



ADDRESSING KEY CHALLENGES OF SUSTAINABLE URBAN MOBILITY PLANNING

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## **CHALLENGE**

### **Addressing Key Challenges of Sustainable Urban Mobility Planning**

# **D6.8 The CHALLENGE Curriculum of sustainable urban mobility planning**

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## Table of Contents

1	About CH4LLENGE .....	3
2	Overall aim of the CH4LLENGE Curriculum .....	3
3	Expected pre-training knowledge level of participants .....	5
4	Structure of the CH4LLENGE curriculum teaching modules.....	5
5	The CH4LLENGE curriculum.....	8
	1. Developing a Sustainable Urban Mobility Plan .....	8
	2. SUMP development: the policy context.....	10
	3. Stakeholder involvement and citizen participation .....	11
	4. Institutional cooperation.....	13
	5. Identification and selection of measures and measure packages .....	14
	6. Monitoring and evaluation.....	16
	7. Conclusions.....	19

## 1 About CH4LLENGE

CH4LLENGE addresses the most pressing challenges in the development and implementation of Sustainable Urban Mobility Plans. Nine European cities will test innovative and transferable solutions in participation, cooperation, measure identification as well as monitoring and evaluation. CH4LLENGE kits will recapitulate the lessons drawn from the cities' pilot schemes and the results of the project's training activities to facilitate the take-up of SUMP in Europe. As part of CH4LLENGE's training activities, the project will develop a curriculum outlining all relevant content to be taught on sustainable urban mobility planning, with the aim to integrate SUMP more widely with other training curricula.

## 2 Overall aim of the CH4LLENGE Curriculum

What is a curriculum?

- Lessons and academic content taught in a training institution (e.g. school, university) or in a specific course or programme
- Knowledge and skills students are expected to learn

Aims of the CH4LLENGE Curriculum

- Aims to integrate SUMP more widely into the training curricula of other projects, organisations and institutions
- To identify the knowledge and skills required to manage a SUMP process
- To complement the CH4LLENGE online learning and CH4LLENGE University programme, providing a framework reference for future courses
- CH4LLENGE will not necessarily address all Curriculum elements; other (future) SUMP projects should be encouraged to complement CH4LLENGE's work by creating and developing the modules proposed in this document and potentially by establishing new modules.

Table 1: Target groups

	Primary audience: the trainers	Secondary audience: the trained
Target groups	<ul style="list-style-type: none"> <li>• SUMP projects that need to organise trainings on SUMP               <ul style="list-style-type: none"> <li>○ Basic trainings</li> <li>○ Advanced trainings with special focus</li> </ul> </li> <li>• University departments that would like to teach SUMP</li> <li>• Other organisations and institutions that organise trainings related to SUMP, such as CEREMA (<a href="http://www.cerema.fr/">http://www.cerema.fr/</a>), World Resource Institute (<a href="http://www.wriroscities.org">http://www.wriroscities.org</a>),</li> </ul>	<ul style="list-style-type: none"> <li>• Professionals without SUMP experience               <ul style="list-style-type: none"> <li>○ From various backgrounds (technical transport planning, environmental planning, social sciences, etc.)</li> </ul> </li> <li>• Professionals with SUMP experience               <ul style="list-style-type: none"> <li>○ SUMP training for knowledge consolidation</li> </ul> </li> <li>• Students and young professionals</li> </ul>

	ACT TravelWise ( <a href="http://www.acttravelwise.org">http://www.acttravelwise.org</a> )	
Desired outcomes	<ul style="list-style-type: none"> <li>• SUMP Curriculum to provide a good outline about the key elements to be taught when organising a training related to SUMP</li> <li>• Serves as orientation for course developers and trainers/ lecturers when drafting their course programme</li> <li>• Ensures compliance with SUMP principles</li> <li>• Inspires trainers to put focus on a specific topic</li> </ul>	Participant will be able to e.g. <ul style="list-style-type: none"> <li>• Differentiate between traditional transport planning and sustainable urban mobility planning</li> <li>• Assess the local planning situation of his/her city with regard to SUMP development</li> <li>• Will be an expert in a certain SUMP topic</li> <li>• Are able to initiate or start a SUMP process</li> </ul>

To inform the preparation of the CH4LLENGE curriculum, a review of the substantial catalogue of existing SUMP training materials has been undertaken, including the following existing curricula and resources:

- ENDURANCE Training Inventory covering SUMP-related trainings from 15 EU projects and national SUMP trainings of 29 countries (2013)
- BUMP training course concept on Sustainable Urban Mobility Plans
- Eltiplus Training Strategy
- Chartered Institution of Highways & Transportation, Transport Planning Society requirements for a Transport Planning Professional Qualification (2012)
- State-of-the-Art of Sustainable Urban Mobility Plans in Europe (2012)
- SUMP Guidelines (2014)

