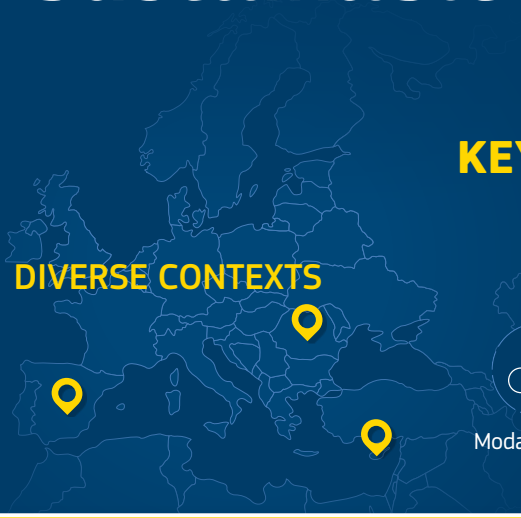
Sustainable Urban Mobility Plans (SUMP)

KEY CHARACTERISTICS



DIVERSE CONTEXTS

POLICIES TARGETING

Modal shares

Urban frieght

Shared mobility

DIFFERENT CITY SIZES

KEY RESULTS

Successfully consulted stakeholders

Identified challenges and opportunities

Formed effective objectives and measures

Developed detailed strategy and action plan

Robust indicators based review process

KEY PERFORMANCE METRICS

	RIVAS, SPAIN	LIMASSOL, CYPRUS	TURDA, ROMANIA
Public transport	5% increase by 2020	20% increase by 2040 (1.8% in 2019)	30% increase by 2030 (2.1% in 2018)
Cycling	15% increase by 2020	10% increase by 2030 (5.7% in 2019)	13% increase by 2030 (6.7% in 2018)
Walking	5% increase by 2020	4% increase by 2030 (0.7% in 2019)	27% increase by 2030 (19% in 2018)
SUMP GHG objectives	50% reduction compared to 2008 levels by 2020	20% reduction compared to 2016 levels by 2050	15.9% reduction compared to 2017 levels by 2030

Note the figures in brackets are achievements. Other figures are objectives

SUCCESS FACTORS

Utilisation of SUMP experience from across Europe. Draw on other cities to exchange ideas, borrow from best practices and learn lessons from successes. However, the planning should be tailored to the city's contexts and needs. Therefore, successful planners find best practices that are adaptable to best fit their cities' needs

Case study examples show a combination of hard and soft innovative measures can often provide significant value to the SUMP at a lower cost to the city

Rigorous assessment and continuous evaluation allow policy makers to adjust and review the SUMP to dynamically reflect changing circumstances and lessons learned

IMPLEMENTATION & REPLICATION PROCESS

Prepare & analyse city context

Develop SUMP Strategy with key stakeholders. Draw on best practise from other cities

Plan measures. and prepare legal/policy framework. Identify funding optoins

Develop implementation and monitoring plan for project lifetime

Collect data and report for monitoring plan. Review progress at milestones. Adjust plan as required

Sustainable Urban Mobility Plans

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This case study is part of a series of six studies which show good practice examples for reducing greenhouse gas emissions in the sectors covered under the Effort Sharing Legislation. It has been developed on behalf of the European Commission, DG Climate Action.

Congestion, air quality, noise emissions and CO_2 emissions are part of the lives of 70% of the EU population living in European cities. To address these issues and develop more efficient and sustainable urban mobility systems, European cities are developing Sustainable Urban Mobility Plans (SUMPs). These plans rely on a participatory approach from stakeholders to develop innovative measures that improve their citizen's quality of life and ease of transport.

This case study presents three good practice examples of SUMPs, each with a different focus, city size, geographic location and experience level. This allows the reader to gain an insight into the key elements of success of three diverse SUMPs and to understand their similarities and differences. Furthermore, the case study illustrates how SUMPs are developed in the context of other regulations and strategies.

The three plans were chosen to represent the diversity among European cities and thereby serve as an inspiration for future SUMPs across Europe. These cities are **Rivas Vaciamadrid** in Spain, **Limassol** in Cyprus and **Turda** in Romania.

Table 1-1: Abbreviations

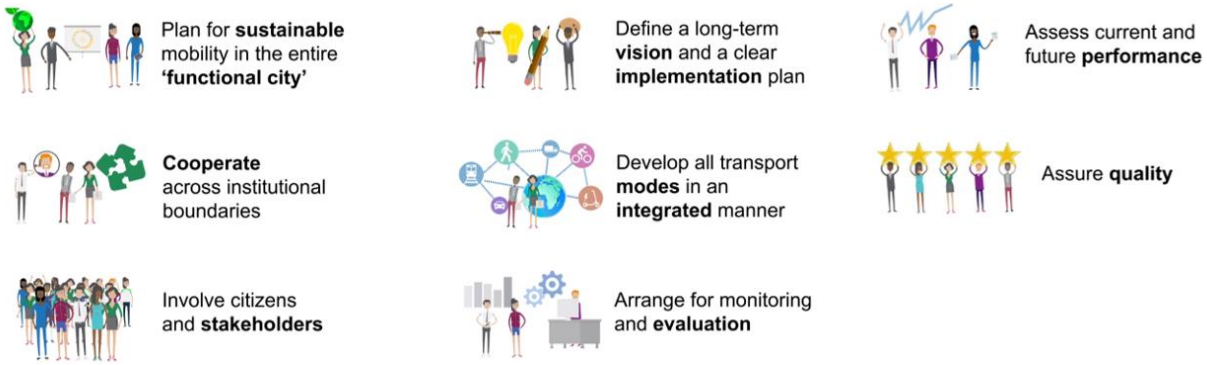
CITYLAB	City Logistics in Living Laboratories
ERDF	European Regional Development Fund
GHG	Greenhouse gas
ITS	Intelligent Transport Systems
LaMiLo	Last Mile Logistics
MTRC	Madrid Transport Regional Committee
PUG	(Romanian) General Urban Plan
SDG	Sustainable Development Goal
STRAIGHTSOL	Strategies and measures for smarter urban freight solutions
SUGAR	Sustainable Urban Goods Logistics
SUMP	Sustainable Urban Mobility Plan
TAILS	Tailored and Innovative Logistic Solutions
UDC	Urban distribution centre

1 Description of the Case Study

European cities have high population densities that account for 70% of the EU population. Many of these cities suffer from chronic traffic congestion, are dominated by passenger car travel and struggle with air quality. The European Commission's 2013 Urban Mobility Package, which was presented through the Communication 'Together towards competitive and resource-efficient urban mobility' (European Commission, 2013), set out to help decision makers and authorities to address these issues through developing more sustainable urban mobility systems.

One key aspect of this initiative is the development of Sustainable Urban Mobility Plans (SUMPs). The central objective of a SUMP is to provide sustainable mobility solutions that improve accessibility and efficiency throughout an urban area in a cost-effective manner. A SUMP should be, or form part of, a strategic plan that considers both short-term implementation and long-term vision for development in the urban area. As such, it requires continuous monitoring and assessment of its performance indicators and objectives to review and update its measures accordingly (European Commission, 2013). As a guidance, a SUMP should follow eight core principles to be successful, as illustrated in Figure 1.

Figure 1: The eight principles of a successful SUMP (Eltis, 2019).



This case study presents best practise SUMPs by introducing the three cities' SUMPs, their implementation, policy context and stakeholder engagement. Next, assessments of the various impacts on the cities are presented, focusing on GHG impacts and modal shifts. It then presents SUMP limitations and discusses transferability.

1.1 Scheme Overview

This case study gives an illustration of three good practice cases of Sustainable Urban Mobility Plans and assesses how they were implemented, what made them successful and how they could form a template for future SUMPs in European cities. The three SUMPs were chosen to cover different geographical areas, city sizes and thematic priorities, to give an illustration of how a SUMP can have a significant and profound impact on every European city.

