

2020
CIVITAS
Cleaner and better transport in cities



STANDARDS FOR
DEVELOPING A
SUMP
ACTION
PLAN



European Platform
on Sustainable Urban
Mobility Plans



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STANDARDS FOR DEVELOPING A SUMP ACTION PLAN

IMPRINT

About

CIVITAS SUMP_s-Up is a 36-month project funded under the European Union's Horizon 2020 Research and Innovation Action programme. Launched in September 2016, SUMP_s-Up works together with planning authorities across Europe to accelerate the development and implementation of sustainable urban mobility plans and bring cleaner and better transport to cities.

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TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	4
2. INTRODUCTION TO AN ACTION PLAN	5
3. CONTENT OF AN ACTION PLAN	6
3.1 STEP 1: DEFINE A SET OF MEASURES AND MEASURE PACKAGES	6
3.2 STEP 2: DEFINE THE TIME FRAME OF THE ACTION PLAN AND ASSIGN A PROGRAMME COORDINATOR	7
3.3 STEP 3: ADD CHARACTERISTICS OF THE MEASURES AND MEASURE PACKAGES	8
3.4 STEP 4: MAKE AN IMPACT ASSESSMENT AND APPRAISAL OF THE MEASURES	8
3.5 STEP 5: FIND RELATIONSHIPS BETWEEN MEASURES AND MEASURE PACKAGES	11
3.6 STEP 6: MAKE AN IMPLEMENTATION PLAN	11
4. DETAILED DESCRIPTION OF STEP 3: ADD CHARACTERISTICS OF THE MEASURES AND MEASURE PACKAGES	12
4.1 DESCRIPTION OF MEASURES AND MEASURE PACKAGES	12
4.2 CONNECTION TO SUMP VISION AND TARGETS	12
4.3 RESPONSIBILITY FOR IMPLEMENTATION	12
4.4 IMPLEMENTATION PERIOD	12
4.5 FUNDING SOURCES	12
4.6 INDICATORS FOR MONITORING AND EVALUATION	15
4.7 TABLE WITH CHARACTERISTICS OF MEASURES	18
5. DETAILED DESCRIPTION OF STEP 6: MAKE AN IMPLEMENTATION PLAN	21
5.1 ACTIVITIES WITHIN A MEASURE	21
5.2 RESOURCES NEEDED	21
5.3 COST OF THE MEASURE	21
5.4 STAKEHOLDER INVOLVEMENT	21
6. ADVICE FROM SUMPS-UP CITY PARTNERS	24
7. ANNEX I: TEMPLATE FOR A SUMP ACTION PLAN	25
8. ANNEX II: TEMPLATE FOR AN IMPLEMENTATION PLAN	26
9. ANNEX III: CITY CASE REPORTS OF SUMPS-UP CITY PARTNERS	27

1. EXECUTIVE SUMMARY

This document is aimed at city planners who are developing an action plan for sustainable urban mobility plans. It is a specification of the SUMP Guidelines, especially phase 3: Elaborating the plan. The guidance follows on the selection of measures and measure packages described in D3.1 Manual on the integration of measures and measure packages in a SUMP and is developed within the EU-funded project CIVITAS SUMP-UP.

When the list of measures selected is approved, it is time to develop an action plan. The action plan is a clarification of how the targets of the SUMP will be met. D3.1 provides city planner with support on how to select measures. In this manual, city planners get support regarding how measures should be described and guidance should be provided on how to prepare measures for implementation. For successful implementation, the action plan should be developed in two steps:

(1) Action plan: Consisting of a general description of the measures and measure packages that correspond to the SUMP, the time frame and responsibility of the plan, impact assessment and relations between measures.

(2) Implementation plan: Consisting of detailed descriptions of measures and tasks ready to be implemented over the next year.

Follow the six steps described below to develop your action plan and be ready for the implementation of your measures. Steps 1-5 refer to the development of the first part, the action plan, and step 6 refers to the development of the implementation plan.

Step 1:

Define a set of measures and measure packages.

Step 2:

Define the time frame of the action plan and assign a programme coordinator.

Step 3:

Add characteristics of the measures and measure packages.

Step 4:

Make an impact assessment and appraisal of the measures.

Step 5:

Find relationships between measures and measure packages.

Step 6:

Make an implementation plan.

The description of the measures and measure packages should contain relevant characteristics. This is done to simplify the prioritisation of measures, to assess impacts and to find relationships between the measures, all of which are useful for the implementation of the plan. The following characteristics are recommended for the action plan:

- Description of measures and measure packages
- Connection to SUMP vision and targets
- Responsibility for implementation
- Implementation period
- Funding sources
- Indicators for monitoring and evaluation

Some additional features are suggested for the implementation plan:

- Activities within a measure
- Resources needed
- Cost of the measure/activity
- Stakeholder involvement

2. INTRODUCTION TO AN ACTION PLAN

This is a guidance document for local authorities seeking to develop a SUMP action plan. Its purpose is to guide cities on how to get from the identification of measures and measure packages to their implementation.

The action plan is a clarification of how to reach the targets of the SUMP and is a core part of the final SUMP. The understanding of what an action plan is and what level of detail it should contain can vary a lot between municipalities. Preconditions, problems and size will affect the structure and content of the plan, as well as the implementation work process. This manual suggests one way of developing the action plan that is suitable for most cities, primarily starter cities, but useful also for cities more experienced in SUMP development.

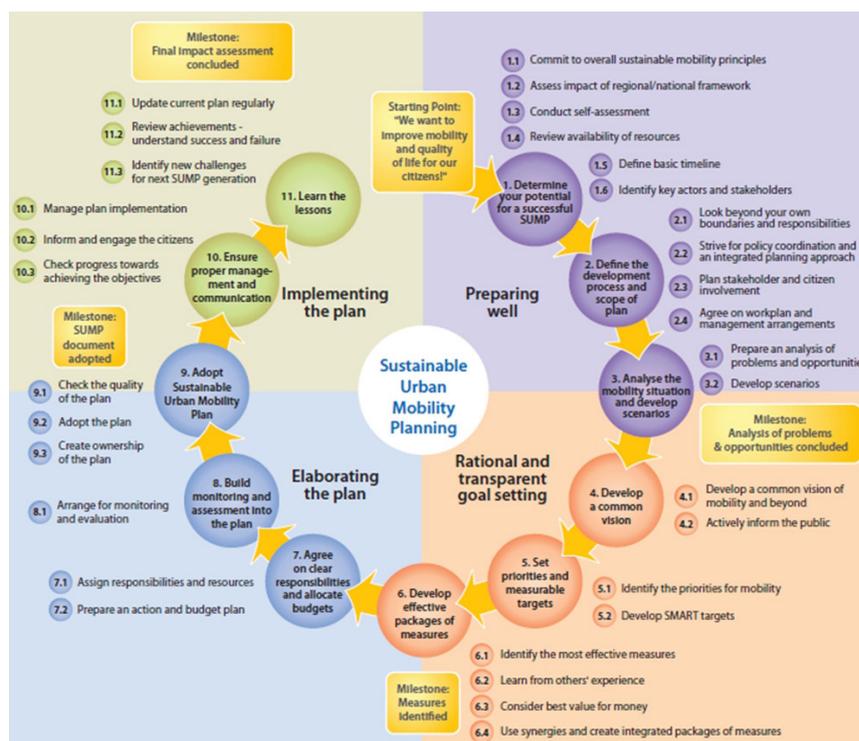
This guidance is primarily written for starter cities, cities that don't have a lot of experience on the SUMP process. It is closely connected to the selection of measures and measure packages, described in D3.1 *Manual on the integration of measures and measure packages in a SUMP*. Following this guidance will help cities to define the characteristics of the proposed measures and measure packages, ensure that these are realistic and achievable, and that the first steps towards implementation are taken. The guidance describes the steps to be taken to develop the action plan, illustrated by examples from cities, and includes a template for an action plan.

This guidance is a product of the SUMP-UP project¹ and is a part in systemising the SUMP-process and to identify the most effective planning tools and methods for the SUMP-process and give guidance in key topic areas relevant for high-quality, effective and efficient SUMP development. The general process regarding this subject is further described in the SUMP Guidelines, www.eltis.org/guidelines/sump-guidelines.

Phase 3: Elaborating the plan, however, is not very developed in the SUMP Guidelines. This guidance aims at providing a more detailed and easier to follow description of this phase, especially of step 7: *Agree on clear responsibilities and allocate budget*. A somewhat broader perspective is also given on *Developing effective packages of measures* (step 6) and first steps towards *Build monitoring and assessment into the plan* (step 8).

The guidance has been developed based on interviews with the SUMP-UP city partners and desk research of existing SUMP action plans from the Eltis database, previous EU-funded projects, and tips from colleagues and partners in SUMP-UP. The focus of the interviews has been on cities' experience developing SUMP action plans and the support needed before implementation of measures.

