of services. He/she can operate from a mobility centre or in close cooperation with it and actively approach potential target groups. The mobility consultant also contacts sites that have not yet begun to implement mobility management and offer support.

Besides providing general services, such as organising awareness campaigns or undertaking mobility education, the mobility consultant advises individuals or traffic generators, who provide support with funding and operational issues (e.g. tools, organisation, experience) that concern the implementation of a mobility plan.

3. Mobility coordinator

At the site level, a mobility coordinator assists the implementation of a mobility plan and/or a mobility office. He/she will carry out surveys and interview site users to develop services specific to a site. The mobility coordinator must ensure the support of senior management.

From an organisational viewpoint, he/she is ideally located centrally within the company's structure. As the role suggests, coordination of tasks is very important, not only within the site's organisation (e.g. owners, management, employees) but also with transport suppliers, local authorities, commercial associations, unions and other interested and supporting parties.

4. Mobility centre

A mobility centre is the operating unit at the urban/regional level, where mobility services are initiated, organised and provided. The establishment of a mobility centre is an important landmark and serves to crystallise mobility management. There are two basic requirements of a mobility centre:

- a multi-modal approach in the provision of services;
- individual access for the public.

A mobility centre serves as a platform – a place for communication and exchange. It can give mobility management a public face and thus establish its presence in the transport marketplace. Users can visit it in person, or access it by phone, fax, email, on information terminals and/or online services. The form a mobility centre takes will vary according to need and resources, from a transport association to a more

complex jointly-organised authority, a public transport company, and others. A city-wide mobility centre should be in a central location for easy access, but decentralised ones and branch offices could be closer to target groups or sites (e.g. residents of a specific neighbourhood, a new development area, etc.). Besides permanent mobility centres, there could be temporary or mobile ones for special demands and events (e.g. a large sports' event).

At the site level, mobility services are only offered to site users. The operating unit is a mobility office, rather than a mobility centre, because services are not offered to the public. Its form can vary from a simple helpdesk, which employees can access by phone, to an in-person 'drop-in' advice centre. The mobility office can also be responsible for developing and implementing a mobility plan. A mobility office is a small-scale mobility centre on site level, e.g. a company, while mobility centres are usually implemented with a city-wide approach and public accessibility.

Establishing a mobility centre or a mobility office is an ambitious task, which will be given more attention later in this guide.

5. Mobility management plan

A mobility/travel management plan is the most common instrument for on-site mobility management. It is a comprehensive and directive document that indicates how to implement a mobility management scheme for a specific site, region or city.

In general, a mobility management plan can adopt all the measures that are needed to reduce motorised

vehicle trips to and from a site. It can be limited to certain types of traffic, such as visitor or commuter traffic to a company. A mobility management plan sets out who is responsible for implementing the measures, how they should be implemented and the time schedule for their implementation. It should include an explicit statement of its aims and its time span to reach them to motivate employees/management, convince financiers and provide targets that can be evaluated later.

Originally, a mobility plan was thought to be a site-level instrument, but it has also worked well for long-term and large-scale applications, e.g. for a city neighbourhood or even whole regions.

Mobility management plans usually build on a status quo. They must specify concrete goals to stay focused and be able to monitor their impacts. Strategic planning can take place in interdisciplinary working groups or by mobility or transportation experts. However, it is essential that mobility management plans clearly specify responsibilities and schedules to allow for continuous control of the process. Based on insight gained from this process (usually by regular self-assessments), the mobility plan should be flexible enough to allow it to be revised and adapted. mobility management plans should be integrated into SUMP to support the overall sustainable urban mobility goals of a city or region.

Mobility management at EU level – The European Platform on Mobility Management (EPOMM)

At the European level, the promotion and further development of mobility management is one of the main goals of the European Platform on Mobility Management (EPOMM).

EPOMM consists of committed Member States that support and promote the development and expansion of mobility management in Europe and is organised as an international non-profit organisation based in Brussels. The platform supports the active exchange of information and learning on mobility management between European countries. It offers prime access to information and know-how, the direct transfer of know-how and usage of mobility management research results and databases, supports the formation and

deepening of national networks on mobility management (National Focal Point (NFP)) and promotes national projects and policy to its members.

EPOMM, together with interested city hosts, organises the annual European Conference on Mobility Management (ECOMM). The conference is a key meeting place for mobility management practitioners and experts from all over Europe. It brings together policy makers and stakeholders at the European and national level as well as regional and local authorities, public agencies, academia, planners, practitioners, NGOs, businesses and the private sector.

1.4 Discussing mobility management in the context of SUMP

While it is important to note that mobility management can be implemented without a SUMP, it is also obvious that mobility management is at the heart of SUMP. Traditional transport plans tend to focus on solving traffic problems by developing infrastructure. Instead, SUMP emphasise quality of life and public space, and measures to encourage public transport, walking and cycling.

While a SUMP is about planning, mobility management – at the level of companies, municipalities and organisations – is about promoting and incentivising mobility behaviour here and now. Both SUMP and mobility management seek to achieve the same overall goal – namely the increased use

of sustainable modes of transport. Therefore, measures associated with mobility management form an essential part of any SUMP, and mobility management should be integrated into all the 12 steps of the SUMP cycle, presented in Figure 2 and into the 8 SUMP principles, presented in Figure 3.

The SUMP approach encourages balanced development of all transport modes. This is achieved through actions that include technical, organisational, promotional and marketing-based measures, through the involvement of citizens, and alongside infrastructure improvements. EU cities should aim for more ambitious and innovative measures in mobility management as one of the keys to more sustainable mobility in Europe. Cities should also ensure flexibility around SUMP, as some regulations included in SUMP may require changes to support new approaches, including mobility management strategies (e.g. parking regulations).

Figure 2: The 12 Steps of Sustainable Urban Mobility Planning, Second Edition, 2019 (Source: Guidelines for developing and implementing a Sustainable Urban Mobility Plan, Second Edition, 2019)



Mobility management is a central approach to transforming current unsustainable mobility patterns, with behavioural change as a prerequisite for the desired mobility transition. Mobility management also plays a key role in connecting cities with the hinterland. When selecting SUMP measures, city authorities should consider the role that mobility management initiatives can play within their wider strategy and implement mobility management both in their national SUMPs and regional strategies, and in their local SUMPs.



Figure 3: The eight SUMP principles (Source: Guidelines for developing and implementing a Sustainable Urban Mobility Plan, Second Edition, 2019)



2. Integrating mobility management for public and private organisations into SUMP

2.1 Mobility management and urban development

Rationale

Mobility is a key part of urban development and its effects are felt throughout the whole spectrum of a city or town. Urban development covers infrastructure for transport, education, health, street pavements, cultural heritage protection, etc. These constructions usually form part of specific sector programmes, including capacity building measures. Getting urban development right helps cities to create jobs and offer better livelihoods; increase economic growth; improve social inclusion; promote the decoupling of living standards and economic growth from environmental resource use; protect local and regional ecosystems.

By integrating mobility planning, urban development and land use policies that take into account environmental and health issues and quality of life, cities can increase their potential to reduce the demand for car use and enhance the use of sustainable modes of transport, leading to more liveability and attractiveness. This can be done for instance through more public space dedicated to pedestrians and cyclists, as well as financial advantages (public transport and shared mobility, which are cheaper alternatives than the car).

Aims

Mobility management supports a city's vision for urban and transport developments in accordance with a SUMP. Mobility management also supports climate-neutrality and adaptation goals, which can make the city and region attractive to investors and visitors.

By integrating land-use planning into urban mobility from the early stages of public space reallocation¹⁴, and providing infrastructure for active transport modes¹⁵, public transportation (making it the easy choice) and

new mobility services, mobility management can also greatly contribute to gearing urban development towards better connections with peri-urban areas, reduce GHG emissions, and improve accessibility as a whole.

Recommendations for implementation

Convincing master plan, with clear targets

In the context of urban development, mobility management requires an inclusive and holistic approach, with representatives of all relevant stakeholders around the table at the earliest stage possible. It starts already at city council level. Urban development involve adjustments (e.g. for accommodating new mobility services, parking spaces, etc.) and are usually planned over a long period of time, stretching sometimes to several years. To convince city council members (from a political and technical level), mobility management approaches should be clear and justified. Urban planners and their supporting team need to reflect on the long-term visions of the city and consider the experiences of other districts. Providing a solid mobility management plan (with information on the environmental impacts of the measures on a specific neighbourhood and the whole city and region, a public consultation process, etc.), is an essential first step in gaining a city council's acceptance. Not only do city councils need convincing, but other authorities, such as highway authorities in particular, will need to change their mobility strategy to avoid creating artificial demand for cars.

