

SMARTMOBAIR project

Work package: WP1

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Executive Summary

The deliverable D.1.3.1 Smart mobility planning and regulatory gap assessment presents all the barriers that must be overcome in order to ensure a smooth deployment of smart and sustainable mobility solutions able to tackle present mobility problems in the programme area.

Having a clear view from the 6 partner countries of the project, aims at enhancing cross-border coordination and harmonization to remove smart mobility related barriers in the Adriatic-Ionian region, setting up a proactive and participative approach in addressing smart mobility barriers and drivers with the final aim of increasing territorial capacity and readiness to plan, deploy and upscale joint smart mobility solutions according to territorial needs and peculiarities.

This report presents a comprehensive analysis of the regulatory and planning framework for smart and sustainable mobility across six countries participating in the SMARTMOBAIR project: Albania, Bosnia and Herzegovina, Greece, Italy, Serbia and Slovenia.

The objective of the report is to identify legal and institutional barriers, assess current planning documents, and offer recommendations for cross-border harmonization and the implementation of smart mobility initiatives.

Key Findings

- ✓ Outdated and fragmented legal frameworks hinder integration of ITS and new mobility models such as micromobility
- ✓ Weak vertical and horizontal coordination complicates implementation of mobility strategies
- ✓ Institutional capacity gaps at the local level limit planning and enforcement capabilities
- ✓ Low digital readiness delays ITS deployment and intermodal integration
- ✓ Public engagement and behavioral change are insufficiently addressed in most national and local strategies

Country-Level Recommendations

- ✓ Harmonize legislative and policy frameworks
- ✓ Establish a regional support program for SUMP development and implementation
- ✓ Create a shared mobility data hub to promote evidence-based planning
- ✓ Strengthen funding mechanisms for innovative, cross-border pilot initiatives
- ✓ Promote regional public awareness campaigns to support behavioural shifts
- ✓ Enable continuous knowledge exchange through thematic workshops and SWGs

The SMARTMOBAIR pilots are not isolated interventions—they are scalable models that highlight how strategic alignment, data-driven planning, and institutional cooperation can drive a transition to sustainable urban mobility. With appropriate investment and policy reform, the Adriatic-Ionian region has the potential to lead in smart mobility transformation across Southeast Europe.

0. Introduction

In recent years, the growing complexity of urban mobility challenges—ranging from increased congestion and environmental degradation to rapid technological shifts and evolving public expectations—has highlighted the urgent need for integrated, smart, and sustainable transport solutions. Within the Adriatic-Ionian region, these challenges are further compounded by institutional fragmentation, uneven development, and diverse legal and planning traditions across countries. In this context, the SMARTMOBAIR project was initiated as a strategic effort to foster transnational cooperation and build a foundation for forward-looking mobility systems tailored to the unique needs and capacities of each territory involved.

This deliverable, D.1.3.1 – Smart Mobility Planning and Regulatory Gap Assessment, forms a key part of Work Package 1 and specifically addresses Activity A.1.3. The goal of this activity is to map and critically assess the mobility planning documents and regulatory frameworks that influence the development and deployment of smart mobility solutions across six partner countries: Albania, Bosnia and Herzegovina, Greece, Italy, Serbia and Slovenia. By providing a comparative overview of national, regional, and local legal structures, the report aims to identify both existing gaps and best practices that can inform regional alignment and capacity building.

Unlike traditional approaches that isolate policy analysis from practical implementation, this assessment integrates legal and policy review with grounded insights from stakeholder working groups (SWGs) established in each pilot territory. These SWGs brought together representatives from municipalities, transport agencies, public institutions, and civil society to offer practical perspectives on the challenges and opportunities inherent in their mobility environments. Their input enriches the analysis, ensuring that findings are not only theoretically robust but also operationally relevant.

The report investigates several critical dimensions of mobility governance. These include the existence and legal status of Sustainable Urban Mobility Plans (SUMP), the degree of integration of Intelligent Transport Systems (ITS) into existing frameworks, the regulatory treatment of micromobility modes (such as e-scooters and shared bicycles), the interoperability of data systems, and the extent of coordination across government levels and sectors. By understanding how these components function—or fail to function—within different national contexts, the project seeks to uncover systemic patterns that either enable or hinder smart mobility development.

Importantly, this activity does not aim merely to catalog documents or legal texts. Instead, it seeks to establish a structured and strategic understanding of how mobility-related policies interact with broader urban development goals, including energy efficiency, climate resilience and social inclusion. This integrative perspective is particularly relevant in light of EU priorities such as the Green Deal, the Sustainable and Smart Mobility Strategy (2020), and the updated Urban Mobility Framework (2021), which emphasize cross-sectoral planning, digital transformation and behavioral change.

The insights presented in this deliverable are expected to directly inform the design, implementation, and upscaling of SMARTMOBAIR pilot actions under WP2. By identifying key regulatory constraints and institutional readiness gaps, the project partners will be better positioned to implement context-sensitive interventions that are both feasible and aligned with long-term strategic objectives. In parallel, the findings will contribute to the

formulation of transnational guidelines and policy recommendations that support harmonization and knowledge exchange across the Adriatic-Ionian region.

In summary, this document lays the groundwork for strategic decision-making on the future of smart mobility in Adriatic Ionian Region. It reflects a collective commitment by project partners to move beyond fragmented efforts and toward a more coordinated, evidence-based, and participatory model of mobility governance—one that not only responds to current challenges but also anticipates the needs of future generations.

1. Methodology

This assessment was carried out as part of the SMARTMOBAIR project, which aims to support the development and implementation of smart and sustainable mobility solutions across Adriatic Ionian Region. The core objective of this study was to evaluate the planning and regulatory readiness of six participating countries—Albania, Bosnia and Herzegovina, Greece, Italy, Serbia, and Slovenia—with respect to smart mobility, with particular emphasis on legislative alignment, institutional coordination and local implementation capacity.

The methodological approach was designed and led by the Institute of Traffic and Communications Sarajevo, which assumed the role of externally engaged service provider for this activity. The Institute developed a structured methodology tailored to the specific needs of the project region, combining legal and policy research with stakeholder engagement. This dual-track approach ensured both an evidence-based understanding of national frameworks and a grounded perspective of real-world implementation challenges.

The process began with the creation of a Legal and Policy Mapping Template, a standardized tool that was distributed to national partners. The template was designed to capture detailed information about the legal basis, strategic documents, institutional roles, and procedural practices relevant to urban mobility. It focused on core thematic areas such as Sustainable Urban Mobility Plans (SUMP), Intelligent Transport Systems (ITS), micromobility regulations, data protection, and intersectoral coordination. National partners completed the template through desk research and expert consultation, ensuring that each country's specific legal and planning context was accurately documented.

In parallel, each country convened a Stakeholder Working Group (SWG) composed of representatives from public authorities, transport agencies, planning institutions and civil society. These SWG meetings were structured to complement the legal mapping process, offering a forum to validate preliminary findings and collect qualitative insights from practitioners. Discussions addressed practical obstacles to implementation, institutional overlaps, knowledge gaps and opportunities for innovation. The meetings also allowed participants to share experiences, highlight local best practices and identify areas where support is most needed.

The findings from both streams—legal mapping (Figure 1.1.) and stakeholder dialogue (Figure 1.2.) —were synthesized into narrative country assessments, which form the backbone of this report. These were then complemented by a cross-country comparative analysis that highlights shared challenges and differences across governance models. Specific attention was given to identifying opportunities for harmonization with EU policy, particularly in the context of the EU Urban Mobility Framework (2021), the Sustainable and Smart Mobility Strategy (2020), and the promotion of SUMP as key planning tools.