The SUMPs of **Rivas Vaciamadrid** (Spain) and **Turda** (Romania) earned the cities the European Commission's SUMP Award, which rewards plans that display excellence regarding their strategies to reach a sustainable modal splits, emission reduction targets, integrated transport systems, promote low cycling and walking, and more (EUROPEANMOBILITYWEEK, 2018). **Limassol** (Cyprus) has been included due to its involvement in the 'Innovations in Sustainable Urban Mobility Plans' (InnovaSUMP) project, which focuses on low-carbon urban transport.

Additional resources can be found on the Urban Mobility Portal, Eltis (https://www.eltis.org), which hosts the European Platform on SUMPs and facilitates exchange of information, knowledge and experience.

Table 1-1: Overview of regional frameworks and SUMP uptake levels in the regions of the chosen case studies.

	Rivas	Limassol	Turda
Population	85,000	205,000	55,000
Timeframe	14 months	27 months	10 months
Regional Framework	SUMP is mandatory by law. Well-established urban transport planning framework that incorporates SUMPs	Moving towards an approach to SUMPs, with very limited or no examples of SUMPs	Urban transport planning framework that incorporates SUMPs without support from the national/ regional level.
SUMP uptake in country compared with EU 27	Very High (top 3)	Lower than average (limited examples of SUMPS)	Average, but uptake is increasing and increasing numbers

Sources: All data from city reporting: **Rivas** (Ayuntamiento de Rivas Vaciamadrid, 2016) **Limassol**: (Ministry of Transport, 2019); **Turda** (Municipiulai Turda, 2017), except SUMP uptake figures from (Civitas, 2018)

1.1.1 **Rivas Vaciamadrid**, Spain

Rivas Vaciamadrid, often referred to as **Rivas**, is a city located in the Madrid metropolitan area and has seen a unique increase in population from 500 in 1980 to 85,000 in 2018 (Eltis, 2020). This growth had a major impact on the mobility conditions within the city, as the community relies heavily on private cars for transport. This mode alone accounts for 81% of transport-related energy consumption. These reasons motivated **Rivas** to begin designing a SUMP in 2009 with the aim of making it a more sustainable city with improved mobility offerings for pedestrians, cyclists and residents using public transport (BUMP, 2016).

The SUMP has five key thematic areas: pedestrians; bicycles; public transport; private vehicles (and parking) and stakeholder involvement (Rivas Vaciamadrid, 2009). This supports the '**Rivas** Zero Emissions Plan', which aims to reduce GHG emissions by 50% from 2008 to 2020 and to net zero by 2030 (Eltis, 2013). Some of the proposed measures included expanding and improving the cycling network, creating and developing pedestrian areas and re-thinking traffic plans and designs.

1.1.2 **Limassol**, Cyprus

The predominant mode of transport in **Limassol**, and Cyprus generally, is the passenger car. Infrastructure is well developed for cars, but poor for public transport. The **Limassol** SUMP, launched in 2017, therefore focuses on measures to support public transport, pedestrian and cycling networks, parking, traffic management, safety of mobility users, accessibility, freight logistics and Intelligent Transport Systems (ITS). As well as mitigation actions, the plan considered adaptation to the effects of climate change. Therefore, all schemes located within flood risk areas are designed with increased risks in mind. Relevant authorities (e.g. town and utilities planning) were encouraged to include environmentally focused conditions in permits for all transport developments in **Limassol**, based on climate change adaptation and resilience principals.

1.1.3 **Turda**, Romania

Turda is a Romanian city located in the north-western region of Transylvania. With over 600,000 visitors annually, **Turda** is an important tourist attraction for the region. The considerable number of visitors, as well as **Turda**'s location connecting two important mobility corridors, results in a struggling transport

network in the city. To address these issues and the poor road safety conditions in the city, **Turda** produced its first SUMP in 2017.

The SUMP focused on shared mobility with measures such as bike-sharing systems, car-pooling, car-sharing and mobile vending. The measures are integrated using IT tools, which makes the SUMP the first step to make **Turda** a smart city (Eltis, 2018).

1.2 Primary objective(s) of the schemes

SUMPs are a product of a city's specific challenges. Table 1-2: SUMP overall objectives below contains the overall objectives for **Rivas**, **Limassol** and **Turda**.

Table 1-2: SUMP overall objectives

Rivas	Limassol	Turda
• Strengthen non-motorised modes of transport • Optimise urban transportation • Improve accessibility • Improve energy efficiency of transport system • Reduce GHG and pollutant emissions.	• Improve the efficiency and cost-effectiveness of the transport network in providing for the transportation of persons and goods • Minimise GHG and pollutant emissions associated with transport • Ensure all citizens are offered transport options that enable access to key destinations and services • Ensure personal safety and security within the transport system • Contribute to enhancing the attractiveness and quality of the urban environment and urban design for the benefit of citizens, the economy and society as a whole.	• Improve accessibility by providing all citizens with transport options that allow them to choose the most appropriate means of travelling to key destinations and services • Increase safety and security for travellers • Reduce environmental impact (reducing air and noise pollution, GHG emissions and energy consumption) in line with national aims • Increase economic efficiency and cost effectiveness (passenger and freight transport) • Improve quality of urban life.

Source: **Rivas** (Ayuntamiento de Rivas Vaciamadrid, 2016); **Limassol**: (Ministry of Transport, 2019); **Turda** (Municipiulai Turda, 2017).

GHG emissions

Each SUMP has set GHG emission reduction targets for the urban area they focus on. As shown in table below, these are close to or exceed the countries' national climate obligations set under the EU Effort Sharing Decision.

Table 1-3: SUMP and national Effort sharing GHG emissions reduction targets

	Rivas	Limassol	Turda
SUMP GHG objectives	50% reduction compared to 2008 levels by 2020. Net zero by 2030	20% reduction compared to 2016 levels by 2050	15.9% reduction compared to 2017 levels by 2030
Effort Sharing transport target (% compared to 2005 levels)	26% reduction by 2030	24% reduction by 2030	2% reduction by 2030

Source: SUMP objectives: ***Rivas*** (Ayuntamiento de Rivas Vaciamadrid, 2016)*;* ***Limassol****:* (Ministry of Transport, 2019)*;* ***Turda*** (Municipiulai Turda, 2017)*. Effort sharing (EC, 2019)*

Modal shift

All three SUMPs also aim to increase the proportion of low GHG emissions transport modes to reduce overall emissions from transport.

Table 1-4: SUMP modal shift targets by mode

	Public transport	Cycling	Walking
Rivas	5% increase	15% increase	5% increase
Limassol	20% increase by 2040 (1.8% in 2019)	10% increase by 2030 (5.7% in 2019)	4% increase by 2030 (0.7% in 2019)
Turda	30% increase by 2030 (21% in 2018)	13% increase by 2030 (6.7% in 2018)	27% increase by 2030 (19% in 2018)

Sources: ***Rivas****:* (BUMP, 2016)*;* ***Limassol****:* (Ministry of Transport, 2019)*;* ***Turda****:* (Romanian Association for Smart City and Moblity, 2018)

1.3 Eligibility criteria and target groups

The European Commission sees SUMPs as a cornerstone of its urban mobility policy and strongly recommends that European cities and towns of all sizes develop a SUMP and incorporate it into their strategies to improve the quality of life for residents.

SUMPs are not officially validated by the Commission. They are expected to address challenges in the whole functional urban area and to improve the overall quality of life for residents by addressing major challenges such as congestion, air/noise pollution, climate change, road accidents, parking and the integration of new mobility services. A SUMP should thereby induce cooperation across different policy areas (European Commission, 2019).

