

European Regional Development Fund - Instrument for Pre-Accession II Fund

# **SMILE**





# **ACTION PLAN**

FOR A TRANSNATIONAL SUSTAINABLE URBAN MOBILITY PLAN (SUMP) CONCEPT Executive Summary











Action Plan for a Transnational Sustainable Urban Mobility Plan (SUMP) Concept

**Executive Summary** 

Project: SMILE - FirSt and last Mile Intermodal mobiLity

in congested urban arEas of the Adrion Region

Programme: Interreg V B ADRIATIC-IONIAN Cooperation Programme 2014-2020

Work package: WP T2 - Elaboration of a transnational SUMP scheme for urban

and interurban areas of the ADRION region

October 2020







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Project Partner 2	SCV - School Centre of Velenje (SI)
Project Partner 5	ZADRA NOVA - Zadar County Development Agency (HR)
Project Partner 6	DURA - City of Dubrovnik Development Agency (HR)
Project Partner 7	MoH - Municipality of Hersonisos (GR)
Project Partner 8	RDA Banat - Regional Agency for Socio-Economic Development Banat Ltd (RS)
Project Partner 10	PREDA-PD - Agency for economic development of the City of Prijedor (BA)
Project Partner 11	City of Gradiska (BA)

Action Plan for a Transnational SUMP concept Executive Summary





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# About the SMILE project

FirSt and last Mile Inter-modal mobiLity in congested urban arEas of the Adrion Region





1.

# About the SMILE project

The SMILE project - FirSt and last Mile Inter-modal mobiLity in congested urban arEas of the Adrion Region is focused on the first and last mile of mobility in urban areas of the Adrion Region, embracing coastal, inland and bordering cities of different sizes, where residents, commuters and tourists are facing the consequences of unsustainable mobility models and lack of effective multimodal solutions; air pollution, congestion and related delays, CO2 emissions, noise, accidents and public spaces being occupied by cars.

#### SMILE addresses these issues through project actions that aim to:

- > strengthen mobility knowledge and operational capacity of local/regional authorities,
- test quick-win IT solutions
- > and promote intermodal solutions to increase traffic flow efficiency.

The strategic partnership of the SMILE project is composed by ten partners from seven Adriatic- Ionian countries and is based on multilevel institutions. The SMILE partnership has been built to provide all the necessary competences to implement activities; institutions capable to have an inter-municipal coverage (regional agencies), local authorities implementing capacity, supporting bodies providing consultancy, services and education in the field of mobility and an academic-knowledge provider.







The project is co-financed by INTERREG V-B Adriatic-Ionian Cooperation Programme 2014-2020.

Project budget:

€1,290,415.45

EU funding:

€1,096,853.10

Project duration:

01.01.2018 - 31.12.2020

## **Project partners:**

Regional Development Centre Koper (SI)
School centre of Velenje (SI)
Free Municipal Consortium of Ragusa (IT)
luav University of Venice (IT)
Zadar County Development Agency - ZADRA NOVA (HR)
City of Dubrovnik Development Agency DURA (HR)
Municipality of Hersonissos (GR)
Regional Agency for Socio-Economic Development - Banat Ltd (RS)
Agency for economic development of City of Prijedor - PREDA-PD (BA)
Municipality of Gradiška (BA)

# Associated partner:

Ministry of Infrastructure and Transport (IT)

## More about the project:

www.adrioninterreg.eu smile.adrioninterreg.eu

Interreg ADRION SMILE project



# Introduction

An executive summary of the work carried out by partners of the SMILE project





2.

# Introduction

This document is an executive summary of the work carried out by partners of the SMILE project within the Work Package T2 defining a common transnational Sustainable Urban Mobility Plan (SUMP) model for urban and interurban areas of the Adriatic-Ionian macro-region.

The individual contributors to this eBook are stated in the footnotes. Where possible, contributions were not modified in order to respect the drafting made by each contributor.

The SMILE project is focused on the first and last mile of mobility in the chosen variegated and paradigmatic urban areas of Adrion Region, including coastal, inland and bordering cities of different sizes (from metropolises to small towns) in order to:

- define and compare mobility scenarios to enable policy makers and key stakeholders to better understand the consequences of inaction/action,
- outline a transnational scheme in order to draft Sustainable Urban Mobility Plans as a common cognitive umbrella under which to develop (or reinforce, where already initiated) local SUMPs mirroring specific local situations,
- and perform tests residents, commuters, tourists, freight and bus tourism operators through various IT solutions (APPs/Platforms) aimed at reducing/curbing congestion, promote intermodal solutions and increase traffic flow efficiency.

Given the above, SMILE aims to reach multilevel objectives:

- > to strengthen knowledge and operational capacity regarding the mobility of local/regional authorities,
- ▶ to test quick-win IT solutions, and thus not requiring large infrastructural investments, in order to promote intermodal transport.







The transnational approach allows for the comparison, exchange and sharing of experiences, by drafting and comparing mobility scenarios and SUMP schemes within an interregional context combined with sustainable mobility IT solutions.

At programme level, the SMILE project contributes to the fulfilment of the ADRION Strategic Objective 3.1 ("Enhance capacity for integrated transport and mobility services and multimodality in the Adriatic-Ionian area") by promoting solutions for:

- multimodal environmental-friendly and low carbon transport,
- > and mobility infrastructures and services.

Therefore, the SMILE project is structured into **2 specific objectives**:

- Transnational action plan and SUMP concept;
- ▶ Test of various IT tools in favour of sustainable mobility.

The main predicted results of the SMILE project are:

- Increased policy-making capacity through the elaboration of mobility scenarios and a joint transnational Sustainable Urban Mobility Plan (SUMP) scheme;
- ▶ Promotion of sustainable mobility in urban areas by testing IT solutions.







To reach such purposes, the project develops the following Implementing Work Packages:

- ▶ WP T1 Design of Mobility Scenarios and elaboration of a transnational action plan;
- **WP T2** Elaboration of a transnational SUMP scheme for urban and interurban areas of the ADRION region;
- ▶ WP T3 Testing of IT, e-mobility solutions & mainstreaming activities.

Specifically for the purpose of this document, the WP T2 aims to draw up and promote a transnational Sustainable Mobility Planning model for urban and interurban areas, on the basis of an integrated SUMP scheme identifying transnational mobility strategies.

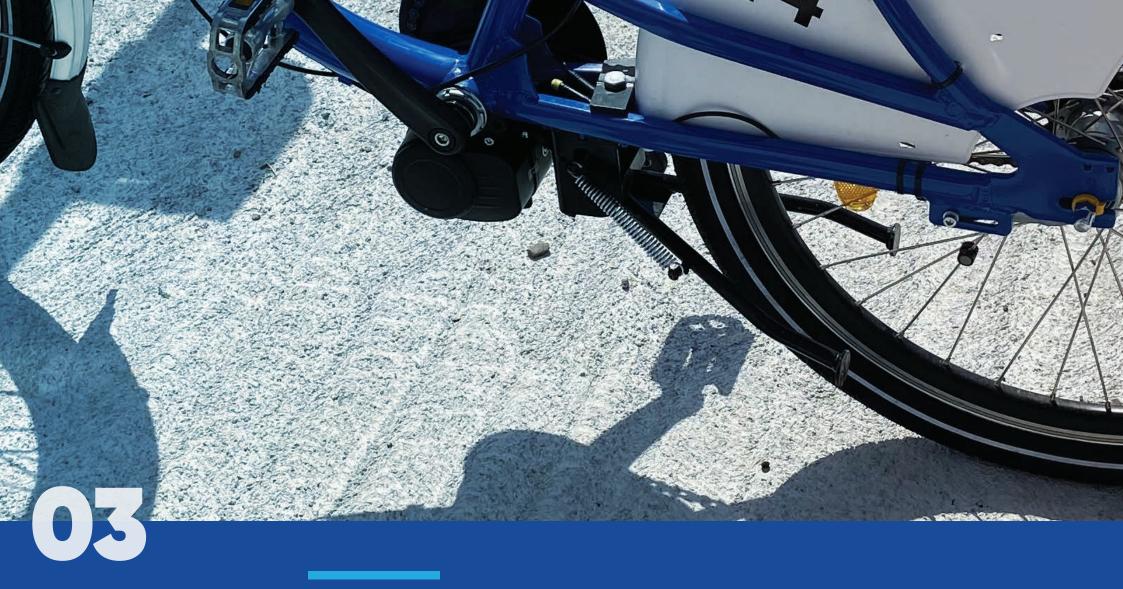
Ragusa Free Municipal Consortium was the coordinating partner for WP T2 and involved all partners in the creation and coordination of a *Transnational Working Group (TWG)*, in order to draft the Transnational SUMP scheme.