In sum, this methodology ensured a balanced approach, integrating both normative (what should be in place) and practical (what is actually in place) perspectives. The combination of structured legal analysis and participatory consultation offers a solid foundation for future interventions and regional cooperation in the field of smart mobility.

Figure 1.1.



GENERAL INFORMATION

As agreed during the last meeting in order to ensure smooth implementation of this Activity, you are kindly asked to prepare this document with information regarding legislative framework.

This activity builds upon the outcomes achieved in A1.1., and this document will be also used as a guidance during the implementation of Activity 1.2. Stakeholders working groups. These meetings will be opportunity to check with members is the list correct and additionally is something missing or needed to be upgraded.

INFORMATION ABOUT ACTIVITY

Activity 1.3.	
Title	Assessment of mobility planning documents and regulatory frameworks
Objective	A.1.3 aims to further explore and assess the mobility planning and regulatory frameworks in different countries of the programme area as a knowledge basis to provide transnational guidelines for smart and sustainable mobility solutions uptake /deployment. It builds upon the outcomes achieved in A.1.1 (D1.1.2).
<p>BREAKDOWN OF PLANNED SUB-ACTIVITIES BREAKDOWN OF PLANNED SUB-ACTIVITIES Planning documents, playing an important role in the context assessment and in the analysis of the current situation, will be explored and analysed, since such documents can provide useful data or constraints that need to be considered for the planning and implementation of SMARTMOBAIR pilot actions, developed in WP2. The urban mobility planning documents are the starting point for the development of transport policies in a joint process with urban, land-use, and energy planning. Due to the interaction among all these sectors, it is crucial to identify and study the mobility documents (SUMP or in case these are missing “urban traffic plan”, “urban mobility plan”) as well as the regulatory instruments dedicated to urban development, land-use definition, sustainability promotion and energy management. The assessment of territorial planning documents and regulatory frameworks of pilot territories focuses on: • identification of the documents which are imposed by national/regional law, • detection of the main aspects of each (e.g. scope, objective, target, information level – strategic, tactic, operational -), • comparison of the requirements among different counties. To ease comparison and ensure a complete overview on the state of the art of mobility planning and regulatory frameworks in pilot territories a shared</p>	

assessment matrix is designed, that will lead to the technology gap assessment in pilot territories (D1.3.1).

Deliverables 1.3.

Title	Smart mobility planning and regulatory gap assessment
	This deliverable presents all barriers, both technological and legislative, that must be overcome in order to ensure a smooth deployment of smart and sustainable mobility solutions able to tackle present mobility problems in the programme area.

IDENTIFICATION PREPARATION INFORMATION SHEET

No	Name of Law/Regulation	Identified barriers
1		
2		
3		
4		

SWG Meeting Report Template

Project Activity A1.3 – Mobility-Related Planning and Regulatory Context

Country / Pilot Area:

[Insert name]

Partner Organization:

[Insert name]

Date of the Meeting:

[Insert date]

Location:

[Insert location]

Number of Participants:

[Insert number]

Stakeholder Groups Represented:

(e.g. local authorities, transport planners, civil society, etc.)

1. Key Discussion Points Related to Activity A1.3:

[Summarize the main topics discussed in relation to A1.3, such as mobility planning, local needs, or relevant policy aspects.]

2. Discussion on the Link Between Regulatory Framework and the Pilot Area:

[Describe how existing planning or regulatory frameworks relate to the mobility needs in the pilot area. Note any gaps, conflicts, or supportive policies.]

3. Challenges, Opportunities, and Stakeholder Feedback:

[List any challenges mentioned, potential opportunities identified, and relevant stakeholder suggestions.]

4. Conclusions and Proposed Next Steps:

[Summarize the conclusions of the meeting and outline any proposed actions or follow-up steps.]

5. Attachments:

- [] Photos from the meeting (if available)
- [] Attendance list (optional)
- [] Agenda (optional)

2. Assessment of mobility planning documents and regulatory frameworks

2.1 Identification of mobility planning documents and regulatory frameworks in Albania



No	Name of Law/Regulation	Identified barriers
1.	<p>Law No. 107/2014 on Territory Planning and Development</p> <p>This law establishes the legal framework for sustainable territorial planning and development. It aims to ensure the rational use of land and natural resources, protect the environment, and promote economic, social, and cultural development.</p>	<ol style="list-style-type: none"> 1. Budget Planning: lack of systematic budgeting at the municipal level for conducting necessary studies and for the subsequent implementation of their recommendations. 2. Integration of Urban Mobility Planning: The law provides a comprehensive framework for territorial planning but does not explicitly integrate urban mobility planning into its provisions. 3. Enforcement and Implementation: While the law sets clear objectives, enforcement remains a challenge due to limited institutional capacity, financial constraints, and insufficient monitoring mechanisms at local and regional levels.
2.	<p>Law No. 8378, date 22.7.1998 (amended in subsequent years) Road Code of the Republic of Albania</p> <p>This law is a critical piece of legislation that governs the design, operation, and use of the road network, ensuring safety, accessibility, and efficiency in transportation systems. It includes provisions related to traffic regulations, road safety standards, vehicle standards, enforcement mechanisms, integration with urban mobility.</p>	<ol style="list-style-type: none"> 1. Adaptation to Modern Mobility Trends: Limited provisions for emerging modes of transport, such as electric vehicles, shared mobility, and micromobility (e.g., e-scooters and bicycles). 2. Urban Integration: The code is primarily focused on road traffic and lacks alignment with integrated urban mobility plans, such as SUMP. 3. Pedestrian and Cyclist Provisions: Inadequate focus on non-motorized transport users, leading to gaps in safety and accessibility for pedestrians and cyclists. 4. Enforcement Challenges: Inefficient enforcement mechanisms and limited resources for monitoring compliance with traffic regulations. 5. Environmental Considerations: Insufficient emphasis on sustainability, such as reducing vehicular emissions and promoting greener transport modes.

<p>3.</p>	<p>Order No. 185 of 18.6.2020 “On the implementation of the Strategy for the application of intelligent systems in road transport” The Strategy was prepared based on <i>Order of Minister of Infrastructure and Energy No 143 of 22.4.2020</i>, aiming to integrate the intelligent transport systems (ITS) in Albania, with the deployment and use of ITS in the road sector. This Strategy will serve as a guide for the staff of various ministries of the Albanian government, as well as that of Albanian institutions and organisations (public and private), which will be involved in the establishment, operation and use of intelligent transport systems in Albania.</p>	<ol style="list-style-type: none"> 1. Implementation Challenges: Limited funding and technical capacity can slow the integration of ITS infrastructure and technologies. 2. Integration with Existing Frameworks: The order lacks detailed mechanisms for integrating ITS with Albania's broader urban planning and mobility strategies, such as SUMP. 3. Data Privacy and Security: There is insufficient emphasis on data protection and cybersecurity measures, which are critical for ITS applications relying on real-time data. 4. Evaluation and Monitoring: The order does not outline robust monitoring and evaluation frameworks to measure the effectiveness of implemented ITS strategies. 5. Public Awareness: Minimal focus on public awareness campaigns to educate citizens about the benefits and usage of ITS technologies.
<p>4.</p>	<p>Albanian National Transport Plan 3 Although it is a more strategic document, the Albanian National Transport Plan provides a roadmap for the country's transport sector, including urban mobility.</p>	<ul style="list-style-type: none"> • Implementation Challenges: Insufficient funding and delays in implementing key infrastructure projects. • Integration of Urban and Regional Planning: Weak linkage between national transport planning and local urban mobility initiatives. • Sustainability Gaps: While environmental goals are highlighted, specific actions for promoting low-carbon transport systems (e.g., electric vehicles, public transport incentives) are underdeveloped. • Public Awareness and Stakeholder Engagement: Insufficient mechanisms to engage stakeholders and the public in the planning and implementation phases.