Figure 1: Planning cycle for a Sustainable Urban Mobility Plan.
Source: SUMP Guidelines www.eltis.org/guidelines/sump-guidelines



¹ CIVITAS SUMP-UP, 2016-2020, is an EU-funded project that brings together European cities, researchers, universities, environmental organisations, climate institutes, transport consultants and mobility experts into a singular initiative to help cities introduce cleaner, sustainable mobility solutions. The objective is to: Enable mobility planning authorities across Europe to embrace SUMP as the European-wide strategic planning approach, especially in countries where take-up is low and the negative effects of transport are severe.

3. CONTENT OF AN ACTION PLAN

The guidance suggests the division of the action plan into two parts:

(1) Action plan: Consisting of a general description of the measures and measure packages that corresponds to the SUMP, the time frame and responsibility of the plan, impact assessment and relations between measures.

(2) Implementation plan: Consisting of detailed descriptions of measures and tasks ready to be implemented next year.

Below six steps are described to develop your action plan and prepare for the implementation of your measures. Step 1-5 refer to the development of the first part, the action plan, and step 6 refers to the development of the implementation plan.

Step 1:

Define a set of measures and measure packages. [\(chapter 3.1\)](#)

Step 2:

Define the time frame of the action plan and assign a programme coordinator. [\(chapter 3.2\)](#)

Step 3:

Add characteristics of the measures and measures packages. [\(chapter 3.3\)](#)

Step 4:

Make an impact assessment and appraisal of the measures. [\(chapter 3.4\)](#)

Step 5:

Find relationships between measures and measure packages. [\(chapter 3.5\)](#)

Step 6:

Make an implementation plan. [\(chapter 3.6\)](#)

3.1 Step 1: Define a set of measures and measure packages

The first step of the action plan development is to define the appropriate measures and measure packages to be described in the action plan. The set of measures and measure packages makes up the core and basis of the action plan. Regardless of whether your city is a starter city or more experienced in the field of sustainable mobility planning, there is simply no content in the action plan without measures.

D3.1 *Manual on the integration of measures and measure packages in a SUMP – Start or – Step-up* contains suggested methods to identify the most suitable and cost-effective measures to achieve the SUMP vision and targets of your city.

Figure 2: Suggested method for selection of measures for a starter-city in SUMP development.

Source: D3.1 *Manual on the integration of measures and measure packages in a SUMP – Start*.

Four steps for integration of measures for a starter-city

1. Determine the baseline by reviewing already implemented measures and the status of the city's transport system today.

2. Create a list of measures designed to address the city's vision and targets for a more sustainable urban planning as well as the prioritised challenges.

3. Rate measures using a rating system to identify measures that are effective and feasible for the city.

4. Describe and gain approval for selected measures.

The following chapters further explain how this could be done and the recommended content of the action plan. Examples from cities are added as inspiration, as well as descriptions and links to existing tools.

3.2 Step 2: Define the time frame of the action plan and assign a programme coordinator

Once the measures and measure packages are decided and approval is gained by decision-makers, the time has come to decide on the timeframe of the action plan, i.e. how long the action plan will be valid and how often it should be revised.

Whereas the SUMP should be a long-term strategic sustainable urban mobility plan, **the action plan should be limited to approximately five years**. After five years, a major revision is recommended, still guided by the SUMP vision and targets. It is also recommended that a smaller revision, a relevance check of the measures, take place every two years. Adaptations should be made to the local context, e.g. political legislature, regulation processes or planning activities that may influence the action plan.

The purpose of the suggested time frame is that the action plan should give enough detail and guidance on which measures that should be implemented, but at the same time give sufficient flexibility for future changes in society, technology or the transport system. New and better measures might be available that could better address a specific challenge of the city or new knowledge could make a measure obsolete. Shorter revision periods increase the likelihood that the most appropriate measures will be implemented.

Another way of defining the timeframe for your action plan is connecting it to a major change in the city, e.g. a large construction work that affects mobility in the city or a major change in the transport system like the opening of a new tram line or the implementation of congestion charging. The action plan could then be defined as “actions to implement before, during and after the change”.

To make implementation smoother and more consistent, it is highly recommended to **assign a programme manager, or coordinator** for the action plan. The coordinator can be the same department or section as for the whole SUMP or a different one. This programme manager will be responsible for the coordination of the measures and measure packages, follow-up of the implementation and the evaluation.

Experiences from the city partners indicate they would have had greater success with a formal coordinator with the mandate to fulfil the objectives of the action plan. It is advisable to assign the role to the department or unit working with mobility.

Having a coordinator will also help you in continuing to implement measures while revising the action plan or developing a new strategy. The coordinator will have a holistic approach to the implemented measures, as well as to their cost efficiency and results, which all provide highly valuable information for the further development of the mobility system in your city.

City case 1:

Birmingham Connected – Making the vision become reality

The Birmingham Mobility Action Plan (BMAP) has set a 20-year vision. It broadly follows the same timeline as the Birmingham Development Plan, which projects population, housing and economic requirements to 2031. However, BMAP also has an eye on the longer term. In the BMAP consultation, discussions were held about how funding can be achieved to provide transport infrastructure. The final White Paper identifies priorities so that when new funding sources become available, there is a quick reaction. BMAP is consistent with budgetary planning for approximately 3-4 years ahead.

The strategy from 2014 is not fixed for its 20-year life, but is expected to be reviewed every five years. This gives Birmingham flexibility and ensures that BMAP takes advantage of:

- emerging technologies that could improve the plan or reduce costs;
- reviewing city, regional and national priorities;
- opportunities brought forward by peaks in development activity; and
- new or changed funding opportunities

Source: *BMAP Green Paper Summary*, 2013
www.birmingham.gov.uk/downloads/file/4209/bmap_green_paper_summary

City case 2:

BKK Centre for Budapest Transport – Budapest, Hungary

BKK Centre for Budapest Transport is the mobility manager of Budapest. BKK is responsible for the development of the Balázs Mór Plan (BMT), the first SUMP based transport development strategy for Budapest. BKK is owned by the municipality and is responsible for strategic planning, preparatory work and project implementation after decision of the General Assembly of Budapest. The implementation of measures is done through different projects, coordinated by BKK's project management framework. The BMT measures and measure packages do not have a special, assigned coordinator. The selection of the projects supporting the measures are based on a project evaluation process. After the evaluation process BKK will set up different scenarios from the selected projects, so the General Assembly of Budapest can select the scenario to be implemented.

3.3 Step 3: Add characteristics of the measures and measure packages

In step 3, it is time to further describe the characteristics of the measures and measure packages. This is done to simplify the prioritisation of measures, to assess impacts and to identify relationships between measures and then decide on the order of their implementation. In the measure selection manuals, the measures and measure packages have been described in a general way to give an overview of what must be done. Here further characteristics are added, such as:

- Description of measures and measure packages
- Connection to SUMP vision and targets
- Responsibility for implementation
- Implementation period
- Funding sources
- Indicators for monitoring and evaluation

The characteristics are further described in chapter 4.

3.4 Step 4: Make an impact assessment and appraisal of the measures

Step 4 should be carried out together with step 5. At this stage, an impact assessment is recommended; i.e. how will the measures contribute to the SUMP targets? An impact assessment can be as simple or as complicated as you want and there are many tools that have been developed for specific uses. You are encouraged to start with a simple approach **assessing how the measures and measure packages contribute to the SUMP vision and targets**. The assessment should end with an indication of the priority of the measure, see the example in table 1 below. It is highly recommended to make the impact assessment in a workshop gathering stakeholders with different forms of knowledge and types of responsibilities.

Another question that can be asked is: what is expected if the measures are implemented versus not implemented? This question leads to a **scenario-based assessment in which the expected outcome is valued**. The simplest assessment is a reasoning of what will happen if a certain measure is implemented or not, see example in table 1 and city cases of San Sebastian and Malmö for inspiration.

This step is important to gain approval for the action plan and align it with the SUMP vision and targets, as well as with other strategic documents in the city. The purpose is to prioritise the measures so that the implementation of the measures and measure packages will be easier. In step 4 of the D3.1 Manual on the integration of measures and measure packages in a SUMP – Start, a feasibility assessment has been done and some cost-benefit information has been gathered. That information is highly useful at this stage.

There are several tools available to support appraisals and impact assessments. In box 1, the Urban Nodes assessment tool is described. You can find more examples in the CIVITAS Tool Inventory: <http://civitas.eu/tool-inventory>.

At this stage, it is usually too early to estimate the cost of the measure or measure package; it is recommended to do so in step 6: Make an implementation plan. However, a very general cost estimation of the action plan could be done. SUMP-UP city partner Birmingham suggests an early general cost estimation as a way of knowing the value of the action plan as input to the assessment and the prioritisation of measures. The cost estimation is recommended to be very general, just giving you the big number of the plan.

Table 1: Example of an impact assessment of the measures and measure packages and reasoning of the expected outcome of the measure. Assessment scale from -2 to 2; -2 = the measure imposes a clear risk on the achievement of the target, 0 = the measure has a neutral effect on the target, 2 = the measure clearly contributes to the target.