As could be expected at this stage of SUMP promotion by European Commission projects, many of the training materials currently available seek to provide a broad overview of the SUMP approach and main characteristics. The picture does, however, vary from country to country as described in the ENDURANCE Training Inventory:

*“Countries with a well-established transport planning framework such as France or Belgium have a wide range of SUMP training activities offered by governmental bodies and training institutes. SUMP has also found its way to universities where courses and training events on SUMP-related issues take place. The SUMP concept is generally known and knowledge gaps are on very specific issues in which optimisation of SUMP processes is required. Countries which are currently moving towards an approach to sustainable mobility planning, in contrast, need more guidance and step-by-step instructions for the SUMP process as a whole.”*

So, while there are materials in some countries that begin to focus on specific aspects of mobility plan preparation, such as the participation process, development of the CH4LLENGE curriculum and

training modules provides the opportunity to provide more in-depth training. For example, during the preparation of the CH4ALLENGE courses partners have been able to draw upon existing training resources and good practice guidelines, as well as dialogue within the project, to develop courses that help to cultivate leading edge mobility planning practices.

### 3 Expected pre-training knowledge level of participants

Target groups for SUMP training will include undergraduate university students, who still need to develop a basic understanding of the planning cycle, postgraduate students and young professionals/practitioners, through to experienced transport planners with detailed knowledge in certain aspects of mobility planning. For the latter group, training requirements could range from a desire to understand basic elements of the SUMP approach that were not previously covered in their day to day work; or they may wish to build on their existing knowledge of a specialist subject area, drawing on best practice experience from across Europe.

### 4 Structure of the CH4ALLENGE curriculum teaching modules

To cater for these different training demands described, the CH4ALLENGE curriculum comprises of two types of module, Basic and Advanced:

<b>B</b> BASIC MODULE	Content is seen as essential for gaining an understanding of the overall topic
<b>A</b> ADVANCED MODULE	Content provides in-depth training in a certain topic, going beyond basic understanding of the overall topic

In total there are 6 topics, 30 modules, comprising 21 Basic Modules and 9 Advanced Modules. An overview of the structure of the modules by topic area is provided in the diagram below. There is no information on the average module length available as this depends heavily on different factors, like the overall training concept (overview or in-depth, focused training), learning formats (level of interactivity) as well as knowledge background of trainees. Nevertheless, there are modules, which require more and less learning time.

For each of the proposed teaching modules, the curriculum presents the following information:

- **Learning objective** – providing a brief introduction to the module topic and setting out what knowledge and skills the learner should have after completing the module.
- **Key content and topics** – summarizing the content elements that should be considered for inclusion within a series of lectures or a course.
- **Suggested interactive exercise** – a proposal for an activity that could be undertaken by the learner to reinforce their understanding of the key module content.

Table 2: Curriculum topics and modules

Basic Modules		Advanced Modules	
<b>1. Concept and developing a Sustainable Urban Mobility Plan</b>			
<b>B1.1</b>	Overview about the SUMP concept and of sustainable urban mobility planning		
<b>B1.2</b>	The SUMP planning cycle: steps and activities		
<b>B1.3</b>	Phase 1: How to get started / preparing well		
<b>B1.4</b>	Phase 2: Rational and transparent goal setting		
<b>B1.5</b>	Phase 3: Elaborating the plan		
<b>B1.6</b>	Phase 4: Implementing the plan		
<b>2. SUMP development – Policy context</b>			
<b>B2.1</b>	SUMP in the European policy context	<b>A2.1</b>	SUMP and related European sectoral policies
		<b>A2.2</b>	Policies and regulations in the country concerned
<b>3. Stakeholder involvement and citizen participation</b>			
<b>B3.1</b>	The value of participation in the mobility planning process and its challenges	<b>A3.1</b>	The internal administrative process of organising and implementing participation
<b>B3.2</b>	Working with stakeholders: identification of local actors and appropriate use of stakeholder opinions and knowledge	<b>A3.2</b>	Using social media in sustainable urban mobility planning
<b>B3.3</b>	Levels of involvement and tools for engagement		

<b>B3.4</b>	Involving the public: engaging a wider audience in the planning process
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#### 4. Institutional cooperation

<b>B4.1</b>	The value of institutional cooperation and major cooperation areas and barriers	<b>A4.1</b>	Leadership in institutional cooperation processes
<b>B4.2</b>	Structuring and formalising institutional cooperation		
<b>B4.3</b>	Practical competences and skills needed for managing institutional cooperation		

#### 5. Identification and selection of measures and measure packages

<b>B5.1</b>	The value of developing effective measures and measure packages and common barriers	<b>A5.1</b>	Focus on mobility measure resources
<b>B5.2</b>	Assessment of transport problems and opportunities		
<b>B5.3</b>	Overview of SUMP-related measures and their 'packaging potential'		
<b>B5.4</b>	Approaches and instruments for measure selection		