2.2. Identification of mobility planning documents and regulatory frameworks in Bosnia and Herzegovina



No	Name of Law/Regulation	Identified barriers
1.	The Law on the Basics of Road Traffic Safety in Bosnia and Herzegovina ("Official Gazette of BiH", No. 6/2006, 75/2006, 44/2007, 84/2009, 48/2010, 18/2013, 8/2017, 89/2017 9/2018, 46/2023 and 88/2023)	<p><u>The movement of electric scooters in Bosnia and Herzegovina is still not systematically regulated at the state level.</u></p> <ul style="list-style-type: none"> - The current law does not contain the term electric scooter. - Electric scooter riders often move both on the road and on the sidewalk, which leads to confusion and increases the risk of accidents. Without clearly set rules, users are forced to improvise, which endangers their safety, but also the safety of other road users. - On the road, they are exposed to the risk of collisions with cars, while on sidewalks they endanger pedestrians.
2.	Law on Traffic Safety on Roads of the Republic of Srpska ("Official Gazette of RS", no. 63/2011 and 111/2021)	<p><u>Territorially limited solution</u></p> <ul style="list-style-type: none"> - In the Republika Srpska, an entity of Bosnia and Herzegovina, a regulation was adopted in April 2021 that stipulates that electric scooter drivers must wear a helmet, be older than 14 years, and have a certificate of knowledge of traffic regulations. - However, due to the complex constitutional organisation of the State, the rules in Bosnia and Herzegovina are not the same in all parts of the country.
3.	The Law on the Traffic Regulation of Canton Sarajevo ("Official Gazette of Canton of Sarajevo", No. 30/17, 46/17 and 1/22)	<p><u>Territorially limited solution</u></p> <p>Ministry of Traffic of Canton Sarajevo has banned the movement of bicycles, mopeds and electric self-balancing scooters on one or two wheels on surfaces intended for pedestrians. The driving of light electric vehicles is allowed on bicycle lanes, as well as on the roads.</p>

		<p><u>Infrastructure investments and increasing security</u></p> <p>There are not enough bicycle lanes for electric mobility scooters, and if the roadway is used and if a collision between a mobility scooter and a motor vehicle occurs, the person driving the mobility scooter will receive a serious physical injury.</p> <p><u>Lack of education for scooter drivers</u></p> <ul style="list-style-type: none">- Changing the behavior of road traffic participants to improve safety is a long-term process and part of lifelong learning, which includes all age groups and starts from an early age.- Traffic participants are not always aware of traffic rules or risks that could lead to unsafe traffic situations or traffic accidents
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2.3. Identification of mobility planning documents and regulatory frameworks in Greece



No	Name of Law/Regulation	Identified barriers
	<p>National Level</p> <ul style="list-style-type: none"> • National Strategy for Walking (Ministry of Environment & Energy-February 2023) • Public Policy Guide for Cycling (Ministry of Infrastructure and Transport-March 2023) • National Road Safety Strategic Plan (October 2022) • 1st Revision Strategic Frame for Transport Investment 2014-2025 (Ministry of Communications and Transport-June 2019) • National Transport Strategic Frame (June 2019) • Strategy for Development 2030 (May 2019) • National Reform Program (April 2019 & April 2023) • National Plan Energy-Climate (January 2019, revised 2024) • Road Traffic Code (Law 2696/99 as amended and in force). The code is under revision (at consultation stage). Rules for micro-mobility and 30Km roads in urban areas to be incorporated. • Law 4784/2021: “Greece on the move: Sustainable Urban Mobility - Micromobility - Arrangements for the modernization, simplification and digitalization of procedures of the Ministry of Infrastructure and Transport and other provisions”. <p>Regional Level</p> <ul style="list-style-type: none"> • Regional Plan for Adaptation to Climate Change in Crete • Regional Spatial Planning Framework for the Region of Crete (Government Gazette 260-8 November 2017) • Regional Intelligence Strategy 3-RIS3 (revised 2021) • Regional Strategic Planning Crete 2024-2028 (May 2024) <p>Local Level</p> <ul style="list-style-type: none"> • Sustainable Urban Mobility Plan –SUMP (May 2023) (according to Law: 4784/2021) 	<ol style="list-style-type: none"> 1. Too many strategies and legislations that they don’t represent a clear and aggregate plan. Issued by 2 different Ministries (Ministry of Environment & Energy and Ministry of Communications and Transport) and sometimes there is lack of coordination between them in order to present a collective legislation/strategy framework. 2. Regarding smart technologies, the transaction towards smart technologies is very slow either because of the lack of know how (data base of existing solutions/best practices) or because of the lack of funding. 3. Regarding the SUMP implementation. In addition to points 1 & 2, Rethymno Municipality have to face the Greek bureaucracy (administrative decisions can be time consuming) and the lack of skilled personnel.

2.4. Identification of mobility planning documents and regulatory frameworks in Italy



No	Name of Law/Regulation	Identified barriers
	<p>European Union</p> <p>Climate change and environmental degradation are significant concerns for everyone. The European Union has acted by approving the Green New Deal in 2021 with the aim of creating a modern economy by reaching climate neutrality by 2050. The first objective is to reduce net greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. In addition, by 2035 all new cars and vans registered in Europe will be zero-emission.</p> <p>National Level</p> <ul style="list-style-type: none"> • Regulation CE n. 1370/2007 for public services of passenger transport by road and rail; • Legislative Decree 19 November 1997 nr. 422 in those parts which do not conflict with subsequent State rules and on which no action has been taken by individual regional laws. • Local public transportation is also regulated by Legislative Decree 30 April 1992 nr. 285 (Highway Code) which controls different aspects as: <ul style="list-style-type: none"> - Rest and stops areas; - Circulation of TPL vehicles; - Safety rules relating to security and technical equipment of the vehicles used for public transportation. <p>Regional Level</p> <p>Regional law. 20 August 2007, n. 23 of Regione Friuli Venezia Giulia regulates the organization, management and planning of local public transportation (TPL) within the Region. It aims to regulate the public transport system to ensure an efficient, sustainable and accessible service for all citizens. The main aspects regulated by this law are:</p> <ul style="list-style-type: none"> • Definition of the competences of the Region and the Municipalities; 	<p>Flexible services are regulated by the existing regional mobility legislation, for this reason there is no barrier from a regulatory point of view. On the other hand, from a technical, organizational and cultural point of view, the barriers that can be predicted are:</p> <ol style="list-style-type: none"> 1. Demand forecast: call bus service would be introduced for the first time in the municipalities covered by our project and it is difficult to accurately anticipate users' needs in term of times, areas and frequency of requests, as this is a system without historical data. This uncertainty in the demand makes service planning particularly hard. 2. Call bus service management: call bus service must be planned and managed by a dedicated software that should offer both a simple and clear interface to the user who wants to book a bus ride and an efficient management of staff and company fleet for a quick response to the needs of users. 3. Acceptance by the user: users are accustomed to traditional bus services with timetables and fixed stops and might be reluctant to a system that depends on the booking and not appreciate the potential in terms of meeting their