The final document of the *Transnational SUMP Scheme*, as a result of the shared contribution of the involved partnership, was subdivided into two parts, according to the work flow carried out by partners:

- Part A Benchmark report;
- ▶ Part B Planning model.

Any information or data affecting the local territories and national framework was provided by each partner responsible for its competence area.

In the following pages, we present the composite of the abovementioned document.



# Methodology

A general overview of the WP T2 within the SMILE project Purpose of the report and developed analyses





3.

# Methodology

# 3.1 General overview of the WP T2 within the SMILE project

The Work Package T2 - Elaboration of a transnational SUMP scheme for urban and interurban areas of the ADRION region aims to:

- **compare a variety of sustainable mobility planning models** in coastal, inland and cross-border regions (at urban and interurban level),
- ▶ and to promote a transnational Sustainable Urban Mobility Planning scheme/concept.

The main output of the WP T2 is the creation of an Action Plan for Transnational SUMP concept, including a common and transnational model for *Sustainable Urban Mobility Planning* with a series of suggestions and measures that could be implemented at local level.

With this purpose, the final **Transnational SUMP Scheme** is an open planning model for urban and interurban areas that can be used by municipalities and local authorities. Therefore it:

- ▶ has to be owned by the entire partnership and freely usable after project conclusion,
- ▶ is open and available online for wider ADRION and EU communities;
- > can be used to finalise the eventual SUMP draft in the areas involved in SMILE as well as in other ADRION regions.

To this end, the "Transnational SUMP concept" was drafted on the basis of:

- ▶ the existing acts and guidelines on Sustainable Mobility already issued by the European Union,
- > and the regulations and policies implemented at regional level by EU Member States and IPA regions.







Therefore, the transnational SUMP scheme was initially drafted using the Acts and Guidelines on Sustainable Mobility, such as:

- ▶ EC Communication COM(2013) 913 final "Together towards competitive and resource-efficient urban mobility",
- ▶ and ELTIS Guidelines on "The Poly-SUMP Methodology" (December 2014).











## 3.2 Purpose of the report and developed analyses

As specified above, the *Action Plan for Transnational SUMP* concept defines a common and transnational model for *Sustainable Urban Mobility Planning* that could be used by local authorities operating in ADRION macro-region countries.

To this end, for each considered country/region, the SUMP scheme has to consider the existing national legal frameworks and the current local level planning tools so that the proposed SUMP model can be developed according to existing regulations.

Therefore, before starting to draft the *Transnational SUMP concept*, each partner checked the existing best practices on *Sustainable Urban Mobility Plans* and other eventual transport plans in their country/region.

This preliminary analysis was developed by using a template; each partner provided comparable data on different legal frameworks and sustainable mobility planning models which are implemented in the countries involved within the ADRION macro-region.

This preliminary data was essential in drafting the *Transnational SUMP concept* and its main purpose was to define a benchmark for the SUMP policy implementation in the areas of involved partners. Thus, allowing for the outlining of the overall legal and policy framework of sustainable mobility in the ADRION macro-region. Moreover, it facilitated the sharing and comparison of modern regulations and policies in each partner country/region involved in the project.

During this process, the project partners defined the current implementation of *Sustainable Urban Mobility Plans* (or similar planning models) in the EU states and in other IPA countries/regions involved in the project.

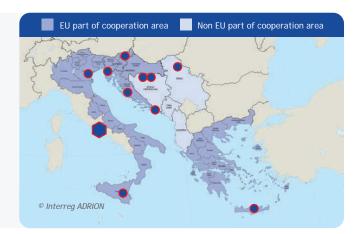






The project partners contributed to the transnational analysis by drafting 6 local reports in order to check the level of implementation and the coherence of Policies and Acts on Sustainable Mobility, which were adopted by the EU Commission and Parliament in the following partner countries/regions:

- Bosnia and Herzegovina,
- ▶ Croatia,
- Greece,
- Italy,
- Serbia,
- and Slovenia.



Therefore, the analysis activity focused on 2 specific issues:

- ▶ Sustainable Mobility Legal Framework approved in the States of involved partners;
- ▶ Sustainable Mobility **Policies** implemented in the States of involved partners.

The reports were drafted by partners according to the abovementioned template in order to use a common framework and to develop common topics to be shared and compared between the partners. The following page lists the distribution of tasks for each partner by contribution.







# Partners contributing to the analyses for the transnational SUMP scheme

No. partner	Partner	Member state	Title of report
LP	RDC Koper	Slovenia	Sustainable Mobility Policy framework in Slovenia
PP2	School Center of Velenje	Slovenia	Sustainable Mobility Legal framework in Slovenia
PP3	Ragusa FMC	Italy	Sustainable Mobility Policy and Legal framework in Italy
PP5	ZADRA NOVA	Croatia	Sustainable Mobility Policy framework in Croatia
PP6	DURA	Croatia	Sustainable Mobility Policy framework in Croatia
PP7	Municipality of Hersonissos	Greece	Sustainable Mobility Policy and Legal framework in Greece
PP8	RDA Banat	Serbia	Sustainable Mobility Policy and Legal framework in Serbia
PP10	PREDA-PD	Bosnia and Herzegovina	Sustainable Mobility Policy framework in Bosnia and Herzegovina
PP11	Municipality of Gradiška	Bosnia and Herzegovina	Sustainable Mobility Policy framework in Bosnia and Herzegovina







The purpose of the reports was to share the legal framework and policies implemented by the involved EU Member States and IPA regions, in order to compare the results of the analyses and to develop a benchmark for the next *Transnational SUMP concept*.

To this end, all the **local reports** were collected in order to define a benchmark of Sustainable Mobility policies and Regulations for each involved Country.

After the comparison of the results of the local analyses, which was carried out by each partner in their country/region, the partners drafted the transnational SUMP Scheme on the basis of the current local sustainable mobility planning model and existing national regulations.

In order to be used and adopted by local authorities of countries/regions included in ADRION macro-region, the partners agreed to draft the *Transnational SUMP* scheme according to:

- ▶ the ELTIS Guidelines on "Developing and Implementing a Sustainable Mobility Plan",
- ▶ the Regulations, Directives and other acts issued by EU parliament and European Commission,
- ▶ the current legal frameworks of involved Member States,
- > and the existing transport and land use plans and planning tools implemented in the involved Member States.

For the last 2 issues, the SMILE contributing partners drafted local analysis reports which were merged during the first part of joint project, which was shared in a final *Benchmark Report*.







The abovementioned document summarised the level of implementation and the coherence of Policies and Regulations/Directives on Sustainable Mobility in the countries/regions of the contributing partners.

Given the above, on the basis of the previous local analysis on national legal and policies frameworks, a first template was provided to TWG members of contributing partners, by reporting:

- ▶ the first content of *Transnational SUMP Scheme*, to be shared with the Transnational Working Group members appointed by SMILE contributing partners in order to integrate it on the basis of the local regulations and needs,
- ▶ and a survey in order to integrate/amend the structure and the content of the *Transnational SUMP Scheme*.

The first provisional index of the *Transnational SUMP Scheme* was developed by WP coordinator according to the current national SUMP scheme adopted by Italian regulations, in order to have a first real example and legal reference to design the structure of the final document.

The templates were drafted by partners following this template, in order to propose the integrations to the SUMP index scheme on the basis of their national legal and policy frameworks.

The template was created pursuant to the SMILE Quality Management Plan issued by the Lead Partner and it was filled in by all the contributing partners.