#### 6. Monitoring and evaluation

<b>B6.1</b>	The value of monitoring and evaluation in sustainable urban mobility planning and its challenges	<b>A6.1</b>	Target-setting, indicator selection and data collation
<b>B6.2</b>	The SUMP monitoring and evaluation process	<b>A6.2</b>	Real-time monitoring: role of technology, social media and market research
<b>B6.3</b>	Monitoring and evaluation methodologies	<b>A6.3</b>	Introduction to process evaluation

## 7. Conclusions

### B7.1

Reflection on links between Challenges and scale of organisational change required

## 5 The CH4LLENGE curriculum

### 1. Developing a Sustainable Urban Mobility Plan

#### Overview of the SUMP concept

### B1.1

**Learning objective:** The learner will be able to explain the SUMP concept, aims and its benefits, and be able to differentiate between traditional transport planning and sustainable urban mobility planning. Learners will understand the main characteristics of the SUMP approach, including the importance of pursuing an integrated and participatory approach, and the need to put in place a robust implementation plan and monitoring and evaluation framework.

**Key content and topics:** General introduction to sustainable transport and sustainable mobility measures; overview about the aims, benefits, scope and characteristics of SUMP development; difference between SUMP development (output-oriented) and sustainable urban mobility planning (process-oriented); a brief introduction to the SUMP cycle (Rupprecht Consult 2014) and main preparation phases. Presentation of real cases of adopted SUMPs, including examples of SUMPs where identified measures have been implemented.

**Suggested interactive exercise:** Learner undertakes an assessment of their local planning activities to determine which of the main SUMP objectives and characteristics are already covered by the local transport or mobility planning approach. Participants place stickers (in the three traffic light colours) on a table showing the SUMP aims and main characteristics, illustrating which of these are already covered by transport or mobility planning practices in their local authority as follows: (green) aim or characteristic covered in a robust manner by existing plans/planning processes; (yellow) plans and processes need to be adapted or improved; (red) aims or characteristics are not covered or have not yet been started.

#### The SUMP planning cycle: steps and activities

### B1.2

**Learning objective:** The learner will gain comprehensive and structured knowledge about the elements of the SUMP planning cycle: the four SUMP phases, eleven steps and 32 individual activities with the aim of continuous improvement (approx. every 5 years)- On completion of the module, the learner will be able to translate the cycle idea to their own local planning situation.

**Key content and topics:** Overview over the SUMP cycle, the four planning phases (preparation, goal setting, elaboration, implementation) and eleven steps; as well as an overview of the corresponding procedural elements, milestones activities and tasks within each planning step.

**Suggested interactive exercise:** Building on the traffic-light-colour assessment exercise in unit B1.1, the learner continues with a more detailed assessment of the local planning



situation. Participants place stickers on a SUMP cycle diagram, illustrating which of the steps and activities are already covered by transport or mobility planning practices in their local authority as described above in unit B1.1.

### Phase 1: How to get started/ preparing well

**Learning objective:** More in depth understanding of the three steps in the phase “preparing well”: 1. ‘Determine your potential for a successful SUMP, 2. ‘Define the development process and scope of the plan’ and 3. ‘Analyse the mobility situation and develop scenarios’. The learner will be able to analyse the deficits of an existing urban mobility plan and determine the scope of a SUMP to replace or complement such a plan.

B1.3

**Key content and topics:** The twelve activities in Steps 1 – 3 of the cycle will be presented, including the rationale, aims, and tasks. Study material will differentiate between basic tasks and the additional activities that can be undertaken to enhance the process. Case studies will be utilised to highlight best practice and introduce tools such as peer review, use of Quality Management systems, stakeholder constellation analysis, and application of transport modelling tools.

**Suggested interactive exercise:** Production of an organogram that identifies organisations/departments with lead responsibility for SUMP preparation, together with other stakeholders that can contribute resources (staff, skills, finance).

### Phase 2: Rational and transparent goal setting

**Learning objective:** More in depth understanding of the three steps in the phase “rational and transparent goal setting”: 4. ‘Developing a common vision’, 5. ‘Set priorities and measurable targets’ and 6. ‘Develop effective package of measures’. The learner will understand the differences between vision and goals and be able to organise the process to set SMART goals for a SUMP and elaborate an effective package of measures.

B1.4

**Key content and topics:** Importance of vision building and setting measurable targets; the eight activities in Steps 4-6 of the cycle will be presented, including the rationale, aims and tasks. Case studies will be utilised to highlight best practice and introduce tools such as the KonSULT online measure selection and strategy option generator. Sources of commonly used targets and indicators will be introduced.

**Suggested interactive exercise:** Critical review and discussion of examples of formulated objectives (goals) on whether they are *Specific, Measurable, Attainable, Realistic and Timely*.