MEASURE / MEASURE PACKAGE	SUMP VISION AND TARGETS			PRIORITY LEVEL (SUMMARY OF SUMP VISION)	EXPECTED OUTCOME	
	Increase of traffic safety	Increase of walking, cycling and public transport	Decrease of private car traffic		... if measure is implemented	... if measure is not implemented
Segregated Cycle Facilities	2	2	1	5 (2+2+1)	Better infrastructure for cyclists. More people using the bicycle for everyday trips.	No improvements for cyclist. In the best of scenarios that means no decrease of people using the bicycle.
Develop mobility management plan	0	2	2	4 (0+2+2)	A shift towards more use of sustainable transportation for everyday trips. Increased use of existing infrastructure for sustainable modes.	Business as usual in modal share. No increase of sustainable modes.
Improve pedestrian crossings on prioritised routes	2	2	0	4 (2+2+0)	Increased safety and security for pedestrians. More people walking for everyday trips.	Status quo in number of injuries of pedestrians. Low perceived safety can lead to less people moving by foot.
...						

Box 1: Urban Nodes assessment tool

One example of assessment tool that can be used is the Urban Nodes assessment tool. The "Urban Nodes assessment tool" has been developed in the study Urban Nodes within the TEN-T policy and was originally developed and tested in the Netherlands to assess impact of the Dutch national transport policies. An urban node is defined as an urban area where the transport infrastructure of the trans-European transport network (TEN-T) is connected with other parts of that infrastructure and with the infrastructure for regional and local traffic.

The tool is developed to assess, compare and prioritize measures on accessibility and other high-level policy objectives with the help of stakeholders. Its strength is that it combines two commonly used approaches, MCA (multi criteria analysis) and CBA (cost benefit analysis) to evaluate all impacts of a measure (quantitative and qualitative). Furthermore, it is applicable to hard and soft measures and it is in principle also applicable to local level projects. The tool is fed with stakeholder assessment information and with the cost of the measure.

The tool, information and webinar courses can be found here:

www.mobility-academy.eu/course/view.php?id=84#section-3, under Unit 3.

ID	Measure	Category	Accessibility	Safety	Environment	Perception/strategy	Interaction	Costs	MCA Results	Ranking
			30	15	10	5	5	35		
PT1	Upgrade the main railway station in Ljubljana as	Improvement of inter-modal points	7	1	10	10	10	9	8	2
IM1	Construction of substitute cargo by-pass line/B	Development of the transport network	1	5	6	7	10	1	3	4
IM2	Introduction of HSR yellow lanes to ensure prior	Extension of public transport lines	10	10	1	4	1	10	8	1
RN1	A new transport and logistics terminal at : short	Improve the efficiency of urban logistics.	4	1	1	1	6	9	5	3

Example from the "Urban Nodes assessment tool".

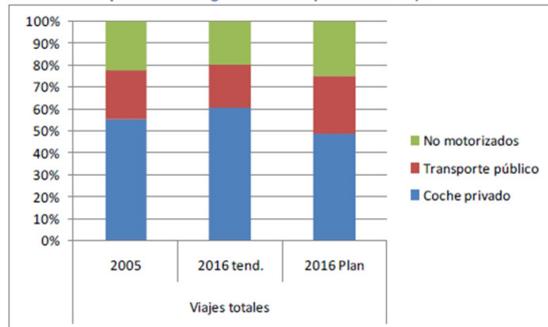
Source: www.mobility-academy.eu/course/view.php?id=84#section-3

City case 3:

**SUMP scenarios –
Donostia-San Sebastian, Spain**

In San Sebastian, an impact assessment of the Urban mobility plan is made based on two scenarios that are being compared with the current situation. The two scenarios represent the situation 10 years from the baseline 2005, if the measures of the urban mobility plan are implemented vs. not implemented. The scenario without the urban mobility plan simulates the continuity of the current mobility trends and the scenario with implemented measures shows the effects of the plan. See the diagram below for modal split.

Gráfico 8-I: Reparto modal según escenarios y ámbito de viaje



San Sebastian's total transport distributed on non-motorised modes (green), public transport (red) and private cars (blue) for the three scenarios: current situation (2005), measures not implemented (2016 tend.) and measures implemented (2016 Plan).

Source: *PLAN DE MOVILIDAD URBANA SOSTENIBLE DONOSTIA MOVILIDAD 2008-2024.*

City case 4:

**Impact assessment –
Malmö, Sweden**

Malmö has made a qualitative impact assessment of how their Traffic and Mobility Plan (TROMP) contributes to municipal strategies and programmes (e.g. Comprehensive Plan, Plan for Malmö's Green and Blue Environments, the Exploitation Strategy, the Pedestrian Programme, the Bicycle Programme, the Energy Strategy), regional strategies and plans and the national goal for Swedish transport politics and other strategies. It is stated that the programmes and actions in the TROMP fulfil or contribute to and strengthen these strategies and plans to a very high degree.

Apart from that, the assessment comprises an analysis of the consequences of the traffic and mobility plan for the three sustainability aspects,

- Environmental consequences
- Social consequences
- Economic consequences for society and municipality

It includes recommendations of how a more sustainable Malmö can become reality. Last, consequences of the "alternative zero" have been assessed, based on a modal split that has not changed since 2013, neither in terms of inhabitants' trips in the city nor travelling throughout the region.

Source: *Sustainable Urban mobility plan – Creating a more accessible Malmö*, http://malmo.se/download/18.16ac037b154961d0287b3d9/1491303430464/MALM_TROMP_210x297mm_ENG.pdf, politically adopted March 2016.

3.5 Step 5: Find relationships between measures and measure packages

The measures depend on each other and by finding relationships between them and with external factors influencing the transport system, much larger effects can be obtained. The impact assessment is a step forward to make priorities, and so is finding relationships between measures and measure packages (step 5).

Measures relate to each other in various ways: timing, geography, funding source, etc. Finding relationships will help you save a lot in terms of human and financial resources and will enhance the effects of the action plan. Also "impact relations" should be taken into account, e.g. promoting cycling via bike-to-school programmes only makes sense if good bicycle infrastructure is available.

When considering relationships, it should be kept in mind that each city is influenced by its own conditions and circumstances. Use the information gathered in table 1 to create e.g. "timing packages" or "funding packages". Add critical external projects that are likely to have an impact on mobility in your city. This could be larger construction works as well as major changes in the transport system, like the opening of a new tram line or the implementation of congestion charging. The relation created could then be specified in terms of "before opening of the tram line" or "implement when the construction of the bridge will start".

3.6 Step 6: Make an implementation plan

The steps described above (step 1-5) are all meant for the "General Action Plan". Step 6 focuses on the further development of the measures to make them possible to implement. It is critical for implementation to **set up a concrete implementation plan of the exact activities to perform over the coming year**. The time frame of the implementation plan is recommended to the next year, maximum the next two years, and the aim is to carry out the chosen measures. This can vary though, due to local context and must be adapted according to your planning procedures.

Based on the priority list developed in the previous steps, the measures that will be realised in the following year are defined and concretised. A lot of information has already been gathered in the previous phases of the measure selection and development of the action plan. All this information together with a few more characteristics of the measures is helpful for procurement and making the measure happen. The following new characteristics are suggested:

- Activities within a measure (e.g. research and analysis, planning, construction, etc.)
- Resources needed (human, knowledge)
- Cost of the measure, or even better, the activity
- Stakeholder involvement

In chapter 5, more details of the characteristics of an implementation plan are provided.

City case 5:

Coordination and interaction between different projects and divisions – Sofia, Bulgaria

There is a specific organization for coordination of all departments, projects and institutions that are involved in development of different strategic documents related to development of Sofia.

1. "Vision for Sofia" - Vision for Sofia has the ambition to describe the city in which we want to live. The vision will improve urban planning by including all the people and organizations involved in creating the general future of Sofia: municipal authorities, non-governmental organizations, investors, researchers, experts and citizens at the very beginning of the decision-making process. Tasks of the "Vision for Sofia" are the analysis of the current state of Sofia and the establishment of mechanisms for sustainable interaction between the stakeholders. The project is an initiative of Sofia Municipality and will serve as a basis for all future strategies for the development of the city by 2050.
2. "Green Sofia" Project - Develops a long-term strategy for sustainable development in Sofia and preparing Sofia's candidacy for the Green Capital of Europe.
3. "Sofia - City for People" is a pilot project for exploration and analysis of public spaces in the city center based on the methodology of Danish architect and urban designer Prof. Jan Gehl. The final result of the project will be a report with analysis and recommendations for the development of public spaces in the central part of Sofia.
4. Project for development of Sustainable Urban Mobility Plan of Sofia – the plan is currently being developed by a consultant company selected by Sofia Municipality. The aim of this project is development of Sustainable Urban Mobility Plan for the period until 2035 as well as the related Action plan for the period up to 2020.

4. DETAILED DESCRIPTION OF STEP 3: ADD CHARACTERISTICS OF THE MEASURES AND MEASURE PACKAGES

In this chapter, the recommended characteristics of the measures and measure packages (step 3 in action plan development) are further developed.

- Description of measures and measure packages
- Connection to SUMP vision and targets
- Responsibility for implementation
- Implementation period
- Funding sources
- Indicators for monitoring and evaluation

4.1 Description of measures and measure packages

Apart from the name of the measure, it is useful to have a short description. It should include a short note on what to do and why, a specific geographic context (if relevant) and the main target group(s). The description should be kept on a general level. See examples in table 2 in chapter 4.7 and the city cases below.

