Sustainable urban mobility planning in metropolitan regions

Sustainable urban mobility planning and governance models in EU metropolitan regions
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Sustainable urban mobility planning in metropolitan regions. Sustainable urban mobility planning and governance models in EU metropolitan regions

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1. Executive summary

In Europe, the growing urbanisation often led to the physical expansion of cities beyond the administrative boundaries, where urban cores are now surrounded by commuter belts with which they share infrastructures, housing and workplaces creating new functional urban areas that go beyond the traditional administrative boundaries.

Among the different types of functional urban areas, metropolitan regions emerge for their economic attractivity, the huge commuters’ flows, their complex and multi-modal urban transport systems, and for being typically transport nodes of European and national importance.

Governance schemes and planning processes at metropolitan scale vary from a specific context to the other making it impossible to have a one-size-fits-all solution. Nevertheless, common principles and lessons learned can still be drawn for the benefit of all metropolitan regions, while specific examples provide concrete support for contexts alike.

This guide offers support for sustainable urban mobility planning at metropolitan scale by providing a common definition, examples and guiding principles on different aspects and steps of the planning process taking into account different institutional context conditions.
2. Introduction

In Europe, the growing urbanisation often led to the physical expansion of cities, where urban cores are now surrounded by commuter belts with which they share infrastructures, housing and workplaces creating new functional urban areas that go beyond the traditional administrative boundaries.

Among the different types of functional urban areas, metropolitan regions emerge for their economic attractiveness, huge commuters' flows, their complex and multi-modal urban transport systems and for being typically transport nodes of European and national importance.

As metropolitan areas grew in the past decades, they increasingly faced new challenges of working across physical, sectoral and organisational boundaries.

Some of the complexity typical of metropolitan regions, compared to other functional urban areas, is now the geographical variety (urban and rural) and high number of municipalities comprised in their territories.

Moreover, metropolitan regions in Europe are diverse, with some having a more institutionalised set-up and others where the cooperation among different stakeholders happen on a voluntary basis.

Therefore, planning mobility at metropolitan scale requires specific guidance and concrete examples that can inspire metropolitan regions around Europe to overcome the specific governance, funding or cooperation related barriers they face.

Defining metropolitan regions is the first fundamental step in the identification of the challenges and barriers that metropolitan regions are confronted with. The guidelines will then look at how the SUMP principles and cycle relate to the specific context of metropolitan regions and will complement them with a wide range of examples providing guidance on specific aspects or steps of the SUMP process.

2.1 Definition and characteristics of metropolitan regions

The OECD (2013), in collaboration with the EU, has developed a harmonized definition of urban areas which categorises functional urban areas of different sizes beyond the administrative boundaries. Eurostat (2018) endorsed and complemented this definition in light of the European context in the most recent “Methodological manual on territorial typologies”.

The OECD/EU/Eurostat classification of urban areas uses population density as a starting point to identify urban cores, but it also considers commuters’ flows to identify the areas whose labour market is interconnected with the cores.

According to the methodology, an urban core consists of a cluster of population with a density of at least 1,500 inhabitants per km2. A municipality is part of the urban core if at least 50% of its population lives in the cluster. The methodology then identifies the “hinterland” as the “worker catchment area” of the urban labour market, outside the densely inhabited core. All municipalities having at least 15% of their employed residents working in a certain urban core are defined to be part of that urban hinterland as well.

Based on those different steps, Eurostat defines metropolitan regions as functional urban areas with a population of at least 250,000 inhabitants. Each metropolitan region is named
Sustainable urban mobility planning in metropolitan regions

after the principal functional urban area within its boundaries. Capital city metropolitan regions are those metropolitan regions that incorporate the capital of a given country.

This topic guide builds on the OECD/EU and Eurostat definitions of functional areas to target metropolitan regions defined as contiguous, high dense and built-up urban areas with at least 250,000 inhabitants.

It is useful to underline that some urban areas, on the contrary, are developing in a polycentric way, with high densely inhabited cores that are physically separated, but economically integrated. For guidance on how to address the specificities of polycentric regions, please refer also to the Poly-SUMP methodology guidelines. (Poly-SUMP, 2014)

Also, a dedicated topic guide¹ will specifically target small and medium-sized urban areas focussing on their specific needs and features relating to sustainable urban mobility planning.

2.2 The challenges in metropolitan regions: governance, funding and cooperation

Based on the above-mentioned definition, there are 28 capital city metropolitan regions and there are an additional 249 other metropolitan regions in the EU-28. According to the European Commission (2014), the totality of European metropolitan regions accounts for 59% of the EU population, 62% of EU employment and 67% of EU GDP.

Therefore, daily commuters’ flows towards the metropolitan core are increasingly important: for instance, 350,000 vehicles enter the centre of Bologna (Italy) every day while the number goes up to 370,000 in the case of Lisbon (Portugal).

Metropolitan regions are also typically transport nodes of European and national importance and they often have complex, multi-modal urban transport system consisting of regional rail services; trams and/or metros; buses; cycling and walking as well as individual motorised transport infrastructures, etc. (Catch-MR, 2012)

¹ A SUMP guide for small and medium-sized cities will be developed by the end of 2019.
Responsibilities for transport and mobility in metropolitan regions are shared and distributed between national, regional, local and sub-local (district) governments (and between different departments at each level). Effective multi-level governance and partnership approaches are therefore particularly important in metropolitan regions where the needs for regional and local mobility must be reconciled with those for effective long-distance.

2.2.1 Governance

In Europe, metropolitan regions are not typically single political entities, but functional areas going across regional and local administrative boundaries. Those metropolitan regions often comprise a high number of administrative entities (55 in the case of Bologna, 18 in the case of Lisbon) with both rural and urban ecosystems, thus with specific features and needs.
According to OECD (2015), there are four -non-rigid and non-exclusive- typologies of metropolitan governance:

- the informal/soft coordination;
- the inter-municipal authorities;
- the supra-municipal authorities;
- the special status metropolitan cities.

**TYPES OF METROPOLITAN GOVERNANCE**

- informal/soft coordination
- inter-municipal structures
- supra-municipal authorities
- special status metropolitan cities

Figure 2: Types of metropolitan governance

In the **informal/soft types of coordination**, all municipalities have the same importance and share support in an informal way.

This is the case, for example, of the Region of Central Macedonia in Greece (see Box 1) or Prague in the Czech Republic.

Since 2015, the Prague’ Sustainable Mobility Plan is being developed for the city and its metropolitan region which embraces Prague’s neighbouring municipalities in Central Bohemia. The SUMP process required to set-up a close strategic cooperation between Prague and the Central Bohemian region. The working process is led by an external project manager who coordinates the collaboration of the city organizations and companies involved in the process.

The working group consists of representatives from the Prague Institute of Planning and Development (IPR Prague) - an organisation funded by Prague that represents the city in spatial planning matters --; Prague Municipality; Prague’s integrated transport organizer; the technical roads administration of the City of Prague; Prague’s public transit company; and
representatives of the Central-Bohemian region with the Central Bohemian integrated transport organizer.