	<ul style="list-style-type: none"> •Arrangements for assigning local public transport services; •Definition of criteria for assessing the quality of the service offered; •Regulation of the fare system; •Encouraging the use of vehicles with low environmental impact and promoting policies to reduce pollutant emissions; •Promotion of planning and information systems with advanced technologies. <p>Law nr. 23 of 20/8/2007 regulates flexible car services: low-demand call services to be carried out on fixed or variable routes with the help of appropriate technologies, forming the third level transport network.</p>	<p>needs. For this reason, it may be difficult to plan a proper marketing campaign that provides a clear and convincing explanation of how the service works.</p> <p>4. Accessibility for people with disabilities: the call bus service could be a viable alternative for the transport of people with reduced mobility. The bus stops that will be identified for the performance of the service (authorized by the competent offices of the FVG Region) must be suitable for the unloading/loading of disabled people. It will therefore be difficult but necessary to coordinate the various local authorities for the adaption of the bus stops.</p>
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2.5. Identification of mobility planning documents and regulatory frameworks in Serbia



No	Name of Law/Regulation	Identified barriers
1.	<p>National Level</p> <p>The main strategy in Serbia that supports sustainable urban mobility planning is Strategy for Sustainable Urban Development of the Republic of Serbia until 2030 adopted in 2019 (Ministry of construction, infrastructure and transport, „National Gazette RS, No 47/2019). There is a draft of the National Transport Strategy and action plan 2023–2030, which also addresses sustainable urban mobility including SUMP and smart mobility. However, it is still not in the course of adoption.</p> <p>Supporting laws and planning documents are:</p> <ul style="list-style-type: none"> • Law on the Planning System of the Republic of Serbia (“Official Gazette of the Republic of Serbia”, No 30/2018) • Law on Planning and Construction (“Official Gazette of the Republic of Serbia”, No. 72/2009, 81/2009 - corr., 64/2010 - decision, 24/2011, 121/2012, 42/2013 - decision, 50/2013 - decision, 98/2013 - decision, 132/2014, 145/2014, 83/2018, 	<p>Regional Level</p> <p>There are no specific regional strategies addressing smart and sustainable mobility within Serbia. From a regional perspective, of particular interest is the Strategy for Sustainable and Smart Mobility in the Western Balkans, developed by the Transport Community Permanent Secretariat. This strategy was adopted in 2021 and covers the period up to 2030. It aims to align the region's transport policies with EU standards, focusing on decarbonization, digitalization, and improved connectivity within the broader Western Balkans region.</p> <p>Local Level</p> <p>There is no official source providing an accurate overview of the adoption of Sustainable Urban Mobility Plans (SUMP) in cities across Serbia. Currently, information can only be obtained through publications and reports from working meetings of the Standing Conference of Towns and Municipalities (SKGO) Working Group on Sustainable Urban Mobility. According to internal records maintained by SKGO, twelve cities and municipalities in Serbia have either developed or are in the process of developing a SUMP including the City of Niš which started the process in 2023 with external expertise. Other relevant adopted mobility planning documents and regulatory frameworks for the city of Niš include:</p> <p>The existing regulatory framework in Serbia presents several challenges that hinder the adoption of Sustainable Urban Mobility (SUM) and smart urban mobility development in Serbian cities. Some of the key regulatory issues include:</p> <ul style="list-style-type: none"> ▪ Outdated and Fragmented Legal Framework - Many legal provisions are designed for traditional transport models and have not been updated to reflect smart mobility innovations, environmental sustainability goals and a holistic approach to multimodal mobility. Only one strategy (of sustainable urban development) directly addresses sustainable urban mobility. There is a lack of modern mobility trends as existing frameworks do not adequately

<p>31/2019, 37/2019 – law and 9/2020)</p> <ul style="list-style-type: none"> • Spatial Plan of the Republic of Serbia from 2010 to 2020 ("Official Gazette of the Republic of Serbia", No. 88/10) - the New plan for the period 2021 to 2035 is in adoption phase • General Master Plan for Transport in Serbia until 2027 (from 2009). • Law on Local Self-Government ("Official Gazette of the Republic of Serbia", 129/2007, 83/2014 – etc, law, 101/2016 - etc, 47/2018 i 111/2021) • Law on Road Passenger Transport (68/2015, 41/2018, 44/2018 – etc. law, 83/2018, 31/2019 i 9/2020) • Law on Road Traffic Safety ("Official Gazette of the Republic of Serbia", No. 76/2023) <p>Some other strategies addressing smart and sustainable transport</p> <ul style="list-style-type: none"> • Low carbon development strategy of the Republic of Serbia for the period 2023-2030 with projections until 2050 (Ministry of mining and energy, Official Gazette of RS, No 26/21), envisions the transition to electric and hybrid vehicles, the development of sustainable public transport and the promotion of non- 	<p>address emerging concepts such as Mobility-as-a-Service (MaaS), shared mobility, and micromobility (e.g., e-scooters). National strategy for transport and ITS is still delayed preventing the establishment of a cohesive and future-oriented policy framework that supports the integration of smart mobility technologies and data-driven transport management solutions.</p> <ul style="list-style-type: none"> ▪ Insufficient Focus on Sustainable Urban Mobility Planning - Despite the growing recognition of sustainable urban mobility (SUM) principles, regulatory frameworks in Serbia continue to prioritize car-centric policies and road infrastructure expansion over more sustainable transport modes such as walking, cycling, and public transportation. Existing land use planning regulations fail to comprehensively integrate sustainable and smart mobility principles, while urban development rules often neglect the promotion of pedestrian-friendly and mixed-use environments that support sustainable mobility. Although some progress has been made, the adoption of Sustainable Urban Mobility Plans (SUMP) remains limited, with approximately twelve cities and towns, including the City of Niš, having either implemented or initiated the process of SUMP development. However, the absence of coordinated support and guidance from the national level poses significant challenges, particularly for smaller towns and municipalities that lack the necessary financial and technical capacities to develop and implement SUMP effectively. Moreover, even cities that have adopted SUMP face considerable difficulties in their implementation and long-term management. These challenges stem from inadequate institutional capacities, financial constraints, and the absence of comprehensive monitoring and evaluation mechanisms to ensure the successful execution of SUMP measures. As a result, the intended benefits of SUMP are often not fully realized, limiting their impact on achieving sustainable urban mobility goals. ▪ Bureaucratic Hurdles and Lengthy Approval Processes - Complex administrative procedures for permits for implementing new transport solutions (e.g., smart traffic management systems, charging infrastructure) are time-consuming and discourage innovation. Slow decision-making processes and regulatory approvals for smart
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<p>motorized transport to reduce emissions in the transport sector.</p> <ul style="list-style-type: none"> • Strategy for the Development of Artificial Intelligence in the Republic of Serbia until 2030 (adopted recently in January 2025) - acknowledges transport as a key sector where AI can make a significant impact. Specifically, it highlights urban transport, road infrastructure, and mobility and potential applications like the optimization of traffic management, the development of intelligent transport systems (ITS), autonomous vehicles, and data-driven mobility solutions. <p>Supporting programs:</p> <ul style="list-style-type: none"> • "LIID" Supporting program from MCTI for the development of local infrastructure and institutional strengthening of local governments — involves the allocation of non-repayable funds to 145 cities and municipalities in Serbia, with a predefined distribution of resources by Local Self-Government Units (JLS). The first component of this project is Climate Smart Mobility. 	<p>mobility projects often delay progress and increase costs. Traditional administrative structures are resistant to adopting flexible and adaptive regulatory frameworks required for smart mobility.</p> <ul style="list-style-type: none"> ▪ Inadequate Data Sharing and Digitalization Policies - The lack of comprehensive open data policies hinders the development of smart mobility solutions in Serbia, as current regulations do not require transport operators and local authorities to share mobility data. This restricts innovation and the optimization of transport services. Additionally, the absence of a clear regulatory framework for data privacy and security in smart mobility services creates legal uncertainties, potentially deterring investment and public trust. Moreover, existing regulations do not adequately promote the deployment of smart infrastructure, such as real-time monitoring and intelligent transport systems, limiting the integration of digital solutions into urban mobility planning and management. <p>Local level (The City of Niš):</p> <ul style="list-style-type: none"> ▪ On the local level, The City of Niš faces various challenges in adopting smart mobility solutions including regulatory issues, insufficient infrastructure, lack of public awareness or engagement, funding or financial constraints, technical challenges (e.g., data integration, system interoperability), social or cultural barriers (resistance to change, lack of trust in technology) ▪ The main planning document is “Urban Plan of Niš 2010-2025” (2011). This plan has undergone four subsequent amendments: in 2016, 2018, 2021, and 2024. <p>There is a project called „Smart and Safe City“, but it has not yet been implemented. The project envisages the procurement of a system for displaying the current occupancy of parking spaces (including parking spaces for the disabled), a system for monitoring traffic on access roads, as well as a monitoring centre for all smart city systems</p>
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<p>Urban mobility working group at Standing conference of towns and municipalities (SKGO) – networking organization that advocates interests of local-self-governments (towns and cities in Serbia). SKGO is also the coordinator of EMW in Serbia</p>	
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2.6. Identification of mobility planning documents and regulatory frameworks in Slovenia