4.2 Connection to SUMP vision and targets

Measures should be connected to the SUMP vision and targets as a way of gaining approval for a measure, see the relationships between measures or as a help to create measure packages. The easiest way is to make a table and mark with a cross those measures adding value to a specific target.

When making the assessment and prioritising measures, it will be of help to outline how the measure contributes to the SUMP vision or to which of the SUMP targets. This exercise is also a good way of revising if the measure is important for the transport system of your city.

4.3 Responsibility for implementation

Decide which stakeholder is responsible for the implementation of each specific measure. A task without a responsible party is likely not to be carried out. In some cases, when there are clear differences in the competence and mandate of the stakeholders, the assignment of stakeholder responsible for the measure is obvious. In other cases, a measure could be more effectively developed in

collaboration with others. See Institutional cooperation - Working jointly with institutional partners in the context of Sustainable Urban Mobility Plans, www.eltis.org/sites/eltis/files/sump-manual_cooperation_en.pdf, for more information on cooperation with external stakeholders.

4.4 Implementation period

Estimate when the measure should be implemented. Without being too concrete, an approximate start and end of the measure should be given. This is useful as well to relate the measure to other measures or to important changes in the city. For example, a new bike path into the city centre should be completed before its promotion.

4.5 Funding sources

Another recommended characteristic for the measures is to consider possible funding sources. Finances are often seen as the main barrier in implementing measures. Having an idea of the **source of funding might help gaining approval** for the measure and will be useful for later steps, like the impact assessment (step 4). Typical funding sources are:

- Local taxes
- Budgets from different local policy domains
- Revenue funding from tickets, parking fees, congestion charging, etc.
- National and regional government subsidies
- Private sector operators, developers, industry, etc.
- Fundraising activities including sponsors
- EU subsidies
- Other sources such as bonds, bank loans and private investment

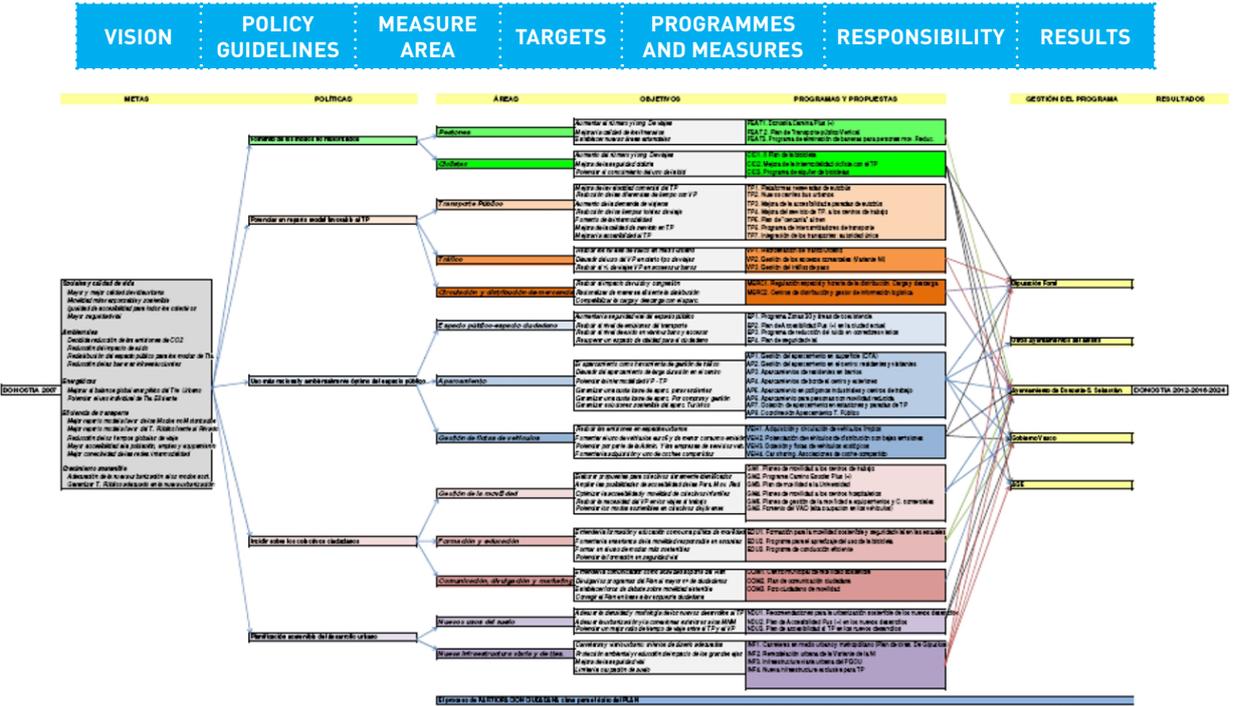
More information on funding can be found in *CHALLENGE Measure selection Manual – Selecting the most effective packages of measures for Sustainable Mobility Plans* www.sump-challenges.eu/kits.

Funding sources can also be an initial point for project development. For example, Sofia in Bulgaria, developed actions as a way to get external funding. Once the measure and subtasks are described in a more detailed manner, it can help finding economical resources as the project becomes more “real”.

City case 6:

Connection to vision and targets – Donostia-San Sebastian, Spain

San Sebastian has a step-by-step plan for organising their goals and measures visually shown in the figure of a part of the scheme below. The scheme starts with the major goals linked to challenges in the socio-economic sector, environmental challenges, energy and transport efficiency and sustainable growth. Five basic transport policies have been defined, supporting these major goals. These policies are then further divided into areas of intervention of the mobility plan. Each of these areas has specific targets and results in a package of programmes and measures. Finally, responsible stakeholders are assigned to the measures and programmes. This is a visually very nice way of showing the connections between the measures and the targets and vision of your city.



Part of the scheme showing the connections step-by-step between goals and measures for mobility in San Sebastian. Source: PLAN DE MOVILIDAD URBANA SOSTENIBLE DONOSTIA MOVILIDAD 2008-2024.

City case 7:

Characteristics of measures – Thessaloniki, Greece

Thessaloniki has defined the implementation time plan for every measure and task, with start time and duration. This way they can easily get an overview of the measures and possible dependencies.

MEASURE	PROCEDURE	START TIME	DURATION (MONTHS)
1. Integrated and Smart Electronic Fare Ticket	Study	2013	4-8
	Implementation	2014	8-12
2.1. Bus Lanes implementation	Planning	2014	4-6
	Studies	2014	4-6
	Implementation	2015	4-6
2.2. Priority at traffic lights	Planning	2014	2-3
	Studies	2014	4-8
	Implementation	2015	4-8
2.3. Bus Rapid Transit (BRT)	Planning	2015	4-6
	Studies	2015/2016	8-12
	Implementation	2016/2017	8-16

In order to achieve a successful implementation of the Sustainable Urban Mobility Plan, Thessaloniki agrees on clear responsibilities and allocates funding. Responsible authorities are assigned to each measure, also defining tasks and funding responsibilities.

MEASURE	AUTHORITIES	RESPONSIBILITIES
1. Integrated and Smart Electronic Fare Ticket	ThePTA	Study
	OASTH	Tender + Implementation
2.1. Bus Lanes implementation	ThePTA	Planning
	Metropolitan Authority or/and Local authorities	2014
2.2. Priority at traffic lights	ThePTA	Planning
	Metropolitan Authority	Study + Approval + Implementation
	OASTH	Implementation (Buses)
2.3. Bus Rapid Transit (BRT)	The PTA	Planning
	Metropolitan Authority or/and Local authorities	Studies + Authorization for use of roads + Implementation
	OASTH	Implementation

Source: SUMP for Metropolitan area of Thessaloniki, Action investment plan.

4.6 Indicators for monitoring and evaluation

Finally, every measure should be given one or several indicators for monitoring and evaluation of the output, outcome and impact of the measure and the action plan. There are many existing indicator systems that you could use as inspiration, see boxes 2 and 3 below. Before you start developing your own system, it is wise to discuss with other stakeholders in your area, e.g. public transport authority, metropolitan or regional authority, as they might already have adopted one. Progress between stakeholders is much easier to compare if the same indicators are used.

You should also make sure only to use indicators for which it is possible to provide data with reasonable effort. More information can be found in the Monitoring and Evaluation kit developed in CH4LLENGE, see Box 2.

Malmö, for instance, suggests using just a few indicators as target indicators very clearly connected to the SUMP targets. The connection to the SUMP targets makes it clearer for everyone what should be fulfilled by the action plan. In their case, modal split is used as an overall target indicator. Other cities have opted for many indicators closely connected to a measure, e.g. Turin, see city case 7.