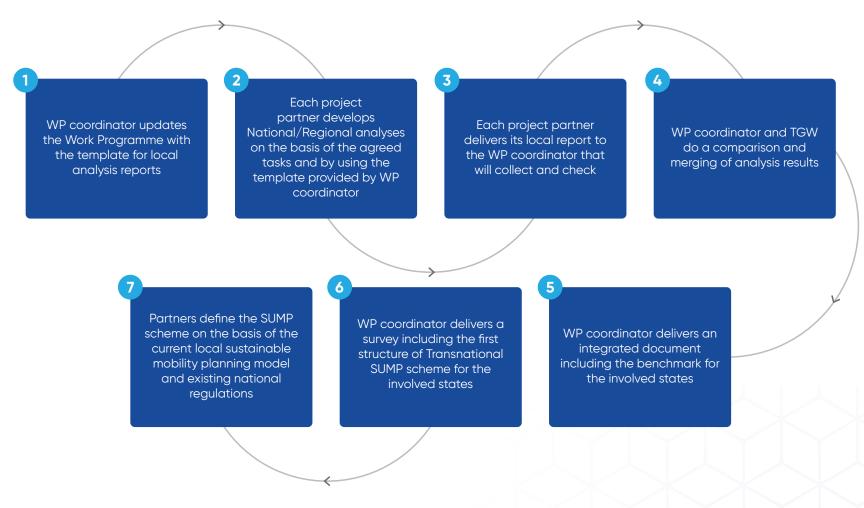






The completion of this survey was the final step to defining the *Transnational SUMP concept* on the basis of the benchmark made by each partner during the previous activities in accordance with the following flow chart.

# Check of existing tools and best practices on SUMP - Activity flow









# 3.3 Structure of the report

On the basis of the abovementioned methodology adopted by partners, the final version of this document was developed using the following framework:

- ▶ Introduction
  - 1. Methodology
- ▶ Part A Benchmark report
  - 2. General overviews of sustainable mobility in analysed countries
  - 3. National Legal Frameworks on Sustainable Mobility
  - 4. National Policy Frameworks on Sustainable Mobility
- ▶ Part B Transnational SUMP Scheme
  - 5. General results on the basis of the benchmark analyses
  - 6. Transnational sustainable planning scheme
  - 7. Contributions provided by partners for the surveys



The introduction includes the methodologies and the approach described in this chapter.







**The Part A – Benchmark report** develops the review of existing planning models and best practices on Sustainable Urban Mobility Plans and other eventual transport plans. The analysis is aimed to reach the following specific objectives:

- ▶ to define SUMP policy and legal frameworks at National level for each country/region;
- > to check SUMP implementation level and local planning models in involved areas;
- ▶ to identify SUMP best practices at National level for each country/region;

Considering the abovementioned purposes and the distribution of tasks as shown in the previous table, Part A was structured into 2 sections:

- ▶ Sustainable Mobility Legal Framework in the partner country/region;
- ▶ Sustainable Mobility Policy Framework in the partner country/region

The Part B - Transnational SUMP Scheme develops the planning model to draft the Sustainable Urban Mobility Plans:

- in accordance with the existing National legal frameworks and planning models,
- ▶ and following common procedures, indexes and key indicators.

Considering the above, Part B was structured into 2 sections:

- Identification of local implemented measures or best practices to be replicated in other areas;
- > Transnational sustainable planning scheme containing the index, with a list of objectives and the key indicators;
- ▶ Surveys were completed by partners on the basis of the template provided by WP coordinator.



on Sustainable Mobility Plans





4.

# General results of analyses on Sustainable Mobility Plans

# 4.1 SUMP models adopted by legal frameworks of partner countries

As already mentioned in previous chapter, the *Transnational SUMP Scheme* has to be **coherent with the national planning tools and legal frameworks** of the analysed countries so that it can be operatively used, adopted and implemented by local authorities.

To this end, as previously highlighted, the first structure of the Transnational SUMP Scheme proposed in the survey template was developed on the basis of the existing SUMP scheme adopted by the Italian Government with the Decree of the Ministry of Infrastructures and Transport of August 4<sup>th</sup> 2017, n. 397 affecting the "Identification of the guidelines for Sustainable Urban Mobility Plans".

Using the existing Italian SUMP index as a basis, the other project partners involved in the ADRION macro-region integrated the scheme with their local contributions., Simultaneously, they also confirmed and/or integrated it pursuant to their national legal frameworks and planning tools, in order to draft together the common *SUMP scheme* according to the regulations and administrative procedures of multiple countries.

Therefore, the proposed SUMP scheme adopted by Italian Decree was drafted largely in accordance with the following European acts and policy documents.

- ▶ ELTIS Guidelines on "Developing and Implementing a Sustainable Mobility Plan" approved in 2014 by the European Commission's Directorate-General for Mobility and Transport;
- ▶ Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the *Deployment of Alternative Fuels Infrastructures*;
- ▶ Communication COM (2009) 490 of 30/09/2009 reporting "Action Plan on Urban Mobility".







Moreover, for the purpose of the SMILE project, this Transnational SUMP scheme also took into consideration the latest ELTIS guidelines issued on November 2019.

Given the above, on the basis of the legal frameworks of the partner countries, the partners provided data relating to the national/regional legal framework of their country relating to the SUMP scheme.

As far as **Slovenia**<sup>1</sup> is concerned, partners relayed that there is no specific legislation relating to SUMP scheme at the local level. In fact, national legislation does not impose an obligation to prepare SUMPs.

Nevertheless, despite the lack of legislation on the matter, the Republic of Slovenia has prepared guidelines for drafting SUMPs. Guidelines have been financially supported by the Ministry of Infrastructure and Spatial Planning and Cohesion Fund.

Following the guidelines, the SUMPs have been prepared in a number of Municipalities, with the financial support of the Ministry of Infrastructure and EU funds (Cohesion fund, ERDF).



<sup>&</sup>lt;sup>1</sup> Information provided by LP RDC Koper and PP2 School center Velenje.







The SUMP index developed according to the abovementioned guidelines is presented below.

#### A. Laying the foundation of the process

#### B. Process of definition

- Definition of area and responsibilities
- ▶ Policy coordination and a holistic planning approach
- ▶ Planning of public involvement
- Work plan and management agreement

#### C. Analysis of the current state and scenario design

- Current state analysis (territorial, socio-economic, transport networks, etc.)
- SWOT analysis
- Definition of scenarios

#### D. Outline of desired state

- Vision definition
- ▶ Harmonization of expectations

### E. Defining priorities

Design of strategic goals of target values

#### F. Selection of measures

- Assessment of options
- Learning from the experience of others
- Cost-effectiveness study
- Drawing up of packages of measures

### G. Implementation planning

- Assignment of responsibilities and resources
- Preparation of an action plan

#### H. Establishing of monitoring system

Establishment of monitoring system and evaluation

### I. Adoption of the Strategy

- Document quality audit
- Confirmation of the document
- Building consensus

## J. Implementation of the Strategy

- Management of implementation
- ▶ Communication, information
- Monitoring

#### K. Learning from experience

- Update the SUMP regularly
- Understanding successes and failures
- Identifying future challenges







However, some Slovenian Municipalities developed their SUMPs on the basis of other indexes.

E.g. PP2 reported the SUMP of Velenje was drafted following the Slovenian guidelines but used a different structure; the strategy constituted of *five pillars*:

- 1. Establishment of integrated transport planning;
- 2. Establishing walking as an important way of travelling;
- 3. Creating conditions for exploiting the potential of cycling;
- 4. Development of attractive public passenger transport;
- 5. Changing the habits of motorised traffic users.

For each Pillar, the document outlines challenges, results, specific objectives, measures, indicators, and action plan. As regards **Greece**<sup>2</sup>, the ground rules for the development of the SUMPs and their implementation in comes from recommendations made by the EU: Annex I of COM (2013) 913 and the Guidelines Developing and Implementing a Sustainable Urban mobility Plan issued by the European Commission on 2013.

The National Laws and Regulations that mostly affect sustainable mobility in Greece are referenced here:

▶ Art.22 of Law 4599/2019, published in Government Gazette 40/A/4-3-2019 entitled "Testing the qualifications and behaviour of prospective drivers and guides for the issue of driving licenses, other provisions on driving licenses and additional provisions";

<sup>&</sup>lt;sup>2</sup>Information provided by PP7 Municipality of Hersonissos.