No	Name of Law/Regulation	Identified barriers
1.	<p>National Level</p> <ul style="list-style-type: none"> Act on Integrated Transport Planning (2022) Regulates integrated and sustainable transport planning at both the national and local levels. The law is based on the goal of improving mobility, reducing the negative impacts of transport on the environment, and promoting sustainable modes of transport such as public transport, walking, and cycling. The law introduces the obligation for municipalities to adopt SUMP as the fundamental document for traffic planning in urban and other populated areas. This means that municipalities must prepare and adopt their own integrated mobility strategies, which include measures for sustainable mobility, improving accessibility, and reducing the negative environmental impacts of traffic. Transport Development Strategy of the Republic of Slovenia until 2030 (2017) A key document that outlines the long-term vision and goals for transportation development in Slovenia. This strategic plan sets the direction for the country's transport system, focusing on sustainability, connectivity, and efficiency. Resolution on the National Transport Development Program of the Republic of Slovenia for the Period until 2030 (2017) A strategic document that outlines Slovenia's long-term vision and goals for transport development, aiming to enhance the country's transport infrastructure, improve mobility, and support sustainable growth. National Energy and Climate Plan (2020) 	<ol style="list-style-type: none"> Fragmented Mobility Policies: There is a lack of cohesion among various regional and local mobility plans, leading to inconsistent policies and implementation. The coordination between municipalities and national authorities is sometimes insufficient. Limited Integration of Different Transport Modes: The integration of various transportation modes (e.g., public transport, cycling, walking, and car-sharing) is often inadequate, making it harder for citizens to access seamless and efficient multi-modal mobility options. Inadequate Infrastructure for Sustainable Transport: While efforts are being made, infrastructure for cycling and walking is still underdeveloped in many areas, particularly in rural regions. There's also a need for more dedicated lanes and facilities for electric vehicles. Underdeveloped Public Transport Networks in Rural Areas: Public transportation services, particularly in less populated rural areas, are often sparse, unreliable, or inefficient, making it difficult for residents to access basic services or employment opportunities. Parking Policies: There is a lack of coherent parking policies, particularly in urban areas. The absence of clear

<p>The plan was adopted as part of Slovenia's strategy to achieve climate goals by 2030, including reducing greenhouse gas emissions in the transport sector.</p> <p>Guidelines:</p> <ul style="list-style-type: none"> • National guidelines for the preparation of regional SUMP • National guidelines for the preparation of SUMP • National guidelines for involving the public in the preparation of SUMP • National guidelines for the preparation of Mobility Plans for institutions • National guidelines for the preparation of Urban Logistics Management Plans • National guidelines for the preparation of Parking Policy Implementation Plan • Guidelines for the integration of cycling infrastructure in urban areas • Guidelines for pedestrian infrastructure • Guideline on how to set up a National Cycling Plan • Guidelines for Cycle Route Network • Guidelines for organizing public transportation in rural areas. • Guidelines for establishing a Park and Ride (P+R) system and the integration of P+R hubs in urban settlements <p>Regional Level</p> <ul style="list-style-type: none"> • Regional SUMP – in preparation <p>Local Level</p> <ul style="list-style-type: none"> • Sustainable Urban Mobility Plan – SUMP (2017) <p>SUMP is a five-year documents that outline strategies and actions for enhancing urban mobility while promoting sustainability. The city of Koper, is currently in the process of developing a new SUMP, which is scheduled to be completed in early 2025. This new plan will replace the existing SUMP from 2017 and will incorporate updated goals and measures to continue improving the city's transportation infrastructure and reduce environmental impact.</p> <ul style="list-style-type: none"> • Sustainable Energy Action Plan – SEAP (2017) <p>SEAP includes a series of measures covering key sectors and activities: the public sector, residential sector,</p>	<p>guidelines for the implementation of Park and Ride systems and efficient management of urban parking leads to congestion and inefficiencies in the system.</p> <p>6. Environmental Impact: The existing regulations do not fully promote the shift towards sustainable transport modes such as electric vehicles or public transport. This contributes to higher carbon emissions and air pollution, especially in urban centers.</p> <p>7. Insufficient Public Awareness: There is often a lack of public awareness about the availability and benefits of sustainable mobility options. Policies and regulations may not be well communicated to citizens, leading to lower adoption rates of sustainable transport solutions.</p> <p>8. Lack of Innovation in Smart Mobility Solutions: While there is potential for implementing smart mobility solutions, such as smart parking systems, mobility-as-a-service (MaaS), and real-time traffic management, their adoption and integration into the existing system are still limited.</p>
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	<p>tertiary sector, and transportation sector, as well as the municipality's activities in supporting and informing citizens and local stakeholders.</p> <ul style="list-style-type: none">• Sustainable Energy and Climate Action Plan – SECAP (2023) Municipality of Koper, as a signatory to the Covenant of Mayors has adopted The Sustainable Energy and Climate Action Plan (SECAP). SECAP describes how it intends to meet its climate change mitigation and adaptation commitments, with which it will achieve the targets, as well as the timeframes and assigned responsibilities..• Sustainable urban strategy (2023) Municipality of Koper, as a signatory to the Covenant of Mayors has adopted	
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3. Meeting Report – Mobility Related and Planning Regulatory Context

3.1 Meeting Report – Mobility Related and Planning Regulatory Context in Albania



Project Activity A1.3 – Mobility-Related Planning and Regulatory Context

Country / Pilot Area:
Shkoder, Albania

Partner Organization:
Regional Council of Shkodra

Date of the Meeting:
April 29th, 2025

Location:
AIT Conference Room, Tirana

Number of Participants:
7

Stakeholder Groups Represented:
Local authorities, Regional institution, Government institution (transport planner)

1. Key Discussion Points Related to Activity A1.3:

The discussion included a review of the primary laws and regulations affecting mobility planning in Albania, particularly those relevant to the installation of GPS and automatic passenger counting systems on buses of public transport. Key legislation includes:

- ✓ Law No. 107/2014 on Territory Planning and Development, which provides a broad framework for urban planning but lacks specific guidance for integrating modern mobility solutions like real-time GPS monitoring.
- ✓ Law No. 8378 (Road Code), which governs road safety and traffic management but is primarily focused on vehicle standards and traffic rules, with limited support for digital technologies.
- ✓ Order No. 185 (2020) on Intelligent Transport Systems (ITS), which encourages the use of smart technologies in road transport but lacks detailed mechanisms for integrating ITS with local urban mobility strategies, such as SUMP.