Early in the planning process, it is important to allow social participation so that residents can take ownership of the mobility management approach. Often, the most difficult stakeholders to convince are developers and the local community/residents, as both are used to traditional mobility management and planning based on car use. Developers and local residents should be targeted at the early stages of urban developments. It is important to distinguish between existing areas and new urban developments – as mobility management will be implemented very differently in both.

¹⁴ MORE: www.roadspace.eu

¹⁵ <https://cleancitiescampaign.org/research-list/school-streets-to-shape-child-friendly-cities/>



Apply sustainability principles at the master planning stage

It is recommended to focus on sustainable mobility from the beginning of the planning process and to move away from solely creating capacity for cars. To do so, the 'Avoid, Shift, Improve (A-S-I)' approach¹⁶ should be reflected in mobility management plans. It is a valuable approach which increases efficiency by incentivising sustainable consumer behaviour. Firstly, the master plan should aim to 'avoid/reduce' the need for inefficient motorised travel/congestion and reduce the length of trips through sustainable transport- oriented and compact development of cities.. Secondly, it is important to promote active transport (walking and cycling) and public transport to achieve a modal shift away from the most energy consuming and polluting urban transport modes (e.g. cars). Thirdly, the 'improve' pillar focuses on vehicle and fuel efficiency as well as optimising the operational efficiency of public transport. This includes improving the attractiveness of public transport and changing the energy sources required for its operation.

The 15 minute city¹⁷ is an insightful planning approach that can help to limit the dependency on cars in cities. It promotes liveable neighbourhoods where inhabitants can reach important places by bike or walk from their homes within 15 minutes. The relevance of this approach for particular localities should be considered in the context of planning for their urban development.

Integrate mobility management with land-use planning

The integration of mobility management with land-use planning means that mobility management measures are applied at the right place, namely at the root of the problem – where most traffic is generated. It also means that mobility management measures arrive at the right time – before framework conditions are set and behaviour is established, and at a strategic time to secure good cooperation between all stakeholders (planners, developers, future tenants, residents and decision makers). The integration of land-use planning and mobility management helps to deliver better land use, reduces social inequalities and offers a better quality of life.

¹⁶ https://www.transformative-mobility.org/assets/publications/ASI_TUMI_SUTP_iNUA_No-9_April-2019.pdf

¹⁷ <https://www.transformative-mobility.org/publications/the-15-minute-city>

For mobility management to be efficient, it is essential to coordinate land-use planning with mobility planning to achieve a sustainable and well-functioning transport network. Land use planning and mobility planning are often carried out by separate city departments, with little coordination between them. Land use dictates the distribution and overall demand for mobility, which directs the development of transport systems and travel behaviour. However, the existence of a transport system is a prerequisite for new developments. Changes to an existing transport system are often necessary to support changes in neighbourhood land-use patterns. Better integration of mobility management into land-use planning can help avoid developing neighbourhoods that are cut off from existing public transport, or to adjust the routes to providing basic services to these neighbourhoods, allowing them to choose a more sustainable mobility option.

Parking policies

Another key aspect of mobility management for urban developments is to encourage sustainable behaviour via parking policies. Parking standards for new developments regulate how much parking is built (either for housing, economic or social functions). As highlighted in the Park4SUMP project¹⁸, most countries have minimum car parking requirements (e.g. for residential areas at least one parking space per household) and allow developers to build more parking if they wish. Such minimum requirements can increase the cost of buildings and/or create urban areas dominated by on street parking.

Alternatives are: introducing charges for on street parking, maximum car parking allowances that limit how much parking is provided, or tradable parking rights. They can have an impact on how people choose to travel, particularly when combined with promoting the more sustainable alternatives (e.g. neighbourhood car sharing). Reducing parking requirements and setting maximum allowances may free up more land for green spaces, and make houses and flats cheaper to build and more affordable to buy/rent.

Moreover, it is important to facilitate the use of more sustainable fuels for citizens' vehicles. This can be done also through parking policies. For example, the revision of the Energy Performance of Buildings

Directive¹⁹ includes ambitious provisions to ensure that car parks are equipped with recharging points to allow electric vehicle owners to charge their vehicles when/where needed.

For instance, for residential new buildings or buildings undergoing major renovations that have more than 10 parking spaces, these measures would ensure that (under some conditions) such buildings are equipped with a dedicated infrastructure to allow for the subsequent installation of recharging points for all car parking spaces.

Public-private cooperation

Working with all mobility providers, including public transport operators, bike and car sharing operators, but also new mobility service operators, is important to ensure good connections within and outside the urban area. This implies having a better dialogue between public and private actors, which should also facilitate the collection of public and private data for planning and evaluation. It is important to involve transport operators at the early development stage (master planning stage) and present them with the business case, so that they join forces. They can complement public policies and tackle issues relating to the use and sharing of public spaces.

Checklist for including mobility management in a SUMP:

- ✓ Propose a clear and long-term vision;
- ✓ Define a clear action and monitoring plan and key performance indicators for the evaluation of mobility management measures;
- ✓ Ensure strong horizontal cooperation within the city administration, working with several relevant departments, such as planning, buildings, environment, etc.;
- ✓ Ensure wide public-private cooperation at the master planning stage (with estate developers, construction companies, architects, citizens and residents, etc.);
- ✓ Set up mobility centres to offer support for citizens;
- ✓ Steer behaviour towards sustainable mobility via parking policies.

¹⁸ <https://park4sump.eu/>

¹⁹ https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_6686

Mobility management for the port and city

CIVITAS PORTIS facilitated collaboration between the port authorities and municipalities by creating the governance structures needed for coordinated mobility and land-use planning in port cities, e.g. in Antwerp / Aberdeen / Klaipeda / Constanta / Trieste. The port cities set up strong integrated governance structures to reach the following objectives:

- Set up strong formal and informal cooperation between the city, port and other stakeholders;
- Set up new collaborative institutional structures creating and implementing a common mobility vision for port city sustainability and growth. These structures implemented common mobility plans for the CIVITAS PORTIS cities;
- Develop a common sustainable mobility vision for the port and city in order to implement integrated operational measures;
- Set up the first combined city / port authority / regional authority governance structures, incorporating strategic national ministry and European objectives relating to relieving TEN-T bottlenecks.

Key elements of the PORTIS integrated governance approach are:

- Collaborative re-thinking of the port-city relationship and planning approaches linking different political and administrative levels (city, region, state).
- Set up formal and informal discussion platforms, involving:
 - new collaborative institutional structures;
 - informal discussion platforms on different operational and decision levels, workshops, focus groups, events;
 - knowledge-sharing platforms;
 - intensive cooperation with all stakeholders.
- Technical cooperation offices.
- Integrated planning approaches and regional SUMPs, including the port's strategies.
- Innovative collaborative governance structures to develop new channels for dynamic public and business sector engagement in the whole planning process, from the development of a strategic vision to detailed implementation issues.



2.2 Mobility management and public authorities

Rationale

In many countries, mobility management is one of the prerogatives of public authorities – to coordinate and implement measures which improve the local mobility landscape – but also to regulate. The prerogatives of public authorities vary from country to country, but a strong lead and coordination role from public authorities is generally recommended. Public authorities at local, regional, national or federal, and even supranational (e.g. European Union) level, play a crucial coordinating role in developing and promoting mobility management initiatives, and ensuring the effectiveness and mainstreaming of such practices. Public authorities can provide the supportive framework (e.g. regulatory, financial and incentives) for the development and promotion of mobility management initiatives for cities and regions, as well as provide the stimulus for the implementation of such practices. They can also avoid counterproductive measures (e.g. measures that promote the use of cars) and make use of synergies with other policies (e.g. multimodality and infrastructure for public transport and air quality).

While urban mobility planning is mostly a local competence, cities cannot achieve the ambitious goals of sustainable urban mobility alone. National and regional levels of government can gain from effective sustainable urban mobility planning, as local level improvements can contribute to the achievement of regional and national goals. More and more countries are adopting national mobility management policies and strategies and providing guidance and support for their implementation and mainstreaming.

The UN Paris Climate Agreement²⁰ has contributed to this end as signatory countries have to meet ambitious climate objectives, which among others call for the decarbonisation of mobility and the wider transport system. The approach to mobility management policies and strategies varies from country to country. For example, in the Netherlands the emphasis is on transport accessibility, while in Germany it is on energy savings and efficiency as well as on changing from fossil energy to renewable energy sources, (e.g. green electricity) and in

France, social inclusion and mobility solutions for people facing economic or social difficulties²¹.

More generally, public authorities from all levels of governance play a regulatory role in mobility management, as they have the power to provide a framework for mobility management initiatives, as well as promote their adoption. In many EU countries, the national level has made the existence of SUMP mandatory for cities above a certain number of inhabitants. EU and national guidelines provide support for the preparation of SUMPs.

This is also valid for companies. For example, in Italy national legislation obliges companies with more than 300 employees at a single site, or with more than 800 employees across multiple sites, to appoint a company mobility manager; and in Switzerland, tax laws promote sustainable mobility by ensuring that children attend school in their own neighbourhood to avoid long home-school trips.