Box 1: Soft cooperation scheme for SUMP development at metropolitan level

(Region of Central Macedonia)

Source: Region of Central Macedonia

The Region of Central Macedonia set-up a soft coordination structure in the form of a Competence Centre and an Observatory for Sustainable Mobility for the coordination of the SUMP development in the eight municipalities in the metropolitan region of Thessaloniki. The Competence Centre provides technical support concerning SUMP development, implementation and monitoring, and acts as a communication channel between the stakeholders for exchanging experiences and good practices. The Sustainable Urban Mobility Observatory monitors and coordinates the SUMPs of the municipalities of the metropolitan region. The aim of the Observatory is to ensure the complementarity of the local plans, to collect and analyse data that are being gathered at local level, and to develop accessible and up-to-date databases, including monitoring indicators, in order to support the implementation of the metropolitan mobility planning as well as the regional strategy for sustainable mobility. They are coordinated by the independent Directorate for Innovation and Entrepreneurship Support of the Region of Central Macedonia in cooperation with the Hellenic Institute of Transport.

The inter-municipal governance structures are official authorities where the participating municipalities -and sometimes other level of government and sectoral organisations- share costs and responsibilities.

This is the case of the metropolitan area of Lisbon\(^2\), which is based on an inter-municipal governance system that comprises 18 municipalities and almost 3 million inhabitants. The law no. 75/2013, established that the metropolitan areas in Portugal participate in the preparation of plans and programs at metropolitan scale; ensure the articulation of the actions between the municipalities and the services of the central administration in the area of territory planning, mobility and transport; exercise the attributions transferred by the central administration and the joint exercise of the powers delegated by the municipalities that

\(^2\) An image representing the structure in place in Lisbon will be developed
integrate them. Since 2015\(^3\), the Metropolitan Area of Lisbon is also in charge of the definition of the strategic objectives of the mobility system, the planning, organization, operation, allocation, supervision, investment, financing, dissemination and development of the transport by road, river, rail and others. The above mentioned tasks are carried out through defined organs: the metropolitan council, the deliberative body constituted by the presidents of the 18 municipal councils; the executive committee, the executive body consisting of a first secretary and four metropolitan secretaries; and the strategic council for metropolitan development, a body that supports the decision-making process of the other organs of the metropolitan area. It is made up of representatives of institutions, entities and organizations with relevance and intervention in the field of metropolitan interests. (AML, 2019)

The **supra-municipal authorities** are ad-hoc structures above municipalities expressly created for the purpose of addressing transport, territorial planning or other challenges at the most relevant and effective scale.

They can have the status of metropolitan governments with either directly or indirectly elected organs, or metropolitan agencies that have competence for managing or planning one sole service, for example public transport. (Tomas, 2015)

The Verband Region Stuttgart in Germany and the Greater London Authority in the UK are two examples of directly elected metropolitan authorities in Europe: in the first case 86 members of the assembly are elected every 5 years, whereas in the case of London voters elect the mayor and 25 councillors every four years. (Tomas, 2015)

Where direct elections exist, the metropolitan authority gains in terms of visibility, as the candidates put forward electoral programmes and campaigns at metropolitan level that raise awareness about the institution and its role. Also, when this formula exists, the mandate is entirely linked to the performance in the metropolitan institution. Direct elections are often the case in newly created metropolitan authorities.

However, direct elections in Stuttgart and London have shown a declining trend in participation rates over the years with Stuttgart’s rate hovering around 50% of the entitled persons, and only 40% in the case of London. (Tomas, 2015)

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\(^3\) Law no. 52/2015 of 9 June
Nevertheless, the indirect election of the metropolitan authority is certainly the most frequent type of supra-municipal governance in Europe, where metropolitan entities are not directly elected by citizens, but composed by representatives from the different administrative bodies that form them and linked to the municipal mandate.

The Greater Manchester Combined Authority in the UK (see Box 2) is a hybrid case of direct and indirect election.

The French metropolitan authorities (Grand Nancy Metropole and Lille Metropole, for instance) or the metropolitan city of Bologna in Italy are examples of supra-municipal authorities with indirect election systems.

In Italy, the status of metropolitan city
has only been introduced in 2015 with a national law (n.56/2014) that identified 10 metropolitan cities whose organs are: the metropolitan mayor, who represents the institution, convenes and presides over the metropolitan council and the metropolitan conference and oversees the execution of the acts; the metropolitan council, which is the governing and control body, proposes the statute and its amendments to the conference, approves regulations, plans and programs; approves and adopts any other act submitted to it by the metropolitan mayor.

Finally, the metropolitan conference, which is the collegial body composed of all the mayors of the municipalities included in the metropolitan city, with proposing, consultative and deliberative powers. Since 2018, the Italian ministry of infrastructures requires that SUMP covers the whole metropolitan region.4

Finally, the special status of metropolitan cities is given to international megalopolis with big population that are compared to the next upper level of government and thus have broader competencies. This specific type of metropolitan governance will not be dealt in this document as, according to the literature (Pirlone et al., 2017), examples of this kind do not exist in Europe.

2.2.2 Funding

According to OECD (2015), only a minority of metropolitan regions has binding regulatory power and consequently has limited levies and own taxes to count on. Those either come as bottom-up and/or top-down transfers from other levels of government. As a matter of fact, funding is almost never raised or allocated at metropolitan level, but rather at the level of local authorities or regional bodies. When funding exists, it is often in the form of allocation from the central government, which limits the autonomy of the metropolitan level. Secondly, financing can take the form of own taxes, but this seems to be still a minority of the cases (EMA, 2015).

2.2.3 Cooperation

In a broader sense, increasing responsibilities at metropolitan scale might meet the resistance of other governance levels (municipalities, provinces, regions or the central government) that are reluctant to transfer part of their jurisdiction to another entity. Political acceptance from the higher levels of government is crucial as those are the ones determining the regulatory framework in which metropolitan regions can operate. For example, metropolitan areas might be given limited powers (of management, implementation and planning), and in very specific fields.

Thus, the different metropolitan structures might be confronted with a lack of political influence and leadership towards other institutions, lacking recognition of regional geographical scope. In addition, the diverse political backgrounds of the entities operating in a given metropolitan region can translate into resistance to cooperate for the realisation of coordinated plans, the realisation or integration of mobility measures.

2.3 Comparison of metropolitan governance models in the development of SUMPs

Based on the above classification of metropolitan governance models, this chapter explores the strengths, weaknesses, roles played by authorities and needs for improvement of the different types of governance in relation to SUMP development.

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4 Image showing the metropolitan governance system in Bologna will be included
<table>
<thead>
<tr>
<th>Informal/soft coordination</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advantages</strong></td>
<td>Encourages communication and exchange on common challenges. It provides a platform for mutual exchange of information, accessible to smaller municipalities as well that can benefit from higher expertise and know-how. It is a useful instrument to coordinate initiatives coming from the local level.</td>
</tr>
<tr>
<td><strong>Institutional weaknesses and barriers for SUMP development</strong></td>
<td>Fragmentation of responsibilities of the bodies responsible for the planning and the implementation of the policies: responsibilities are scattered across the departments of the various administrative levels (local, regional and national). The lack of a single planning authority implies a lack of mandatory influence and binding decisions. Reaching an agreement requires time as it might entail competition among different municipalities.</td>
</tr>
<tr>
<td><strong>Role in the SUMP development</strong></td>
<td>The leading authority offers primarily coordination and a platform for cooperation and technical assistance to the local (municipal) SUMPs, to ensure the complementarity between them and also their consistency with the metropolitan strategy. The formal authority for SUMP development is retained by the municipalities, the leading authority uses the local outputs in order to develop a metropolitan SUMP.</td>
</tr>
<tr>
<td><strong>Needs for enhancing SUMP development</strong></td>
<td>• Building trust among concerned actors; • Funding mechanisms to further encourage cooperative projects; • Methodologies/tools in achieving effective stakeholders’ engagement; • Knowledge on how to integrate local planning in a metropolitan SUMP; • Common set of indicators for monitoring urban mobility at metropolitan level; • Creation of an internal body, responsible for the metropolitan SUMP.</td>
</tr>
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<table>
<thead>
<tr>
<th>Inter-municipal authorities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advantages</strong></td>
<td>It functions as a common committee for cooperation and communication which translates the interests of different municipalities into one single external voice. The strong cooperation and the common voice help the municipalities have a better connection with the higher levels of government. Because different departments from different organisations are involved, integrated approaches are easier.</td>
</tr>
<tr>
<td><strong>Institutional weaknesses and barriers for SUMP development</strong></td>
<td>Responsibilities for the planning and the implementation of the policies are more clearly allocated, but continuous consensus is required to ensure cooperation. There are no legal instruments to force municipalities to align. The planning process is more likely to be subject to external influence.</td>
</tr>
</tbody>
</table>
### Role in the SUMP development