- ▶ Art.22 of Law 4599/2019, published in Government Gazette 40/A/4-3-2019 entitled "Testing the qualifications and behaviour of prospective drivers and guides for the issue of driving licenses, other provisions on driving licenses and additional provisions";
- ΔMEO/O/3050 Decision of the Ministry of Infrastructure, Transport and public Works published in Government Gazette 2302/B/16.09.2013, entitled "Adoption of Technical Instruction for traffic interventions in the urban environment for their application in areas of school complexes and areas with increased traffic in context of improving road safety";
- ΔYO/OIK.920 Decision of Ministry of Infrastructure, Transport and Networks published in Government Gazette 1053/B/2016 "Adoption of Technical Guidelines for cycle routes" (Bicycle Infrastructure);
- Law 3329/2016 published in Government Gazette 222/A/2016 entitled "Integration into Greek Legislation Framework of Directive 2014/94/EU of the European Parliament and of the Council of 22nd of October of 2014 on development of alternative fuels Infrastructures, the simplification of licensing procedures and other provisions of service stations and other provisions;
- ▶ Guidelines/ground rules from recommendations by the EU Annex 1 of COM (2013) 913 and the Guidelines Developing and Implementing a Sustainable Urban Mobility Plan issued by the European Commission on 2013.
- ▶ Some of them are very recent while others have been in force for a few years now. It was necessary to build the necessary legal framework for sustainable mobility planning, in combination with other policies e.g. urban planning, as it was not regulated at all.

There was a set of laws and regulations for a variety of issues affecting road/mobility transport which also focused on all technical details for planning or designing on the streets creating an inclusive mobility environment for all, including vulnerable groups like students, the elderly, the disabled and others.

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<sup>&</sup>lt;sup>2</sup>Information provided by PP7 Municipality of Hersonissos.







There was a set of laws and regulations for a variety of issues affecting road/mobility transport which also focused on all technical details for planning or designing on the streets creating an inclusive mobility environment for all, including vulnerable groups like students, the elderly, the disabled and others.

This framework was also updated in order to respond to technological needs and contribute to "smart" mobility systems and new rules for mobility behaviour for all, drivers or simply users.

Concerning **Croatia**<sup>3</sup>, project partners shared that there is neither a national nor regional legislation that adopted a SUMP scheme. Sustainable mobility in the Republic of Croatia is based on a theoretical approach that has not been properly implemented yet in national legislation.

Apart from the fact that physical and regional planning systems are institutionally separated, more intensive development of regional planning has only started since Croatia joined European integration.

The elements of sustainable mobility have been implemented in legal documents only in recent years, and the criteria and standards that would make it possible to determine the degree of sustainable mobility development have not been established yet.

Consequently, in order to stimulate more intense management of sustainable mobility and a strategic approach to sustainable mobility developed in as many cities as possible, it is necessary to better implement sustainable mobility and remove current legal deficiencies.

As for the **Serbia**<sup>4</sup>, also in this case the project partner refers to no reference regarding SUMP or significant activities related to its definition, except for the cities of Belgrade, Krusevac and Valjevo. A first draft of SUMP for the city of Krusevac has been drafted (European Mobility Week and CIVINET network involvement). However, until now this has been a very poor experience on national and local level and has demanded following the SUMP procedures and recommendations from other countries first, and then adjusting it to the local conditions after.

 $<sup>^{\</sup>rm 3}$  Information provided by PP6 DURA.

<sup>&</sup>lt;sup>4</sup> Information provided by PP8 RDA Banat.







The relevant documents for Serbia affecting sustainable mobility are shown below:

- > Strategy and Action plan for Road Traffic Safety of the Republic of Serbia 2015-2020;
- ▶ EU White Paper on Transport 2011 (Although Serbia is not yet part of the European Union)
- Local Government Act (a series of laws in the field of mobility);
- > Strategy for Road Traffic Safety of the Republic of Serbia from 2015 to 2020 (Official Gazette of RS no.64/2015).

Regarding **Bosnia and Herzegovina**<sup>5</sup>, national legislation fails to recognise SUMP as a mechanism that is specifically addressed, either nationally or locally. The SUMP is a fairly new concept in transport planning, with only one SUMP currently developed, for City of Banja Luka through the Interreg DANUBE CHESTNUT project and a few others in development.

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<sup>&</sup>lt;sup>5</sup> Information provided by PP10 PREDA-PD/PP11 Municipality of Gradiska.







Urban mobility plans appear as a result of various "ad hoc" projects, led by international organisations and expert groups. In order to develop plans that indirectly address the topic of urban mobility, the following legislative framework is applied:

#### National level:

- Framework transport policy of Bosnia and Herzegovina for the period 2015-2030;
- Framework Transport Strategy of Bosnia and Herzegovina for the period 2016-2030;
- Law on International and Inter-Entity Road Transport;
- Law on Basics of Road Traffic Safety in Bosnia and Herzegovina.
- ▶ Entity level (Republic of Srpska level):
- Law on Road Transport of the Republic of Srpska;
- Law on Public Roads of the Republic of Srpska;
- Law on Traffic Safety on the Roads of the Republic of Srpska;
- Law on Transport of Dangerous Goods of the Republic of Srpska;
- Rulebook on the manner of performing control and direct regulation of traffic on roads.

#### Local level:

Integrated development strategy







However, even if it is non-existent within the official documents, there are some international organisations who lead the process of introduction of urban mobility planning in strategic document, Thanks to one of them (The GIZ ORF-EE project titled "Sustainable Urban Mobility in South-East European Countries II/SUMSEEC II), here is the Index:

- 1. Summary
- 2. Glossary SUMP
- 3. Introductory considerations and plan of dialogue and participation
- 4. Vision, goals and sub-goals
- 5. Summary of situational analysis of traffic, transport, transport and mobility
- 6. Strategic pillars and measures
  - 6.1 Sustainable spatial planning and urban mobility
  - 6.2 Hiking and biking
  - 6.3 Public city transport
  - 6.4 Individual personal transport
  - 6.5 City logistics
- 7. Scenarios
- 8. Action plan and financial framework of implementation
- 9. Summary monitoring and evaluation plan







# 4.2 Local procedures and SUMP requirements highlighted during the Survey

On the basis of benchmark reports and surveys proposed by partners, the latter ones provided data relating to specific Local Authorities, timing, minimum threshold of population/territory necessary for the SUMP adoption, pursuant their national legal framework.

With regard to **Italy**, the procedures and requirements were already reported and summarised in the national decree of the Italian Government as previously mentioned.

Regarding **Slovenia**<sup>6</sup>, as highlighted before, the national legislation does not impose an obligation to prepare SUMPs. In 2015, the Ministry of Infrastructure offered support to encourage the development and implementation of SUMPs on a local level and supported the municipalities under the Operational programme for the Implementation of the European Cohesion Policy 2014–2020, for cities and municipalities that include at least one urban settlement and that did not already have a SUMP or where it was older than two years.

A total of €3,750,000.00 was available under the tender; funds were provided from the earmarked funds of the European Cohesion Fund and budget.

More than 60 municipalities acquired funding for the preparation of SUMPs. The tender criteria included the number of inhabitants in the municipality: city municipalities, municipalities above 30,000 inhabitants, between 20,000 and 30,000, between 10,000 and 20,000, and below 10,000 inhabitants.

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<sup>&</sup>lt;sup>6</sup> Information provided by LP RDC Koper/PP2 School Centre Velenje.







By the end of 2018, over 77 cities had adopted a SUMP (one-third of all municipalities and two thirds of the total urban areas). Slovenia's SUMP guidelines emphasize the local specifics of Slovenian urban areas as well as following EU guidelines.

The latter, have been adapted to the Slovenian context and legislation, completed by local best practices. Until now, cities like Ljubljana, Nova Gorica and Maribor, have prepared a SUMP.