City case 8:

SUMP indicators – Turin, Italy

Turin has in their Sustainable Urban Mobility Plan connected guidelines, targets, measures and reference indicators. The indicators are quite concrete and help understanding the content and purpose of the measure. The example below shows guideline number 2 which says: *To guarantee and improve the accessibility for people*, and is divided into three targets with underlying measures:

- Ensure accessibility to public transport
 - o Gradual adjustment of the vehicle fleet
 - o Placing supportive accessories at bus stops (floor access, tactile signals, acoustic messages)
- Facilitate accessibility to public spaces
 - o Pedestrian accessibility improvements
 - o Redesigning the structure of metropolitan lines to main railway hubs
- Ensure accessibility to people with disabilities
 - o Abolishing architectural barriers
 - o Hearing support at traffic lights
 - o Implementation of guided routes

Every measure area is then concretised into a few indicators, e.g. for action 2.1: accessibility for public transport (low floor bus 669 and tram 108), share of accessible vehicle of the total fleet, bus stop accessibility, share of accessible bus stops of the total number. The indicator of action 2.2 is improvements in public space accessibility.

LINEE D'INDIRIZZO 2.: GARANTIRE E MIGLIORARE L'ACCESSIBILITÀ DELLE PERSONE		
AZIONI	MISURE	INDICATORI DI RIFERIMENTO
2.1. Garantire l'accessibilità ai mezzi pubblici	- Graduale adeguamento del parco circolante con veicoli conformi - Messa a norma degli spazi di fermata (piano di accesso, segnali podo-tattili, messaggi acustici...)	- mezzi pubblici accessibili (pianale ribassato bus 669, tram 108) - mezzi pubblici accessibili sul totale del parco circolante (1.357 totale bus+tram) - fermate accessibili - fermate accessibili sul totale delle fermate (2331)
2.2. Facilitare l'accessibilità degli spazi pubblici	- Soluzioni per il miglioramento della fruibilità pedonale - Riprogettazione dell'avvicinamento ai principali nodi ferroviari e agli attestamenti delle linee metropolitane	- interventi di miglioramento dell'accessibilità degli spazi pubblici
2.3. Garantire l'accessibilità alle persone diversamente abili	- Abbattimento delle barriere architettoniche - Dotazione di avvisatori acustici ai semafori - Messa in opera di percorsi "loges"	- Interventi specifici di abbattimento barriere architettoniche (2003 - 2009) - percorsi attrezzati con loges - impianti semaforici dotati di avvisatore acustico

Source: PUMS – PIANO URBANO DELLA MOBILITÀ SOSTENIBILE,
www.comune.torino.it/geoportale/pums/cms, Azione – Misure operative schede.

Box 2: CH4ALLENGE Monitoring and Evaluation kit

In the Monitoring and Evaluation kit developed in CH4ALLENGE there is a specific section about indicators. Recommendations, methods and approaches are presented on how to select indicators.

The indicators most suitable for the assessment of measures and actions at this stage are the ones called Output Indicators, since they are the direct effect of the measures (outcome and impact are more difficult to estimate). They measure the extent to which policy instruments have been implemented and services improved (e.g. km bus lanes built). Transport activity and output indicators are also required to understand why certain outcomes have been achieved and what could be done further if a situation needs improving. See chapter 3.2 in the Monitoring and Evaluation kit for more in-depth information and table 3 for examples of indicators.

Monitoring and evaluation – Assessing the impact of measures and evaluating mobility planning processes, www.sump-challenges.eu/kits (PDF available for download in English, Dutch, Czech, Hungarian, Romanian, Croatian, French, German, Polish.)

Template for a monitoring and evaluation plan, www.sump-challenges.eu/sites/www.sump-challenges.eu/files/03_ch4allenge_monitoring_and_evaluation_plan_template.docx.

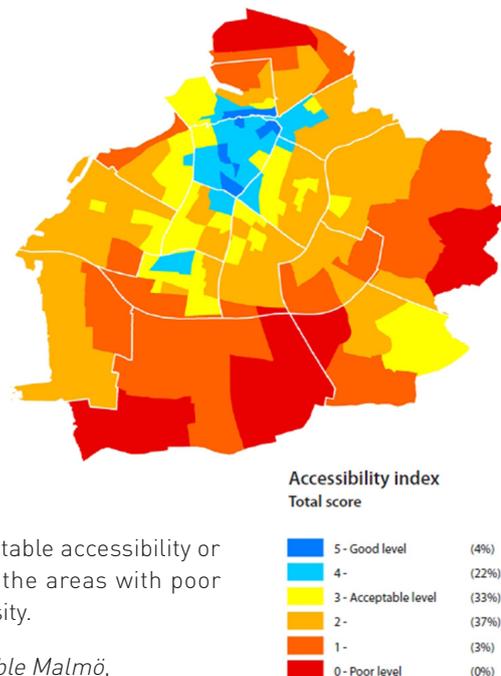
City case 9:**Accessibility index – Malmö, Sweden**

More Malmö for more people equals a more accessible Malmö – this is the main assumption in the work towards a more sustainable city and traffic system. The Accessibility Index below briefly describes today's accessibility in Malmö with maps and percentage value. The Accessibility Index can work as support for decisions in planning and in considering different investments and actions, as well as comparing different areas and population groups. The Accessibility Index can constitute support for follow-up of how accessibility in the transport system develops over time and thus be one of several indicators of how well SUMP goals are reached. The following eight criteria for sustainable accessibility are included in the Accessibility Index.

1. Travel time by walking to 10 destinations
2. Travel time by cycling to 10 destinations
3. Travel time ratio bicycle/car to 10 destinations
4. Travel time ratio public transport/car to city centre, nearest commercial area/shopping mall, and nearest public transport node
5. Distance to nearest bus stop
6. Distance to nearest major public transport node
7. Distance to nearest car sharing facility
8. Range of travel opportunities, i.e. access to several sustainable transport modes with good accessibility (freedom of choice)

In order to analyse today's accessibility, geographical data with Malmö divided into 225 zones is processed. The map below shows the 15 subareas that constitute the SUMP areas with the aggregated result from 2013. In total, half of the areas have acceptable accessibility or better, 59% of Malmö's population live in these areas. Many of the areas with poor accessibility have relatively few inhabitants and low population density.

Source: *Sustainable Urban mobility plan – Creating a more accessible Malmö*, http://malmo.se/download/18.16ac037b154961d0287b3d9/1491303430464/MALM_TROMP_210x297mm_ENG.pdf, politically adopted March 2016.



Box 3: Examples of indicator systems

EcoMobility SHIFT: The SHIFT methodology supports cities in creating and strengthening the mobility plans of cities and supports cities in developing action plans to implement integrated urban mobility. The SHIFT methodology consists of 20 indicators that measure the performance of urban mobility in various areas.

<https://ecomobility.org/ecomobility-shift>

NOVELOG: The NOVELOG project focuses on the enabling of knowledge and understanding of freight distribution and service trips by providing guidance for implementing effective and sustainable policies and measures. The Evaluation Tool is composed of 140 indicators that are grouped into seven impact areas of a life cycle-based sustainability framework.

<http://novelog.eu>

NISTO Toolkit: The NISTO evaluation toolkit can be used to evaluate small-scale mobility projects for sustainability and stakeholder preferences and monitor policy targets. See NISTO core criteria for examples of indicators.

www.nistotoolkit.eu

The European Commission has made a report that aims to provide local government actors and stakeholders with a concise guide to the best currently available indicator tools for sustainable cities, focusing on the environmental dimension. Several tools are summarised and links provided.

http://ec.europa.eu/environment/integration/research/newsalert/pdf/indicators_for_sustainable_cities_IR12_en.pdf

CIVITAS CAPITAL: The indicator framework prepared as part of the CIVITAS CAPITAL project is an easy to use set of indicators that cities can use to measure how well their transport and mobility system is performing. Each indicator is provided with a summary of the urban mobility objectives it is related to, along with information on how to gather the necessary data and the costs.

<http://civitas.eu/document/civitas-capital-advisory-group-5-data-and-statistics-city-level-sustainable-mobility>

WBCSD is a globally applicable tool to support cities developing fact-based and integrated sustainable urban mobility plans based on 19 sustainable mobility indicators. The indicators are used to calculate the performance of your city so that the "City Priority Indicators" can be selected.

www.wbcstdsmp.org/user/login

You can find more tools supporting you in selecting indicators in the CIVITAS Tool Inventory

<http://civitas.eu/tool-inventory/indicator-sets!>

4.7 Table with characteristics of measures

It is recommended to present the measures in the action plan in a way that gives an overview of the portfolio. Table 2 can be used as template for this purpose, presenting a description of measures and measure packages. It is followed by two city cases with a different way of presenting their measures: Odense in Denmark and Turin in Italy.

Table 2: Example of how to describe measures and measure packages in a SUMP action plan

MEASURE / MEASURE PACKAGE	DESCRIPTION OF MEASURE	RESPONSIBILITY	CONNECTION TO SUMP TARGETS	TIME OF IMPLEMENTATION	FUNDING SOURCE	INDICATORS
Segregated Cycle Facilities	Marked lanes and tracks along major urban streets. Motorised traffic excluded to increase traffic safety for cyclists.	Road owner	Increase the use of bicycle. Increase traffic safety	Year 1-5	City administration. National road safety funding.	Km built bicycle lanes
Develop mobility management plan	Plan about what, when and how to work with mobility management. Implementation	City administration	Increase the use of sustainable modes of transport	Year 1: Apr-Oct.	City administration	Plan approved
Improve pedestrian crossings on prioritised routes						
...						
...						