The SUMP process is steered by a delegated entity, which has competence for the SUMP development. There is a clear structure for discussion and planning and a clear mandate for decision making. Inputs come from the municipalities first and then are integrated into a common metropolitan strategy. The inter-municipal authority does not have powers or tools to force the implementation of the planned measures in the participating municipalities.

### Needs for enhancing SUMP development

- Ensuring cooperation and open dialogue among the participating members;
- High degree of negotiation among the different parties involved to get to common, shared positions;
- Tools to force/encourage implementation of the agreed measures;
- Cooperation for the collection, harmonisation and analysis of data coming from different sources.

### Supra-municipal authorities

#### Advantages

There is one single planning authority. The legal framework and transparent mandate allow for clear goals, closer control over implementation and compliance with the overall objectives. This approach ensures a close integration of land-use, transport and development strategies across the area in the long term and an easier financial leverage.

#### Institutional weaknesses and barriers for SUMP development

Fostering the joint development (by the metropolitan authority and all the municipalities/districts) of the SUMP in order to ensure that it will meet the local needs might be a challenge. This top-down approach might result into a low identification with the metropolitan region and thus additional attention should be put in communicating and involving the lower levels of government, especially smaller settlements.

#### Role in the SUMP development

The metropolitan planning authority is responsible for developing the SUMP in close cooperation with the municipalities or districts of the region. It sets the rules and targets for all the concerned municipalities and districts involved.

#### Needs for enhancing SUMP development

- Close cooperation and consultation with the local stakeholders at all stages of the process;
- Continuous communication and exchange with the concerned municipalities/districts.
3. The 8 SUMP principle in the context of metropolitan regions

3.1 Aim of sustainable mobility for the 'functional urban area'

With the growth of the urban population and the consequent geographical expansion of cities, urban areas are confronted with social and economic flows that extend from the urban cores to the suburbs and beyond. Metropolitan regions are confronted with high commuter flows entering every day the core and are often nodes of long-distance transport and of national importance. A SUMP with a spatial approach that covers the metropolitan functional area allows to address the needs and expectations of the urban core and its commuters’ flows, as well as to adopt a strategic, long-term and integrated approach on transport and spatial planning for the whole area, that would not be possible by developing individual, municipal level SUMPs. Planning for the metropolitan region allows better coordination of the needs of all the administrative units involved and a better collaboration in the implementation of the major projects. It ensures a more strategic vision on the needs and development potential of the metropolitan territory. All the examples contained in this guide reflect this principle at metropolitan scale.

3.2 Assessment of current and future performance

A metropolitan SUMP should build on a thorough assessment of the current and future performance of the transport system of the whole metropolitan region. A comprehensive review of the current situation of the urban core and its commuters’ belt is fundamental to draw the baseline against which results can be measured. Suitable indicators should be set in a way to ensure adequate representativeness for the whole metropolitan region. Specific, measurable, performance objectives should reflect the reality of the current situation and the ambition of the overall plan and might differ in degree of ambition from the urban core and the towns and villages in the commuting area. The measurable targets that the plan wants to achieve should be based on realistic assessment of the current scenario.

Common sets of performance indicators, the development of Information and Communication Technologies (ICT) and data observatories under the close cooperation between metropolitan and all the other relevant authorities can provide all the traffic data needed throughout the SUMP development process, including for the analysis of the mobility situation, the target setting and the progress monitoring.

3.3 Long-term vision as well as a clear implementation plan

As for any other SUMP, the metropolitan SUMP should be based on a long-term strategy for the integrated development of the whole functional area, in terms of mobility and transport, but also in synergy with spatial planning, environmental protection and other metropolitan-wide strategies.

The long-term vision can be translated into intermediate objectives, with intermediate targets, that will help prioritise the different interventions across the whole metropolitan region over a long period of time. The implementation plans for the different time horizons are subordinated to the SUMP and specify clear allocation of responsibilities, resources and a time plan.

3.4 Development of all transport modes in an integrated manner

One of the most important advantages of developing a metropolitan SUMP is the integrated planning of the trips between the different municipalities or districts that belong to the same
Sustainable urban mobility planning in metropolitan regions

metropolitan region and exchange everyday thousands or millions of journeys. Metropolitan regions are poles of attractions where multiple urban transport systems (regional rail services; trams, metros; buses; cycling and walking; individual motorised transport) come together. The planning of the public transport system, the taxi fares policies, depots and infrastructures, the regulation and fare policy for the on and off-street parking are some of the issues that should be analysed and examined considering the metropolitan dimension.

3.5 Cooperation across institutional boundaries

As explained in the previous chapters, planning for sustainable urban mobility at metropolitan level entails a close cooperation among the many entities belonging to the metropolitan region, whether this is a formal governing body or not. In the specific context of sustainable urban mobility planning for metropolitan regions, cooperating across institutional boundaries means exchanging and coordinating the activities with all the relevant authorities at other levels of government, including the district and municipality levels - where for example the measures are implemented - but also with the regional and national layers, with whom the metropolitan region shares ports, train or route systems, for instance.

Cooperating across institutional boundaries also means planning and implementing sustainability in an integrated way, thus with a single guiding development strategy for the whole metropolitan region where all aspects and areas are coordinated in a balanced way (land-use and spatial planning, economic development, social affairs, environment, health, energy, etc.). This approach is reflected in complementary policies and a strong cooperation among sectoral department and agencies as it will be explained in the next sections.

3.6 Involvement of citizens and relevant stakeholders

The participatory approach remains a central feature of a Sustainable Urban Mobility Plan at metropolitan level. As the following chapters will show, in order to meet the basic needs of people and businesses, a metropolitan SUMP should follow a transparent and participatory approach that brings citizens and stakeholders on board reflecting the diversity of the transport users and stakeholders across the whole metropolitan region, from the outset throughout the development and implementation of the plan. The adequate involvement of citizens and relevant stakeholders helps address problems from a metropolitan perspective and build mutual trust among the different actors involved. Moreover, the early involvement of stakeholders and citizens can foster ownership and thus minimize risks of non-acceptance.