The SUMP Awards were launched in 2012 as a part of the EUROPEANMOBILITYWEEK (https://mobilityweek.eu) to encourage the adoption of SUMPs by local authorities across Europe, in line with the SUMP guidelines. The award focuses on a specific theme each year which fits the overall EUROPEANMOBILITYWEEK theme. For example, **Rivas** won the 2nd SUMP Award for excellence in 'integration of economic, social and environmental policy criteria', while **Turda** won the 6th SUMP Award for excellence in shared mobility (EUREOPEANMOBILITYWEEK, 2017). The competition is open to all cities in the EU, EEA, EU candidate countries and Eastern Partnership countries. The evaluation criteria for the SUMP Award are adapted each year to best fit the year's theme (see further information on SUMP Awards in appendix 0).

1.4 Key actors involved in the delivery of the scheme

The local authority is typically the entity organising and delivering a SUMP. They may choose to also engage with stakeholders and organisations on a national or European level (European Commission, 2019). Examples of how this was done for the different cities' SUMPs is outlined below.

1.4.1 Local level

According to SUMP guidelines, one of the key principles of a successful SUMP is the involvement of citizens and stakeholders. The SUMPs presented in this case study all involved continuous and rigorous consultation with stakeholders to understand the challenges facing the individual cities (European Commission, 2019). The stakeholders include the citizens whose daily lives will be affected by the SUMPs and local businesses.

- The **Rivas** municipality placed citizen participation as one of its five thematic areas, to ensure it was embedded in the programme (Rivas Vaciamadrid, 2009). To assess the sustainability of its SUMP, **Rivas** included local decision makers and policy stakeholders in its assessment, such as municipal politicians, municipal technical staff, ecologist groups, environmental NGOs, trade unions, media, local community organizations, local business associations, local interest groups, transport operators, cycle and walking groups, transport users and groups representing people with disabilities (Eltis, 2013). These stakeholders' opinions on SUMP proposals were collected though different channels, including a dedicated SUMP website, telephone surveys and workshops.
- In **Limassol**, stakeholder and citizen involvement was planned from the beginning of the project and accompanied the whole process of SUMP development (Ministry of Transport, 2019). Three committees made up of different stakeholders were set up to establish a structured approach, and each committee was involved in the full implementation process. The committees were made up of representatives from **Limassol**'s five municipalities, community groups, industry associations (e.g. from tourism, commerce and industry), local NGOs, local businesses and research institutions. They were engaged via interactive meetings and surveys to collect opinions on proposals.
- **Turda** aimed to make the entire process as transparent as possible. Therefore, it organised several public consultations, online surveys and press conferences during the planning phase to ensure that all local stakeholders, such as local communities, politicians, entrepreneurs and NGOs, could share their inputs (Eltis, 2018) (EPOMM, 2018).

1.4.2 National level

The European Commission encouraged Member States to promote the SUMP programme at the national level. This has resulted in all Member States making some degree of financial support available for the development of SUMPs. Additionally, some Member States provided municipalities with support and frameworks to develop their plans (European Commission, 2019).

- **Rivas** engaged in working groups on a regional and national level, such as the Madrid Transport Regional Committee (MTRC), the Spanish Network of Cities for Climate and the Spanish Smart Cities Network (Eltis, 2013). The city also accessed the Spanish government's guidelines for the implementation of SUMPs. The national government has also encouraged the development of SUMPs as a condition for receiving state subsidies for transport (Gobierno de España, 2011). Furthermore, the Spanish government has implemented a supportive financial mechanism alongside an application tool that avoids excessive administrative burden.
- SUMP uptake is low in Cyprus, however, the government has committed to implement SUMPs in the main cities in Cyprus, co-funded by the EU (Ministry of Transport, 2019). These SUMPs are a key part of the country's plan to tackle modal shift (among other urban transport issues), as detailed in the National Strategic Transport Master Plan.
- The **Turda** SUMP was initiated based on the standardised national SUMP framework developed by the Romanian Ministry of Regional Development and Public Administration. The framework can help cities and towns develop their Urban Mobility Plan, which is a requirement under Romania's

General Urban Plan (PUG) (Eltis, 2019). SUMPs were also identified as an important strategy to invest in to reduce GHG emissions in urban areas in the Romanian Regional Operational Program 2014-2020.

1.4.3 European level

The European Commission actively promotes and raises awareness for SUMPs through SUMP-related projects, funding opportunities, training courses, good practice examples and other tools (European Commission, 2019).

- On the European level, the **Rivas** city council was involved in the Covenant of Mayors, the CIVITAS Forum and several EU projects working groups, such as QUEST, ISEMOA, BUMP and ICLEI (Eltis, 2013).
- Cyprus is engaged with the EU's Innovations in Sustainable Urban Mobility Plans for low-carbon urban transport (InnovaSUMP) project with six other countries. The €1.7 million project aims to ensure the use of low-carbon mobility solutions in SUMPs to support low-carbon economy. Additionally, Cyprus's recent National energy and climate plan (NECP) submission includes references to SUMPs, focusing on a modal shift to public transport to reduce emissions.
- Romanian cities' access to European Regional Development Fund (ERDF) funding has been made conditional by the Romanian government on the city developing a SUMP. Therefore, one of the main drivers for **Turda**'s SUMP was the access to ERDF financing for infrastructure, public transport and alternative mobility solutions. The fund's resources underpinned **Turda**'s detailed financial strategy and were essential to the plan's success (Andronic, 2018).

1.5 Interaction of schemes with instruments

When preparing a SUMP, it is important to ensure that the plan is compatible with other initiatives on a city, regional and national level to avoid confusion about priorities and counterproductive measures. Best practise suggests that the existing strategies, which often depend on the same tools and data, should also be re-assessed, so that the SUMP and other plans interact to produce the most efficient results. Furthermore, there are additional benefits to this approach, as the coordination of different sectoral plans can help save resources through synergies and reduced disturbances of infrastructure (European Commission, 2019).

Each of the SUMPs in this case study aim to contribute to the aims expressed in national and/or EU level transport policy:

- **Rivas** SUMP was developed to be integrated with, and form part of, the city's strategic plan for sustainability, '**Rivas** Zero Emissions Plan' (Eltis, 2013). To ensure the regional alignment, the **Rivas** municipality coordinated with the Madrid Transport Regional Committee (MTRC) and neighbouring authorities.
- During the **Limassol** SUMP design phase, policy makers from health, tourism, education, culture were engaged to reduce negative interactions with other instruments.
- **Turda's** SUMP report contains detailed analysis of how its actions and objectives (including its GHG reduction aims) align with EU-level legislation such as the 2011 Transport White paper and the Sustainable development Strategy.

More broadly, these SUMPs are also aligned with many of the European Union's long-term strategies and commitments, for example:

- The European Green Deal lays out a road map for the European Union to become climate-neutral by 2050, while enabling Europeans to benefit from the sustainable green transition (European Commission, 2019). The emphasis on a just transition for citizens and businesses is reflected in SUMPs, which can reduce emissions and improve citizens' lives.

- The EU's 2030 climate & energy framework sets a binding target of at least 40% emissions reductions from 1990 levels by 2030 (European Commission, 2014), which is supported by the national targets set within the Effort Sharing Regulation (European Commission, 2018). SUMPs can directly contribute to these targets on the European and national level.

2 Implementation

The implementation process of a SUMP is divided into four phases, as illustrated and explained in Figure 2.

Table 2-1 presents examples of how each of the three cities used the four phase SUMP approach in their plans. Detailed guidelines on the development and implementation of SUMPs is available on Eltis (https://www.eltis.org/mobility-plans/sump-guidelines).

Figure 2: The four phases of developing a Sustainable Urban Mobility Plan, adapted from (European Commission, 2019).