### Phase 3: Elaborating the plan

**Learning objective:** Building on knowledge of the SUMP cycle gained within B1.2, the learner will understand the three planning steps that relate to the establishment of a SUMP monitoring plan, the agreement of a SUMP implementation plan and finalisation of the SUMP. The steps are named: 7. ‘Agree on clear responsibilities and allocate budgets’, 8. ‘Build monitoring and assessment into the plan’ and 9. ‘Adopt Sustainable Urban Mobility Plan’. The learner will be familiar with the activities within each of these steps, including basic requirements and advanced tasks, and will have anticipated the benefits of undertaking these.

B1.5

**Key content and topics:** Emphasis is placed on the importance of preparing a SUMP Action and Budget Plan, to ensure the plan is realistic and can be implemented, and different types of funding routes are introduced. The six activities in Steps 7 – 9 of the cycle will be presented, including the rationale, aims and tasks relating to these. Case studies will be utilised to highlight best practice, including examples of where SUMP have been adopted

by a local authority's council.

**Suggested interactive exercise:** Selection of a proposed package of transport measures (real or fictitious) and preparation of an implementation plan setting out schedules, responsibilities, budgets and funding sources. The learner should briefly describe how the different measures in the package reinforce each other and what barriers might be expected.

#### Phase 4: Implementing the plan

##### **Learning objective:**

Building on knowledge of the SUMP cycle gained within B.1.2, the learner will understand the two planning steps that relate to implementing the plan and undertaking a SUMP evaluation, the latter of which sets the scene for commencing the cycle afresh and updating the SUMP. The steps are named: 10. 'Ensure proper management and communication (when implementing the plan)' and 11. 'Learn the lessons'. The learner will be familiar with the activities within each of these steps, including basic requirements and advanced tasks, and will have contemplated the benefits of undertaking these.

B1.6

**Key content and topics:** Focus on in-depth real cases of adopted SUMPs and implemented measures. The six activities in Steps 10-12 of the cycle will be presented, differentiating between basic tasks and the additional activities that can be undertaken to enhance the process. Inspiring examples of SUMPs that have been politically endorsed and at least partly implemented will be provided.

**Suggested interactive exercise:** Identification of a SUMP that is a source of inspiration and comparison with an example from the learner's location. Preparation of list of five aspects of the best practice SUMP that should be incorporated within a revision of the local example. Discussion how to turn a SUMP into a cyclic instrument with regular updates (with an approximately 5 yearly interval).

## 2. SUMP development: the policy context

#### SUMP in the European policy context

**Learning objective:** The learner will understand: the background to why SUMP is being promoted at the European level, framed in European policy, and how SUMP preparation is supported by the European Commission; how the current guidelines were formulated with input from experts from across the continent; and how involvement in EU projects can support SUMP development and implementation.

B2.1

**Key content and topics:** Introduction to the history of SUMP, including summary of key SUMP policy and documents - Action Plan on Urban Mobility, Transport White Paper, SUMP Guidelines, Urban Mobility Package. Explanation of how the SUMP Guidelines evolved, with input and critical peer review by transport planning experts. Presentation of diagram illustrating EU programmes and projects.

##### **Suggested interactive exercise:**

The learner selects a SUMP main characteristic (i.e. participation, evaluation) or mobility measure (e.g. public transport, cycle planning) and undertakes research of EU projects that present further experience and guidelines of interest.

#### SUMP and related European sectoral policies

A2.1

**Learning objective:** To gain knowledge of EU Directives, guidelines and initiatives in related policy areas that can support SUMP preparation and target setting at the local level.

**Key content and topics:** Module content to include: Air Quality Directive (2008/50/EC); Public participation (2003/35/EC); Strategic Environmental Assessment (2001/42/EC) and Environmental Impact Assessment (85/337/EEC as amended); EU climate change commitments and the Covenant of Mayors initiative, including relationship of SUMP with Sustainable Energy Action Plans (SEAP); and other sectoral directives.

**Suggested interactive exercise:** Learner to review the performance of their local authority with respect to Sustainable Energy, EU Air Quality Directive and to check whether their city is a Covenant of Majors signatory.

#### Policies and regulations in the country concerned

**Learning objective:** Learner to understand the extent to which national regulations and requirements align with the SUMP approach, and which elements of the SUMP may therefore be considered additional activities.

A2.2

**Key content and topics:** Utilising mobility planning information available from the CH4LLENGE and ENDURANCE projects as a basis, learners will be guided through the process of identifying national, regional and local requirements, guidelines and funding sources. This will include requirements for public participation and integration.

**Suggested interactive exercise:** Preparation of a table that shows national framework existing in the learner's location for the SUMP Objectives and Main Characteristics. Discussion of comprehensive information on national framework available, e.g. information generated in ENDURANCE or CH4LLENGE or national information available the Eltis portal.