City case 10:

Example of a measure description – Odense, Denmark

In the Mobility plan for Odense, ranging from 2014 to 2016, 34 measures have been decided. Every measure is described on one page with the purpose of implementation, what will be done, main target group, the advantages for the target group and for Odense and indicators for success. In the lower part of every page a simple "Efficiency assessment" indicates how the measure contributes to their four challenges: Environment, Urban life, Health and Business & growth.

Source: <http://subsites.odense.dk/subsites6/cyklisternesby/topmenu/om%20cyklisternes%20by/city-of-cyclists/mobility-projects>

Also see the new action plan for 2017-2024 (in Danish): www.odense.dk/-/media/images/borger/trafik-og-veje/planer-for-trafik-og-veje/handlingsplan-for-mobilitet-og-byrum.pdf?la=da.

02 /

Information campaigns on shared cars

TARGET GROUP

Car owners with no permanent need to own a car.

PURPOSE
More people should choose to share cars instead of purchasing a private car. This reduces their overall car driving. It also encourages them to walk, bike and use public transportation significantly more, than they would otherwise do.

WHAT?
Car sharing has operated in Denmark for over 15 years, but the possibility of sharing cars is not widely known. Many people will be able to achieve significant savings, and improve their health, without compromising their need of transportation. The main idea is that you only need a car occasionally. As another benefit, you avoid worrying about repairs,

vandalism, loss of value etc. Odense has one car sharing company, but other companies might arrive in the future. "MyCarYourCar" is a new alternative, which along with a similar one from GoMore, open up the possibility of private people sharing cars for a fee. Ordering online is possible and you do not have to worry about the insurance. The number of people sharing a car could increase by launching an information campaign.

ADVANTAGES FOR YOU AS A CAR OWNER

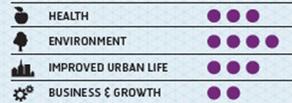
The individual users will automatically reduce their driving significantly, because they have to pay for each trip.

ADVANTAGES FOR ODENSE

Biking and the use of public transportation will increase.



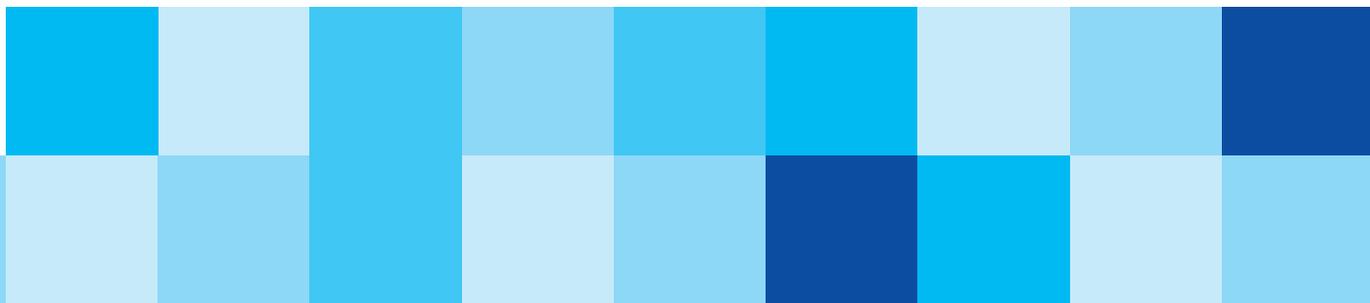
EFFICIENCY ASSESSMENT



SUCCESS CRITERIA

The number of car sharing users must be doubled.

Example of measure from Mobility plan for Odense 2014-2016.



City case 11:

Example of a measure description – Turin, Italy

The sustainable urban mobility plan of Turin is the planning instrument for mobility between 2008 and 2018 with an intermediate target for 2011. It consists of seven guiding principles, divided into targets and measures. The measures are described with the following characteristics:

- Connection to the guideline
- Connection to the target
- Type of sustainable aspect
- General description and objective with the measure
- Responsible part(s)
- Implementation mode
- Aim with the measure and indicator
- Implementation period
- Economic resources needed

LINEA D'INDIRIZZO 3.a.:		MIGLIORARE LA QUALITÀ DELL'ARIA
Azione 3.a.2. Adeguare i veicoli circolanti a motore non ecologici		
Misura operativa 3.a.2.1. Adeguare i mezzi del TPL non ecologici con l'installazione dei filtri anti particolato		
LINEA DI SOSTENIBILITÀ: AMBIENTALE		
Descrizione e obiettivo	Prodotti proposti	
Riduzione delle emissioni di inquinanti dei mezzi pubblici attraverso l'installazione di filtri anti-particolato sul parco preesistente. È prevista l'installazione dei filtri su 396 veicoli di GTT. I filtri anti particolato consentono di ridurre di oltre il 95% le emissioni di particolato e del 50% di biossido d'azoto (NO ₂). Il sistema filtrante è costituito da 4 elementi principali: un filtro anti particolato in carburo di silicio costituito da una struttura a nido d'ape che trattiene il particolato, composto prevalentemente da particelle di carbone di varie dimensioni (il cosiddetto PM10); una marmitta dove viene alloggiato il filtro anti particolato; un additivo (ferrocene) che aggiunto al carburante consente la completa combustione al raggiungimento di una temperatura di circa 250/280°C e una centralina che sovrintende al corretto funzionamento del sistema.	N° di veicoli dotati di filtro anti-particolato Riduzione, nell'area Torinese, di 19 ton di polveri sottili/anno.	
Ente/i attuatore/i	Tempi di attuazione	
GTT Ministero ambiente Regione Piemonte	Entro marzo 2010 si procederà all'installazione sui veicoli Euro2; in fasi successive si estenderà l'intervento ai veicoli Euro 3 ed eventualmente a quelli di classe Euro 1, se nel frattempo non sono stati sostituiti.	
Modalità di attuazione	Risorse economiche necessarie	
Accordo di programma per la qualità dell'aria della Regione Piemonte.	Il progetto si inserisce nell'ambito del Programma Regionale per la qualità dell'aria.	

Source: PUMS – PIANO URBANO DELLA MOBILITÀ SOSTENIBILE, www.comune.torino.it/geoportale/pums/cms,
Azione – Misure operative sched

5. DETAILED DESCRIPTION OF STEP 6: MAKE AN IMPLEMENTATION PLAN

In this chapter, the recommended characteristics of the measures and measure packages in the implementation plan are further developed (step 6 in action plan development). Examples of the characteristics are shown in table 3, which can be used as a template for an implementation plan.

5.1 Activities within a measure

For a measure to be implemented it is usually necessary to break it down into two or more activities. For example, the construction of segregated cycle lanes should be preceded by a study of where the bicycle lane should be constructed, and maybe even developing a bicycle network, before the actual construction could start. The activities should all be concretised in time and described with more characteristics as concrete as possible.

5.2 Resources needed

Describe what resources are needed to realise the measure/activity. Resources can be defined both in number of persons necessary to carry out the activity, as well as specific knowledge, competence or tools needed.

5.3 Cost of the measure

At this stage, it is necessary to estimate the cost of the measure, and even better, each of the activities. The costs should include both costs in time from internal personal resources and external costs from the construction, consultants, printing, etc.

5.4 Stakeholder involvement

Sometimes stakeholders other than the city department are needed to implement a measure, e.g. regional authorities, private land owners, public transport authority. External stakeholders can add extra value to the measure or will ease its implementation. Such examples are bicycle associations, business associations or neighbour cities. By involving external stakeholders and civil society, municipalities can gain new information at the same time as these groups become integrated into the planning process, making proposed changes more widely accepted.

City case 12:

Stakeholder involvement – Bucharest, Romania

Bucharest, a city with significant mobility challenges, has been successful in their sustainable urban mobility planning by bringing planners, local authorities and other stakeholders together. In this way, they can ensure an integrated plan that will benefit local communities and businesses. Twice a month this group of stakeholders meets to debate critical aspects of Bucharest's transport system and its territorial relationship with the metropolitan area, communities and businesses developments. The discussions and findings enabled Bucharest to identify policy priorities to take forward as the plan progresses.

Source: www.eltis.org/discover/case-studies/bucharests-involvement-stakeholders-informed-sump-process-romania

City case 13:

Example of a measure description – Ljutomer, Slovenia

Ljutomer, a small town in Slovenia with 3.300 inhabitants, has since 2012 had a sustainable urban mobility plan. Positive results from its implementation and a national tender for financing the SUMP preparation process have encouraged the preparation of the second generation SUMP in 2017 (running until 2022). The SUMP is based on a clear vision shared by key stakeholders within the municipality. In the first part strategic objectives, key achievements from the first SUMP, key challenges and key opportunities for further improvement of mobility situation in municipality are presented. The second part consists of five thematic pillars covering integrated mobility planning, walking, cycling, public transport and motorized transport. For each pillar specific targets and concrete measures are listed and described. Detailed information on measures implementation is presented within the Action plan where each measure has the following information:

- Short description
- Cost of implementation
- Complexity of implementation
- Responsibility for implementation
- Deadline for implementation
- Other comments

The aim of the Action plan is to make it as easy and transparent as possible for the municipality to implement and monitor the SUMP measures and achievement of the SUMP goals. The example below shows an extract from Action plan for Pillar 1: Integrated mobility planning.