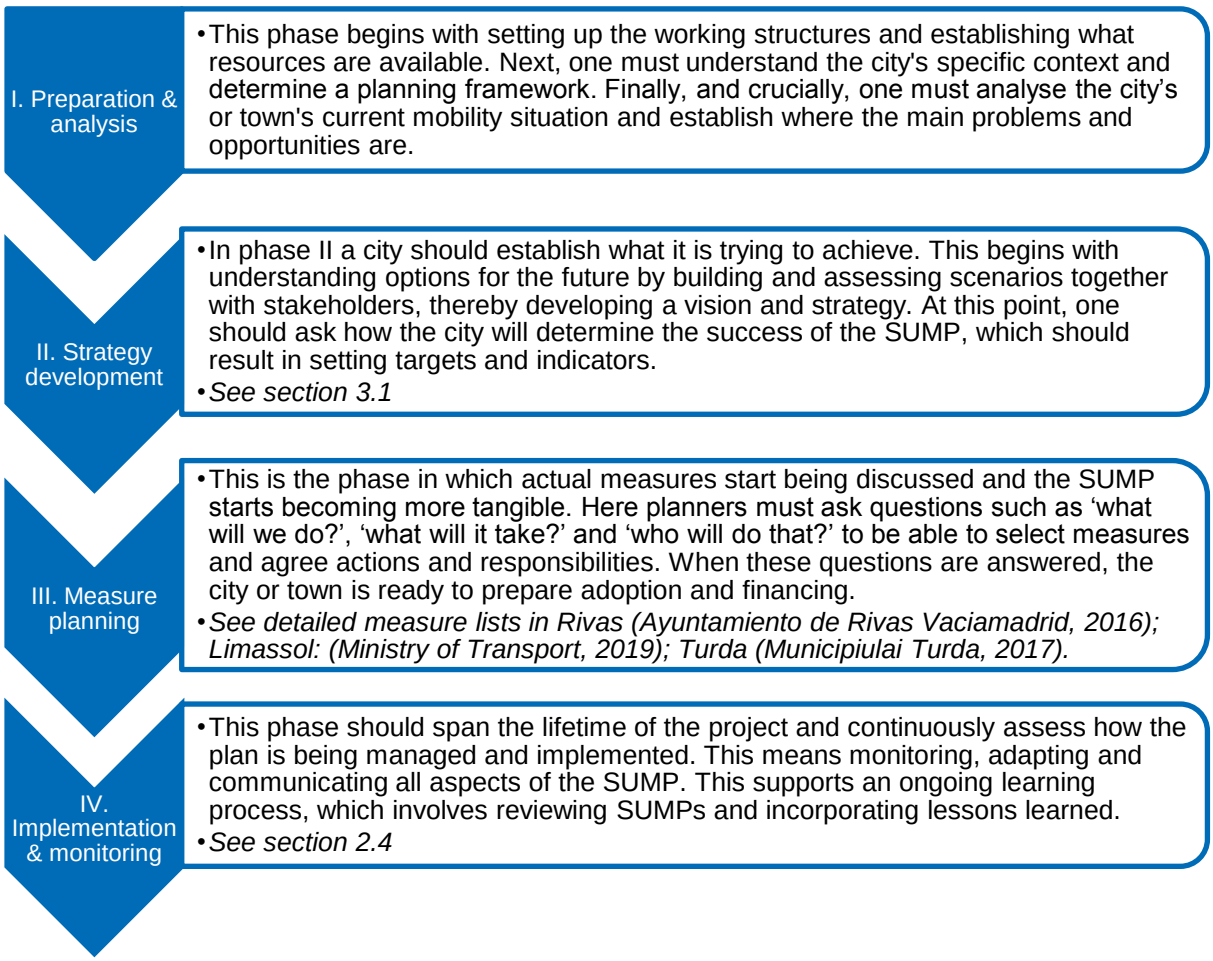


Table 2-1: Phases of SUMP development in Rivas, Limassol and Turda

City	I Preparation & analysis	II Strategy development	III Measure Planning	IV Implementation & monitoring
Rivas (14 months)	**2009** Identified mobility issues of pedestrians, cyclists, public transport and private transport. Described the quantified and historic contexts of the issues.	- Concrete proposals to address each transport mode. Citizen participation, communication and programme monitoring programmes.	- Identified 22 qualitative and quantitative indicators, which were tied to targets in different forward-looking scenarios.	**2010** Timeline, deadline, priority and budget for each measure. Full review of SUMP in 2016 (Rivas Vaciamadrid, 2016).
Limassol (27 months)	**Apr 2017-Jul 2017** Planned stakeholder engagement process; conducted review of existing studies and data, filled gaps through data-gathering exercises and developed quantitative transport model. Analysed problems and barriers.	**Jan – Mar 2018** Developed SUMP vision, objectives, priorities and targets.	**Apr 2018 - Jan 2019** Developed scenario modelling based on strategy. Selected preferred outcomes and measures to support delivery.	**Mar – May 2019** Finalised SUMP. Development of a monitoring and evaluation plan. Developed a marketing strategy. Launched training programme for SUMP modelling.
Turda (10 months)	**2017** Analysis of existing mobility situation via research and transport surveys. Considered socio-economic context, population densities, the road network, public transport, freight transport and traffic management.	**2017** Developed forecasts and a transport model to assess potential measures. Outline of vision for urban mobility.	**2017** Action plan to achieve vision, alongside measures with implementation timelines, costs and stages.	**2017** Developed procedures for evaluation and monitoring, as well as the responsibilities for the implementation.

Source: Adapted from **Rivas** (Ayuntamiento de Rivas Vaciamadrid, 2016); **Limassol**: (Ministry of Transport, 2019); **Turda** (Municipiulai Turda, 2017).

2.1 Key support for setting up the scheme

The European Commission has implemented a vast number of initiatives and programmes that can be used for (co-)funding and financing SUMPs. Given this support, the SUMP approach is a favourable way for cities and towns to begin developing plans and strategies. These EU initiatives are summarised in the box below.

Box 1: EU support instruments

The European Commission has implemented a vast number of initiatives and programmes that can be used for (co-)funding and financing SUMPs:

- European Structural and Investment Funds (ESIF) contains 5 separate funds. The European Regional Development Fund ERDF and the Cohesion Fund are particularly relevant for SUMPs.
- **Climate-KIC**: the European Institute of Innovation & Technology's (EIT) Climate-KIC supports decarbonising projects, including the decarbonisation of urban mobility.
- The **LIFE programme** is the EU's funding instrument for the environment and climate action. It funds innovative projects that demonstrate new techniques and methods.

- The **Connecting Europe Facility** (CEF) is a fund for pan-European infrastructure investment in transport, energy and digital projects, which aim at a greater connectivity between Member States. It operates through grants, financial guarantees and project bonds.
- The **Cleaner Transport Facility** is a joint initiative of the European Commission and the EIB. The Facility supports investments in alternatively fuelled public transport and infrastructure in cities and urban areas. It combines lending, funds, guarantees and advisory services.
- **European Energy Efficiency Fund (EEEF**) provides financing for energy efficiency investments, including low-carbon mobility solutions such as e-mobility, car sharing, etc. The EEEF aims to attract private investments to sustainable mobility projects.

Additionally, there are EU and EIB support instruments to help with application and combination of structural funds.

- **JESSICA** (Joint European Support for Sustainable Investment in City Areas) is a policy initiative of the European Commission that supports sustainable urban development and regeneration through financial engineering mechanisms, including the leverage of EU structural funds to unlock more investment.
- **The European Local ENergy Assistance (ELENA)** programme provides grants for the development (not the implementation) of programmes that focus on energy efficiency in a broad sense. Having a SUMP is included in the selection criteria for applications.

2.2 Lead times

Since SUMPs can be very diverse, depending on the issues addressed, the size of the city, the thoroughness of the analysis, the previous experience and the different approaches for reaching objectives, it is difficult to indicate typical lead times. Those featured in this case study range from 7 to 27 months. Furthermore, a successful SUMP involves continuous monitoring and reviews - it is therefore an ongoing process.