Aims

Public authorities should aim to provide a regulatory and guidance framework that supports sustainable mobility and mobility management, with public authorities acting as a role model (at European, national, regional and local level) for mobility management. This could lead to real change in society in terms of mobility measures by encouraging social cohesion through mobility, but also positive health impacts for public administration employees and improved urban and peri-urban connections.

Recommendations for implementation

Seek regional and national support

National and regional governments will not achieve their climate-related goals, meet European air quality requirements or keep their international commitments without the contribution of cities. Alternatively, cities need regional and national governments to support them in achieving more sustainable mobility. Cities have the potential to be major catalysts of change in the implementation of international agreements such as the Paris Agreement and the European Green Deal. However, cities' resources and competences are too limited for them to achieve the shift towards sustainable mobility alone.

²⁰ <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

²¹ EPOMM, 2013



National or regional support for SUMP and mobility management can reduce transport-related greenhouse gas emissions by creating a political, financial and technical framework that increases awareness among stakeholders – at the local and national level and within public and private sectors. In this way, national and/or regional policies should support SUMP and mobility management. For example, one strategy to move people away from car use is taxation – governments could make taxation more effective by remodulating purchase and circulation taxes.

Find political will and administrative capacity at local level

Political will and administrative capacity are essential to developing and implementing mobility management strategies. One of the pillars of successful mobility management is the political will to foster sustainable mobility alternatives to private cars (within cities and across municipal borders). Public bodies provide the long-term vision for a city and the institutional arrangements to lead, coordinate and publish norms and regulations. These tools enable mobility management.

Lead and enable

The public sector is responsible for steering the transport system towards sustainability objectives and shaping the nature of mobility in the near future. Currently, mobility transitions seem to be driven by a new set of actors, often coming from the private sector (e.g. new mobility services) with an interest in influencing urban transport systems and planning. This is changing the planning landscape as a whole and demands a new set of skills and area of expertise from public bodies. Public authorities and their employees need to ensure that mobility and sustainability objectives are aligned.

Public authorities can also use tests, pilots and demonstration projects as arenas where they can allow themselves to bend some rules, engage with experimental activities and set requirements for configurations under test. The potential of governing their own organisation is also stressed as an important way to show how better mobility management can prompt a sustainable transition.

Communicate about mobility services

Communicating information about mobility services is key to promoting sustainable, affordable and attractive mobility services for everyone. Even the best mobility services are useless if there is bad communication on how to use them, find them and attract people to use them and switch to public transport and active mobility services.

Checklist for including mobility management in a SUMP:

- ✓ Ensure the existence of a regulatory and guidance framework that supports sustainable mobility and mobility management;
- ✓ Find political will and administrative capacity;
- ✓ Seek regional and national support;
- ✓ Ensure the public authorities lead and act as a role model;
- ✓ Develop Commuter Master Plans.

Klimaaktiv mobil supports mobility management in Austria – the mobility folder for climate neutral administration

The Austrian klimaaktiv mobil programme is a good practice example of a national initiative to promote mobility management in cities, municipalities and regions, in administrations, companies and the tourism sector, as well as in schools and youth organisations. It offers consulting and financial support to climate friendly and active mobility management projects, as well as focuses on awareness raising, education, certification and partnerships, and approaches and activates the relevant transport actors.

One example of this is a programme dedicated to climate-neutral administration to support public institutions establish an environmental and climate-friendly mobility culture. It follows the principle of 'leading by example', where the federal administration is a best-practice example for climate-friendly activities. Its main pillars are informing, raising awareness and adapting structures and processes in order to support climate friendly mobility.

A passionate cyclist knows where to park his/her bicycle. A regular public transport user knows about fares, departure times and where to transfer. However, people who are willing to change their mobility behaviour often do not have this information. The same refers to new employees. To increase the level of information available, an information campaign

that included 'mobility folders' was developed. To address the issue of people lacking information on environmentally-friendly mobility, a short web-survey gathers people's current mobility behaviour and their requests for information. Based on their answers, they receive a free customised information package. The package includes a personalised letter, general information on the travel modes they selected (e.g. cycling in winter, e-mobility, etc.) and location-based information on their working places (maps with public transportation stops and bicycle parking facilities, information on mobility options provided by the employer, etc).



Source: Klimaaktiv mobil

<https://www.klimaaktiv.at/mobilitaet/mobilitaetsmanagem/mmverwaltung/massnahmenundwerkzeuge/mobilitaetsmappe0.html>

Bike2Work programme for municipal employees in Karditsa (Greece)

“Bike2Work” is a European campaign, adopted by many countries in Europe, to motivate public and private companies to lead by example by promoting cycling and healthy living! Its aim, according to the European Cyclists Federation (ECF) is to ‘achieve a significant energy-efficient modal shift from motorised modes to cycling by introducing behaviour change programs to employers that sustainably change the behaviour of commuters’. The campaign has several benefits:

- environmental benefits for companies, such as extensive energy savings and CO₂ reductions;
- personal benefits for the participating individuals, such as improved health, fitness, weight loss and transport costs savings;
- benefits for the cities, such as improved accessibility of destinations/workplaces, increased acceptance of cycling interventions and a healthier and safer environment for all;
- public transport sector benefits, where multimodality options become available.

The Bike2Work campaign has been organised in Greece for 11 consecutive years since 2011 with over 150 public and private companies joining annually. However, the campaign did not take place in 2021 and 2022 due to COVID-19 restrictions and the increase in teleworking. To participate in the campaign, public and private companies and their employees have to register on a dedicated platform their individual routes from/to work and kilometres travelled. In 2020 the mobile application ‘Bike Citizens’ was used to count the kilometres travelled by bike. Within each organisation, a team of up to four people count their score, which is recorded at team and organisation level.

The campaign in Greece takes place in May – the favourable weather motivates more employees to join.

The municipality of Karditsa, known as the “Cycling City of Greece”, participates in every Bike2Work campaign, aiming to inspire its citizens as well as the other cities of Greece. In 2018, 2019 and 2020, Karditsa came first in the Bike2Work campaign at the national level. Within the municipality, the team with the highest score received as a reward, one leave day, and small gifts (t-shirt, magnet, etc.). Participation in the Bike2Work campaign is connected with the ‘Cycle Friendly Employer’ Certification, introduced by ECF and represented in Greece by the ‘Cycling Cities Network’. Specifically, participation in the campaign provides ‘extra points’ to the organisation in the framework of this certification. In 2020, Karditsa became the first ‘Cycling Friendly Employer’ of Greece thanks to the positive evaluation of the Certification Criteria.

In order to reinforce cycling-friendly behaviour, the Municipal Council of Karditsa voted in 2020 for a municipal tax exemption for companies that promote cycling and use a bike to commute. Besides Karditsa Municipality itself, many other private companies participate in the Bike2Work campaign. In the same year, a 30km/h speed limit was introduced for the whole city area to improve safety. Several infrastructure projects have improved cycling conditions, allowing citizens and visitors of all ages to be able to experience the city and even peripheral destinations on their bike! The annual European Mobility Week (EMW) campaign has been instrumental in encouraging cycling. The city’s efforts have been recognised internationally with Karditsa receiving the first ever award at the EU level for small cities, which shows that even smaller cities can do great things!





2.3 Mobility management and companies

Rationale

Companies are some of the main contributors to mobility at the local level, with employees commuting to work, and as centres for the provision of goods and for freight delivery. Hence, companies need to adapt to the current trends – the impacts of the pandemic on changed commuting patterns and travel behaviour (telecommuting, work from home, etc.) – and reduce their impact on mobility at a local level. There is growing regulatory and employee-driven pressure on companies to reduce their emissions, for example by influencing their employees’ commute and improving their employees’ knowledge about affordable and sustainable mobility solutions. Most work commutes take place during rush hour, which aggravates issues such as traffic congestion and travel times, levels of stress, road safety risks, and peak levels of noise and air pollution.

Corporate mobility management includes all the measures that companies use to change travel behaviour. Employee retention and improved attractiveness for future [potential]

employees, as well as avoiding trips and shifting transport modes to more sustainable ones, tend to be the main drivers of mobility management for companies. Bicycles, the use of local public transport, or carpools are well-known ways of completing business trips, but car and bike sharing and e-scooters are also becoming increasingly relevant. In addition, the introduction of alternative drive concepts for vehicle fleets, sustainability requirements in business travel regulations, tax incentives or mobility budgets are being considered. There are also many new ways to create incentives for cycling at the company level – company bicycles, and the provision of infrastructure and facilities (sheltered parking spaces, changing rooms, showers) are possible ways of doing this. Apps and internal driver exchanges support the promotion of carpools. By subsidising or even completely financing travel tickets, employees can be encouraged to use public transport or shuttle buses to and from main public transport stops and hubs (stations, metro lines, tram lines, etc.). Employers should also propose targeted parking policies to support these initiatives. Local emissions can be greatly reduced by converting the vehicle fleet to alternative drive systems with an appropriate charging infrastructure. However, all this works only if employees are involved and have contact points.