3.7 Arrangements for monitoring and evaluation

The success of a Sustainable Urban Mobility Plan at metropolitan level is rooted on a comprehensive pool of mobility data that covers the whole territory and is shared among all the relevant actors operating in the area. Depending on the existing governance structure, and especially where data is not centralised, building cooperation schemes with data owners from the whole area is crucial to analyse the mobility situation and for the following monitoring phase, as it will be explained in further details in the next chapters. As a matter of fact, progress towards the objectives of the plan shall be accessed regularly and shall be based on a common indicator framework that ensures the standardization of the mobility data collected throughout the territory. Regular data collection and monitoring helps enhance the metropolitan planning and prioritise the infrastructures, measures and polices that should be funded. The ongoing monitoring of the implementation of the SUMP measures then informs the adaptation of the actions and targets, when needed, and learn from experience. Data collected can be
communicated to citizens and stakeholders and it can ultimately be used to increase the relevance of the Sustainable Urban Mobility Plan measures for targeted audiences.

### 3.8 Quality assurance

The elaboration of a single SUMP at metropolitan level ensures a harmonised approach across the whole area. A set of minimal qualitative requirements can be set and assessed by the different stakeholders involved in the process or can be delegated to external reviewers. In some countries this role is facilitated by higher levels of government, i.e. regions or national ministries. For example, all municipalities in the Metropolitan Area of Barcelona, Spain, with over 20,000 inhabitants are required to develop a SUMP. Quality assurance and approval of SUMPs is the responsibility of the ATM (Management authority for the Barcelona metropolitan region). (SUMPs-Up, 2018)

### 4. Sustainable urban mobility planning steps in metropolitan regions

The Sustainable Urban Mobility Plan cycle summarises the steps that a local planning authority can follow to develop a SUMP at metropolitan level. The steps and process do not differ from the ones taken by planning authorities at different geographical scale, however when planning at metropolitan level, there might be the need to pay special attention to some steps and to get inspired by concrete examples from other metropolitan regions across Europe.

The 12 Steps of Sustainable Urban Mobility Planning (SUMP 2.0) – A planner’s overview.

![Image of 12 steps of Sustainable Urban Mobility Planning (SUMP 2.0)](image)

**Figure 3: 12 steps of Sustainable Urban Mobility Planning (SUMP 2.0)**
As a matter of fact, reality shows that the SUMP cycle is a simplified representation of the planning process that must be adjusted to the local contexts, where some steps might be partially eluded, executed in parallel or adapted to the specific needs.

4.1 Preparation and analysis

The preparation and analysis phase is the starting point of the SUMP elaboration and it is particularly important for metropolitan regions.

4.1.1 Set up working structures

As discussed above, metropolitan regions in Europe vary a lot in terms of governance structures. When a supra-municipal structure does not exist, the relevant actors should start a reflection and discussion to explore whether specific cooperation schemes are needed to address transport challenges or the development of a metropolitan SUMP.

In the case of Greater Manchester, for instance, the decision to create the Transport for Greater Manchester (see Box 2 in chapter 2.2.1) was based on one hand on the opportunity offered by the various national reforms of local governments, but also on the increasing need to address transport problems, such as the introduction of congestion charging in the mid-2000s in a coordinated way.

In the cases of metropolitan authorities with no clear mandate to supervise local mobility planning, the creation of territorial agencies or authorities in charge of planning mobility over the metropolitan region is an effective tool for the alignment of policy strategies, the elaboration of a unitary SUMP and thus for the implementation of measures across the whole area. In this case, the focus of the policies should be the creation of efficient bodies (authorities, territorial bodies) with enough technical skills for the development of SUMPs. These bodies typically possess a sufficient degree of authority to involve all the interested municipalities or districts, cooperate with regional and national levels and other stakeholders (including non-governmental organizations, citizens and business associations, etc..) and ultimately represent their needs. Typical examples of these bodies are the transport authorities. This approach makes it easier to obtain coherence and integration between different planning instruments and areas, providing a unitary vision.

It might be worth noticing that the process for sharing this unitary framework among different local administrations is generally extremely expensive in terms of time and efforts, even if it the quality of the results is not always ensured. Even for metropolitan regions with an informal/soft coordination, and thus who are not legally in charge of sustainable urban planning for the area, a non-institutional body can be developed in order to guide the local plans
Box 3: Planning for stakeholders’ involvement in a supra-municipal and soft cooperation governance system

In Greater Manchester, where a single transport authority exists, the stakeholder consultation was managed internally by the Transport for Greater Manchester Communications staff team. It ensured that the public and key stakeholders understood all aspects of the SUMP including the strategy development and delivery process, the core messages were communicated, and the key interventions suggested. It also acted as a tool to provide an opportunity for respondents to feedback and input in a meaningful way. This process enabled Transport for Greater Manchester to gauge support for the SUMP’s core policies and proposals. Through conducting this form of public engagement, it ensured that the final version of the SUMP best reflected stakeholder and community priorities at metropolitan scale.

Source: GMCA Greater Manchester 2040 Transport Strategy Consultation

In the case of a soft cooperation scheme (Metropolitan region of Thessaloniki), an internal working structure was set up (Planning and Evaluation Team and Monitoring Committee of the Urban Development Strategy), in order to ensure the success of the consultation process between the Metropolitan Authority of the Region of Central Macedonia and its 8 municipalities. The main goal was to commonly agree on the basic principles of the metropolitan sustainable urban development strategy. The Metropolitan Authority of the Region of Central Macedonia was acting under the guidance of the Managing Authority of the Operational Program of the Region of Central Macedonia. A considerable number of public servants were called to provide their assistance and an external advisor supported the process.

Implementation and prepare the metropolitan SUMP. This is the case of the metropolitan region of Thessaloniki, where a Competence Centre and an Observatory for Sustainable Mobility have been established for the technical support and the coordination of the SUMP development in all the municipalities that belong to the Region of Central Macedonia (see Box 1 in chapter 2.2.1).

Setting up the adequate working structure is thus crucial to ensure that the SUMP elaboration is coordinated at metropolitan scale, and that there is a political and institutional buy-in of the process.

This is also the phase where stakeholders and citizens involvement must be planned across the whole territory, as an efficient cooperation and consultation with the stakeholders is one of the most important parameters for achieving a successful SUMP (see Box 3).

4.1.2 Determine planning framework

Once the metropolitan structure and the consultation process for the SUMP are defined, it is time to determine the planning framework. An important decision that should be taken, to ensure effective planning results at local level, is whether a metropolitan SUMP should be developed centrally and
applied to the local communities or alternatively, local plans (SUMPS) should be formulated and integrated to create a metropolitan SUMP – such in the case of the metropolitan area of Thessaloniki. The main parameters that will influence this decision will arise from the assessment of the metropolitan regulatory framework and the evaluation of the metropolitan planning process for mobility, the relevant resources and capacities. For example, in the case of Thessaloniki, as well as in most of the Greek areas, the Green Fund of the Ministry of Environment gave to municipalities funding for the development of SUMP s. The metropolitan authority of Thessaloniki, having no formal authority to supervise or execute the local mobility planning for its area, is guiding, through the creation of a Competence Centre (see Box 1), its eight municipalities in order to plan in an integrated and complementary way.

In this phase, it is important to ensure that the metropolitan SUMP is integrated with other planning tools, such as spatial planning, sustainable development plans, environmental plans, etc., as effective sustainable mobility can only be achieved by pairing it with a control over the urban sprawl and in accordance with the sustainable strategy for the territory and in the respect of the environment.