STEBER 01: CELOSTNO NAČRTOVANJE MOBILNOSTI**CILJI**

1. V letu 2017 vzpostaviti sistem zagotavljanja aktualnosti strategije – posodobitev na dve in prenova na pet let.
2. Doseči, da bo vsak proračun občine od leta 2018 kazal na uravnotežena vlaganja v vse potovalne načine.
3. Do leta 2018 narediti načrt okrepitev kapacitet občinske uprave na področju trajnostne mobilnosti.
4. V letu 2017 vzpostaviti sistem rednega spremljanja in vrednotenja stanja mobilnosti.
5. V letu 2017 sprejeti Načrt promocije dosežkov CPS in trajnostne mobilnosti.
6. Do leta 2018 narediti evidenco najmanj petih inovativnih rešitev za izzive trajnostne mobilnosti (opredeljene v CPS).

UKREPI ZA ZAGOTAVLJANJE CELOSTNEGA NAČRTOVANJA MOBILNOSTI

Sveženj 1: Izvajanje in prenova CPS						
Ukrep	Strošek občine	Zahtevnost	Odgovornost	Rok izvedbe	Opombe	
1.01 Aktivno vključevanje javnosti v vse faze načrtovanja	brez*	majhna	OL in ZI	redna aktivnost od 2017	*v okviru načrtovanja in izvajanja ukrepov	
1.02 Priprava uravnoteženega proračuna	brez	srednja	OL in OS	od 2018		
1.03 Posodobitev CPS	10.000 €	srednja	OL in ZI	2019		
1.04 Prenova CPS	50.000 €* [†]	srednja	OL, OS in ZI	2022	[†] pričakovano sofinanciranje MzI	

Sveženj 2: Spremljanje in vrednotenje CPS						
Ukrep	Strošek občine	Zahtevnost	Odgovornost	Rok izvedbe	Opombe	
1.05 Spremljanje kazalnikov CPS in poročanje MzI [†]	1.000 € letno**	majhna	OL in ZI	letno 2017-2022	[†] zahtevano po pogodbi z MzI ^{**} višji strošek ob posodobitvi in prenovi CPS, vključen v Sveženj 1	

Source: *Celostna prometna strategija Občine Ljutomer, 2017-2022*, www.eltis.org/discover/case-studies/slovenias-first-sump-small-scale-ljutomer and www.obcinaljutomer.si/sites/default/files/datoteke/dokumenti/Celostna%20prometna%20strategija%20Ob%20C4%8Dine%20Ljutomer%202017-2022.pdf

Table 3: Example of how to describe measures and measure packages in an implementation plan

MEASURE	DESCRIPTION OF MEASURE	RESPONSIBILITY	ACTIVITIES WITHIN A MEASURE	IMPLEMENTATION PERIOD	RESOURCES NEEDED	COST	STAKEHOLDERS INVOLVED
Segregated Cycle Facilities	Marked lanes and tracks along major urban streets.	Road owner	Analysis of bicycle lanes needed.	Year 1: Jan-May	2 traffic and city planners	30 000 € + 20 % of fulltime from traffic planner	Bicycle associations
			Develop a bicycle network plan.	Year 1: May-Dec	4 traffic and city planners	40 000 €	Bicycle associations, neighbour cities
			Plan and construct bicycle lanes.	Year 2-5	Planners, developers	500 €/m	Construction companies
Develop mobility management plan	Plan about what, when and how to work with mobility management.	City administration	Develop mobility management plan	Year 1: Apr-Oct	Expert on behaviour change, traffic planner	30 000 €	-
Improve pedestrian crossings on prioritised routes							
...							
...							

6. ADVICE FROM SUMPS-UP CITY PARTNERS

During the interviews with the city partners several pieces of advice were given for the elaboration of a SUMP action plan. Some of them are collected here:

Describe measures on a general level. When you have funding, concretise the measure and implement!

Don't forget funding and cost for planning feasibility studies!

Be flexible and open-minded for new solutions that emerge, especially for long-term measures. But don't lose your target!

Keep the time frame of the action plan to 5 years. Revise the measures every 2 years.

Don't stop implementing during revisions or when developing a new plan. It is important to keep up the pace of executing measures.

Assign a coordinator/programme manager for the action plan.

Decide who's responsible for a measure, time of implementation and funding source.

Create an indicator system for monitoring and evaluation.

Assess measures and make a consequence analysis of doing nothing.

Create a roadmap of implementation – how measures are related to each other in e.g. timing and funding.

Develop "forerunner projects" that can pave the way for other measures.

Don't forget to include stakeholders during the process.

Consider surrounding municipalities and regional authorities when developing and implementing the action plan.

Learn from others, join networks and form alliances to improve the preconditions of implementing a measure.

7. ANNEX I: TEMPLATE FOR A SUMP ACTION PLAN

MEASURE	DESCRIPTION OF MEASURE	RESPONSIBILITY	CONNECTION TO SUMP TARGETS	TIME OF IMPLEMENTATION	FUNDING SOURCE	INDICATORS
Segregated Cycle Facilities	Marked lanes and tracks along major urban streets. Motorised traffic excluded to increase traffic safety for cyclists.	Road owner	Increase the use of bicycle. Increase traffic safety.	Year 1-5	City administration. National road safety funding.	Develop a bicycle network plan Km built bicycle lanes
Develop mobility management plan	Plan about what, when and how to work with mobility management.	City administration	Increase the use of sustainable modes of transport	Year 1: Apr-Oct.	City administration	Plan approved
Improve pedestrian crossings on prioritised routes						
...						
...						

8. ANNEX II: TEMPLATE FOR AN IMPLEMENTATION PLAN

MEASURE	DESCRIPTION OF MEASURE	RESPONSIBILITY	ACTIVITIES WITHIN A MEASURE	IMPLEMENTATION PERIOD	RESOURCES NEEDED	COST	STAKEHOLDERS INVOLVED
Segregated Cycle Facilities	Marked lanes and tracks along major urban streets.	Road owner	Analysis of bicycle lanes needed.	Year 1: Jan-May	2 traffic and city planners	30 000 € + 20 % of fulltime from traffic planner	Bicycle associations
			Develop a bicycle network plan.	Year 1: May-Dec	4 traffic and city planners	40 000 €	Bicycle associations, neighbour cities
			Plan and construct bicycle lanes.	Year 2-5	Planners, developers	500 €/m	Construction companies
Develop mobility management plan	Plan about what, when and how to work with mobility management.	City administration	Develop mobility management plan	Year 1: Apr-Oct	Expert on behaviour change, traffic planner	30 000 €	-
Improve pedestrian crossings on prioritised routes							
...							
...							

9. ANNEX III: CITY CASE REPORTS OF SUMPS-UP CITY PARTNERS

Balázs Mór Plan – Budapest Mobility Plan

Budapest is the capital of Hungary with a population of 1.774 million inhabitants. The geology of Budapest has made the city one of the most popular spa cities in Europe. With hot springs breaking through limestone mountains, the city is supplied with water of 35-76 degrees centigrade.

The Balázs Mór Plan is the 1st edition and is based on the idea of sustainable urban mobility planning including the transport development experience of the recent years, international best practices and the key problems of Budapest transport.

The essence of the Balázs Mór Plan can be summarised in the following three terms: *integration, Efficiency and overall quality*. Based on these principles, the mobility plan intends to contribute to the lively and liveable future of Budapest.

The general goal is:

“The transport system of Budapest should improve the competitiveness of Budapest and its region and contribute to a sustainable, liveable, attractive and healthy urban environment.”

The Balázs Mór Plan takes three specific objectives into account for transport: *a liveable urban environment, safe and reliable transport service and cooperation-based regional connections* and focuses on four transport areas:

- More connections
- Attractive vehicles
- Better services
- Efficient set of institutions

The four areas contain approximately sixty measures, such as: continuous main cycle network, develop zones with traffic calming and traffic restrictions, modernisation of the public transportation vehicle fleet and its maintenance capacity, car sharing and regulation of parking. Some of the measures are described in a general way and others are more detailed, with specific proposals on how the measure can be accomplished.

The Balázs Mór Plan lays down the strategy of short- and medium-term transport development in Budapest for the period between 2014 and 2030. A large revision of the measures connected to the SUMP is suggested every 5 years to avoid implementing outdated measures and prepare for new preconditions that have emerged.

Trafik- och Mobilitetsplan, The City of Malmö’s Traffic and Mobility Plan

Malmö is the third largest city in Sweden with a population of 328.500. Malmö is a natural hub for people and cultures from worldwide. The city’s inhabitants come from around 170 countries and speak 150 different languages. This diversity is one of Malmö’s key assets and creates the basis for a rich cultural life.