Aims

The aims of corporate mobility management are to achieve improved operational and business performance (increase productivity, cost reduction), but also to enhance employees' benefits (including health benefits) and the corporate image..

Corporate mobility management primarily deals with all the traffic flows caused by a company that relate to the route to and from the workplace, business trips and business travel. The company identifies, develops, and optimises solutions for its own mobility demand, taking available offers and means of transport into account. Of course, this only makes sense if the solutions meet the general conditions of the employees and the company.

Recommendations for implementation

Staff engagement and education

It is important to involve staff in the development of a corporate mobility management strategy. This can be done by carrying out a comprehensive assessment of staff travel patterns and mobility needs and plan accordingly. Educating employees about the impacts of changing their mobility behaviour is also recommended, together with games and rewards. Having a 'mobility ambassador' can be helpful to motivate more employees and drive behavioural change.

Corporate leadership

A company's management or steering committee, including the HR department should approve and facilitate the introduction of mobility management activities. They can do this by creating the necessary organisational structures and providing resources (personnel and funding). The company's management act as role models and can potentially influence the success of the changes. Management needs to integrate its activities with mobility management plans developed by a city and help test mobility management policies.

Incentives

Mobility management for public and private organisations starts with incentives to employees to partially work at home or remotely – especially in the changed and still evolving post-pandemic landscape – to avoid travelling during rush hour and use public transport (job tickets), bikes (bike offers), e-scooters, carpooling, car sharing

or shuttle buses. Corporate pricing and ticketing, fiscal deductions, parking facilities for bikes, showers, etc., are all convincing tools that can change employees' travel behaviour. These should be developed further by employers. Awareness campaigns, testimonies from employees practicing active mobility as well as reward schemes (e.g. 'Cyclist of the year') are effective tools to get staff on board and boost the shift away from the car. Companies should also provide alternatives to the car (e.g. through investment decisions that sometimes entail high upfront costs but tend to pay off in the medium term) by acquiring hybrid and electric vehicles at a reduced cost for employees (employees' retention benefit), providing charging infrastructure, e-bikes/scooters, etc.

Corporate mobility management plans

Meeting the mobility needs of employees is not an easy task, but it can be done if transport providers and public administrations work with companies to plan and implement services. Mobility management involves key steps, such as:

- developing an inventory of available services;
- identifying employees' needs;
- developing strategies to meet needs;
- coordinating financial and other resources;
- promoting the use of innovative technologies, services, and other methods;
- developing information and trip planning systems for employees, etc.

These steps are addressed in a corporate mobility management plan, which public administrations should design in cooperation with employees and with their mobility managers.

New mobility management policies

Employers should test new work schedules and flexible working, which are low-cost policies that can reduce peak-hour congestion. Implementing large scale flexible working initiatives can spread the transport need over the day, which in turn can help tackle congestion. New mobility management policies should also consider the needs of all employees, for example traveling to/from work may include taking children to kindergarten/school, going to the store or other activities. Such needs should also be factored in.

Communication about mobility management impacts

It is recommended that the results of corporate mobility management are communicated widely to ensure that they reach a variety of recipients. Companies could involve municipalities and public transport providers to promote innovation and a conducive environment for private or public initiatives. Reaching out to the public creates a sense of relevance and validation. The press could also be invited to help raise public awareness.

Checklist for including mobility management in a SUMP:

- ✓ Investigate the mobility needs of the employees, with a focus on big companies;
- ✓ Develop an action plan and set targets based on employees' needs;
- ✓ Involve employees and ensure support from corporate management;
- ✓ Create incentives to shift away from individual car use;
- ✓ Test new mobility management policies;
- ✓ Nominate mobility managers;
- ✓ Educate employees about the impacts of mobility management;
- ✓ Develop a travel plan;
- ✓ Conduct awareness campaigns and offer reward schemes;
- ✓ Communicate and make it fun!

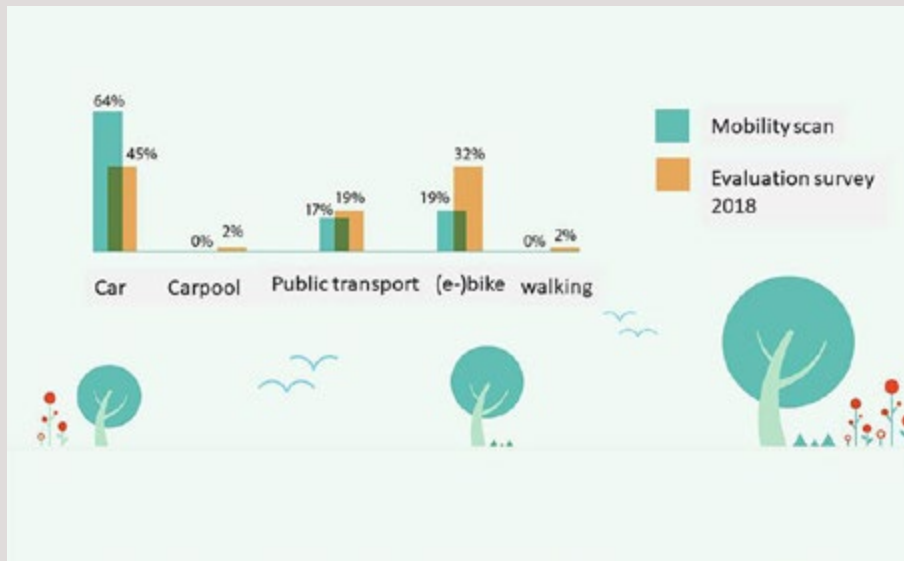
Cycle Friendly employer (CFE) certification - Bike2Work as a corporate social responsibility goal

The 'Cycle Friendly Employer' certification scheme was developed to establish a European standard for cycle-friendly companies. The certification is intended to help European companies improve the situation of employees who cycle to work. To acknowledge their efforts, these companies receive the 'Cycle Friendly Employer' (CFE) certificate.

To incentivise European companies to focus more on bicycle-friendly policies, the consortium of the EU Bike2Work project (that consisted of 12 partners including Austria, Belgium, Great Britain, Germany, France and others) developed an EU-wide certification scheme for bicycle-friendly companies, known as the CFE certification. The project began in 2014 and ran until 2017. The main objective of Bike2Work was to encourage a significant modal shift from motorised commuting to cycling. Using a two-fold approach, it targets employees' behaviour through Bike2Work campaigns, as well as employers by encouraging them to meet the needs of cyclists by making the company more bicycle friendly.

The two-fold approach was adapted by the Polish certification scheme, which was established jointly by the Municipality of Gdansk and the Polish Union of Active Mobility (PUMA). In the autumn 2021, the city of Gdansk coordinated a Bike2Work Campaign. The campaign rewards individuals and company teams who choose the bicycle to commute to work. The top five companies/employers in their size category can take advantage of the CFE certification free of charge. Companies use a self-evaluation tool, which tells companies if a positive evaluation is possible. Once a company gathers enough points it can request an on-site audit. The self-evaluation results serve as the basis for the on-site audit. Finally, companies receive a CFE label and certificate, which is valid for three years. Every year, the company submits a self-evaluation report showing that it is maintaining good cycling conditions.

Smart Ways to Antwerp (Belgium) – an employers' approach



Source: City of Antwerp

'Smart Ways to Antwerp' supports companies with more than 20 employees in Antwerp to develop a smart and sustainable mobility policy for their employees. This programme focuses on commuter transport and contributes to the overall goal of the Antwerp region to achieve a modal split of 50/50 for the employees of the participating companies (e.g. a minimum of 50% of all commutes by sustainable modes of transport and only half (maximum) by private car) and long-term behavioural change.

The cooperation between 'Smart Ways to Antwerp' and a company usually starts with a mobility scan. The scan shows how employees are currently commuting, and applies some mathematical rules to show potential users, for example, people who live within 7.5 km from work; people who have a nearby public transport connection, which takes no longer than 1.5 times their car travel time (see figure below). Based on this analysis, the mobility scan shows the baseline situation and the potential situation. This allows the company, together with the mobility manager of Smart Ways to Antwerp, to detect opportunities, quick wins, and

determine which measures are worth implementing. Based on the mobility scans of 47 companies (representing 22 042 employees) in 2018, it was calculated that a potential of almost 10 000 employees could benefit from a more sustainable way of travelling to work.