Grand Nancy, for instance, is engaged in the elaboration of a metropolitan urban mobility plan (PLUi-HD), which will integrate several sectorial plans into a single one. By pooling resources and skills at the agglomeration level, this unique document aims at harmonizing public policies on urban planning, housing, mobility, economic and commercial development and the environment to enable the emergence of a shared, coherent and united territorial project. Such approach is not mandatory in France and is based on the political decision of the Grand Nancy metropolitan council. In practical terms, the elaboration of the PLUi-HD is carried out by a transdisciplinary technical team gathering staff from the urban planning, housing, economic development, sustainable development and mobility departments of the Grand Nancy metropolitan authority and supported by the regional agency for development and urban planning. The different steps of the elaboration process are first discussed by the metropolitan technical team, which then coordinates with the technical staff from the different municipalities covered by the PLUi-HD. This phase is followed by the discussion with the political representatives at both metropolitan and municipal level.

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5 This image will be improved in the final version
This is also the phase where the timeline and the scope of the planning must be agreed among the different actors involved. Metropolitan regions might consider getting external support for some of the phases of the SUMP elaboration or to provide external advice to the process, such as in the case of Bologna (see Box 4).

### 4.1.3 Analyse mobility situation

The analysis of the mobility situation mainly refers to the identification, collection and analysis of data to gain important knowledge of the current problems and opportunities. The main challenge in the case of a metropolitan SUMP is the collection and integration of data, which is a major problem especially in the case of informal/soft forms of coordination.

In most of these cases, there are different data sources, concerning each of the municipalities (data coming from local SUMP surveys, ICT infrastructures, local transport authorities, etc.) but there is no cooperation mechanism and/or technical solution, to integrate all this data and thus feedback to the metropolitan mobility planning process.

The mobility monitoring centre of Thessaloniki, for instance, has been implemented by the Hellenic Institute of Transport of the Centre for Research and Technology Hellas (CERTH/HIT).

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**Box 4: Creation of a SUMP scientific committee (Bologna)**

In the framework of its SUMP organisational chart, the metropolitan city of Bologna appointed a scientific committee, which is an external, independent and scientific body that oversaw and provided guidance throughout the whole SUMP process. In the case of Bologna, it was composed by 5 eminent and well-known professionals with mobility, environment, urban planning and socio-economic background respectively, thus bringing about a diverse and transversal perspective. The scientific committee was not appointed with the task of drafting or elaborating selected parts of the SUMP, but instead to provide valuable advice to the technical staff and the political representatives and to keep a general oversight of the SUMP as a whole. The scientific committee members were chosen among dedicated and motivated representatives of the scientific community. Four out of five members were not linked to Bologna to make sure that the process could be influenced by experiences and views from other cities and countries. To ensure neutrality and a critical friend review, the scientific committee members did not receive a professional fee, but a reimbursement for their expenses. The scientific committee performed its task through a combination of online and offline exchanges with the Bologna SUMP office. Five physical meetings took place throughout the SUMP elaboration process, gathering jointly the political representatives and the technical staff in charge of the SUMP development. Supporting material was shared ahead of the meetings to better prepare the discussion. The scientific committee helped pursue ambitious policies and objectives in the SUMP, gain political approval and bring scientific substance and authority to the measures contained in the plan.

![Diagram](source: Metropolitan city of Bologna)
with the support of and the cooperation agreements with the Region of Central Macedonia, the municipalities of the region, the Thessaloniki public transport authority and the Taxiway association. The mobility monitoring centre is operated at the premises of CERTH/HIT and collects, processes and disseminates data related to the mobility system of Thessaloniki. According to this approach, the implementation of a mobility monitoring centre in a metropolitan region should follow seven steps (Figure 4).

Steps for the development of a mobility monitoring centre in a metropolitan area

Figure 5: Steps for the development of a mobility monitoring centre in a metropolitan area

The mobility monitoring centre is currently using Information and Communication Technology (ICT) solutions for collecting data at local, metropolitan and regional level. The tools and sensors have been installed by the Region of Central Macedonia (radars and traffic counting sensors), municipalities installed blue tooth signal counters, whereas taxi associations and the public transport bus equipped themselves with GPS systems. The cooperation of these local authorities with the data administrator (Hellenic Institute of Transport) made this large amount of data easily available, drafting a shared picture of the state of mobility for the metropolitan area.

4.2 Strategy development

4.2.1 Build and jointly assess scenarios

The strategy development phase aims at agreeing on a common vision for the development of the metropolitan region, even beyond mobility, with citizens and stakeholders. It is based on a holistic approach of multi-sectoral (horizontal), multi-level (vertical) and cross territorial cooperation. Besides linking the SUMP development to other planning processes in the
preparation and analysis phase, this complementarity should be pursued and achieved in the definition of a common vision and shared objectives. The biggest challenge of achieving sustainable transport horizontal and vertical integration in metropolitan regions is the complementarity with local, regional or national environmental, land use and socioeconomic development plans. For this reason, the vision and objectives, as well as the future strategy and scenarios’ implementation, should always consider these cross-sectorial challenges.

As far as the multi-level integration is concerned, the most common case is the integration of goods and passengers’ mobility (Sustainable Urban Logistic Plan and Sustainable Urban Mobility Plan) in one single planning tool. The metropolitan city of Bologna, for example, developed the two plans simultaneously and fully integrated the SULP in the SUMP strategy as a way to better achieve the overall objectives.

**Box 5: Scenario selection through participatory approach (Prague)**

A half day workshop was organized with 57 stakeholders from the city and the Central Bohemia Region to agree on a common scenario for Prague and its agglomeration. 3 different scenarios were prepared ahead of the workshop: **Prague effective**, which sees the future of mobility in a high-quality, interconnected and accessible network of integrated public transport; **Prague rational**, a city of shorter distances based on sustainable and effective modes of transport as on-street public transport or cycling; **Prague liberal** where the development of the road network will go hand in hand with the strong economic regulation of automobile traffic in city centre. The 57 experts worked in 6 smaller groups to agree on a mobility vision for Prague and its surrounding areas, the workshop consisted of four steps:

1. **Mobility scenarios vs. problems** (30 min): to understand the prepared scenarios definitions and connect them with the main pre-identified problematic areas (interconnection between Prague and its metropolitan region; capacity and reliability of the public transport system; inaccessibility and barriers for pedestrians and cyclists; overload and vulnerability of the road network; traffic impact on environment and public areas; ineffective processes and city administration);
2. **Benefits and risks of mobility scenarios** (60 min): to discuss the solution methods (different for each scenario) for each of the problematic areas, assess the benefits and risks for execution;
3. **Discussion and selection of the preferred mobility scenario** (60 min): to assess the mobility scenarios, select one and complement it to mitigate its risks, moving from the problematic issues to the assessment of the entire mobility scenarios.
4. **Common mobility vision** (60 min): to report the results of the work of each group to the others and potentially have the groups confront each other.

Surprisingly, every round table voted for the “Efficient Prague” scenario and some of them recommended to add some improvements from other scenarios.
On the other hand, cross territorial cooperation for the metropolitan SUMP is usually achieved through the close cooperation between the metropolitan authority and the local areas, as well as the metropolitan authority and the region, in order to co-develop common and/or complementary visions and objectives. The Prague’s SUMP, for instance (see Box 5), is a case of soft cooperation where the city leads on the process and cooperates with the neighbouring municipalities and the Central Bohemian Region on specific steps, including the development of a common vision and the measures selection. By organising targeted workshops and carefully selecting the participating actors, the city of Prague made sure that all different positions and needs were represented and could contribute to the definition of a shared vision for the Prague’s agglomeration.