2.3 Lessons to be learned from the scheme development and initial stages of implementation

The **Rivas** municipality underlined the value that can be gained from involving citizens and stakeholders into the planning process. Cooperating with diverse groups, facilitating contributions, and collecting suggestions and complaints were crucial in designing a SUMP that reflected citizens' needs. Similarly, the cooperation with other cities through EU projects and networks were noted by the **Rivas** implementation team as one of the most crucial factors in developing the SUMP and was highlighted as a fantastic opportunity for cities all over Europe. Finally, The Department for Environment and Mobility of **Rivas** learned from its plan development that the most expensive or technologically advanced decisions are not always the smartest or most effective. Community cooperation, for example, is not a very costly tool, but can be very powerful to drive innovation and social change (Rodríguez, 2013) (Romea, 2013).

The **Limassol** SUMP implementation report suggests that environmental groups and NGOs should be involved early on during the design stage of large transportation projects. Such actions will gather the different viewpoints and identify areas of consensus and disagreement early to enable informed future decision making. They also recommend developing a package of measures and incentives to minimise any impacts that may occur on retail and tourism activity throughout the implementation phase (Ministry of Transport, 2019).

Turda faced a lot of the same challenges larger cities face and underlined the importance of a tailor-made approach by adapting best practices to fit a city's needs. For small cities in particular, adopting a

standardised framework is inefficient and is unlikely to lead to a SUMP that can solve the city's unique needs. A further major challenge when developing a SUMP in small cities is the access to financial resources. **Turda** identified that using a variety of innovative soft measures (e.g. public awareness campaigns around walking) in combination with infrastructure investments can have a significant impact on small cities and open up more opportunities (Andronic, 2018).

2.4 Adjustments made during the scheme

Reported adjustments made during the scheme largely fall into the implementation and monitoring phase of SUMPs, and result from the assessment of measures and adaptation of the plan to new challenges and opportunities. This stage is as important as the previous stages for setting up the SUMP. Just as cities change over time, SUMPs should also dynamically adapt to changing circumstances and to lessons learned. Three years have passed since **Turda's** SUMP was implemented. There are no considerable assessment reports or analysis yet.

In 2019, a review of the **Limassol** SUMP at the end of the implementation made several recommendations for the next iteration of the SUMP with a view to achieving a greater reduction of GHG emissions from the transport sector in **Limassol** (Ministry of Transport, 2019). Firstly, it proposed that more extensive and/or additional measures could be implemented to further increase the modal share of cycling and walking. Secondly, it proposed that the next iteration of the SUMP considers electric vehicle use and infrastructure as well as measures to promote their use. Finally, the report suggests that native trees and shrubs are incorporated into the design of all proposed SUMP projects as part of a wider tree planting initiative, as well as providing more immediate effects on air and noise pollution.

Rivas' SUMP included a mandatory revision every five years, which was presented in 2016 (Ayuntamiento de Rivas Vaciamadrid, 2016). The first step of the 2016 version of the SUMP was the diagnosis of the measures of the 2010 SUMP (Rivas Vaciamadrid, 2009). The influence and implementation level of each measure was assessed and marked to produce a final score of each measure's effectiveness. The projections made in the 2010 SUMP were then re-assessed using updated data, 400 telephone surveys and a new set of measures, to produce new scenarios mapping of how the new measures were expected to perform. This process resulted in a total of 52 new measures spread across nine thematic areas (Ayuntamiento de Rivas Vaciamadrid, 2016). Based on feedback, the municipality understood behavioural changes could be encouraged using community actions, and therefore increased activities focused on walking and cycling with further investments in suitable infrastructure and information campaigns/events targeting school pupils and the elderly to maximise health as well as CO_2 impacts.

3 Assessment

3.1 Successes

Each of the SUMPs includes a monitoring and evaluation plan, as suggested by SUMP guidelines. This section therefore provides an overview of these, before presenting GHG emissions and modal shift impacts identified from these activities.

Monitoring

Each of the SUMPs has established monitoring and evaluation plans, which set out when these activities will be carried out, which organisation is responsible for collection of data and what resources are necessary to implement them.

Limassol intends to run a full review (including a household travel survey, noise monitoring site survey, parking site survey, public spaces survey, and pedestrian and cyclist counts) in 2025, to be incorporated into a midterm review of progress against its targets (Ministry of Transport, 2019). The monitoring and

evaluation plan included milestones and meetings until 2030. Finally, this monitoring plan is described as a living document that should be adapted to modifications during SUMP and knowledge gained during the process.

Turda has set up a number of indicators to annually measure its progress for each mode, for example traffic volumes on main streets, pedestrian priority street kilometres, bicycle track kilometres, number of cyclists, number of parking spaces, number of passengers on public transport and frequency of service (Municipiul Turda, 2017). These are due for review every 5 years.

Rivas categorised all its 22 measures into five segments (pedestrian, cyclist, public transport, private transport and parking, and citizen participation) and assigned a level of importance or influence of the measure to the overall objectives. This influence level was then translated to a percentage weighting, which showed how important that specific measure was to overall project success. The SUMP review then assigned a percentage of completion to each measure, assessing how far it had been implemented. The products of the weighting and completion of every measure were then added up to show the overall progress on the SUMP, which was found to be 61.72% in the 2016 review (Rivas Vaciamadrid, 2016).

GHG emissions

This section presents the CO_2 emissions impacts that have been made public so far for each SUMP (as of July 2020). Research into these cities and others has revealed that SUMPs do not always include environmentally focused indicators, and/or that these are not commonly analysed to present the overall changes in GHG emissions. Therefore, Box 2 presents information on Sustainable Urban Mobility Indicators (SUMIs) to support cities to improve in this area.

Rivas' 2016 review found the SUMP was on track to generate a 10.3% reduction in emissions from passenger transport in 2024, largely from a reduction in private car use. This would result in a 12.2% reduction in petrol consumption and a 8.5% reduction in diesel consumption (Ayuntamiento de Rivas Vaciamadrid, 2016). Rivas also conducted an assessment of energy consumption and found that energy consumption from transport was expected to reduce by 10.4% by 2024.

The **Limassol** SUMP key method of reducing GHG emission from transport, was to boost the availability and effectiveness of more sustainable modes of transport (e.g. active and public transport). Transport modelling of the city estimated a 3%[1] reduction in CO_2 emissions (by 2030), in relation to the "business as usual" scenario (Ministry of Transport, 2019). For context, the SUMP set a local emissions reduction target of 20%. Their review report therefore notes that more additional and extensive measures are therefore required.

However, since this modelling took place, additional monitoring of key SUMP indicators has taken place. **Limassol**'s public transport was optimised, and bus service kilometres reduced by about 25–30% while carrying more passengers. This exceeds initial predictions (and data included in the city's modelling). When included in assessments, GHG reductions are expected to increase (Ministry of Transport, 2019).

The success of the **Turda** SUMP is still difficult to assess or quantify, given it was adopted in late 2017. The city plans to track its progress on environmental aims to enable a calculation of greenhouse gases by tracking several indicators, including total vehicle journeys, average journey speed, number of trips during rush hour, average vehicle journey and average travel time.

Box 2: Measuring SUMP Progress on Environmental Factors- Sustainable Urban Mobility Indicators

For cities to reach their SUMP's climate goals, they need to be able to track the impacts of policies. This is key to developing and implementing more effective and fact-based GHG mitigation policies within their SUMPs. However, GHG impacts are rarely thoroughly reported. This section therefore provides an

[1] This analysis did not include the impacts of some measures (park and ride or parking measures).

introduction to Sustainable Urban Mobility Indicators (SUMI), a comprehensive set of 19 sustainable urban mobility indicators with the intention of enabling cities to perform a standardised evaluation of their mobility system and measure the improvements resulting from the implementation of new mobility practices or policies.

The European Commission's Directorate-General for Mobility and Transport endorsed the indicators in 2016, and currently has a project running in this area, to support implementation of sustainable urban mobility indicators in cities.

These indicators do not enable a calculation of the impact of specific policies on GHG emissions, but they can be used to monitor overall progress of a city's package of policies. They will also help highlight areas where there are policy gaps and areas for improvement within a package.