The City of Malmö’s Traffic and mobility plan is the 1st edition and describes how a holistic planning approach can achieve improved quality of life for Malmö’s residents, visitors and other stakeholders. The general goal with this mobility plan is a more accessible and attractive Malmö for more people.

The city’s vision is:

“Walking, cycling and public transport are the first choice for all who work, live or visit Malmö. These travel choices, together with efficient and environmentally friendly freight and car traffic, are the basis of the transport system in our dense and sustainable city – a transport system designed for the city, and for its people.”

When developing the mobility plan, the city made a self-assessment, mapping the municipality’s current strategic documents and how they affect its planning in general, especially traffic planning. About 20 actions were pinpointed in the plan and Malmö is currently working to implement them. The plan clearly defines the already ongoing work and what the next step is for all measures. For example, one measure is pedestrian traffic for slow and fast movements. The ongoing work and the next step is then clarified next to the measure. In this case the ongoing work is the implementation of a pedestrian programme and to carry out the actions described in the Walking lane plan. Another measure is sustainable commuting: the ongoing work is to promote solutions for car sharing with constructors and developers when it comes to new exploitation of housing and workplaces and the next step is to expand resources and develop a method for Mobility management in the exploitation process.

Birmingham Connected – Birmingham Mobility Action Plan

Birmingham is the second largest city in the United Kingdom with a population of 1.1 million. With the help of the Birmingham Mobility Action Plan (BMAP), the city aims at creating a 'go-anywhere' transport system that will enable people to travel easily and quickly into the city, within the city and out of the city. The mobility plan has set a 20-years vision:

"The Birmingham Mobility Action Plan will reinvent Birmingham's transport system to meet current and future mobility challenges; facilitating strong and sustainable economic growth. The plan will change the way that people and business think about travel into and around the city. By influencing travel behaviour and embracing technological change we will reduce carbon emissions, increase safety and improve people's lives."

BMAP presents its vision for the future of transport planning in Birmingham under three themes:

- Improving strategic connectivity – city-wide and across the region
- Improving connectivity and safety for local communities
- Improving connectivity to and within the city centre

Within the themes, different measurements are presented. Examples on measurements included are; *sharing road space to benefit people (not cars), infrastructure to encourage walking and cycling for all short journeys and implement a comprehensive road safety strategy.*

SUMP for Metropolitan Area of Thessaloniki

Thessaloniki is the second largest urban city in Greece with a population of almost one million inhabitants. Thessaloniki mixes more than 2,300 years of history with all that a modern European city offers. The city can offer Byzantine churches, Roman and Muslim buildings, modern architecture, an intense nightlife and incredibly beautiful beaches.

The mobility plan is the first version and contains an action investment plan with 12 measures (packages). For every measure, there is a description of the measure with advantages and international experiences. The action plan clearly specifies the authority responsible for the measure and an implementation time plan.

One of the 12 measures is to implement a bike sharing system. The measure is described and the advantages are listed, such as improving public health and optimization of public space. There is also a description of the international experience, bike sharing systems in metropolitan areas are currently running in several large cities around Europe (e.g. Paris, Barcelona, Lyon, and London) with great success.

The presented measures are economically feasible and they aim at enhancing social cohesion and reduce private motorised traffic.

Turin

The City of Turin is a local public authority, located in the North-west part of Italy (Piedmont Region) which administers a territory of about 130 km² and a population of 900,000 people soon to become the capital of the newly established Turin's Metropolitan Area (Law n. 56, April 7th 2014). Population density is 6,950 inhabitants/km² ranking third in Italy following Naples and Milan (National Institute of Statistics, ISTAT, 2014). With its dimensions and its GDP of about 55.000 million of Euros, Turin is one of the most important city in Italy. Overall Turing mobility situation is characterized by:

- 1.400.000 motorized journeys per day including: 60% by private car, 40% by public transport
- -10%: urban traffic reduction in last 4 years; +15% of public transport users compared to 2009
- 600.000 public transport smart cards (BIP) delivered in Turin and in its hinterland
- Modal split of the city: Walking 29%, Private Car 43%, PT 23%, Bicycle 3.14%, Others 1,86 %

Turin wants to become a centre of excellence for sustainable urban mobility in Italy and Europe, as well as a Smart city where sustainable, intelligent and safe mobility contributes to improve citizens' quality of life. In order to accomplish the main goal to reduce CO₂ emissions, Turin aims to:

- to reduce the environmental impact of city freight logistics by implementing a new "ecosystem" for the supply/distribution of goods at last mile
- to reduce the private mobility from the metropolitan area to the city centre and to reach the 50%/50% public/private split for 2020 by the implementation of a dynamic driving solution
- to encourage the shift to more environmental friendly modes (public, private collective, LEV) by providing personalized passengers' information about real cost and environmental impact of private car, increasing citizen perception of public transportation economic benefit
- to enhance the cycling attraction, improving overall inter-modality by addressing the main weakness/hazards to bicycle use
- to modify the citizen behaviour to adopt inter-modal and more sustainable transport modes by implementing an intermodal mobility service to improve the citizen satisfaction to adopt park and ride solution

The Plan for Urban Sustainable Mobility (SUMP) is not mandatory in Italy, however, article 32 of law n° 340 in 2000 (Law 340/2000, art. 22) calls for long term (ten years), systematic and integrated planning instruments to be developed for urban mobility management. SUMP is identified as a fundamental planning tool for all municipalities or conurbations with a population over 100,000 inhabitants.

The SUMP in Turin, in line with Regional planning, has been developed within a medium-term strategy (10-15 years) defining guidelines, targets, and operational measures in order to reduce CO₂ emissions by more than 20% by 2020: 1) increase system and economic efficiency; 2) increase safety and environmental quality; 3) exploit infrastructure while preserving urban structure. A first release of Turin's SUMP was developed in 2008 and now it is going to be renovated, regarding both the contents and the methodologies of the plan, capitalising the best-practices from the most virtuous European cities and taking in consideration modern principles concerning urban mobility planning, envisaged by the European Commission ("Guidelines – Developing and Implementing a Sustainable Urban Mobility Plan") and Urban Mobility experts. In this process of SUMP renovation, specific attention will be paid on building into the plan a robust and effective "monitoring and evaluation" process, by updating and strengthening the procedures already foreseen by the first release of the SUMP.

Turin successful implementations include:

- Intelligent Transport Systems (ITS) (Urban traffic control, Enforcement systems, advanced integrated telematics, mobility management system, logistics)
- Smart ticketing (regional integrated electronic smart card-based ticketing system)
- Infomobility (real-time information in the metropolitan area on parking system, public transport, traffic)

Donostia Movilidad 2008-2024, San Sebastian

Donostia-San Sebastian is situated in the Basque country in the north of Spain. It is frequently mentioned as one of the world's best places to eat with high quality restaurants and pintxo bars.

The sustainable urban mobility plan runs between 2008 and 2024 and was initiated to deal with the present mobility challenges and unite existing sectorial programmes, sometimes having contradictory proposals.

The plan consists of a vision with four pillars, developed into five policies and 13 action programmes. Each action programme gathers several measures, e.g. pedestrian mobility includes measures: Donostia Camina Plus (development of pedestrian network), vertical public transport, and elimination of barriers for people with reduced mobility. The measures are generally described in terms of purpose, geographical extension and purpose. When relevant, links to other action programmes are mentioned. Every measure is specified with an indicator for monitoring and evaluation.

Two scenarios have been studied to calculate the impact on medium-term of the SUMP on mobility; firstly, the scenario of business as usual following the present trends in mobility and secondly, the scenario of implementing the SUMP with corresponding measures.

The policies are quantified to measurable targets. For example, it is established that the number of trips by foot and by bicycle should increase with 5 % until 2013, 15 % until 2016 and 20 % until 2024.

Sofia Action Plan

Sofia is the capital of Bulgaria and the country's largest city. Sofia is the administrative, industrial, transport, cultural, congress and academic centre of the country. Sofia is a dynamic city which has seen a steady growth in population and the urban area in recent decades. Sofia's transport system is well-developed, and makes up a significant part of the national transport scheme. It is the only Bulgarian city with four modes of public transport: buses, trams, trolleybuses and metro. Major investments for the construction of the metro, renovation of public transport vehicles and infrastructure have been made over the last years with the support of EU funds.

The new (second one) Sustainable Urban Mobility Plan of Sofia is currently being developed. The SUMP will be valid until 2035 and the action plan will be developed for 3 years, until 2020.

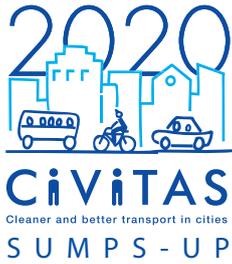
The Action Plan will include:

- A strategy for step by step implementation of the proposed package of effective measures, policies and initiatives, assessing their feasibility and funding opportunities
- The timeframe for their implementation under the action plan
- Stakeholders and actors that are essential for the development of a realistic and workable action plan

The action plan will include feasibility studies of at least three investment initiatives included in the action plan.

The strategy for the step by step implementation of the plan is directly related to the budget's definition of the plan, necessary financial resources and possible sources of financing of individual investment proposals.





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