Regarding **Greece**<sup>7</sup>, 2016 was a landmark year in terms of national initiatives for promoting sustainable mobility; the Greek Fund released a programme to finance municipalities regarding the development of their own SUMPs. 162 small, medium and large cities were selected as beneficiaries to the project and have started to develop their SUMPs. Among them, there are all major cities, tourist cities and insular communities, which clearly define a new era in mobility planning. Citizens, stakeholders and decision makers are more familiar with the terms and ask for policies to slow down climate change, open up public spaces and enhance urban cycling.

At the same time from 2016, the Ministry of Transport and the Ministry of Environment, through a team of experts, attempted to develop particular national guidelines on Greek SUMPs and regulatory reports in order to guide, in detail, the municipal authorities and planners for the philosophy and key features of such plans, based on the ELTIS Guidelines Report (January 2014) which remains incomplete so far (as of 2019). The cities that are currently implementing SUMPs are officially guided to follow the ELTIS Guidelines (January 2014).

In 2019, a new law defined a number of parameters regarding Greek SUMPs, while a series of relevant frameworks seem to change in favour of the vulnerable users and electromobility.

<sup>&</sup>lt;sup>7</sup> Information provided by PP7 Municipality of Hersonissos.







The national laws and regulations affecting Sustainable Mobility are as follows:

- National Transport Plan for Greece;
- Guidelines for designing urban municipal roads MOU;
- National strategy for urban mobility;
- ▶ Guidelines for Sustainable Urban Mobility Plans (SUMPs) development. A strategy for redefining traffic organisation and urban planning in Greek cities;
- Report SMU.A.1/B.K/ΣΟ1/2016/6.7.

In the Republic of **Croatia**<sup>8</sup>, transport planning in the legal sense is characterised by a one-sided approach. There is no law directly regulating sustainable mobility, but there are many laws and regulations that regulate the infrastructure of particular modes of transport.

Although innovative and sustainable solutions for the design of transport infrastructure have been implemented within the laws and regulations, it is problematic that the rules for different types of transport are not fully harmonised.

Important steps are being made to facilitate clearer regulations and more complex sustainable mobility planning, in particular the development of the study "Professional basis for the introduction of integrated public transport of passengers within the Republic of Croatia", development of the "Minimum Standards for Access to Public Transport of Passengers in Road Transport in the Republic of Croatia" and the development of the Law on the Integrated Transport of Passengers by public Transport that are being developed now.

<sup>&</sup>lt;sup>8</sup> Information provided by PP6 DURA.







As for **Serbia**<sup>9</sup>, no significant steps related to the definition of SUMP are being made, except for the cities of Belgrade, Krusevac and Valjevo. In 2016, Krusevac started drafting the SUMP, which can be considered the result of previous involvement of the city in the European Mobility Week and CIVINET network.

As per national legislation related to urban planning, there are no specifics related to the local authorities in such that the local municipality need to have SUMP elaborated and adopted.

Also, as per national legislation, there is no specific deadline as to when the SUMP needs to be adopted or any threshold related to the conditions for local communities when they need to have the SUMP elaborated and adopted. However, positive practice in the most developed cities in the world and the wish for cities to be much more oriented to citizens and to the sustainable planning is driving the larger local municipalities in Serbia to have SUMP elaborated and adopted.

Each of the local municipalities plans their SUMP themselves and includes this into their annual or other plans.

In Bosnia and **Herzegovina<sup>10</sup>** the concept of SUMP is fairly novel and is not recognised, or even mentioned, in local legislation. Currently, a SUMP has been developed for the City of Banja Luka, through the Interreg DANUBE CHESTNUT project, while SUMPs for Sarajevo and Bijeljina are under development. The City of Gradiska will develop a SUMP as part of the SMILE project by the end of the year.

Currently, no local authorities have adopted a SUMP as an official document for planning of sustainable urban mobility. Traffic development planning, neither at local nor at the national level, is not regulated by the existing legal framework. Indirectly, the Law and local independent government stipulate the competence of local self-government to adopt programmes and implement local economic development projects and take care of improving the general framework for business within the local independent government.

<sup>&</sup>lt;sup>9</sup> Information provided by PP8 RDA Banat.

<sup>&</sup>lt;sup>10</sup> Information provided by PP10 PREDA-PD/PP11 Municipality of Gradiska.







Default traffic as one of the important aspects that enable and monitor local economic development, it implies that local governments have the authority to adopt traffic development programmes.

At the local level, the institutional framework for traffic development management is organised in different ways depending on the size of local government, development traffic networks and so forth.

So, in more developed cities, which have higher requirements in terms of traffic management, the network of organisations and institutions, or the department in charge, can be developed and branched.

Smaller municipalities, on the other hand, often do not have special departments or other departments dealing with these issues. The Department of Economy and Local Economic Development or the Department of Communal Affairs mainly handles traffic development issues.

At the level of local independent governments, documentation that directly or indirectly deals with issues of traffic development can be of different levels, names and contents:

Spatial plan, General urban plan, Traffic study of the city and settlements, Traffic improvement study, Transport general plan of the city, Strategy of sustainable traffic development etc.

In relation to all the above documentation, the position of the Strategy for Sustainable Transport Development, i.e. the local sectoral plan for transport development, is the umbrella and hierarchical strategies for sustainable transport development, must be the "starting" document.

Strategies are based on the principle of determining the necessary priorities, through the action plan it opens the possibility of quickly starting the development of traffic projects that will quickly show initial results.



# Transnational sustainable planning scheme





5.

# Transnational sustainable planning scheme

The structure reported in the following pages was summarized and modified on the basis of the needs highlighted in the benchmark report.

After the survey results provided by partners, the structure was integrated and completed with further contributions shared by the Transnational Working Group of project partnership.

The SUMP scheme aims to share:

- uniform procedure for the preparation and approval of the SUMP,
- ▶ a Logical Framework Approach for identification of the reference macro-objectives and key indicators to check the implementation of SUMP according to same parameters,
- common objectives for the drafting and implementation of SUMP,
- and structure and index of SUMP.

In the following paragraphs, we present a composite of the structure with the final modification of its contents in order to fit the SUMP scheme on the basis of the contexts analysed in the previous benchmark report.











### 5.1 Operative procedures

The Sustainable Urban Mobility Plan is a strategic planning tool that develops a system vision of urban mobility:

- for the medium-long term,
- > proposing the achievement of environmental, social and economic sustainability objectives,
- ▶ and defining actions aimed at improving the effectiveness and efficiency of the mobility system and its integration with the structure and urban and territorial developments.

The Sustainable Urban Mobility Plan is a strategic planning tool that develops a system vision of urban mobility:

- ▶ the ELTIS Guidelines on "Developing and Implementing a Sustainable Mobility Plan", approved in 2014 by the European Commission's Directorate-General for Mobility and Transport;
- the new ELTIS Guidelines on "Developing and Implementing a Sustainable Mobility Plan" updated and issued on November 2019.

### Planning framework

The SUMP has to be developed within the regional and national planning framework, and aims to integrate itself with the other land use and transport planning tools that are already existing at the local level.

On the basis of the benchmark report, it is necessary to spread the territorial of SUMP by involving Local Authorities having tasks at metropolitan and interurban level, because the SUMP is a higher-level mobility planning tool that can coordinate other operative traffic plans implemented by Municipalities.







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For the scheme proposal, the SUMP should:

- provide a long-term horizon not shorter than 10 years, that can also be for 15 years,
- provide a territorial level not lower than the municipal area, but it can cover all the metropolitan areas and NUTS
- ▶ 3 areas affecting consortia of municipalities, or entire provinces in order to ensure the integration with the local and regional networks,
- be drafted and adopted by public authorities with territorial tasks not lower than the municipalities, but it can be issued also by other local authorities with tasks on land use and transport planning for NUTS 3 areas (e.g. provinces, consortia of municipalities, metropolitan cities, etc.),
- > and be mandatory for areas with a population of at least 100.000 inhabitants.