2. Discussion on the Link Between Regulatory Framework and the Pilot Area:

For the pilot in Shkodra, the existing legal framework provides a partial foundation, but certain gaps remain:

- ✓ The ITS Order lacks clear guidelines on data privacy and secure data sharing, critical for real-time GPS systems.
- ✓ There is a need to align these technologies with broader urban mobility strategies, including better coordination with municipal planning documents.
- ✓ Municipalities may face challenges in budgeting for technology upgrades and managing the technical aspects of real-time data collection.

3. Challenges, Opportunities, and Stakeholder Feedback:

Challenges:

- Limited technical capacity and funding for digital infrastructure.
- Gaps in data privacy regulations and cybersecurity for real-time GPS data.
- Fragmented coordination between local, regional, and national authorities.

Opportunities:

- Use the pilot as a practical example to inform future policy reforms.
- Strengthen collaboration between local governments, transport operators, and data managers.
- Leverage pilot data to support evidence-based policy-making.

Stakeholder Feedback:

- Participants emphasized the need for clearer data management protocols and improved coordination between institutions.
- It was highlighted the importance of involving public transport operators and local communities in the next SWG meeting.

4. Conclusions and Proposed Next Steps:

1. The next SWG will include representatives from civil society, transport operators, and technical experts.
2. Focus on practical discussions to support the pilot's early implementation phase.
3. If needed, set up smaller, targeted meetings in order to address specific regulatory challenges.

5. Attachments:

- Photos from the meeting

Photos



3.2 Meeting Report – Mobility Related and Planning Regulatory Context in Bosnia and Herzegovina



SWG Meeting Report Template

Project Activity A1.3 – Mobility-Related Planning and Regulatory Context

Country / Pilot Area:

Bosnia and Herzegovina / Municipality of Novo Sarajevo

Partner Organization:

SERDA & Municipality of Novo Sarajevo

Date of the Meeting:

26.03.2025

Location:

SERDA premises, Sarajevo

Number of Participants:

11

Stakeholder Groups Represented:

Local authorities, transport experts, academia (Faculties of Mechanical, Electrical, and Transport Engineering), utility companies (GRAS), public administration (Ministry of Traffic Canton Sarajevo), civil society.

1. Key Discussion Points Related to Activity A1.3:

The meeting focused in particular on analyzing the fragmented legal and institutional framework that characterizes the smart mobility sector in Bosnia and Herzegovina. Participants emphasized that the country's complex governance structure—divided between two entities, the Brčko District, and multiple cantons—results in significant discrepancies in legislation, strategic planning, and approaches to urban transport management. While some jurisdictions, such as Sarajevo Canton and Republic of Srpska, have adopted partial regulations addressing micromobility, there is no unified national strategy to provide a coherent framework for developing sustainable and smart mobility solutions.

The discussion also highlighted the consequences of this institutional fragmentation—from inconsistent rules regarding electric scooter use and lack of enforcement mechanisms, to barriers in deploying integrated intelligent transport systems (ITS). It was noted that many municipalities, particularly smaller or less developed ones, lack the technical and administrative capacities to independently develop and implement modern mobility plans. The group concluded that legislative harmonization, the definition of national minimum standards, and

Improved coordination between various levels of government are essential for the effective implementation of smart mobility across the country.

2. Discussion on the Link Between Regulatory Framework and the Pilot Area:

The discussion emphasized that, while Sarajevo Canton has taken initial steps to regulate certain aspects of micromobility—such as electric scooters—these efforts remain limited in scope and are not supported by a broader, unified national strategy. This lack of strategic alignment at the state level leads to legal inconsistencies, policy fragmentation, and uneven implementation across different jurisdictions within Bosnia and Herzegovina.

The highly decentralized governance system, divided between entities and cantons, further complicates the development of coherent and integrated sustainable urban mobility plans. Each administrative unit often operates with its own set of regulations and priorities, which makes coordinated planning and investment across regions extremely difficult.

In the context of the pilot area, the Municipality of Novo Sarajevo, this fragmented framework poses concrete challenges. The municipality lacks the technical expertise, administrative structures, and financial resources necessary to independently plan and implement advanced smart mobility solutions. This includes limitations in areas such as data management, deployment of intelligent transport systems (ITS), and integration of multimodal mobility services.

Moreover, the existing transport infrastructure in Novo Sarajevo—and more broadly in Sarajevo Canton—is still predominantly designed for car traffic. There is minimal infrastructure dedicated to active transport modes such as cycling and walking, and limited support for innovative or smart transport services. This underlines the urgent need for national-level coordination, capacity building at the local level, and increased investment in infrastructure that supports sustainable and inclusive mobility.

3. Challenges, Opportunities, and Stakeholder Feedback:

During the meeting, several critical challenges were identified that hinder the advancement of smart mobility in Bosnia and Herzegovina. Foremost among them is the highly fragmented legal and institutional environment, which results in inconsistent policies and regulatory gaps across different administrative levels. The absence of a unified national strategy for micromobility and intelligent transport systems (ITS) exacerbates this issue, making it difficult to implement cohesive and standardized solutions. Additionally, local authorities—such as the Municipality of Novo Sarajevo—face significant limitations in terms of technical capacity, digital infrastructure, and financial resources, which impedes their ability to develop and deploy smart mobility initiatives independently. The current transport system remains largely car-centric, with minimal infrastructure dedicated to cycling, walking, or integrated public transport solutions.

Despite these challenges, the meeting also highlighted several promising opportunities. Pilot projects like SMARTMOBAIR can serve as valuable testing grounds for ITS technologies and new policy approaches, allowing local stakeholders to gain hands-on experience and insights. The active involvement of academic institutions and public transport operators in co-designing solutions was recognized as a major strength, offering both expertise and practical perspective. There is also significant potential for future legal harmonization and structured capacity-building programs, which could enable more efficient, equitable, and sustainable mobility planning across the country.

Stakeholder feedback was overwhelmingly positive. Participants expressed a strong commitment to continued collaboration, emphasizing their satisfaction with the project's direction, the relevance of its goals, and the constructive format of the meeting. There was clear support for expanding the Stakeholder Working Group (SWG) to include additional institutional actors and for strengthening coordination with higher levels of government, which was seen as crucial for the long-term success of the pilot and broader policy reforms.

4. Conclusions and Proposed Next Steps:

The meeting concluded with a clear commitment to advancing smart mobility in the pilot area through structured collaboration and targeted follow-up activities. Furthermore, participants stressed the importance of using the pilot not only to demonstrate ITS technologies, but also as a platform to advocate for broader legal and policy reforms. Priority will be given to initiating discussions around the development of a unified national strategy for smart mobility, while simultaneously investing in capacity-building measures at the local level. These efforts aim to lay the groundwork for sustainable, scalable, and inclusive mobility solutions across Bosnia and Herzegovina.

5. Attachments:

- Photos from the meeting



Photos



3.3 Meeting Report – Mobility Related and Planning Regulatory Context in Greece



[Joint 1st & 2nd Stakeholders Working Group Meeting]

- **Title:** Introduction to the project and primary responsibilities [2nd meeting of SWG]
- **Date:** [2/4/2025]
- **Time:** [12:00 – 13:00]
- **Location:** Technical Department of the Municipality of Rethymno
- **Facilitator/Moderator:** Vasilis Myriokefalitakis, Project coordinator
- **Type of Meeting:** roundtable

1. Participants: *(List the attendees and attach the attendance sheet.)*

Markoulaki Marianna, Director of the Technical Services Directorate
Xezonakis Stelios, Deputy Mayor of city planning, traffic issues and IT
Malas Angelos, Deputy Mayor of Technical services, programming and municipal property
Dretoulakis Marios, IT, Programming and Development Directorate, Financial Manager of the project
Vavourakis George, IT, Programming and Development Directorate
Myriokefalitakis Vasilis, Advisor to the Mayor, Project Coordinator

2. Objectives

Briefly list the meeting's purpose and goals, according to the agenda Example:

- Present project updates.
- Gather feedback on stakeholder involvement.
- Description of the pilot action
- Discussion regarding activity 1.3
- Decide on action items for the next phase.