### 3. Stakeholder involvement and citizen participation

#### The value of participation and its challenges in the mobility planning process

**Learning objective:** To familiarise learners with the theoretical background on public participation in urban and mobility planning, the benefits participation can bring to the policy development process, as well as the challenges likely to be encountered when running a participation process. Learners will gain detailed knowledge on practical requirements and practices in selected European countries.

B3.1

**Key content and topics:** Relevance of participation, aims and benefits; difference between stakeholder and citizen involvement and institutional cooperation, see module 4); principles of participation and academic perspectives/findings; examples of successful participation processes and potential barriers and problems (e.g. lack of political support, 'consultation fatigue', 'particainment'), including recommendations for how these can be overcome (details provided in subsequent modules). All topics are supported by case examples.

**Suggested interactive exercise:** Learner reviews participation processes undertaken by public authority departments in their area. How do these compare to theoretical levels of participation (e.g. informing, consultation, partnership, citizen decision-making). Discussion on problems to be encountered and potential solutions (e.g. models and intensity of participation activities).

#### Working with stakeholders: identification of local actors and appropriate use of stakeholder opinions and knowledge

B3.2

**Learning objective:** Learner will gain an understanding of the broad stakeholder categories and the organisations/individuals that should typically be involved in mobility planning. The

learner will also understand how to develop a clear picture of stakeholder conflicts of interest and opportunities to build coalitions.

**Key content and topics:** Provision of table of typical stakeholder groups, including examples of stakeholders involved in SUMP activities in different cities. Definition of stakeholder categories that can be used to identify organisations and individuals (e.g. primary stakeholders, key actors and intermediaries), along with tools such as the Analysis of Actor Constellations that can be used to appraise stakeholder motivations and powers.

**Suggested interactive exercise:** Identify stakeholders; develop an organogram of anticipated stakeholder interaction. Discuss the problems and the level of difficulty for involving stakeholders – which ones are easy, which ones are more difficult.

### Levels of involvement and tools for engagement

**Learning objective:** Learner gains an overview of a range of participation tools that can be used within a SUMP planning process and is able to identify what level of participation these facilitate

B3.3

**Key content and topics:** Engagement tools introduced within a framework of participation levels (e.g. informing, consultation, partnership, citizen decision-taking). Tools to include, for example: information centre, public meetings, focus groups, World Café, Delphi Survey, public debates, referendums. Case studies to be provided of successful examples of where these approaches have been adopted.

**Suggested interactive exercise:** Utilising the table of participation tools, the learner reviews participation tools currently used in their city and identifies two or more additional techniques that have good potential to be implemented locally.

### Involving the public: engaging a wider audience in the planning process

**Learning objective:** The learner gains knowledge about community, transparency, accountability and social inclusion and on the non-representativeness of many citizen in the involvement processes, as well as on options to overcome these.

B3.4

**Key content and topics:** Definitions of key theoretical concepts in human rights and citizen engagement, together with identification of relevant legislation and guidelines. Participation tools that are well suited to engage citizens and, in particular, “hard to reach” groups are recommended, along with good practice examples of where these have been applied.

**Suggested interactive exercise:** Learner identifies groups of citizens in their city that are typically well engaged with the planning process, as well as groups of people or communities that could be characterised as “hard to reach”.

### The internal administrative process of organising and implementing participation

**Learning objective:** The learner will understand why careful planning is important and key organisational aspects and options to be considered when preparing the strategy.

A3.1

**Key content and topics:** Topics to be covered include: reviewing the status of current participation processes and reaching a common understanding amongst staff, departments and partner organisations; agreement of participation targets, the level of participation to be achieved and how decision-making processes will be influenced; establishing a budget, agreeing responsibilities and identification of staff (i.e. responsibilities and costs may be spread over departments or a special unit may be created); as well as practical matters such as the frequency and timing of events and identification of suitable venues.

**Suggested interactive exercise:** Learner identifies examples of existing participation forums

and processes already in place in their area, and reflects on whether these are suitable for engaging stakeholders and the public during SUMP preparation and what additional participation steps would be desirable.

#### Using online tools and social media in sustainable urban mobility planning

**Learning objective:** Within the module the learner will consider the role of the city as reactive responder or proactive user of online tools and social media. The learner will also gain awareness of the different methods and tools that can be utilised.

**Key content and topics:** Review of the role of the city and levels of participation that can be supported through: online tools, including discussion forums, mapping and voting; and through social media tools, such as crowd sourcing, data sharing, smart apps and gamification as well as platforms like Twitter, Facebook, LinkedIn. Case studies will be presented that will help to make an estimate on resources needed to maintain platforms. The role of online tools and social media for monitoring and evaluation will also be introduced (see also module A6.1 where further information on this topic is provided).

**Suggested interactive exercise:** Learner reviews whether social media is already used in their city for planning related purposes, and whether there are initiatives led by both the city and other stakeholders or citizens.