From a hierarchical point of view, therefore, the order of mobility planning tools at municipal and/or interurban level will be as follows:

- 1. Regional Land Use Plan (issued by regional authority according to local legal framework);
- 2. Regional Transport Plan (issued by regional authority according to local legal framework);
- Land Use Master Plan and/or Urban Master Plan (issued by local authority or municipality according to local legal framework);
- 4. Sustainable Urban Mobility Plan (issued by local authority according to local legal framework);
- 5. Multiannual Public Work Programmes with short-term horizon (issued by local authority according to local legal framework)
- 6. Traffic Plan and/or Urban Transport Plan (issued by municipality according to local legal framework);
- 7. Mobility plans for systematic home-work displacements (for local administrations or enterprises) or systematic home-school displacements (for schools, universities and other educational institutes).







The SUMP may also provide for interventions as a variant to existing urban planning tools which will be updated according to the legal procedures.

In the event that the administrations approve the SUMP following the approval procedures of the urban/regional plans, it is configured as an upgrade to be implemented in the current adopted planning tools.

### Planning technical and administrative procedures

The objectives and the actions of a Sustainable Urban Mobility Plan must be multi-sectoral and affect several fields of the regional and urban development.

Therefore, in each administration, close cooperation between the responsible departments for urban and regional planning, transport planning, environmental monitoring and economic development etc., is essential for the drafting of the SUMP.

- a. Definition of the interdisciplinary/interinstitutional working group;
- **b.** Preparation of the knowledge framework;
- c. Starting the participatory path with local city users and stakeholders;
- d. Definition of objectives;
- e. Participatory construction of the Plan scenarios;
- f. Strategic Environmental Assessment (SEA) pursuant EU directives and local regulations;
- g. Adoption of the SUMP by authority promoting the plan pursuant to the local regulations;
- h. Adoption of the SUMP by regional/national authorities pursuant to the local regulations;
- i. Monitoring.

The above-mentioned procedures have to be constantly in accordance with the ELIS guidelines or EU regulations and directives.







### 5.2 Logical Framework Approach of SUMP

The Sustainable Urban Mobility Plan must aim to improve accessibility of urban and suburban areas, through sustainable and high-quality mobility and transport systems as well as from an economic and social environmental point of view and, finally, the SUMP has to aim to improve the usability of public space.

The mobility infrastructures proposed within a SUMP must help reduce negative impacts on health and be accompanied by urban projects to increase the aesthetic, functional and formal quality of the places crossed.

Promoting sustainable mobility, therefore, means orienting the mobility of residents and city users so that they favour traveling, by walking, cycling, using public transport or using private vehicles with low environmental impact and create the infrastructures that allow the best use of the same towards, through and within urban areas and interurban displacements.

To this end, the SUMP index of the next paragraph was developed following the Logical Framework Approach by focusing on:

- the analysis of Problems,
- the analysis of Objectives,
- the analysis of Strategies,
- the identification of the Actions,
- > and the identification of **Results** to be achieved and monitored.

The analysis of **Problems** affects the local context and has to be summarised within the chapter of *Territorial structural framework* reported in the previous index.

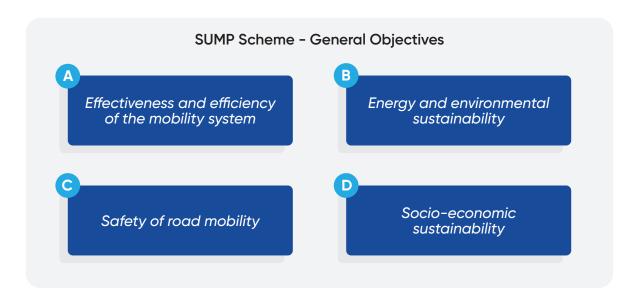






### 5.3 Proposal of common objectives of the SUMP scheme

With the purpose to promote a common and homogenous methodology of the SUMP, that is coherent with the national legal and policy frameworks of analysed countries, as well as being coherent with the European guidelines, on the basis of the SUMP scheme adopted by the Italian decree we proposed the following **General Objectives**:



Such macro-objectives were common to all the SUMPs and have been detailed with further **Specific Objectives**.

On the basis of the contributions suggested by partners, the list of specific objectives included in the national Italian version of a SUMP scheme was integrated and detailed. In the following list, we merged the contributions of all partners. Some amendments were necessary in order to avoid overlapping of texts and objectives.















### A. Effectiveness and efficiency of the mobility system

- **A.1** Local Public Transport improvement;
- A.2 Modal shift rebalancing of mobility towards low carbon solutions<sup>11</sup>;
- A.3 Congestion reduction;
- A.4 Improvement of the first mile/last mile accessibility for people and goods<sup>12</sup>;
- A.5 Improvement of the integration between the development of the mobility system and land use development;
- A.6 Improvement of the quality of the road and of the urban space;
- A.7 Promoting of cycling and walking and improvement of pedestrian and cycle infrastructure<sup>13</sup>;
- A.8 Introduction of smart city elements<sup>14</sup>;
- A.9 Introduction of bus lanes on main traffic routes<sup>15</sup>.

### B. Energy and environmental sustainability

- **B.1** Reduction of the consumption of traditional fuels and improvement of alternative fuels;
- **B.2** Air quality improvement;
- **B.3** Reduction of noise pollution;
- B.4 Reduction of space needed for parking in urban centres16;
- B.5 Increase the number of electric recharging points accessible to the public<sup>17</sup>;
- B.6 Reduction of waste from mobility (introduction of circular economy, repair and reuse)18;
- B.7 Supporting the use of battery electric vehicles (BEVs)<sup>19</sup>.

<sup>&</sup>lt;sup>11</sup> Integration on the basis of contribution proposed by City of Gradiska.

<sup>&</sup>lt;sup>12</sup> Integration on the basis of contribution proposed by School center of Velenje.

<sup>&</sup>lt;sup>13</sup> Target added by RDA Banat. The target, originally proposed for Objective B, was displaced in Objective A for a better integration and coordination with the other proposed target.

<sup>&</sup>lt;sup>14</sup> Target added by City of Gradiska.

<sup>&</sup>lt;sup>15</sup> Target added by RDA Banat.

<sup>&</sup>lt;sup>16</sup> Integration on the basis of contribution proposed by School center of Velenje.

<sup>&</sup>lt;sup>17</sup> Target added by Municipality of Hersonissos.

<sup>&</sup>lt;sup>18</sup> Target added by City of Gradiska.

<sup>&</sup>lt;sup>19</sup> Target added on the basis of contribution proposed by RDA Banat.







- C. Safety of road mobility
  - C.1 Reduction and prevention of road accidents<sup>20</sup>;
  - C.2 Reduction of accidents with deaths and wounded people affecting vulnerable groups (pedestrians, cyclists, children and over 65 population, disabled users with reduced mobility)<sup>21</sup>;
  - C.3 Reduction of social costs due to road accidents;
  - C.4 Safer road infrastructure (superstructures and pavements, bike lanes)22;
  - C.5 Traffic calming measures<sup>23</sup>.
- D. Socio-economic sustainability
  - D.1 Improvement of social inclusion;
  - D.2 Increased citizen satisfaction<sup>24</sup>;
  - D.3 Increase in the employment rate and the economic activity<sup>25</sup>;
  - D.4 Reduction of transport costs (related to the need to use the private vehicle);
  - **D.5** Enabling of social distancing transport<sup>26</sup>;
  - **D.6** DMore accessible costs of using public transport (free transport, subsidies etc.)<sup>27</sup>;

 $<sup>^{20}</sup>$  Integration on the basis of contribution proposed by City of Gradiska.

<sup>&</sup>lt;sup>21</sup> Integration on the basis of contribution proposed by City of Gradiska.

<sup>&</sup>lt;sup>22</sup>Target added on the basis of contribution proposed by School center Velenje.

 $<sup>^{\</sup>rm 23}$  Target added on the basis of contribution proposed by RDA Banat.

<sup>&</sup>lt;sup>24</sup> Integration on the basis of contribution proposed by City of Gradiska.

 $<sup>^{\</sup>rm 25}$  Integration on the basis of contribution proposed by City of Gradiska.

<sup>&</sup>lt;sup>26</sup> Target added by City of Gradiska.

<sup>&</sup>lt;sup>27</sup> Target added by School Center Velenje.







Beyond the group of macro-objectives proposed in the Italian guidelines and integrated by partners within the specific objectives, the TWG proposed further integrative objectives for the coastal region at FUA level<sup>28</sup>.