Building and jointly assessing scenarios together with a wide and balanced range of stakeholders so to represent the reality and needs of the whole metropolitan region is thus a fundamental step.

4.2.2 Develop vision and objectives with stakeholders

Platforms for regular exchange or ad-hoc meetings and events should be considered to commonly develop a mobility vision and its corresponding objectives. Stakeholders can be involved through dedicated and carefully planned workshops, online surveys, targeted communication tools to contribute to the development of a common vision and strategy for all mobility modes in accordance with the possible future scenarios.

In June 2017, the Region of Central Macedonia published the “Strategic Plan of Sustainable Urban Development of the Metropolitan region of Thessaloniki for 2014-2020” (SPSUD), an ambitious strategy aiming to create a new roadmap for the ongoing development of the metropolitan area. The main vision of the strategic plan concerned the “renaissance of the city and the formation of a sustainable living and working environment for the inhabitants”.

The key element of innovation in the elaboration of this 2014-2020 strategy was putting forward a participatory process with the citizens and the various actors of the city at a metropolitan level via the Monitoring Committee of the Urban Development Strategy of Thessaloniki Metropolitan Unity (see Box 6). The approach was based on the active participation of more than 1,200 citizens and the collaboration with more than 37 organizations across the region, with a special focus on the disadvantaged groups.
4.2.3 Set targets and indicators

Based on that, the metropolitan SUMP sets targets and indicators at metropolitan level, distinguishing, where needed, the individual contribution of each municipality to the overall targets. As a matter of fact, each municipality or district in the metropolitan region has its own economic strengths, distinctive geographical features and diversity of place and related travel patterns. The targets and indicators chosen should reflect this diversity.

The SUMP for the metropolitan city of Bologna, for example, aims at transferring 440,000 motorized trips to other more sustainable transport means in the whole metropolitan region by 2030; i.e. 28% less compared to the current situation. The municipality of Bologna alone is supposed to contribute by shifting 255,700 motorized trips to sustainable modes by 2030 (a reduction of 37% compared to the current situation in the Bologna municipality). The targets
are further broken down into smaller targets for each of the 7 Unions of Municipalities (groups of municipalities belonging to the metropolitan region of Bologna).

4.3 Measure planning

4.3.1 Select measure packages with stakeholders

Once the strategy and targets are agreed, it is time to translate them into concrete actions. In the case of metropolitan SUMPs, the long list of measures is usually built considering the synergies with other sectoral plans and in cooperation with the concerned stakeholders to ensure ownership and avoid reluctance in the implementation phase. If on the one hand the SUMP is metropolitan-wide, on the other hand some of the measures are implemented locally and thus must be agreed with the concerned municipalities, districts and neighbourhoods, besides stakeholders and citizens. The city of Prague, for example, carried out an additional workshop specifically for the selection of measures together with all the relevant stakeholders from the metropolitan region: experts from most of the Prague’s districts, specialists from the towns in the Central Bohemian region, expert organizations, academy, non-governmental organizations and associations as well as the SUMP steering group.

In the framework of the development of its metropolitan SUMP, Bologna organised dedicated thematic tables for the discussion of the metropolitan public transport measures. The stakeholders involved in the thematic tables were asked to discuss the proposal for the configuration of the public transport support network, preceded by a general discussion on tariff integration. The discussion was
structured around three meetings that involved almost 40 stakeholders including: network and transport service managers, subsidiaries, institutional bodies; mobility for disabled people associations, research and school, environmental associations, commuter associations; mobility managers, research and health institutes, trade associations and trade unions.

The consultation with stakeholders and interests’ groups for the selection of measure packages is crucial to bring additional ideas and increase acceptance. Measures should be selected carefully to make sure benefits are maximised. For example, road user charging can attain multiple goals, both in terms of funding and discouraging car use. If paired with metropolitan-wide public transport investments, this package of measures can play a significant role to change the travel behaviour towards more sustainable modes.

4.3.2 Agree actions and responsibilities

The bigger the geographical scope of the SUMP, the more important is to clearly agree on actions, responsibilities, priorities and timelines. The presence of a single coordinating authority or of an appointed supporting body at metropolitan level ensures higher synergy and effectiveness of the package of measures, as well as a meaningful allocation of responsibilities among the different actors. In the allocation of costs, it is essential to coordinate with all stakeholders involved in a transparent way and allocate responsibilities.
according to the most relevant administrative level, such as in the case of Lille’s micro-SUMPs (see Box 7).

### 4.3.3 Prepare for adoption and funding

Metropolitan regions must ensure political and public support of the chosen actions throughout the territory which is essential for the preparation for adoption and financing step. The metropolitan city of Bologna, for example, organised public events in targeted train stations in the metropolitan region to present the SUMP and its measures to citizens in a non-technical way, including theatre shows and concerts (see chapter 4.4.2).

Depending on the availability of resources and the required length of the implementation, the measures can be achieved in consecutive intermediate phases and should be packaged in a way to increase synergies among them and effectiveness to achieve the ultimate targets. For example, big infrastructure investments at metropolitan level - that have high costs and longer implementation periods - can be complemented by softer measures that require smaller investments and have shorter-term effects. Those include, for example, the optimisation of the metropolitan transport system, the integration of transport modes and ticketing systems, the harmonisation of timetables, or the coordination of mobility management measures metropolitan-wide, just to mention a few. (SMART MR, 2019)

The transport fare system for the metropolitan area of Lisbon has been extensively simplified into two single and cheaper options in April 2019: one covering all transport operators in the whole metropolitan area (40 euros/month) and the other covering all transport operators in a single municipality (30 euros/month). This measure has been prioritised for its great potential to stimulate people to use public transport over private motorised modes and as a basis for all other sustainable mobility measures.

Figure 8: New tariff system in the metropolitan area of Lisbon (Source: AML)
Finally, when developing the financial plan at metropolitan level, it is important to pursue the long-term realistic goals and to not let the plan being influenced by day-to-day issues. The case of Oslo is in this sense very inspiring, where the transport funding strategy for the whole region is based on a long-term programme, a joint public transport venture organisation and a joint regional plan for transport and land-use plan (see Box 8).

**Box 8: Long-term funding strategy for transport investments in the metropolitan region of Oslo**

The Oslo metropolitan region comprises the City of Oslo and the County of Akershus. Although politically independent from each other, Oslo and Akershus work jointly in an established cooperation and legal framework on mobility. The collaboration between the City of Oslo and the Akershus County lies on three strategic agreements, those are:

- the **Oslo Package**, a long-term programme for funding transport in the whole region supported by the income generated over a ring of automatic toll-stations around the city, known as the Toll-Ring;
- a **joint public transport venture organisation**, which has the strategic, financial and operating capacity to serve the whole Oslo and Akershus County;
- a **joint regional plan for transport and land-use planning** which provides strong, binding commitments to all 23 municipalities in the Oslo metropolitan territory.