A3.2

## 4. Institutional cooperation

#### The value of institutional cooperation and major cooperation areas and barriers

**Learning objective:** The learner will: understand what is meant by institutional cooperation in differentiation to stakeholder involvement and public engagement. The learner will understand the concepts of vertical and horizontal cooperation (both territorial and policy); will have explored the benefits of these in the context of the SUMP planning and implementation; and will be aware of the key steps and activities in the SUMP cycle where institutional cooperation is needed. The challenges to cooperation are also considered, together with recommendations on how these can be overcome.

B4.1

**Key content and topics:** Relevance of cooperation, aims and benefits; explanation of vertical cooperation and horizontal cooperation, including territorial and policy cooperation; link with policy integration; stages in the SUMP planning process when institutional cooperation is required; levels of cooperation (e.g. informing, consulting, partnership); and case studies of integration in practice.

**Suggested interactive exercise:** Learner reviews the organisations they communicate with regularly, undertaking a gap analysis of organisations they could work with in the future to achieve improved vertical and horizontal integration.

#### Structuring and formalising institutional cooperation

**Learning objective:** The learner gains an understanding of organisational and communication methodologies that can enhance institutional cooperation, including tools that can be utilised to visualise relationships and responsibilities between organisations. Case studies introduced in module 4.1 are studied in greater detail.

B4.2

**Key content and topics:** Understanding and definition of functional roles and rationales

within institutional stakeholder groups, use of schemes available, definition of partnership structure (preparation of organograms); recommendations for reaching out to institutional stakeholders, defining routines, operational management of partnerships; case studies.

**Suggested interactive exercise:** Based on a case study of institutional cooperation provided in the module, the learner undertakes a brief study of the institutional cooperation mechanisms utilised, such as consultation by mail, regular meetings and workshops and the agreement of a “Memorandum of Understanding”.

#### Practical competences and skills needed for managing institutional cooperation

**Learning objective:** In this module the learner will gain an understanding of the practical competencies required (staff, finance and skills).

**Key content and topics:** Funding and finance including budget management; human resource needs and management; facilitating and servicing meetings; presentation of case studies; and recommendations for maintaining institutional cooperation and partnership working in the long term.

**Suggested interactive exercise:**

Learner undertakes a review of the strengths and weaknesses of three to four stakeholders that would be involved in designing and implementing a measure. The learner then designs an event agenda that is intended to bring these stakeholders into a cooperative process.

B4.3

#### Leadership in institutional cooperation processes

**Learning objective:** In this module the learner gains an understanding of the importance of leadership, how to assess leadership styles of key stakeholders and how cooperation may be facilitated.

**Key content and topics:** Introduction to leadership styles in the public sector environment (e.g. entrepreneur and facilitator); clarification of responsibilities and understanding who is in charge; addressing how leadership can take shape in a multi-stakeholder planning process; consideration of the role of the transport and mobility planners as facilitator.

**Suggested interactive exercise:**

The learner selects a specific measure they would like to implement and reflects upon the leadership styles of the decision-makers who would need to agree the scheme. Consideration is given to the most promising path of actions to be taken for a positive decision to be made.

A4.1

## 5. Identification and selection of measures and measure packages

#### The value of developing effective measures and measure packages and common barriers

**Learning objective:** After completing this module, the learner will understand the value of developing effective measures and measure packages in a rational and systematic manner, as well as the importance of setting in place a robust and open-minded measure selection process that takes into account mobility budget expectations.

**Key content and topics:** Introduction to the topic of measure selection and identification of relevant steps in the SUMP Cycle. Explanation of terminology, including option generation and appraisal; supply and demand-side measures; differences between single measures and measure packages. Consideration of the barriers to effective measure selection (financial,

B5.1



institutional, political and acceptability issues), the benefits of a sound measure selection process, and the importance of linking measure selection to the preparation on an action and budget plan.

**Suggested interactive exercise:**

The learner uses different existing tools and toolboxes (KonSULT, CIVITAS, TIDE) to undertake a review of those measures that are used in their city; and describes / reflects on the measure selection process utilised in their city.

B5.2

### Assessment of transport problems and opportunities

**Learning objective:** The learner will gain an understanding of types of transport problems and approaches to identify these.

**Key content and topics:** Introduction to how to analyse transport problems (analysis tools), certain challenges of transport modes especially of non-motorised modes in relation to motorised modes, types of transport problems and interrelationships with other sectors (energy, climate, health); link between (the assessment of) local transport problems, local transport visions/goals. Case studies are provided demonstrating methodologies, common problems of cities, but also different priorities and context specific issues to tackle.

**Suggested interactive exercise:**

Learner will name the five key problems for their city effecting transport development, e.g. fast growth and rising commuter levels, parking, and land use policy; and identify interrelation and potential intervention strategies. In addition, learners identify key transport problems of specific modes in their city and what kind of analyses is available. Presentation of mobility situation in their city.