- E. Active, healthy region:
  - **E.1** Encourage walking;
  - E.2 Encourage biking.
- **F.** Environmentally sane, spatially attractive region:
  - F.1 Make public transport more popular;
  - F.2 Redistribute road space more equally between all users;
- G. Cooperative region:
  - G.1 Increase professional capacity in public administration for mobility;
  - **G.2** Enhance cooperation between different partners.

 $<sup>^{\</sup>rm 28}$  Integration on the basis of contribution proposed by LP RDC Koper.







### 5.4 Contents and SUMP index

According to the procedure reported and detailed in the ELTIS guidelines, the *Sustainable Urban Mobility Plan* is a planning tool that has to interact and interface with other plans and programmes.

Therefore, the SUMP should be constituted by such kind of documents:

- ▶ General Report;
- ▶ Feasibility or Sectoral studies to be annexed to the plan (optional);
- ▶ Technical graphic elaborations (cartographies, graphic plans);
- ▶ Environmental Impact Studies (for the SEE pursuant the EU directives and the local regulations)

As regards the general report of SUMP, below shows a possible breakdown of the SUMP index which was developed on the basis of the abovementioned SUMP scheme adopted by Italian Decree and of the integrations provided by each project partner.









- 1 Introduction
- 2 Plan formation and participation process
  - 2.1 Determine the planning framework<sup>29</sup>
  - 2.2 Set up working structures<sup>30</sup>
- 3 Territorial structural framework
  - 3.1 Legal, Planning and Policy framework
  - 3.2 Territorial and socio-economic framework
  - 3.3 Transport networks and services supply
  - 3.4 Transport demand
  - 3.5 Energy demand<sup>31</sup>
  - 3.6 Interaction between supply and demand for transport
  - 3.7 Criticalities and impacts
  - 3.8 SWOT analyses
  - 3.9 Identifying of key actors and stakeholders interested in SUMP implementation<sup>32</sup>
- 4 Learning from experiences<sup>33</sup>
  - 4.1 Best practices
  - 4.2 Applying best practices to local conditions

### 5 Definition of objectives

- 5.1 Macro-objectives
- 5.2 Targets
- 5.3 Priorities<sup>34</sup>
- 5.4 Key indicators for evaluating the achievement of objectives
- 5.5 Indicators and targets for evaluating the achievement of
- 5.6 objectives<sup>35</sup>
- 5.7 Improvement of the quality of the road and of the urban space<sup>36</sup>
- 6 Desired outcome<sup>37</sup>
- 7 Definition of action strategies
  - 7.1 Strategies
  - 7.2 Actions
  - 7.3 Time schedule of the actions<sup>38</sup>
  - 7.4 Prioritisation of the actions<sup>39</sup> (priority matrix)
  - 7.5 Active involvement of citizens into sustainable urban mobility planning<sup>40</sup>
  - 7.6 Select measure packages with stakeholders<sup>41</sup>
  - 7.7 Responsibilities for realisation and operation
  - 7.8 Estimate of costs and financial resources

<sup>&</sup>lt;sup>29</sup>Chapter added by Municipality of Hersonissos.

<sup>&</sup>lt;sup>30</sup> Chapter added by Municipality of Hersonissos.

<sup>&</sup>lt;sup>31</sup>Chapter added by Municipality of Hersonissos.

 $<sup>^{\</sup>rm 32}$  Chapter added by City of Gradiska and RDA Banat.

<sup>&</sup>lt;sup>33</sup>Chapter added by School center Velenje.

<sup>&</sup>lt;sup>34</sup>Chapter added by city of Gradiska.

 $<sup>^{\</sup>rm 35}\,{\rm Modification}$  added by City of Gradiska.

<sup>&</sup>lt;sup>36</sup>Chapter added by DURA.

<sup>&</sup>lt;sup>37</sup>Chapter added by School center Velenje.

<sup>&</sup>lt;sup>38</sup>Chapter added by City of Gradiska.

<sup>&</sup>lt;sup>39</sup> Chapter added by City of Gradiska.

 $<sup>^{\</sup>rm 40}\,\text{Chapter}$  added by RDA Banat.

<sup>&</sup>lt;sup>41</sup>Chapter added by Municipality of Hersonissos.







### 8 Construction of the scenarios

- 8.1 Time horizons as planning reference (short term and long term)
- 8.2 Demographic and settlement dynamics when planning horizons
  - 8.2.1 Demographic forecasts
  - 8.2.2 Settlement forecasts
    (on the basis of current urban planning tools)
- 8.3 Mobility demand trends
- 8.4 Business as usual scenario
- 8.5 Alternative plan scenarios
  - 8.5.1 Scenario 1
  - 8.5.2 Scenario 2
  - 8.5.3 Scenario 3
  - 8.6 Comparative analysis of scenarios<sup>42</sup>
  - 8.7 Promotion of alternative transportation modes<sup>43</sup>
- 9 Simulation and evaluation of the scenarios44
  - 9.1 Simulation of results for each scenario
  - 9.2 Comparative evaluation of the scenarios through indicators

- 9.3 Identification of the planning scenario
  - 9.3.1 Short-term and long-term interventions
  - 9.3.2 Time schedule of the interventions
  - 9.3.3 Priority interventions
  - 9.3.4 Estimate of construction costs
  - 9.3.5 Financial resources
- 10 Implementation of the Strategy<sup>45</sup>
  - 10.1 Management of Implementation
  - 10.2 Communication, information
  - 10.3 Adoption of the Strategy46
  - 10.4 Implementation of the Strategy<sup>47</sup>
  - 10.5 Action plans subventions and tax reliefs as a stimulation for usage of alternative transportation modes<sup>48</sup>
  - 10.6 Harmonization of spatial plans for development of cities with plans for urban transport network development and with sustainable mobility needs as well<sup>49</sup>
- 11 Monitoring and ex post evaluation of the plan
  - 11.1 Monitoring plan
  - 11.2 Monitoring indicators
  - 11.3 Monitoring of communication50
  - 11.4 Key findings, evaluations and future steps (Next Sump)<sup>51</sup>

<sup>&</sup>lt;sup>42</sup>Chapter added by City of Gradiska.

<sup>&</sup>lt;sup>43</sup>Chapter added by RDA Banat.

<sup>&</sup>lt;sup>44</sup> Simulation and evaluation of each scenario through indicators, with reference to the time horizons of the Plan.

<sup>&</sup>lt;sup>45</sup>Chapter added by RDC Koper.

<sup>&</sup>lt;sup>46</sup>Chapter added by School center Velenje.

<sup>&</sup>lt;sup>47</sup>Chapter added by School center Velenje.

<sup>&</sup>lt;sup>48</sup>Chapter added by RDA Banat.

<sup>&</sup>lt;sup>49</sup>Chapter added by RDA Banat.

 $<sup>^{50}\,\</sup>mbox{Chapter}$  added by Municipality of Hersonissos.

<sup>&</sup>lt;sup>51</sup>Chapter added by City of Gradiska.







## 5.5 Key indicators for SUMP monitoring

In the following pages, the contributing partners had to integrate some key indicators to be used for SUMP monitoring.

According to the macro-objectives and the main specific objectives commented in the previous pages, the partners proposed a set of key indicators with related data:

- Unit of measurement;
- ▶ Target;
- Period of monitoring;
- Frequency of measurement;
- Statistic source.

The suggested indicators aim to allow the ex-post evaluation of SUMP performance according to their objectives.

The following table shows the indicators integrated by the partners.