Each indicator represents an aspect of mobility and is often interconnected with other indicators from the set. For instance, congestion, intermodal integration, energy efficiency and GHG emissions are linked. As these three are of key importance to GHG impacts, these are summarised below.

- City greenhouse gas emissions indicator - Well-to-wheels GHG emissions by all city passenger and freight transport modes. The total amount of city transport GHG is calculated from the total amount of vehicle-kilometres per mode, per vehicle type and fuel type before converting into CO_2 equivalents.
- Congestion and delays in road traffic and in public transport during peak hours compared to free flow travel. Higher congestion levels increase GHG emissions. This indicator can be collected using a survey of activity on main roads and public transport during peak and quiet hours. Alternatively, data from route planners can be used.
- Energy efficiency - Total energy consumed for city transport. This indicator is calculated with the parameters for energy intensity of different modes and represents the fuel used per unit of freight-kilometre and per unit of passenger-kilometre travelled by mode.

More information on these indicators and how they can be calculated using commonly available data, can be found here: https://ec.europa.eu/transport/themes/urban/urban_mobility/sumi_en

Modal Shift

A general objective of the plan of the **Rivas** city council was to increase the share of pedestrian, bicycle and public transport compared to private vehicle transport. Comparing modal shares of 2010 and 2016 reveals a decrease in private vehicles from 58.9% to 55.3%, an increase in pedestrian from 19.8% to 22.5% and only a slight increase in public transport from 20.4% to 20.6% (Rivas Vaciamadrid, 2016). Further increases came from cyclists, driven by introduction of the public bike rental service BICINRIVAS. The overall trend is therefore positive and shows that the SUMP improved its modal share, thereby making progress towards its target. Based on the changes up until 2016, further improvements are expected, as shown in the table below:

Table 3-1: Rivas modal share projections 2024[2]

	Projection for 2024 in business as usual scenario	Projection for 2024[1] with 2010 SUMP measures	% change
Private vehicles	57.47%	50.46%	-7.01%
Public transport	19.27%	22.27%	3.00%
Non-motorised transport (walking/cycling)	22.78%	26.27%	3.49%
Other	0.49%	1.03%	0.54%

The **Limassol** SUMP aims to increase modal share of public transport from 1.8% in 2017 to 20% by 2030 (and reach 5%-7% by 2025). However, current rates of increase from the SUMP implementation fall short of both of these aims and are likely to only enable a 10% public transport share by 2030.

Turda has not yet reported its progress towards the modal shift.

3.1.1 Key factors that ensured success

Public acceptance

To ensure success, both **Rivas** and **Limassol** noted the importance of contacting broad range of stakeholders in the early stages of designing infrastructure changes, to avoid later issues. Further, this level of engagement is planned to continue. **Limassol** Set up a key stakeholder committee with 19 members. Early on in the process, there were five large public participation events where approach, vision, priorities, targets, preferred scenarios, strategies and measures were presented, discussed and decided upon. This resulted in a clear vision and served as a basis to define high-level objectives that were important to business and public. Following the completion of the plan, **Limassol** has set up a plan to run two meetings a year until 2030 with the committee of stakeholders, to update them on the ongoing monitoring and to gain similar approval on proposed updates.

In Rivas, the city has documented that the success of the plan is dependent on the commitment and contributions of residents. As well as covering economic and environmental aspects, the pre-feasibility run before the implementation of actions also included an assessment of social interest, acceptance and adequacy. This was considered in reviews of plans with local decision makers and other key stakeholder groups (e.g. in local community organizations, local business, associations, local interest groups, transport operators, cycle/walking groups, transport users and disabled people). After implementation, other activities are organised to continue engagement and acceptance in the community. The city has committed to continuous communication of plans through municipal social networks, and at key moments (e.g. the 2016 review) plans to run a series of stakeholder activities that aims at collecting inputs on objectives and progress against indicators. As another example, the education community were and continue to be engaged to increase walking and cycling among families. Activities organised include in-school educational programmes on cycling, meetings with parents and running mobility surveys through schools. In the 2016 review, these actives were credited with key importance to the increases in walking and cycling over private transport (Rivas Vaciamadrid, 2016).

Funding

All three cities noted how the development and implementation of their SUMPs was strongly depended on securing the necessary financial resources. Each made use of a mixture of funding (capital provided

[2] The SUMP scenario includes current trends from the measure that seek to promote public transport and optimise bus services; enhance and expanding walking and cycling infrastructure; mobility management policies.

by organisations or governmental bodies free of charge with no requirements to be paid back) and financing (capital that is provided with the expectation to be returned in full plus interest). The financing mechanisms reported are reasonably conventional (bank loans and public-private partnerships). Some examples of innovative funding sources are included below (adapted from each SUMP's project documents):

- EU Funds (e.g. Structural, Investment, Cohesion, Social, Green funds)
- National level government
- Real estate owners and developers through Land Value Capture
- Applying levies on employers based in city (e.g. parking levy)
- Infrastructure charging (e.g. tolling, parking charging, etc)
- Public transport revenues
- Ancillary revenues (e.g. advertisement, rentals)
- Grants covering financing gaps and subsidies (both representing forms of equity)
- Land value surplus capture (mechanisms used to monetise the increase in land values resulting in catchment area of public infrastructure projects)
- Community infrastructure levies and land purchase duty taxes
- In-lieu fees for private parking spaces paid by developers (e.g. Green Fund revenues in Greece)
- Business taxes
- Workplace parking levies paid by businesses
- Carbon funding (revenues from selling of CO_2 emission certificates)
- Earmarked road and parking congestion charges

Turda's SUMP has been described as an inspiration for small and medium cities partly because of its extensive financial planning, which drew on many of the above sources. This is particularly impressive for its size, as gaining access to financial resources is a challenge facing small cities. More information is available in the SUMP report (Andronic, 2018).

Project Planning

SUMPs contain a large number of measures, spanning various parts of mobility. Therefore, careful project planning is required. Throughout the duration of the **Rivas** SUMP, the city was having to prioritise measure implementation focus. To coordinate this effectively, each measure was reviewed and given importance ranking. Measures with higher priority included those related to public transport and cycling. In the first tranche was the reorganisation of bus public transport network due to its alignment with several of the key objectives (by improving city accessibility, reducing emissions and reducing car transport).

Limassol and **Turda** took a similar approach in organising measure implementation. Both considered supporting actions and requirements (e.g. location, preparatory studies/permissions required, dependency on communication and relative regulatory/legal frameworks) when planning what measures were implemented and how separate measures were connected. This also resulted in public transport improvements being prioritised. In **Limassol**, this is also the longest running part of the SUMP implementation plan, as optimisation and fleet renewal are expected to continue through to 2030.

3.2 Limitations

3.2.1 Aspects for Improvement

There is an opportunity for improvement in the areas of evaluation, indicator development, and data gathering, given that evaluation of transport planning process and SUMP impact is not yet being conducted systematically, and remains a low priority in most EU cities. **Limassol** has shown a considered approach to this, by establishing an evaluation and monitoring timeline, including meetings with key government and non-government stakeholders, with the aim of enabling a sharing of ideas and information. National guidelines on these topics, such as Spain's, can support the uptake of these activities.

3.2.2 External factors

As noted previously, a successful SUMP depends on the interaction with other plans and strategies and relies on resources, analysis and stakeholders as inputs to find effective measures. If a national or regional strategy sets priorities that don't align with the objectives of a SUMP, it can become difficult to balance the two. Moreover, if there is a general lack of inputs from stakeholders (e.g. due to insufficient stakeholder engagement activities), the resulting SUMP will have difficulties to effectively capture what the challenges and opportunities of the city are and thereby struggle to build an effective action plan.