B5.3

### Overview about SUMP-related measures and their ‘packaging potential’

**Learning objective:** The learner will become familiar with the basic categories of single measures, appreciate the theory of optimising measures through packaging, and will have explored case studies where this has been undertaken in practice.

**Key content and topics:** Presentation of frequently applied/ proven policy instruments related to sustainable urban mobility planning broken down into categories (infrastructure, land-use, mobility management, pricing etc.); the theory of measure packaging (PUSH&PULL) and achievement of “synergy”; background evidence of the benefits based on the EU project (e.g. PROPOLIS, EVIDENCE) and other studies; and an introduction to how to achieve integration of measures (combination of research findings, e.g. integration matrices, and local case examples), contribution of policy packages to strategies.

**Suggested interactive exercise:**

Learner to consider whether there are cases in their local context where:

- the implementation of mobility measures have succeeded because they were implemented alongside one or more other measures; and
- whether there are examples of unsuccessful measures that could have achieved positive results if one or more complementary measures had been implemented at the same time.

B5.4

### Approaches and instruments for measure selection

**Learning objective:** Within this module the learner will learn how to design a robust measure selection process.

**Key content and topics:** Introduction to the actual process of measure selection and appraisal methods. Overview of common approaches to measure selection and formation of measure packages, including: expert advice, fact/indicator-based selection process, political selection process, application of special methods (e.g. DELPHI), cooperative approaches, web-based instruments for selecting measures and measure packages (e.g. KonSULT, TIDE; MaxExplorer), and up-scaling of existing measures. Examples of appraisal methods that have been adopted in different cities are presented as case studies (e.g. Vienna, Dresden, Bremen, Budapest).

**Suggested interactive exercise:**

Learners explore on the process of measure selection in their specific context and assess which measure appraisal and selection tool, or combination of tools, they consider would be most effective in their city.

**Focus on mobility measure resources**

**Learning objective:** The learner is introduced to catalogues/categories of measures that provide a useful resource for practitioners.

A5.1

**Key content and topics:** Given the wide range of mobility measures now available to practitioners, catalogues of measures and case studies are introduced, including the rationale behind the structuring categories. For example the measures in the KonSULT Policy Guidebook are divided into six categories: land use; infrastructure; management and service; attitudinal and behavioural; information provision; and pricing.

**Suggested interactive exercise:**

The learner will conduct an exemplary process of measure selection starting with the analyses of the transport situation and setting of visions and targets. Based on these basic steps a theoretical but rational selection of measure approach will be tested with a final packaging of measures in order to raise acceptance and impacts of measures.

## 6. Monitoring and evaluation

**The value of monitoring and evaluation in sustainable urban mobility planning and its challenges**

**Learning objective:** Learners gain an overview of the monitoring and evaluation process and the benefits this brings to a cyclical process of preparing and reviewing SUMP. Learners gain knowledge on selecting an appropriate methodology, collating data and ensuring that sufficient human and financial resources are available.

B6.1

**Key content and topics:** Relevance of monitoring and evaluation, aims and benefits; its relation to setting SMART goals, explanation of key terminology used, such as targets, indicators and units; considerations when planning the resourcing of monitoring and evaluation (financial, organisational); and examples of SUMP evaluations. Recommendations are provided how barriers for M&E can be managed.

**Suggested interactive exercise:**

After selecting a measure that has been implemented in their or another city, the learner seeks to identify whether monitoring and evaluation for that measure has been undertaken. The learner reflects on whether the policy measure can be considered a success based on the monitoring and evaluation data available, and what critics for the measure might use utilising the available data.



## B6.2

### The SUMP monitoring and evaluation process

**Learning objective:** The learner gains an understanding of the evaluation process, steps taken in relation to the SUMP cycle and an introduction to the range of techniques and approaches that can be adopted.

**Key content and topics:** Introduction to the individual steps in monitoring, appraisal and evaluation; an overview of different quantitative and qualitative strategies and methodologies (e.g. scientific-experimental, qualitative/anthropological, participant-oriented) and how these can be combined; guidance is provided on the preparation of an evaluation and monitoring plan. The importance of planning monitoring and evaluation activities at an early stage in the planning process is explained and examples of evaluation methodologies are reviewed.

**Suggested interactive exercise:** Learner reviews an example of a SUMP evaluation report and identifies the different quantitative and qualitative evaluation methodologies utilised. Learner sets up a M&E plan (using CH4LLENGE M&E template) for a single measure: determination of objectives, indicators, measuring methods, selection of before/after method or comparison method, measuring intervals, estimate of effort needed.