Every two years, a survey is held among the participating companies to measure the effect of the approach and the mobility measures that have been taken. In addition, the (potential) change in the mobility behaviour of employees is measured. In 2018, 26 companies participated with a total of circa 26 000 employees in the first such survey to measure the effects. The response rate was 23%, with a good dispersion rate – in other words, the results were representative. The results of the survey were compared to the mobility scans of these companies to analyse the modal shift. The results were promising. Car use had declined in favour of the (electric) bike and public transport (see figure below). This showed that the employers' approach had had a positive impact on the modal shift.

The COMMUTE project – inter-company workplace travel plan and carpooling schemes

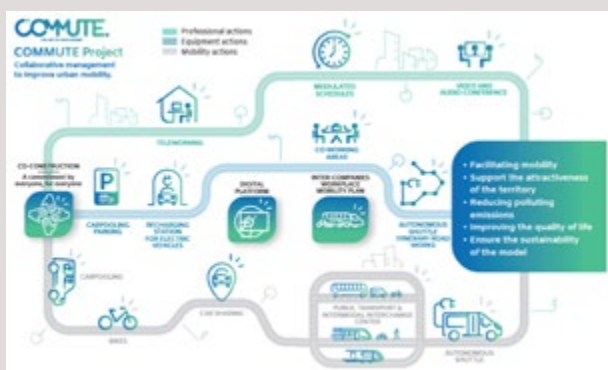
After winning the UIA (Urban Innovative Actions) project COMMUTE (Collaborative Management Model of Urban Mobility), a local Mobility Committee was set up to engage nine stakeholders from private companies and the public sector (30 000 employees).

To formalise the commitment of all COMMUTE actors, a Memorandum of Understanding (COMMUTE Charter) was required. It is a Charter for the participation of stakeholders in the experimentation of the implementation of the Collaborative Management Model of Urban Mobility. It also sets out the values and principles of the participatory process and ensures a framework that promotes respect, collaboration and constructive exchange between the parties.

This successful collaborative and structured public-private governance approach produced the expected results:

- Experimentation with new mobilities and new ways of working, with measurable results on transport externalities (CO₂, congestion...).
- Inclusive, adaptive and agile governance, which has been able to develop the objectives initially set and adapt to changes in mobility practices in the population concerned.
- Resilient governance during and after the COVID-19 health crisis.

In particular, the project developed an inter-company workplace travel plan. Before COMMUTE, all companies located in the airport area had their own employee mobility plan. The COMMUTE project allowed the launch of a unique common plan for all companies called the 'COMMUTE Intercompany Mobility Plan'.



Source: COMMUTE project

The actions that have led to a decrease in individual car use are:

- **Active mode actions:**
 - support for bicycle safety – low accidentology was identified;
 - creation of a station for five electric bikes in the bike park of the Hotel Dieu University Hospital for business trips;
 - maintenance operations for the bicycles of the CHU’s employees;
 - improvement of bicycle parking with funding for secure premises for staff;
 - launch of the first bike challenge at the University Hospital with the UWinBike application;
 - Financial support for bike ownership (allowances).
- **Walking actions:**
 - registration in the Transtoulousaine pedestrian convergence challenge.
- **Carpooling actions:**
 - use of the covoiteo.info platform in order to create a community of car-poolers;
 - financial support for carpooling (allowances);
 - willingness to develop carpooling between patients, for those with regular appointments.
- **Public transport actions:**
 - creation of a specific flyer describing the urban public transport solutions available at the different University Hospital sites.
- **Evolution of the fleet of company vehicles:**
 - current fleet is leased. A switch to electric vehicles is planned;
 - over the past years, the fleet has been regularly scaled down to match user demand;
 - installation of electrical terminals in the car parks of the CHU (obligation LOM law).

Toulouse University Hospital (France) – a new mobility management plan

Toulouse University Hospital has seven sites and 15 000 employees. It decided to develop a mobility management plan, with the following objectives:

- Propose improvement solutions that enable employees to make optimal use of existing and future public transport services;
- Promote the development of alternative practices to the private car;
- Be involved with the public transport authorities and encourage improvements;
- Lead new working practices (teleworking, flexible working hours, working in third places, etc.);
- Set up a co-constructed action plan with pooled actions.

A steering committee managed the approach and established an action plan, which was implemented by each department. Operational committees were formed in 2020 during the COVID-19 health crisis. These working groups clustered different areas by theme – waste management, purchasing, mobility, cleaning, etc. A new organisation was developed to support the various stakeholders and stimulate a new approach among employees, which are encouraged to be ‘actors of change’, which has met with great success. Between 2011 and 2021, the car-only modal share fell from 80% to 50%.



Source: Tisséo Collectivités

2.4 Mobility management and the education sector

Rationale

Mobility management starts with the education of young people who, as adults, will be moving around a city. Whether young people become responsible mobility participants is determined during their early education. The main issues addressed by mobility management in the education sector are children's health and safety, as well as global environmental challenges such as climate change.

Young people, especially children, play an important role in the cultural shift towards more sustainable mobility behaviour. If children grow up with an awareness of mobility and transport issues, they are more likely to favour sustainable modes in the future – and possibly also get their parents to rethink their mobility behaviour. Therefore, empowering young people to use active and sustainable transport is beneficial not only for children but their parents and everyone else as well.

Successful mobility management for this sector should lead to more sustainable mobility around an education setting (fewer 'parent taxis' increasing traffic congestion, pollution, noise, etc.), more road safety, and awareness of young people's need for physical activity and clean air.

Universities – due to their central location, specific population and young community – have the potential and opportunity to become leaders in sustainable mobility. They are therefore a good context in which to try new mobility management solutions. In addition, universities are like small cities, as well as hubs of knowledge. This makes them ideal test beds for applying and evaluating innovative mobility policies and tools, e.g. proposing strategies in relation to public transport, experiences and ICT solutions, shared use, intermodal nodes, etc. Typically, what is developed at universities can also be extended to other contexts. Nevertheless, universities need support to develop a mobility management strategy. This implies for instance help with the coordination among the competent departments and administrations, with the goal to obtain a political and social consensus regarding the proposed mobility model. A mobility manager can help to establish cooperation with the municipality and transport operators in order to implement measures,

such as changes to public transport ticket prices or ticket issuance. University travel plans should also be aligned to companies' travel plans, etc. Integration of both entities are required for the successful implementation of mobility management measures.

Aims

One of the many aims of mobility management in the education sector includes improving road safety. Mobility management measures can contribute to reducing motorised traffic and road accidents in the surroundings of educational structures, for instance by tackling the issue of parent taxis. Communication, awareness, and infrastructural measures can also help foster safe behaviour by children biking and walking to school. Through mobility management activities, young people are educated about traffic and safety rules. Their physical abilities to move in public spaces by foot or on bike are also trained and improved.

Mobility management measures can also help to achieve environment protection around kindergartens, schools and universities thanks to a reduction in motorized traffic, congestion, emission of CO₂ fine dust pollutants, and noise pollution. In addition, young people play an important role in the cultural shift towards more sustainable mobility behaviour, as their mobility experience at a young age will shape their mobility behaviour in the future.

Another aim of mobility management for this sector is to improve the health of young people through increased physical activity.

Mobility management can also serve the goal of more social equity, including children's autonomy: empowering children to use active and sustainable transportation and enabling them to move through the neighbourhood on their own, means that children have access to education, play, and services – regardless of their social and economic background.

Recommendations for implementation

Analyse mobility patterns of pupils / students / parents / teachers travelling to schools/universities

Successful mobility management in the education sector requires motivation to promote a shift away towards more sustainable modes of transport and thorough investigation into the current situation in terms of



traffic. This will help to tailor a campaign or a school travel plan to specific needs and increase the likelihood of permanent positive change. Data and statistics are persuasive and can help get parents on board.

Stakeholder involvement

It is important to set up a working group with all relevant stakeholders (teachers, children/ students, parents and municipalities) to understand the needs and design a strategy to provide solutions. Education administrations must be willing to cooperate. They can provide support in the form of funding, permits for mobility management activities, etc. City authorities and city hall employees can increase the scope and reach of mobility management for kindergartens, schools and universities by integrating mobility management activities into SUMPS, urban planning, and the city budget. They can also support with investments in infrastructure (e.g. safe cycling infrastructure). Parents should commit to supporting traffic education and scooter or cycling training and practice. Teachers have an active role in promoting sustainable mobility around kindergartens and schools.

They know about the children's learning behaviour and can make a major contribution to the development of mobility management concepts.

A mobility manager based in the school can support cooperation between municipal units, parents, and children, e.g. by leading co-friendly mobility projects for schools, kindergartens and parent associations, or provide trainings. Here too, the mobility manager will liaise with the local/area mobility manager.

Role models

Parents, teachers and staff from the educational sector, have an active role in promoting sustainable mobility around kindergartens, schools and universities. Both understand a young person's learning behaviour and can shape their attitudes towards physical activity and mobility. Parents and educational staff should also lead by example and encourage students to follow. Teachers can provide knowledge on how to integrate mobility management into existing curricula, educational materials and teaching methods. Teachers are also often involved in the implementation of mobility management campaigns, workshops, training, and competitions.