### **Proposal of indicators** General Specific Period of Frequency of Indicator Unit of Measurement Statistic Source Target objective objective monitoring measurement Increase use of public % of day trips 5% in 2025 **A.**1 10 years Annually Survey transport-Modal split Increase of the Number of users of Bike-sharing 3% increase 10 years Annually system database number of users bike-sharing system Reduce the number Unsatisfied public Number of unsatisfied Public transport of dissatisfied 10 years Annually transport users public transport users Passenger Survey users by 50% Effectiveness and efficiency Local Public of the mobility Transport system improvement Rate the use of urban Public Ministry of Transport Transport with the final (%) Percentage 30% 10 years Annually destination in the city centre Introduction of bus lanes Municipality, Department Km of bus lanes 2 km of bus lanes 5 years Annually on main bus routes for Construction

Number of passengers

on public transport

10% increase

10 years

Annually

Public transport

network coverage

(Municipality of Gradiska)



Municipal/city register





General objective	Specific objective	Indicator	Unit of Measurement	Target	Period of monitoring	Frequency of measurement	Statistic Source	
<b>A.</b> 2		Increase the use of cycling-modal split	% of day trips	8% in 2025	10 years	Annually	Survey	
	Modal shift rebalancing of mobility	Increase in mile transport infrastructure with pedestrian and bicycle paths	(%) percentage	60%	10 years	Annually	Ministry of Transport	
Effectiveness and efficiency of the mobility system		Increase of inter modality of transport with buses that can transport bicycles Park and Ridestations  Number of buses that can transport bicycles Number of P&R stations  20% increase 2 new P&R stations	10 years	Annually	Municipal/City register			
	Improvement of	Improved road conditions in the Municipality affected by SUMP	Number of accidents caused by bad roads	20% reduced number of accidents	10 years	Annually	Statistic of the Prijedor Centre for Public Safety	
	the quality of the road and of the urban space	Improvement of the quality of the road and of the urban space	Kilometres of newlyasphalted and renovated roads and urban spaces	To newly asphalt and renovate 600 kilometres of road and urban spaces	7 years	Annually	Croatian Ministry of Traffic, Sea and Infrastructure database	







General objective	Specific objective	Indicator	Unit of Measurement	Target	Period of monitoring	Frequency of measurement	Statistic Source
<b>B.</b> 1		Increase use of newly registered hybrid and e-vehicles	& of newly registered hybrid and e-vehicles in total newly registered personal vehicles	4% in 2025	10 years	Annually	Public register of vehicles
		Presence of battery electric vehicles in the Municipality	Number of registered	4% in 2025  10 year  5% of total registered vehicles		Annually	Survey
	Reduction of the	(or other territory) affected by SUMP	battery electric vehicles		10 years		Public register of vehicles
Energy and environmental sustainability	consumption of traditional fuels and improvement of alternative	Number of cars on reference points	Number of vehicles	0.5 % annually	10 years	Annually	Counting
	fuels	Promotion of cycling and walking in the city of Zrenjain, Improvement of pedestrian and cycle infrastructure	Number of awareness campaigns provided Km of new/improved ped /cyc infrastructure	Min.2 awareness campaigns organised 2 km of new cycle lanes/tracks 3 km of improved ped/cyc infrastructure	1 year 10 years	Annually	Municipality, Department for Construction
		Modal share of cycling	Cycling as % of modal share	15% increase of cycling modal share	10 years	Annually	Traffic Survey







General objective	Specific objective	Indicator	Unit of Measurement	Target	Period of monitoring	Frequency of measurement	Statistic Source	
<b>B.</b> 2		Decrease number of days/years with exceeded limit values for PM10 in city centres	Days with exceeded limit values for PM10 per year	25 days (34 days in reference year in 2015)	10 years	Daily	Environmental Agency of RS	
		Number of days exceeding PM10 and NO2 limits	Number of days exceeding PM10 and NO2 limits	Reduce the number of days exceeding PM10 and NO2 limits by 80%	15 years	Annualy	Statistic of the Croatian Environment and Nature Agency	
Energy and	Air quality improvement	Number of days exceeding PM10 and NO2 limits	Number of days exceeding PM10 and NO2 limits		15 years	Annualy	Statistic of the Croatian Environment and Nature Agency	
environmental sustainability		Installation of electric recharging points accessible to public	Number of electric recharging points accessible to public	Depends on county. For Greece thetarget is 25,000 in 2030	10 years	Annualy	Ministry of Transport Ministry of Environment	
		Number of days exceeding the limit value	Number of daysexceeding regulated limits	Maximum 20 days early	5 years	Daily	Municipal/city pollution report	
	Reduction of noise pollution	Reduction of CO2 in the urban centre	(%) percentage	10%	10 years	Annually	Minister of Environment	
		Overdraw of noise pollution limits	Number of days with overdraw ofregulation limits	Maximum 25 days annually	5 years	Daily	Municipal/City noise pollution report	







General objective	Specific objective	Indicator	Unit of Measurement	Target	Period of monitoring	Frequency of measurement	Statistic Source
С	Reduction of	Number of road accidents	Number of road accidents	Reduce the number of road accidents from 100% to 60%	10 years	Annually	Statistic of the police department
	road accidents	Number of road accidents	Number of road accidents	Reduce the number of road accidents from 100% to 60%	10 years	Annually	Statistic of the police department
	Reduction of road accidents with fatalities and injuries	Number of fatalities in road traffic accident per year	Number of fatalities in road traffic accidents per million inhabitants per year	35 fatalities per million inhabitants per year in 2025	10 years	Annually	Police
		Reduced injuries sustained in traffic accidents	Number of traffic accidents	10% reduction	10 years	Annually	Public police reports of accidents
		Reduced number of accidents with major injuries	Number of accidents with major injuries	50% reduced number of accidents with fatalities and injuries	10 years	Annually	Statistic of the Prijedor Centre for Public Safety
	Reduction of fatal accidents and injuries affecting vulnerable users (pedestrians, cyclists, children and over 65 population)	Number injuries in traffic accidents with involved pedestrians and cyclists per year	Number injuries (on the regional, national level)	Pedestrians and cyclists injured in traffic accidents lower than 10 (region) and lower than 150 (national) by 2025	10 years	Annually	Police
		Pedestrian accidents on the road network	Number of accidents	Reduction of 50%	10 years	Annually	Ministry of Transport
		Traffic calming	Km of streets transformed as zone "30" or traffic calming areas	2 km of streets transformed as traffic calming areas or zone "30"	10 years	Annually	Municipality, Department for Construction







General objective	Specific objective	Indicator	Unit of Measurement	Target	Period of monitoring	Frequency of measurement	Statistic Source	
<b>D.</b> 1	Improvement of	Adapted infrastructure	Number of adapted infrastructures	2 adapted infrastructures	10 years	Annually	Municipality (regional/national) records	
	social inclusion	Percentage of central urban area accessible by the disabled	Number of ramps for the disabled	70% of pedestrian crossings have ramps for disabled	5 years	Annually	Municipality/City report on roads	
Socio-economic sustainability	Increased citizenship satisfaction	Improvement of accessibility through average travel time	Average travel time to urban centre	10% reduction	10 years	Annually	Police	
		Life satisfaction in %	% of answers "very satisfied" and "satisfied" on the question about their satisfaction with life	Maintain satisfaction with life above 90% of respondents -Referenceyear 2018: 91%	10 years	Annually	Public police reports of accidents	
		Reduced number of citizens' complaints about traffic	Number of citizens' complaints about traffic		10 years	Annually		







General objective	Specific objective	Indicator	Unit of Measurement	Target	Period of monitoring	Frequency of measurement	Statistic Source
<b>D.</b> 2	Increase in the employment rate	New jobs created due to improvement in energy efficiency	Number of new green jobs	5%	5-10 years	Annually	Ministry of Labour
<b>D.</b> 2	Reduction of transport costs (related to the need to use a private vehicle).	Decrease of private vehicles	% of registered vehicles	1% reduction	5 years	Annually	Public records (SISTAT/ INTERSTAT)
Socio-economic		Dissatisfaction with public transport fares	Number of unsatisfied public transport users	Reduce the number of unsatisfied users by 50%	10 years	Annually	Public Transport Passenger Survey
sustainability		Dissatisfaction with public transport fares	Number of unsatisfied public transport users	Reduce the number of unsatisfied users by 50%	10 years	Annually	Public Transport Passenger Survey
		Share of household expenditure on transport	Share of household expenditure on transport (% of total spending)	12% share of household expenditure on transport - Reference year: 16% in 2014	10 years	Annually	ARSO Environmental Agency of RS



# **PARTNERS**





















Associated partner: Ministry of infrastructure and Transport (IT)







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