3. Key Discussion Points:

- An update regarding the project implementation was made, in which phase the project is and what activities have already been done. Additionally, the presentation included an overview of the project goals and a discussion took place between the SWG members in order to clarify and determine the role and the responsibilities that each stakeholder has.
- An analytical description of the pilot action was presented and also details regarding the technical parts of the pilot. Furthermore, the available budget regarding the pilot action was discussed and details regards the supplier were provided to the SWG.
- The activity 1.3 that was completed in the 20th of January was presented since the activity that took place was about the determination of the regulatory/legislative framework that is established at a national, regional and local level and may affect directly or indirectly the pilot implementation.

- A discussion followed the presentation and the SWG focused on the needs and the drawbacks of the pilot implementation and each member ensured the cooperation towards a successful pilot planning and establishment.

4. Decisions Made:

[Decision 1: Pilot action]

The pilot action, as presented was approved. In addition, it was decided that the Municipal Tourism Committee should be involved in the SWG.

[Decision 2: Responsibilities regarding the pilot action shared]

- The IT, Programming and Development Dpt will request from the LP budget reallocation.
- The IT, Programming and Development Dpt exchange information for conducting the technical specifications for the call for tenders.
- The Financial Services Dpt will accelerate the administrative procedures to launch the call as soon as possible.
- The Technical Services Dpt will evaluate and propose the locations that the stations will be placed.

5. Actions to be taken and Responsibilities:

Action	Responsible Party	Due Date	Status
Budget reallocation	IT, Programming and Development Dpt	15/4	In progress
Technical specifications for call for tenders	IT, Programming and Development Dpt	10/5	In progress
Administrative decisions for launching the call for tenders	Financial Services DPT	31/5	pending
Location of pilot establishment	Technical Services Dpt	30/6	pending

6. Next Steps and Follow-Up Activities:

- *At the next meeting the pilot action will be discussed in more details regarding the technical issues and the location of the pilot bases will be established.*

7. Feedback Summary

A discussion took place in order to determine the needs and the drawbacks of the implementation of the pilot. In general, the feedback was positive, the meeting objectives were very clear and the meeting outcomes were clearly summarized in order to proceed in the next steps of the project and start preparing for the pilot implementation *[Include a brief summary of any feedback collected during the meeting, using feedback form]*

8. Attachments:

- Photos from the meeting



3.4 Meeting Report – Mobility Related and Planning Regulatory Context in Italy



- **Title:** Introduction to the project and primary responsibilities 1st and 2nd meeting of SWG
- Italy/APT Gorizia
- **Date:** 11th/06/2025
- **Time:** 12:00 – 13:30
- **Location:** APT Gorizia via Caduti di Nasiriyah, 6 34170 Gorizia
- **Facilitator/Moderator:** Salvatore De Lellis
- **Type of Meeting:** roundtable
- **Participants:**

Alessandra Bernardis, Communication Manager

Salvatore De Lellis, Project Manager

Roberto Bassanese, Director of operations

Vlasta Jarc, employee Municipality of Turriaco

Marco Vittori, Mayor of Sagrado

1. Key Discussion Points Related to Activity A1.3:

We have made an overview of the current regulatory frameworks related to the implementation of sustainable mobility actions. Furthermore, we have explored what could be the difficulties related to the current regulations.

2. Discussion on the Link Between Regulatory Framework and the Pilot Area:

Our main reference frameworks are 3:

- European Union
- national level
- regional level.

As regards the European level, the Green New Deal was approved in 2021 with the aim of creating a modern economy by achieving climate neutrality by 2050. At the national level the most relevant regulations are:

- EC Regulation no. 1370/2007 for public passenger transport services by road and rail;
- Legislative Decree 19 November 1997 no. 422 in the parts that do not conflict with subsequent state regulations and on which no provision has been made with individual regional laws.

At the regional level, the regional law of 20 August 2007, no. 23 of the Friuli Venezia Giulia Region, regulates the organization, management and planning of local public transport in the Region.

3. Challenges, Opportunities, and Stakeholder Feedback:

During the meeting, some barriers were identified that could compromise the success of the project. These are:

- demand forecasting
- management of the on-demand bus service
- user acceptance
- accessibility for people with disabilities.

Demand forecast

The urban DRT service would be introduced for the first time in the municipalities involved in our project and the demand, at least initially, is difficult to predict. In this case, the municipalities can help us by knowing well the needs of the citizens.

Management of the on-demand bus service

The service must be planned and managed through a dedicated software that must offer both a simple and clear interface to the user and efficient management of people.

User acceptance

Users are used to traditional bus services with fixed timetables and stops and may be reluctant to a reservation-based system, not appreciating its potential to meet their needs. For this reason, it may be difficult to plan an appropriate marketing campaign that clearly and convincingly explains how the service works.

Accessibility for people with disabilities

The on-demand bus service could represent a valid alternative for the transport of people with reduced mobility. The stops that will be identified for the performance of the service (authorized by the competent offices of the FVG Region) must be suitable for the unloading/loading of people with disabilities. It will therefore be difficult but necessary to coordinate the various local authorities to adapt the stops.

To overcome these challenges, it is necessary to collaborate with the municipalities. For this reason, the people present will also discuss with colleagues to find the best solutions.

4. Conclusions and Proposed Next Steps:

The discussion highlighted that the current regulatory and planning framework supports the transition towards smart and sustainable mobility. No specific regulatory or procedural barriers were identified that could hinder the implementation of the SMARTMOBAIR pilot project. Collaboration between all project partners will be crucial for its success. Given the importance of local actors, who will also engage with colleagues, a new meeting is proposed by the end of the month to further explore the topics covered.

5. Attachments:

- Photos from the meeting



3.5 Meeting Report – Mobility Related and Planning Regulatory Context in Serbia



2nd SWG Meeting Report

Project Activity A1.3 – Mobility-Related Planning and Regulatory Context

Country / Pilot

Area: Republic of Serbia/ City of Niš

Partner Organization:

City of Niš as the Institutional partner with the support of the Innovation Center of the Faculty of Mechanical Engineering as the Technical partner

Date of the Meeting:

[22. May 2025]

Location:

[The City of Niš, SKIP Center 8 Kralja Milana Square, 1st floor.]

Number of Participants:

[13 of which 7 representatives of core SWG, 3 from Technical partner and 3 from Institutional Partner]

Stakeholder Groups Represented: (local government representatives from different departments: transport and traffic planning, public transport planning, spatial planners, municipal services providers, civil society and city's ICT office, and digital mobility operator supporting bus transport operations)

1. Key Discussion Points Related to Activity A1.3:

[Summarize the main topics discussed in relation to A1.3, such as mobility planning, local needs, or relevant policy aspects.]

Introductory Note: The second meeting with the core members of SWG focused on the pilot implementation and included the Mobility-Related Planning and Regulatory Context as one of the two main topics discussed. The discussion was organized in a way that the preparatory materials (prepared by the Activity 1.3 lead) were translated into the local language and shared with the core SWG members two weeks before the meeting, to ensure an engaging and informed discussion. During the meeting, these materials were used to steer the conversation and ensure that relevant opinions were collected in line with the A1.3 and overall project objectives. The main topics discussed focused on how existing planning and regulatory frameworks enable or constrain the deployment of smart mobility solutions (particularly bus-based public transport, as the focus of the SMARTMOBAIR pilot) and their role in supporting the shift from dominant private car use toward sustainable mobility options.