School/university mobility management plans

A school/university travel plan is a good tool to systematically address all the different aspects of promoting sustainable travel (information, promotion, transport organisation, infrastructure). Such plans should look at redesigning public spaces to increase road safety around schools and universities, aim to improve public transport routes, etc. Local authorities should encourage schools and universities to develop a travel plan by providing subsidies, personnel, and/or other incentives. Mobility managers and/or a school/university mobility team can help with designing and implementing the travel plan.

Education on safety and sustainability

Education on cycling safely should be part of school/university education, with the city and/or region providing support, such as training for kids, between 6-10 years ideally. Schools should also focus on road safety education for children beyond 6-10 years. There is evidence of its success in secondary schools, where the emphasis is on teaching good road safety attitudes to young people before they start learning to drive. With the increasing availability of micromobility services, road safety education should also address how to safely use and interact with new modes of transport such as e-scooters and inform children of the risks and rules. This should start at primary school level, to ensure that future road users are familiar with the different vehicle types that they will encounter when independently navigating our cities' streets. Teachers and staff often have a high workload and a strict curriculum so outside

help and materials are often welcome. This type of education should be provided by both national bodies and operators. It is also important to educate children and students on sustainability and sustainable mobility more specifically, to encourage the use of sustainable modes of transport from an early age.

Incentives

Incentives, such as a field trip or a free municipal service, can help make a change in mobility behaviour fun and appealing. In addition, an element of competition can always be positive – children and students are often open to challenges and to being creative. Children and students can also be co-creators – they can offer original ideas that parents/adults are not able to generate.

Checklist for including mobility management in a SUMP:

- ✓ Analyse mobility patterns of pupils / students / parents / teachers travelling to schools / universities;
- ✓ Develop a school / university Travel plan;
- ✓ Improve public transport routes and active mobility facilities for schools and universities;
- ✓ Educate students on safety and sustainability in primary but also secondary schools and universities;
- ✓ Carry out training, awareness and behavioural-change activities within schools and universities, e.g. road safety training sessions and workshops with parents' associations.

Traffic Snake Game (EU)



Source: Traffic Snake Romania

The Traffic Snake Game is a campaign designed for primary schools in the EU that aims to break the vicious cycle of parents driving their children to and from school and encourage schools, children, parents and teachers to adopt walking, cycling, public transport or car sharing when traveling to and from school. The campaign is being implemented in 18 EU countries and the duration of the campaign is usually two weeks. The game aims to break down negative perceptions, such as the concern around road safety, and promote sustainable transport modes as fun and healthy options for both parents and children.

In Alba Iulia, Romania, in 2022, four primary schools took part in the Traffic Snake Game. By walking and cycling, children became more aware of their surroundings and developed road safety skills and an improved ability to anticipate other users of the road. It also reduced congestion and parking pressure in the school environment.

The basic Traffic Snake Game campaign can be explained in five simple steps:

1. Setting the target: Two weeks before the game, each school establishes its baseline and sets its own target for behaviour change.
2. Travel sustainable and receive dots: For a period of two campaign weeks, children receive a sustainable mobility sticker for every day they walk, cycle, use public transport or share a car journey to school.
3. Put the dots on the banner: In class, children place the stickers on a larger class sticker. The class sticker is full when the predefined target has been reached. Classes then attach their sticker to the traffic snake banner. The goal is to fill the Traffic Snake Game banner with as many sustainable mobility stickers as possible by the end of the two week playing period. This process can also be done by computer or interactive whiteboard using Traffic Snake Game 2.0.
4. Reward the children: Children receive a reward when they reach key points on the banner. Rewards might include: no homework, an extra 15 minutes playtime or something similar. When the children reach the end of the banner, they can receive an even bigger reward for achieving the goals; a new bicycle shed, a walking or cycling tour or other prizes to enable more sustainable mobility.
5. Measure the impact of the campaign: Three weeks after the game is played, all hands-up data from the before, during and after monitoring measurement is collected and analysed.

Campusmobil – new concepts for sustainable university mobility (Germany)

The ‘campusmobil’ project is one of the ‘mobil gewinnt’ projects, funded by the German Federal Ministry for Digital and Transport. The project aims to manage mobility in the education sector at the University (Hochschule) RheinMain, which includes 900 employees and 13 000 students. Mobility measures implemented included parking management for paid parking, e-vehicles for business travel (e-cars and e-bikes) and a digital mobility platform with a multimodal information system.

The RheinMain University of Applied Sciences has one of the largest impacts on traffic volumes in the area, and especially in Wiesbaden. With a tailor-made mobility concept, the university was able to position itself as a sustainable place to work and study in the future.

The mobility of university members is an important building block on the way to climate neutrality. The #campusmobil project makes a decisive contribution to influencing the mobility behaviour of students and employees in the long term.

#campusmobil interlocks supply and demand-oriented measures that can be bundled into three areas of action: parking space management for paid parking; an e-fleet for business trips with initially four e-cars and 16 pedelecs; and a digital mobility platform with a multimodal information system and information offers.



Source: ©Hochschule RheinMain | Hochschulkommunikation

Shift university schedules to smooth rush hour peak in Rennes (France)

Inaugurated in 2002, the Rennes metro has been a success, with 130 000 daily passengers in 2012 and an annual increase of 6%.

In 2009, rush hour travel presented a problem, particularly the morning rush hour between 7:40 am and 8:00 am, when both waiting time and travel time increases, the comfort of travellers decreases, and the platforms are crowded, posing evacuation challenges. The performance of the service was affected, as was the brand image of the metro. Initially, the solutions were technical in nature, e.g. the purchase of new trains to increase their frequency (every 1.3 minutes during rush hour), reconfiguration of trains to increase the number of passengers transported, etc. These increased transport capacity by around 30% but had a high cost of about EUR 30 million. They were also not sufficient or sustainable in the face of the constant increase in metro ridership. The Rennes office times' approach was to analyse flows to identify the main 'time generators' (organisations that generate significant flows of travel at specific times).

The study of flows was based on precise ticketing data (in 10-minute increments), supplemented by counts and field observations. By comparing an academic week to a non-academic week, the data showed the effect of Rennes 2 University on travel peaks. The main organisations along the metro section concerned were also consulted: Rennes 1 and Rennes 2 Universities, Coëtlogon, Victor and Hélène Basch high schools as well as the Pontchaillou University Hospital. The aim was to make these institutions aware of the impact they were having on the accessibility of the entire area. Over a two-year period, each organisation's schedules were surveyed for constraints and room for manoeuvre.

Initially, the partners considered changing the start times of classes from 8:15 am to 8:00 am or 8:30 am but this only moved the peak time a little further back/forward. The University of Rennes 2 agreed in 2012 to experiment with shifting some



Source: Sopra Steria

courses in two waves: 6 000 students of license 3 and masters' courses would start at 8:15 am, and 8 000 students of license 1 and 2 would start at 8:30 am. The pilot was accompanied by the signing of a 'Charter' in which each institution in the area committed to inform each other about changes to their schedules. A very detailed evaluation by Kéolissible measured the impact of this solution.

Peak times flattened despite the number of passengers on the metro increasing over the same period. Passenger comfort and safety also improved [-5% of passengers in peak hours, -17% of train load, elimination of saturation of the exit staircase at Villejean University].

In the end, the consideration of collective interests in a decision that usually involves individual arbitrations has allowed for a better comfort of travel, obtained without heavy financial investment. The measures were renewed at the beginning of the 2013 academic year and were elected 'innovation of the year in transport' by SNCF, with high visibility in the media.

'Active kids on scooters' campaign in Gdańsk (Poland)

The campaign aimed to promote active mobility and physical activity among kindergarten kids and their families, by providing kids with scooters and safety training so that they could travel to kindergarten by a more active means of transportation.

The main goal of the Polish Union of Active Mobility is to support local governments to improve conditions for active mobility and promote its growth (i.e. all forms daily transport needs that are powered by natural human energy, such as biking/scooters or walking). In kindergartens, active mobility can be promoted from an early age.

As part of this campaign, kindergartens received children's scooters to rent for free, thus creating local mobility points. Rentals were intended for commuting to and from kindergarten and were supervised by teachers and documented in a rental ledger. Scooter utilisation was promoted by leaflets with stickers, colouring cards, information on their use and benefits, as well as the concept of mobility points. Kindergartens were also certified as mobility points.

School streets – the Tivoli school quarter in Brussels (Belgium)

The Tivoli quarter has eight schools and four crèches. This means that every school day, a lot of children move to the school gate and back home. In line with the ambitions of the School Streets project²², the City of Brussels wanted to make the Tivoli quarter safer and healthier for school children, and also for its residents and visitors.