As part of the Oslo Package, the toll ring was established in 1990 (Oslo Package 1) based on a cross-party political agreement between Oslo, Akershus, and the national government to raise money to finance long-term transport investments across the area. During the first two periods (Oslo Packages 1 from 1990 to 2002 and Oslo Package 2 from 2002 to 2008), the toll was used to fund road and public transport infrastructure, complemented with funding from the national government. Since 2008 (Oslo Package 3), and with the increase of fees, part of the operating costs of public transportation have also been funded by the toll ring, as well as cycling paths. In the period 2008–2012, about 50% of the toll charges were allocated to public transport in Oslo and Akershus. In May 2012, the list of prioritised projects was revised based on the transversal input of political parties to better respond to the challenges ahead. In June 2016, the Oslo Package 3 agreement was extended until 2036 with additional features. It was introduced a congestion toll, a differentiation of toll charges depending on the fuel (with electric and hydrogen cars exempted), and new toll cordon stations in the city allowing to increase the traffic coverage to 76% of the total. The overall budget in the agreement period (2017-2036) amounts to 13-14 billion euros, which is financed mostly through the toll charges (approximately 8-9 billion euros), in addition to central and local government funding. The Toll-Ring collects 300 million euros annually. The key to success lies in the cross-party agreement between Oslo and Akershus politicians, with clearly defined objectives and strictly earmarked funds.
This phase is concluded with the drafting and adoption of the SUMP document by the competent authority, which will be different depending on the governance structure in place: i.e. the metropolitan council in the case of supra-municipal and inter-municipal structures, or the single municipal councils in case of informal/soft cooperation governance models.

4.4 Implementation and monitoring

4.4.1 Manage implementation

At this point, the process leads to the management of the implementation of the measures contained in the plan and the coordination of the whole process at metropolitan scale.

In some cases, in Europe, existing national or regional legal frameworks for SUMP define the stakeholders that must be involved in the implementation phase.

This is the case in the Flemish region of Belgium, or in the United Kingdom.6

A proper implementation must identify and involve the prescribed stakeholders into the implementation of measures. In doing so, the project management at metropolitan level must ensure cooperation and regular exchange throughout the entire implementation, including with participating municipalities, districts and neighbourhoods impacted by the measures.

The West Yorkshire Combined Authority (WYCA) is the local transport authority in charge of developing and implementing the SUMP for the West Yorkshire metropolitan region, which comprises the five district councils of Bradford, Calderdale, Kirklees, Leeds and Wakefield. The WYCA uses an ambitious project governance system based on the commercial PRINCE2 tool for project management where a clear and hierarchical structure ensures smooth decision making for SUMP implementation (CH4LLENCE, 2016). (Figure 6)

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To ensure effective delivery, it might be needed to procure certain goods and services and to introduce some of the least accepted measures as trials and demonstrations. As part of this phase, it is also crucial to undertake a regular monitoring of the progress.

### 4.4.2 Monitor, adapt and communicate

If cooperation schemes for the collection and integration of data have been established in the preparation and analysis phase, it will be possible to regularly monitor the implementation of the measures and adapt them accordingly (see chapter 4.1.3).

The data collected can also be used to promote results and to communicate, with a strong evidence base, to the different interests' groups. Awareness raising and marketing campaigns shall accompany the implementation process and should be organised in the different parts of the metropolitan region, both at the core and at its periphery in order to capture different target audiences. Communication tools should also reflect the diversity of the audience across the whole territory.

The metropolitan city of Bologna carried out a tour in four different railway stations across the metropolitan territory to present to the citizens the SUMP and its measures. The chosen format was a theatre representation “Nature without cars” summarising the measures of the SUMP, followed by a concert, with parallel workshops for children. SUMP technical experts remained at disposal of the public during the whole event with illustrative material and to respond to questions.
4.4.3 Review and learn lessons

Finally, the outcomes of the monitoring phase should be reviewed to draw lessons learned that will inform the future implementation and the future processes. The evidence base used in Greater Manchester is crucial to identify gaps, next challenges and thus is the first point of call for making informed decisions (see Box 9).

Box 9: Evidence base to consider new challenges and solutions
The first Greater Manchester SUMP is the “Transport Strategy 2040” and it is currently in the implementation phase since 2017. The transport strategy is supported by a comprehensive evidence base structured around six drivers of transport demand (economy and employment, society and community, urban development, environment and resources, and technology and innovation). The evidence base is being continually updated and provided online in order to identify next challenges and include the latest available data (see here). Since the evidence base is the first point of call for making informed decisions, it is important to regularly update it. In this way, the new evidence and its analysis undertaken by TfGM and incorporated in the document aims to ensure the support to the Vision for 2040. In other words, it ensures that the intentions and aspirations featured within it are grounded in trends and data that are locally and time relevant.

It is important for a city to have enough resources to ensure the lasting significance of the evidence gathered, through a process of forward planning to deliver regular, systematic updates of the data/information. Permanently updating the evidence base enhances the cross-checking of information that comes from multiple sources. It also depicts the existing situation, and, in this way, it increases SUMP reliability and promotes the development of reliable scenarios. Moreover, the continuous update helps policymakers understand what information is already known and identify the gaps that need to be filled; also new trends can be foreseen, and new future implications can be anticipated. As a prerequisite of this understanding, the maintenance of a detailed record of the gathered information is essential in order to easily facilitate the planned updates to the evidence base. Data collection, analysis and elaboration is particularly resource intensive and requires a significant amount of effort in the mobility planning process.

Source: Transport for Greater Manchester
5. Lessons learned and recommendations to develop a SUMP at metropolitan level

5.1 Governance and working structures

LESSONS LEARNED

- Institutionalising the role of metropolitan regions is the potentially most effective way of achieving integrated planning, funding, implementation and monitoring;

- The legal and governance dimensions of the national framework for urban mobility should be developed or reinforced, in order to recognise this role and improve integration between administrative levels;

- When there is a supra-municipal governance structure in place, which has the authority to develop a SUMP at metropolitan level, it is important that this is carried out in close cooperation with the local administrations;

- When a metropolitan governance structure does not exist or does not have the authority to develop a metropolitan SUMP, specific cooperation schemes are needed, at least to guide the local SUMP development and integrate them in the wider metropolitan strategy;

- In the case of municipal or intermunicipal SUMPs, those are implemented under the supervision and guidance of the appointed authority (who will form a dedicated SUMP monitoring committee). The supervision and guidance could have the form of a competence centre for the local administrations, a sustainable mobility data observatory for providing specific data, etc…

Planning for the metropolitan functional urban area is essential to overcome institutional, administrative, planning and operational barriers and thus tackle mobility issues and provide the most effective response.

Metropolitan regions in Europe differ for governance structure, national legal frameworks, territorial and geographical features. In order to achieve integrated planning, funding, implementation and monitoring, the potentially most effective option is to institutionalise the role of the metropolitan regions – particularly where this role is missing or downgraded, or where early attempts to formalise collaborative arrangements have been unsuccessful. This requires the creation of the necessary conditions for policy change and modification of the respective legal framework, always in coordination and collaboration with the competent ministries and the local municipalities. The latter should see in this an opportunity of a high-level monitoring and facilitating body, and any hesitance should be lifted in continuous dialogue that clarifies roles, responsibilities and jurisdictions.

When there is a supra-municipal governance structure in place, which has the authority to develop a SUMP at metropolitan level, then the SUMP can be developed by the existing metropolitan department for mobility planning, but special attention should be paid to closely cooperate with the local administrations to ensure their endorsement.

On the other hand, when a metropolitan governance structure does not exist or does not have authority to develop a metropolitan SUMP, specific cooperation schemes are needed, at least to guide the local SUMP development and integrate it in the wider metropolitan strategy. In
this case, municipal or intermunicipal SUMPs are implemented under the supervision and guidance of the appointed authority, who will form a dedicated SUMP monitoring committee.