Although SUMPs should generally aim to integrate with other strategies and plans, it is possible that it results in unintended negative consequences. Citizen engagement is essential to developing SUMPs, however involving them in too many activities can result in participation fatigue. Policy makers must also be aware that good and rigorous data collection is essential to avoid developing measures that address the wrong challenges. Furthermore, purchasing decisions associated to SUMP measures could result in unintended negative social and environmental impacts.

Generally, one risk of SUMPs is that an unsuccessful implementation of one measure may take the spotlight away from a series of successful measures, which could cast an overall bad light on the SUMP's efforts and hinder acceptance of future plans. Moreover, restructuring the transport system of a city can have temporary adverse effects on mobility or sustainability of transport in a city during implementation, therefore policy makers should plan SUMPs with minimum disruption.

3.3 Future Potentials

These case studies have been selected to reflect good practices, which can be transferred to other cities. The SUMP awards name replicability and scalability as selection criteria and thereby underline that these SUMPs have been designed in a clear and concrete fashion that makes it easy to identify elements that can be of use in other towns and cities across Europe.

3.3.1 Scalability

SUMPs are applicable to urban areas of many sizes. Originally, they targeted larger cities (>100,000 inhabitants) such as **Limassol**, however, many small and mid-sized cities (such as **Rivas** and **Turda**) have now adopted the SUMP approach. Furthermore, sub-municipality focused actions (e.g. **Limassol**) show that the concept can be successfully tailored to projects on more locally different levels.

3.3.2 Replicability

There is no standard approach to developing a SUMP. What might be successful in one city might not work in another. However, there are several available resources to support planning:

- The SUMP Self-Assessment tool helps policy makers evaluate urban areas to understand existing mobility policy packages' strengths and weaknesses. The tool also provides tailored advice on how policy could be improved through the implementation of a SUMP. The assessment should be completed by a team with experience in mobility planning activities in the area. Access the tool here: www.sump-assessment.eu.
- The CIVITAS SUMPs-Up project has developed guidance on how to select and integrate measures into SUMPs. Three documents were provided to cover the spectrum of SUMP experience of different cities. The manual for beginner cities offers suggestions for the measure selection process for a first SUMP. The manual for intermediate cities provides advice on a more systematic approach considering synergies of different measure types and policy areas. The manual for advanced cities focuses on cooperation with stakeholders and the public, and on strategies to foster innovation beyond the transport sector.
- This case study has provided an overview of three example cities' SUMPs, but many more exist. Other EU SUMPs are summarised in Annex A.1 in order to help policy makers identify other examples. Additionally, Eltis hosts a comprehensive database of all SUMPs with links to project documents (access the database here: https://www.eltis.org/mobility-plans/city-database).

- The SUMP Awards aim to encourage the adoption of Sustainable Urban Mobility Plans (SUMPs) by new cities by shining a spotlight on outstanding plans from across Europe. For example, **Turda** won the award for its clear planning vision, measurable targets and robust financing strategy. Since funding is often a barrier for cities, the SUMP Award jury highlighted **Turda**'s financing strategy as a key factor for success and noted its transferability to other similar sized cities. This was especially emphasised due to **Turda**'s limited prior experience, showing that any city can develop and benefit from a SUMP (Eltis, 2018). The focus of the 2020 awards will be on zero-emissions transport and will therefore provide additional examples of best practise for new cities to reference (EuropeanMobilityWeek, 2020).

This case study has covered a number of aspects of SUMPs. The table below summarises some of these themes and discusses their applicability to other settings, and any specific requirements for other cities to put this into practise.

Table 3-2: SUMP aspects and their replicability

Action	Replicability
SUMP development and Implementation	
Deployment of voluntary mobility surveys	This is a common first step (or prerequisite) to SUMP development. Applying this early in the process means the results can help identify objectives for a SUMP. It is considered highly transferable and was used by all SUMPs presented here.
Comprehensive consultation with stakeholder groups	Easier for a city of a smaller size, even though most activities can be replicated at a larger scale. It is important to ensure resources are available to manage responses so that they can both inform the SUMP design and foster shared ownership of the SUMP. To support this, a city-specific consultation plan should be developed and include key objectives for engagement at a strategic and local level, reflecting the different transport users and stakeholders across regions and within municipalities.
Funding and financing strategy	Financing can be a major barrier for long-term projects, such as SUMPs. **Turda**'s financial planning was highlighted as a replicable approach for cities with limited prior SUMP experience. **Turda** outlined a multi-year financial strategy which noted how projects would be funded by European funds, local budgets and other sources, and how the budget structure developed until 2030. The different types of funding were assigned to different types of projects within the SUMP to reflect the project-specific financing requirements. Moreover, the financing strategy comprised multiple stages, which highlighted the need for a substantial initial investment, followed by a more long-term budget to make adjustments to the plans and projects. A successful SUMP must build on a long-term and robust financial strategy to ensure continuing measure implementation and development.
Creation of an organisation to support transport delivery across the region	Regional level transport authority is required to support this measure, and therefore often requires some centralised funding. Once established it should be replicable in other areas of the country.
Creating a SUMP in a country with no national SUMP initiative	An area could produce a SUMP voluntarily. Resources would be required to prepare the document, either internally or by procuring external expertise. However, it can be resource intensive and may be difficult to implement without it being a national requirement. SUMPs could be used as a means of delivering a more innovative approach to different local transport planning requirements that exist.
Development of national SUMP guidelines and legislation	Comprehensive national frameworks can feature a SUMP programme, a legal definition, national guidance on SUMPs, an assessment scheme, monitoring and evaluation, and training. Spain has been considered a forerunner in establishing urban transport planning framework incorporating SUMPs. The legal framework of Catalonia (Spain) might be useful to other regions as well. The framework goes beyond financial aid and includes technical assistance, methodological guidelines, training activities, a website for knowledge exchange and good practice information, awareness raising and dissemination activities, and workshops and seminars.

Action	Replicability
	Romania developed a legislative framework to encourage the development of SUMPs in the country, that support the national transport aims. Given the cross-sector focus of SUMPs, this requires close cooperation among the different ministries in order to identify the needs of the local authorities and include in the Guidelines specific ways to respond to them. Guidelines established by Romania and Spain should be adaptable/transferable to other countries.
Monitoring and evaluation	Key part of the SUMP concept. Systematic monitoring and evaluation increases the efficiency of planning and implementation, helps optimise the use of resources, and provides evidence for the future revisions of plan. However, several countries (including those included here) need to improve this aspect of SUMPs (Civitas, 2018). Transport assessment tools and indicators are key elements of this process, and so the SUMIs are a useful starting point.
Measures	
Intelligent transport systems	This requires the availability of a technical know-how and high-level skills and ability to collect and usefully analyse big data. It probably brings the most benefits as a mobility tool for large cities or regions with a number of cities due to their complex activity patterns and the cost of implementation. Additionally, as evidenced by **Limassol**, once established it becomes a useful instrument for supporting policy decision and planning of future SUMPs.
Cycling and walking	Most cycle measures are transferable to a range of cities, but it is important to consider the current cycling levels, cycling culture and infrastructure when selecting supportive measures. As uptake of cycling increases, measures should be adapted. Detailed EU guidance is available (DG MOVE, 2020).
Parking	Effective parking management can reduce GHG emissions by improving congestion, reducing local traffic in city centres, and reducing car trips (modal shift). It can also be used to support the local economy and improve air quality. Despite this, it is often underdeveloped in SUMPs.
Public transport	The majority of cities developing a SUMP find that stakeholder engagement and data collection allows them to re-think and subsequently re-organise existing public transport routes. This can allow a city to optimise bus lines and network design with minimal investment (Mozos-Blanco, Pozo-Menéndez, Arce-Ruiz, & Baucells-Aletà, 2018).

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A.1 EU SUMPs Overview

This annex presents an overview of the number of SUMPs per country, their size and contains useful links to country level summaries.