The City, together with the design office, designed various measures and interventions to make the Tivoli quarter a low-traffic school quarter in a new circulation schedule. These measures were expected to limit transit traffic in the neighbourhood and ensure that motorists comply with the speed rules, thereby encouraging parents and children to travel to school in an active way. These measures and interventions are as follows:

- Modification of routes and driving directions to interrupt transit axes;

- A zone with limited access at the Rue de Molenbeek and part of the Rue de Zandbergen, based on a traffic filter and retractable bollard. Access is guaranteed for residents, traders, emergency services and garage owners;
- Traffic filter at the Rue A. De Jongh and Rue Claessens to interrupt transit axes and create extra public space;
- Accompanying measures at the Rue Drootbeek to discourage transit traffic and limit the speed of car traffic, and the redesign of the school entrance to make it safer.

The proposed changes were presented to about 80 local residents, traders and the schools on 10 November 2021 at a neighbourhood meeting. At smaller discussion tables, the City listened to their feedback and discussed how it could implement the measures in practice.

‘Cycling May’ campaign (Poland)

Cycling May is the largest campaign in Poland to promote a healthy lifestyle and sustainable mobility among pre-school children, primary school pupils, teachers, parents and carers. ‘Cycling May’, by being fun with elements of competition, popularises the bicycle as a means of transport to school and promotes healthy habits, which tend to be retained after the end of the campaign.

‘Cycling May’ has been held annually since 2014. In the 2022 edition, 46 local authorities, including 1 130 educational establishments and more than 16 000 school classes and kindergarten groups participated. There were 213 391 active participants (pupils and staff of educational establishments) who completed nearly five million active rides.

‘Cycling May’ effectively changes the surroundings of schools and kindergartens to make them safer and more cycle-friendly, reduces the number of cars transporting children and motivates local authorities to make pro-cycling investments.

The principles of the campaign are very simple – every kindergarten child, pupil and teacher who arrives at lessons in May in an active way (on a bicycle, scooter, roller skates or a skateboard) receives stickers for their bicycle diary and for a school poster.

The ‘Cycling May’ campaign is complemented by the ‘Cycling in traffic programme’. It is attended by pupils of primary schools in Gdańsk in grades V-VIII. It consists of a series of cycling in traffic lessons that include theory, information on how to construct and service a bicycle, activities on a manoeuvring square and in sub-groups in traffic. Pupils are introduced to traffic regulations applicable to cyclists. The instructors also discuss techniques for performing basic road manoeuvres. Before the pupils take to the roads, the service technician checks the condition of the bicycles, with particular attention on the brakes and drive train, and whether the saddle and handlebar heights are correctly adjusted.

²² <https://www.brussels.be/school-street>

2.5 Mobility management and the leisure and tourism sector

Rationale

The tourism and leisure sector is an important target for mobility management, as they are some of the biggest generators of traffic flows in any city, urban dwelling or region. To make its activities sustainable, the tourism and leisure industries need to adapt to the current mobility trends and improve the experience of residents and tourists using sustainable mobility measures.

The inadequacy of information and/or the lack of reliable data on volume, dynamics and characteristics of visitor flows are thought to be one of the main hindrances to the development of tourism and leisure mobility management. Other related challenges include accessibility and traffic congestion, inefficient transport infrastructures and services, inadequate tourism and leisure supply, lack of efficient information systems, pollution and noise, etc.

Aims

The main aims of mobility management for the tourism and leisure sector is to ensure the accessibility of sustainable mobility to and within a tourism or leisure destination. In order to meet tourists' and residents' leisure preferences, it is important to monitor traffic flows, ensure sufficient public transport, and promote alternative visitor routes.

This requires the adoption of an integrated set of strategies to help manage the impacts of visitors' flows, save costs, and protect the tourist and economic centre. Information systems targeted at tourists can greatly support these strategies, provided these are simple to use, intuitive and multilingual. Mobility management can also help build new tourist routes and leisure areas.

Tourism not only takes place in cities, but often in rural areas. The COVID-19 pandemic showed that people are increasingly seeking recreation in nature and mobility management can help protect nature. All these aims should be achieved by coordinated actions involving both



public and private operators, as well as residents and other stakeholders.

Recommendations for implementation

Monitoring of traffic flows

Monitoring of traffic flows, by visitor surveys and marketing analyses, can help define the actions that need to be developed to inform and educate visitors at tourist or leisure sites, during their stay in the area, and in their city / region / country of residence. It is particularly important to collect accurate information and reliable data on the volume, dynamics and characteristics of visitor flows. Surveying and monitoring visitors' attitudes and needs is the first step to improving mobility management for the tourism and leisure sector. Visitor statistics should not only include the total volume of individuals entering sites, but also record their nationality or typology (e.g. tourists and same-day visitors). Collecting information concerning visitors' motivations and evaluating their visits can also help monitor traffic flows. The importance of measuring flows at leading cultural/leisure sites is because the pressure from tourism affects not only the site, but the surrounding area (city, region, etc.).

New trends in tourism also need to be monitored, i.e. the number of cultural itinerant visitors has been growing in the last decades, and longer-stay holidaymakers (e.g. beach tourists) are looking for new formulas that combine traditional holidays (e.g. sun & sea) with alternative leisure activities, such as discovering and visiting different cultural attractions on the same trip (museums, historical sites and buildings, etc.). In this context, the concept of 'tourist itinerary' plays a central role and mobility management should be adapted accordingly, including monitoring newly generated traffic flows.

Information systems to serve mobility management for tourism and leisure

The strategic role of IT applications to collect data and manage flows is crucial for better mobility management for the tourism and leisure sector. Cities need systems to manage transport and tourism demand. It is important that they develop their capacity to collect transport and tourism data to forecast and manage systematic and tourist flows (traffic situation, parking availability, etc.). Transport and tourism data and information should also be efficiently disseminated to better manage flows (parking availability, transport timetables, booking

systems, etc.). It is recommended that public transport network information is increased for all potential users.

An open data policy at city level also helps to improve the experience of residents as well to coordinate the traffic flows and enable mobile app designers to access the key data. Cities like Gdańsk have for instance adapted their open data policy and made all the key data available on the city's website, providing infographics and tables with detailed data.

Tourism-related mobility management strategies

Many transversal strategies and approaches exist to re-engineer tourism and leisure destinations – Park&Ride (P&R) systems are influential in managing traffic demand in cities that are located in attractive tourist locations/regions, also Boat&Bike, zone charging, pre- trip and trip planning, etc. Adequate traffic signalling can also effectively redirect tourist and visitor traffic flows to less loaded routes or P&R sites. Without turning them into museums, 'car-free cities' can help cities deal with the invasion of private cars that affect the quality of life of its residents and the city's attractiveness.

'Tourist coach management' can also help focus on a specific aspect of tourism mobility management (coach tours), which can cause major problems for the local transport system, especially during peak hours and seasons. 'Long-haul accessibility improvement' plans help to provide efficient international connections and include the destination in the world tourism market. Users' needs should be better addressed by 'flexible urban transport services' centred on innovative and low-impact transport services. 'Tourism demand management' can also complement and integrate transport planning.

These strategies are transferable to other destinations that have the same problems. Transferability can be ascertained according to different indicators – urban size (e.g. metropolis, medium-sized city, etc.), tourist population size (e.g. different tourists/residents ratios) and main market segments (e.g. leisure vs. business).

Tourism and leisure mobility management plans

Developing a Tourism and/or Leisure travel plan is similar to developing a school or company travel plan, bearing in mind that the surveys and the possible measures are specific to the local area. Such plans should help reduce the impacts of tourist flows. The integration of tourism

development goals with urban planning targets can maximise the positive benefits of tourism and minimise the negative impacts.

Transportation can be a critical element to the efficient operation of visitor attractions and supporting activities. It is important to identify appropriate solutions for balancing the traffic needs of different traveller groups during peak tourist seasons.

Tourism plans should differentiate between overnight stays and daily trips. Leisure plans should incorporate mobility management strategies for concerts, sport events and other cultural activities – which draw big flows of visitors – into mobility management plans. Targeted solutions should be proposed, such as car-sharing for major cultural events.

Awareness-raising and personalised mobility management for tourism and leisure

It is important to promote sustainable transport solutions for recreational purposes to groups of visitors at all relevant sites and to the broader national public. Such actions could include communicating alternative routes to the destination (to avoid road saturation) and better provision of available information to visitors. Tourism and leisure offers (holiday packages, etc.) should include clear and easily accessible local mobility management recommendations (from travel operators, the internet, etc.). Local authorities and tour operators could provide citizens and tourists with personalised location-based mobility services (LBS) to increase sustainability awareness. LBS are applications of mobile technology that utilise the information about the location of the user. They have the potential to add significant value to local tourism products and even create new business activities.