Appointed authorities should have enhanced capacities, in terms of human resources, know-how and tools, to be able to evaluate and provide guidance to the local SUMPs, ensure their comprehensiveness, validity and overall success in the planning and implementation phases. Useful tools to move in this direction include the operation of metropolitan competence centres for SUMP development, the organization of training and seminars on SUMP development and implementation, the development of metropolitan SUMP guidance and specification, as well as consulting existing guidance and material – thus creating a SUMP knowledge-library.

As a conclusion, the SUMP scope should be further encouraged to cover functional areas (starting from the metropolitan), which is still not always the case in planning reality.

Metropolitan authorities should play a role in SUMP development and member states should establish a clear and well-structured (not necessarily mandatory) regulatory framework to encourage SUMP take-up. The legal and governance dimensions of the national framework for urban mobility should be developed or reinforced, in order improve integration between administrative levels: local, metropolitan, regional and national.

5.2 Integrated and participated strategy development

**LESSONS LEARNED**

- Integration with other sectorial strategies is a prerequisite for an impactful and long-term sustainable mobility strategy at metropolitan level;
- The use of targeted and tailored participatory approaches and tools raises awareness, fosters acceptance of the SUMP process and is crucial to create a shared vision for the metropolitan region;
- It is encouraged that the strategy is translated into different measures and policies for specific sub-areas (municipalities or even micro-areas);

Integrating transport and spatial planning through a metropolitan-wide planning instrument is essential. This is even more important when planning for the metropolitan functional area in order to stop urban sprawl and make transport sustainable and efficient across the area. Integrating transport and spatial planning also allows to shorten work-home trips besides improving the modal shift in a sustainable way. Planning future developments near transport nodes and along public transport axes makes the operation of a metropolitan-wide public transport network more convenient whilst providing access to all parts of the metropolitan territory. Long-term integrated transport and land-use planning strategies at metropolitan level might be able to use tax incentives and subsidised schemes to steer developments in a sustainable direction.

In addition, setting integrated development strategies at metropolitan level helps better align and gather investments over the long term and fosters better consideration of social needs and bridge the gap between the rural and urban areas.

A shared vision for the integrated and sustainable development of the metropolitan functional area beyond mobility is a central and strategic driver. Political views, especially where a single metropolitan authority does not exist, might vary a lot from one municipality to the next. To
ensure political buy-in, it is important to start building and sharing a broad vision of how the metropolitan region will look like in the future among all the municipalities and stakeholders involved and avoid discussing dividing details at the beginning of the process.

Cooperation among all the concerned stakeholders is essential to achieve sustainable urban mobility planning for the metropolitan region, however there is no one approach that fits all. Both informal cooperation and a formalised supra-municipal structure can be successful depending on the specific features of a given metropolitan functional area. In both cases, the success factor resides on the ability of the governing bodies to create consensus, harmonise interests and reach an agreement. (Catch-MR, 2012)

Participatory processes for strategy development at metropolitan scale involve a high number of stakeholders at different administrative levels. To make them impactful, it is important to plan them carefully, select participants in a balanced way and make sure that the format responds to the needs of the process. Involving informed and professional moderators could be helpful.

Building and keeping a constant relation with stakeholders operating in the metropolitan region is crucial to ensure that priorities are not conflicting. It requires extra time, but it ensures more effective outcomes in the long run.

Involving interested stakeholders and actors in setting the vision, as well as designing targeted measures for specific sub-areas, will ensure that the SUMP corresponds as much as possible to the needs of all involved stakeholders and specific geographic areas. Measures should be tailored and adapted to the specific needs and features of the different territories composing the metropolitan region. For example, low density areas will necessarily need different measures than more highly dense ones.

Visions, strategies and measures should be communicated widely with the public. Especially in the metropolitan context, as the needs and expectations might vary a lot from one area to the other, communication tools should be tailored to the different interests, needs and features of different targeted audiences.

5.3 Assessment of current and future performance

LESSONS LEARNED

- Common sets of performance indicators, the development of Information and Communication Technologies (ICT) and data observatories under the close cooperation between metropolitan and all the other relevant authorities will provide all the traffic data needed throughout the SUMP development process, including for the analysis of the mobility situation, the target setting and the progress monitoring.

Ensuring effective assessment and monitoring of the future planning activities, using common set of performance indicators is a success factor of a metropolitan SUMP. Collecting, managing and properly using local or metropolitan data with the exploitation of Information and Communication Technologies (ICT), the development of data repositories and the implementation of metropolitan models for simulating and evaluating proposed planning activities and policies are some of the tools for analysing the mobility situation, setting realistic targets, as well as monitoring and evaluating the progress of a metropolitan SUMP.
Also, in order to set realistic and specific objectives, it is important to set aside proper budget to analyse the mobility situation and have a solid evidence base that goes beyond the SUMP and can be used for multiple scopes.

When planning at metropolitan level, it is important to set common targets and to then break them down into specific sub-targets for the needs and features of each spatial dimension (core, rural area, neighbourhood, city to city, wide area, etc.).

The SUMP process does not have to be perfect since the beginning, there is room for improvement and adjustments that will emerge from the practice and from the results of the monitoring process.

5.4 Implementation of measures

**LESSONS LEARNED**

- Develop formal or informal cooperation schemes under the coordination of a metropolitan authority for a harmonised management of the SUMP implementation;
- Package measures smartly, combine soft and hard measures and ensure complementary with spatial planning strategies to meet objectives more effectively;
- Ensure long-term and cross-party funding schemes for the implementation of public transport and other sustainable transport infrastructure across the metropolitan region;
- Ensure a realistic and detailed budget calculation for each proposed measure or policy and infrastructure and their correlation with the national, regional and local funding schemes to help prioritise and effectively implement the planned measures.

Developing formal or informal cooperation schemes under the coordination of a metropolitan authority will ensure a more harmonised management of the SUMP implementation, with a preference for more institutionalised settings that have higher authority to enforce measures’ implementation.

Mobility measures at metropolitan level might entail big infrastructural investments and long implementation periods. It is useful to combine those bigger measures with softer ones that have shorter-term results and tangible benefits for the public and stakeholders. Examples are intermodal integration of the fare and ticketing system, harmonisation of timetables, to mention a few.

Mobility management measures are very helpful ways to achieve more sustainable home-school or home-work trips. Establishing a network of mobility managers at metropolitan level would help increase the impact even further. In addition, such a network of mobility managers represents a valid interlocutor and source of information in the metropolitan transport system.

Public transport should be the backbone of the transport system at metropolitan level. Metropolitan authorities have the opportunity to locate stations and other mobility hubs strategically and to encourage, through incentives and smart taxation, the location of housing and companies close to those.

Long-term and cross-party funding schemes for the implementation of public transport, together with clearly defined objectives and strictly earmarked funds will ensure a sustainable and efficient metropolitan public transport system over time.
Finally, it is important to ensure a realistic and detailed budget calculation for each proposed measure or policy and infrastructure and their correlation with the national, regional and local funding schemes to help prioritise and effectively implement the planned measures.
6. List of references


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7. Annexes

Metropolitan regions. Sustainable mobility planning and governance models in metropolitan regions. Good practice collection

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7 This will be available after the SUMP conference as a separate document and will include full length examples presented in the guide.
Sustainable urban mobility planning in metropolitan regions
Sustainable mobility planning and governance models in EU metropolitan regions