Table A3-1 EU classification of urban areas

Urban Centre Sizes in Population (Lewis Dijkstra, 2012)	
S	Between 50,000 and 100,000
M	Between 100,000 and 250,000
L	Between 250,000 and 500,000
XL	Between 500,000 and 1,000,000
XXL	Between 1,000,000 and 5,000,000
Global City	More than 5,000,000

Source: (Lewis Dijkstra, 2012)

Table A3-2 Number of cities within countries that have SUMPs, broken down by size of the city

Country	No. of SUMPs	Number of SUMPs by City Size								Link to country summary
		XS	**S**	**M**	**L**	**XL**	**XXL**	**Global City**	No data	
Austria	**14**	9	-	4	-	-	1	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=at
Belgium	**311**	293	8	4	5	-	1	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=be
Bulgaria	**10**	3	1	3	2	-	1	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=bg
Croatia	**11**	5	1	3	-	-	-	-	2	http://www.epomm.eu/endurance/index.php?id=2809&country=hr
Cyprus	**6**	3	1	2	-	-	-	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=cy
Czech Republic	**13**	4	3	3	2	-	1	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=cz
Denmark	**12**	4	1	4	1	-	1	-	1	http://www.epomm.eu/endurance/index.php?id=2809&country=dk
Estonia	**2**	1	-	-	1	-	-	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=ee
Finland	**8**	1	-	6	-	-	1	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=fi
France	**146**	58	17	47	14	4	3	1	2	http://www.epomm.eu/endurance/index.php?id=2809&country=fr
Germany	**104**	19	7	50	14	9	4	-	1	http://www.epomm.eu/endurance/index.php?id=2809&country=de

Greece	**21**	9	8	3	1	-	-	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=gr
Hungary	**16**	6	3	6	-	-	1	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=hu
Ireland	**5**	1	-	1	-	-	1	-	2	http://www.epomm.eu/endurance/index.php?id=2809&country=ie
Italy	**105**	44	16	29	6	3	3	-	4	http://www.epomm.eu/endurance/index.php?id=2809&country=it
Latvia	**1**	-	-	-	-	1	-	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=lv
Lithuania	**4**	1	-	1	1	1	-	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=lt
Luxembourg	**1**	-	1	-	-	-	-	-	-	None
Malta	**1**	-	-	1	-	-	-	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=mt
Netherlands	**26**	4	-	18	2	2	-	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=NL
Poland	**42**	6	3	20	5	4	3	-	1	http://www.epomm.eu/endurance/index.php?id=2809&country=PL
Portugal	**16**	3	2	8	1	1	1	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=PT
Romania	**28**	4	1	14	6	-	1	-	2	http://www.epomm.eu/endurance/index.php?id=2809&country=RO
Slovakia	**2**	-	-	1	1	-	-	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=SI
Slovenia	**63**	62	-	-	-	-	-	-	1	http://www.epomm.eu/endurance/index.php?id=2809&country=SK
Spain	**65**	12	3	37	6	5	2	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=ES
Sweden	**13**	2	-	8	1	1	1	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=SK
Switzerland	**1**	1	-	-	-	-	-	-	-	http://www.epomm.eu/endurance/index.php?id=2809&country=lt
Grand Total	**1047**	**555**	**76**	**273**	**69**	**31**	**26**	**1**	**16**	

Source: Adapted from (Eltis, 2020b)

Table A3-3 Global Cities and XXL Cities with a SUMP

Global Cities	
France	Paris
XXL Cities	
Austria	Vienna
Belgium	Brussels

Bulgaria	Sofia
Czech Republic	Prague
Denmark	København
Finland	Helsinki / Helsingfors
France	Lille
	Lyon
	Marseille
Georgia	Tbilisi
Germany	Berlin
	Hamburg
	Köln
	München
Hungary	Budapest
Ireland	Dublin
Italy	Milan
	Napoli
	Rome
Poland	Górnośląski Związek Metropolitalny
	Warsaw
	Subregion slaskie
Portugal	Lisbon
Romania	Bucharest
Spain	Barcelona
	Madrid
Sweden	Stockholm

Source: Adapted from (Eltis, 2020b)

A.2 SUMP Awards

Table A3-4 Each SUMP award edition's thematic focus.

SUMP Award	Year	Thematic focus
1st edition	2012	Stakeholder and citizens participation while planning and implementing the SUMP
2nd edition	2013	Integration of economic, social and environmental policy criteria
3rd edition	2014	Monitoring implementation to improve the SUMP
4th edition	2015	Providing for multimodality and intermodality in sustainable urban mobility planning
5th edition	2016	Freight in sustainable urban mobility planning
6th edition	2017	Sharedmobility in sustainable urban mobility planning
7th edition	2018	Multimodality in sustainable urban mobility planning
8th edition	2019	Safe Walking and Cycling
9th edition	2020	Zero-emission mobility for all

Source: Adapted from (EUROPEANMOBILITYWEEK, 2020)

Table A3-5 The evaluation criteria for the 9th SUMP Award.

Criteria	Max points	Question
Background & Policy Objectives	-	Please describe the main challenges your town/city is facing in relation to urban transport, the history of your local transport policy, and its objectives
SUMP preparation and implementation	-	Your city is currently working on its: • 1st SUMP • 2nd (or more) SUMP Which phase of the SUMP process is your city in? • Preparation phase • Adoption phase • Implementation phase • Monitoring phase Please describe your SUMP targets, which phase the plan is in (preparation, goal setting, elaboration, implementation), and what the expected results of the plan are. In case of a 2nd SUMP, please include indicators showing progress e.g. in reduction of emissions, modal split etc.
Executive summary: Excellence	-	Please, describe why your town/city is an outstanding example for targeting an inclusive, zero-emission mobility in its Sustainable Urban Mobility Planning. Please, mention key field(s), approach(es)or measure(s)that make your town/city particularly successful in reaching these goals. You can further elaborate on each point in the subsequent corresponding question.
Emission reduction targets to reach the objectives of the SUMP and the Green Deal.	5	Q1. Please describe how the objectives of your SUMP will result a reduction in harmful emissions thus lead to a better air quality. What goals and indicators (i.e. infrastructural investments, electrification) do you target? Please indicate your city's current and target indicator and explain why these indicators and values have been chosen.

Criteria	Max points	Question
The city has a consistent and realistic strategy to reach a **sustainable modal split.**	5	Q2. Does your SUMP include a strategy or plan to reach a desired modal split? If so, please describe your objectives and give example(s) of the most important measure(s) to achieve this goal as well as results if implemented (incl. for example infrastructure, campaigns and developments to boost the usage of actives modes).
The city has a consistent and realistic strategy to (further) develop an **integrated transport system.**	5	Q3. Does your SUMP include a strategy or plan to develop an integrated transport system? If so, please describe your objectives and give example(s) of the most important measure(s) to achieve this goal as well as results if implemented (incl. for example infrastructure, sharing schemes, multimodal hubs, integration of public transport).
The city takes action to improve **inclusiveness** whilst aiming at a sustainable transport system.	5	Q4. Does your SUMP include or refer to a strategy or plan to improve the inclusiveness and accessibility of its transport system (e.g. elderly people, women, people with disabilities) If so, please describe your objectives and give example(s) of the most important measure(s) to achieve the goals. Please share results (if applicable).
Good practices to handle emergency situations in transportation.	5	Q5. Does your SUMP help your city to systematically introduce new measures in your transport system to handle emergency situations (e.g. pandemics, natural disasters or terror attacks) and build climate resilience? Does your city plan to use the experiences learned during this year's lockdown to make your transport system more secure and adaptive? Please introduce short-and long-term measures and results (if applicable).
Scoring system	-	0 points: Does not meet requirements at all 1 points: Poorly meets requirements 2 points: Almost meets requirements 3 points: Meets requirements 4 points: Meets requirements with excellence 5 points: Meets requirements with excellence and even exceeds them

Source: Adapted from (EUROPEANMOBILITYWEEK, 2020)