Another aspect is educating staff in the tourism and leisure sector, to ensure the actions agreed are successfully implemented. It should be noted that sometimes tourists bring their local mobility culture with them, e.g. visitors from cycling-friendly cultures often expect the same level of cycling offer when visiting new cities. Embracing the demand of tourists and proposing new mobility services, such as more cycling solutions, can have a positive effect on the mobility of a city.

Coordinated approach

Coordination of services for tourists and residents involving public and private operators alike is needed to control accessibility and traffic flows in and out of tourism and leisure sites. The organisation responsible for local mobility is key to supporting and coordinating the actions that need to be developed to reduce the impact of tourist flows on the local environment. City councils should take a leading role to coordinate actions and ensure a balance between the public and private sector. It is also important to cooperate with regional authorities (good connections to local and regional transport enable easier arrivals and departures) to provide environmentally-friendly mobility, including for the last/first mile (public transport, flexible traffic systems, shuttle-services, rental of non- or low-polluting conveyances, footpaths, cycle tracks, etc.).

Checklist for including mobility management in a SUMP:

- ✓ Understand the specific tourist and leisure visitors' needs of the different target groups (e.g. difference between overnight stays and daily visits, families, single travellers, cyclists, young people, etc.);
- ✓ Take into account the mobility needs of the local population;
- ✓ Identify strategies to enhance local attractions coordinated with visitors interests and combined with sustainable behaviour;
- ✓ Coordinate with the private sector and the region;
- ✓ Include the mobility management component into tourism and leisure offers and communicate about it;
- ✓ Educate the sector's staff to successfully apply the mobility management offer;
- ✓ Make more use of information systems to communicate mobility management for tourism and leisure;
- ✓ Introduce an open data policy.



Introducing an innovative mobility service to the seaside resorts in the Province of Rimini (Italy) – car sharing

Within the framework of diversified mobility management activities promoted and organised by the Province of Rimini, Italy it was decided to introduce a car sharing service. The service was structured to include four target groups: residents, companies, city users, and tourists.

Tourists were considered a special target group which required a service with particular characteristics. Hence the most common principles which generally relate to a car sharing initiative need to be adapted for tourists or visitors. In a car sharing ‘standard’ service, individuals or businesses pay a membership fee to join and a combination of a flat rate per hour, a per km fee or both. Vehicles are parked in strategic and convenient locations around the city and can be reserved ahead of time. The car-sharing company or organisation pays for the car, gas, maintenance, repairs, insurance, parking and cleaning.

The impact on tourists’ mobility within the territory and to/from the territory was recorded whilst introducing this car sharing service for visitors. The Rimini car sharing scheme aimed to: offer new hospitality services at the seaside resorts and encourage tourists to visit inland regions and, reduce summer road congestion between the different resorts and

on the routes to/from the Province of Rimini by encouraging tourists to come to Rimini by plane, train and/or bus and then use a convenient and flexible car sharing service once there.

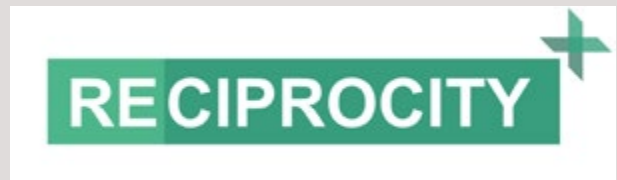
The car sharing service started as a pilot project in the Summer of 2002 targeted at tourists and was subsequently consolidated into an innovative mobility service for all citizens. The actual scheme started on 24 March 2003 and in only six months had 170 members. Its reach increased from 335 km in March to 6 881 km in August and the total number of journeys grew from nine to 423. It is important to say that 50 of these 170 members were hotels, which significantly contributed to promoting the service during the high season (June, July, August) by acting as intermediaries between the users and the car sharing providers, who allowed tourists to use the car sharing service without paying a membership fee.

A special initiative saw an agreement between the Province of Rimini, Trenitalia (national railways) and the Association of Small Top Quality Hotels which encouraged tourists to travel by train first class to Rimini, while paying the price of a second class ticket, and then move around the province using the car sharing service and receiving a discount on the daily room rates.

The SaMo-Card (Softly Mobile tourism mobility) – RECIPROCITY project in Werfenweng (Austria)

Softly Mobile holidays is an inspiring example of mobility management for tourism and leisure. Its motto is 'All-inclusive-mobility' and as a member of the network of Alpine Pearls (www.alpine-pearls.com) the municipality of Werfenweng, Austria takes this seriously. Guests that arrive by train, or who do not use their car during their stay in Werfenweng, are eligible to obtain the bonus-based 'SaMo-Card', which allows them access to all mobility services free of charge, e.g. a transfer service to the lodging is offered for all train travellers arriving in Bischofshofen.

In addition, the municipality provides a local e-taxi service, a fleet of climate-friendly vehicles such as e-bicycles, e-mountain-bikes, e-cars and electric fun-vehicles, which are all powered by a photovoltaic energy source. A wide variety of mobility services such as guided hiking tours, excursions by bus, winter-sports equipment, etc. are offered throughout the year. The SaMo-Card is the key to all the municipality's mobility services in the municipality!



Source: RECIPROCITY project

Tourism mobility management plan for the city of Málaga (Spain)

The number of permanent inhabitants of the city of Málaga is less than 600 000 but if the 'Costa del Sol' region is included, the number of residents rises to one million, and up to two million during the peak tourist season! This doubling of the population of the metropolitan district places considerable strain on the region's transport infrastructures. Moreover, the wide extension of the resident and tourist areas favours the use of private vehicles and makes the provision of public transport more difficult than in a dense urban area.

To address the mobility problems, and reduce the consequent negative impacts on the environment, the Urban Municipal Agency commissioned the 'City of Málaga Tourist mobility management plan'. This new plan implemented the following services: a new web-site as an information dissemination service orientated to tourist mobility; a new tourist bus service; tourist maps and leaflets; a funicular to Gibralfaro castle; and the creation of the Metropolitan Transport Authority (MTA).

The initiator of the plan was Málaga City Council, in collaboration with public transport operators. The objectives were to analyse and improve tourist mobility management in the city of Málaga,

improve the public transport offer and the quality of the service, including co-ordination of services for tourists, and increase public transport information for all users.

The plan achieved the following results:

- The first result was very positive in terms of public acceptance of the actions implemented.
- A website dedicated solely to mobility in and around Málaga metropolitan area was developed.
- A tourist bus service began operation in July 2001 and the data available indicates that the initiative was successful. In particular, tourist-bus usage by hotel clients increased with special incentive tickets.
- 30 000 copies of tourist leaflets and 15 000 tourist maps were distributed.
- A Smart card system was introduced in July 2001.

Why tourism matters – the CIVITAS DESTINATIONS²³ project (European Islands)

According to the World Tourism Organisation, more than 600 million tourists visited Europe every year up to the end of 2019. Many of them visited European islands for their natural beauty and idyllic beaches. This is a rapidly growing market with an average annual increase of 12 million new arrivals. Despite reversals of this upward trend in 2008 due to the global economic crisis and in 2020 due to the COVID-19 pandemic, the sector is expected to recover and continue to grow, putting pressures in the local transport systems, the environment and quality of life.

The DESTINATIONS project developed and implemented more than 75 measures to deal with the impact of tourism on transport and mobility in the six European islands. The

work undertaken by the 28 project partners over a period of four years dealt with a number of important technological, environmental, societal, economic and behavioural issues. The measures covered six thematic areas: Sustainable Mobility and Logistics planning (SUMP and SULP), attractive and accessible public spaces, shared mobility services and e-infrastructure, mobility demand management, efficient, attractive and accessible public transport, and e-Mobility.

The project also established strong and useful links with China, the largest outbound tourism market in the world and a nation that has made significant progress to promote sustainable mobility and electromobility over the past few decades.

Gymnasestrada 2019 – mobility management for big events (Austria)

As the number of visitors increase to a site, area or region, so does the environmental impact, especially when arriving and departing to/from the event. The World Gymnasestrada 2019 took place from July 7 to July 13, 2019 in Dornbirn, Vorarlberg (Austria). Around 20 000 participants arrived at Vorarlberg. To relieve the traffic situation a holistic transport concept was developed, which enabled all guests to arrive in a sustainable way.

This was achieved on the one hand by increasing the frequency of the existing bus network and on the other, by implementing a shuttle bus from the train station to the venue and between

the different venues. To promote cycling, those arriving by bike were given discounts on admission tickets and all the necessary infrastructure at the venues was constructed.

Visitor flows were managed. Each participant received a personal timetable, which showed the best and easiest way from the accommodation to the venue. An app was also developed for this purpose. The latter recorded the flows of participants and additional buses could be deployed quickly and efficiently if necessary.

Together, these mobility measures saved 905 tons of CO₂!

²³ <https://civitas.eu/projects/destinations>

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