## B6.3

### Evaluation and monitoring methodologies

**Learning objective:** The learner is provided with a greater theoretical understanding of evaluation methodologies, together with knowledge of practical examples of evaluation strategies typically utilised for SUMP planning processes, in addition to more advanced techniques. Learners consider the advantages and disadvantages of each approach. Data collection processes and options are also explored in greater detail with the learner contemplating the practical and cost considerations of these.

**Key content and topics:** Taking the broad categories of evaluation introduced in module 6.2 as a framework, examples of methodologies that can be utilised for SUMP evaluation are presented. Advanced techniques such as cost-benefit analysis and multiple-criteria analysis are explained. Data collation methodologies (traffic surveys, traveller questionnaires etc.) and the resource requirements for these are also covered. Introduction to levels of indicators (outcome indicators, transport activity indicators, output indicators) and indicator sets commonly applied at a European level (e.g. Covenant of Mayors SEAP Guidelines, Eurostat 'Pocketbooks: Energy, transport and environment indicators', etc.); readily available sources of data that can be used to form a SUMP baseline and for monitoring (potentially including the EVIDENCE project); and review of data collection methods.

**Suggested interactive exercise:** Learner selects an individual SUMP measure and outlines the data collation and evaluation method they consider to be most appropriate, useful and realistic to use.

## A6.1

### Target-setting, indicator selection and data collation

**Learning objective:** The Learner is able to set up a monitoring and evaluation plan that uses a reasonably amount of resources and delivers reliable results.

**Key content and topics:** Collation of robust data in an efficient manner is vital for successful for monitoring and evaluation. The learner explores in greater detail how to apply the CH4LLENGE monitoring and evaluation template and select targets, indicators and

measurement units that are both informative and realistic to use in practice. A need for consistency of indicator use and data collation over time is considered. Sources of indicator sets and data available at the European level are provided.

**Suggested interactive exercise:** Learner undertakes desk-top research of indicator sets and statistics available at the national and regional levels within their country.

Learners analyse and discuss reliability of databases such as TEMS or the Eurobarometer.

A6.2

### Real-time monitoring: role of technology and social media

**Learning objective:** The learner will gain awareness of the available tools, as well as considering the opportunities and challenges arising in data collection and how such data can inform decision making.

**Key content and topics:** Setting up effective data collation processes is important as this baseline and monitoring information underpins planning and evaluation processes. Over recent years smart technologies have increased the options available to mobility organisations. Focus on the use of automated, internet and smartphone-based monitoring tools, including for example: automatic detection and photography; satnav and smartphone GPS apps and reporting; smart ticketing technologies and reporting. Use of data within transport modelling processes is described. Case studies are provided, as well as information on the sensitivities of using these technologies, such as data protection and privacy.

**Suggested interactive exercise:**

The learner selects a transport mode of particular interest and undertakes research on the technology-based tools and products that are available to assist with monitoring and measure planning and evaluation.

A6.3

### Introduction to process evaluation

**Learning objective:** Learners will understand the reasons for undertaking process evaluation, explore the methodologies that can be used, and will know how to assess whether their mobility plan conforms with the EU Urban Mobility Package and SUMP Guidelines.

**Key content and topics:** Process evaluation enables you to learn the lessons from the last cycle of plan preparation and optimise processes for the future. Introduction to the relevance and aims of process evaluation and how this relates to activities in the SUMP cycle: Activity 1.3 of the SUMP Cycle advises that organisations conduct a self-assessment of their ability to prepare a SUMP, while Activity 11.2 highlights the importance of reviewing your achievements and understanding successes and failures in plan preparation and implementation. Explore methodologies such as: analysis using a checklist of barriers and drivers (e.g. organisational issues, finance, legislation and policy); peer review by external organisations; and the use of existing SUMP self-assessment and audit tools that help to gauge whether the planning process fulfilled the requirements of a SUMP and which aspects of the process could be strengthened.

**Suggested interactive exercise:**

The learner conducts the CH4LLENGE SUMP Self-Assessment Scheme or other audit methodology (e.g. ADVANCE, QUEST ENDURANCE City File) and considers what other factors need to be assessed in their city to ensure a robust process evaluation.

## 7. Conclusions

### B7.1

#### Reflection on links between Challenges and scale of organisational change required

**Learning objective:** The learner understands that the SUMP challenges of participation, cooperation, measure selection and monitoring & evaluation cannot be addressed in isolation, but rather looked at as a whole.

**Key content and topics:** As a conclusion to the course, the learner refocuses on the bigger picture of SUMP preparation and the scale of transition required in their local context to prepare and implement a SUMP. Therefore, focus of the exercise will be on the strategy for the implementation of the plan and associated transport projects, next SUMP processes and governance structures supporting SUMP.

**Suggested interactive exercise:**

Taking the change management steps as inspiration, the learner prepares a mini-change plan covering actions they could take over the next six months to improve mobility planning practice in their organisation or city and prepare for SUMP development.

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