2. Discussion on the Link Between Regulatory Framework and the Pilot Area:

[Describe how existing planning or regulatory frameworks relate to the mobility needs in the pilot area. Note any gaps, conflicts, or supportive policies.]

1. The existing frameworks were described as insufficiently supportive—though not obstructive—particularly regarding the shift from dominant car use toward more sustainable transport options, such as public transport and cycling. The current SUMP (expected to be formally adopted in the coming months) supports this transition and acknowledges that further efforts are needed to attract more users to public transport, but the implementation challenges are expected.

2. One of the specifically mentioned gaps is the lack of promotional measures to accompany infrastructure improvements and innovations, especially in the context of fostering a stronger mobility culture. This includes measures aimed at changing mobility behavior, combined with efforts to enhance the performance and quality of public transport, as well as normative (i.e., restrictive) measures for private car use. In summary, this highlights the need to achieve a better balance between hard and soft urban mobility policy measures.

Integrated planning remains a challenge. While some city departments are well connected and collaborate effectively, there is still room for improvement. Key impediments include a lack of staff actively engaged in ongoing projects and initiatives, as well as administrative and institutional issues—such as changes in the structure of city departments. One example is the ICT department, which has undergone several institutional reorganizations, hindering continuous progress and even reversing some previously developed solutions.

In line with this, participants also highlighted the administrative burden associated with procedures, permits, and formal rules, particularly when cross-departmental coordination is required. These processes are often time-consuming and heavily dependent on timelines set by local government management.

Financial constraints are a persistent obstacle across all areas

3. Challenges, Opportunities, and Stakeholder Feedback:

[List any challenges mentioned, potential opportunities identified, and relevant stakeholder suggestions.]

One of the key topics discussed was whether infrastructure-oriented measures and instruments alone—without corresponding regulatory and behavioral measures—are sufficient to achieve smart mobility goals. Participants noted that, based on their own experience and that of other cities in Serbia, even when sustainable mobility options are available—such as well-functioning and affordable public transport or cycling infrastructure—results may not be immediately visible due to deeply rooted habits of private car use. They suggested that more restrictive measures targeting private car use should be considered.

Another topic, seen as a potential opportunity linked to the SMARTMOBAIR pilot, was the recognition that not all users are familiar or comfortable with new technologies, such as mobile apps—particularly the elderly and those commuting from rural areas. In this context, the planned piloting of digital displays at bus stops was highlighted as a promising solution to help bridge this gap.

From the perspective of spatial planning and planned innovations throughout the project pilot—but also further and city-wide adoption—some concrete measures for the pilot implementation were suggested in order to assure smooth implementation. This again highlighted the importance of integrated planning and the fact that existing planning and regulatory frameworks may not formally impede innovations, but further efforts are needed to see how to make them operational and efficient in practice. Issues were also identified in the area of spatial planning and regulatory plans, particularly regarding the integration of cycling infrastructure.

Some challenges for wider adoption relate to how existing planning documents and administrative procedures are applied in practice, which may not formally block innovation but can hinder efficient implementation across departments.

4. Conclusions and Proposed Next Steps:

[Summarize the conclusions of the meeting and outline any proposed actions or follow-up steps.]

The discussion highlighted that the current planning and regulatory framework—particularly the forthcoming SUMP—generally supports the transition toward smart and sustainable mobility. No specific regulatory or procedural barriers were identified that would impede the implementation of the SMARTMOBAIR pilot itself. However, participants noted that broader, city-wide adoption of similar innovations may face administrative and institutional challenges, particularly when cross-departmental coordination is required, staffing capacities are limited, or when adapting existing frameworks to operational realities.

Key conclusions include:

- Existing frameworks are not obstructive but may require further operationalization to fully support integrated smart mobility solutions.
- Institutional challenges, such as frequent departmental restructuring and lack of dedicated staff, may hinder implementation and continuity.
- Regulatory and planning procedures could be made more flexible and responsive, especially for innovations extending beyond the pilot scope.
- There is a need to complement planning measures with efforts that promote user behavioral change to reduce car dependency.

Proposed next steps:

- Continue aligning the pilot implementation with the evolving SUMP framework to ensure consistency and institutional support.
- While no regulatory barriers were found for the pilot itself, further review may be needed to identify administrative, institutional, or staffing constraints that could affect the wider adoption of smart mobility measures.
- Promote regulatory dialogue across departments to build a more integrated and innovation-friendly planning environment.
- Develop supportive measures (e.g., awareness campaigns, digital inclusion efforts) in parallel with technical deployments.
- Assess the regulatory implications of pilot results to inform potential updates to local mobility planning frameworks.

5. Attachments:

- Photos from the meeting



3.6 Meeting Report – Mobility Related and Planning Regulatory Context in Slovenia



SWG Meeting Report Template

Project Activity A1.3 – Mobility-Related Planning and Regulatory Context

Country / Pilot Area:
Slovenia/City of Koper

Partner Organization:
Municipality of Koper

Date of the Meeting:
7.4.2025

Location:
Verdijeva 10, Koper

Number of Participants:
6

Stakeholder Groups Represented:
Policy makers & authorities

1. Key Discussion Points Related to Activity A1.3:

[Summarize the main topics discussed in relation to A1.3, such as mobility planning, local needs, or relevant policy aspects.]

Certain areas of Koper's city center are restricted to permit holders; however, the effectiveness of this system has been undermined by the unauthorized duplication of remote controls, resulting in uncontrolled vehicle access. To resolve this issue, we propose the installation of retractable bollards to reinforce traffic management and enhance the quality of life for residents in the historic center.

The implementation of an automatic license plate recognition system will enable precise monitoring of vehicle movements, providing a solid foundation for the development of a data-driven and effective parking policy.

These proposed measures place a strong emphasis on strategic mobility planning, with a focus on improving traffic regulation and access control in the city center. They address local needs by aiming to reduce unauthorized traffic, thereby improving the living environment for residents. Furthermore, the initiative supports the creation of an informed and adaptable parking policy, aligned with broader objectives of sustainable urban mobility and evidence-based policymaking.

2. Discussion on the Link Between Regulatory Framework and the Pilot Area:

[Describe how existing planning or regulatory frameworks relate to the mobility needs in the pilot area. Note any gaps, conflicts, or supportive policies.]

The existing planning and regulatory frameworks in Koper recognize the importance of managing traffic in the historic city center, with several policies aimed at limiting motorized access and promoting sustainable mobility. The current system, which restricts vehicle entry to permit holders, is aligned with broader municipal goals outlined in SUMP and Sustainable Urban Strategy. However, enforcement mechanisms have proven insufficient, as the duplication of remote controls has led to unauthorized access, undermining the intended impact of these regulations. There is a clear gap between policy intent and implementation, particularly in the areas of access control technology and real-time traffic monitoring. On the other hand, supportive policies—such as those promoting digitalization and smart city initiatives—offer a favorable context for the introduction of automatic license plate recognition and retractable bollards. These tools could close the enforcement gap and better align mobility management with existing strategic goals.

3. Challenges, Opportunities, and Stakeholder Feedback:

[List any challenges mentioned, potential opportunities identified, and relevant stakeholder suggestions.]

Expected Outcomes of the pilot:

- Improved regulation of vehicle access to restricted areas. The installation of retractable bollards and an automatic license plate recognition (ALPR) system will enhance enforcement of access restrictions, preventing unauthorized vehicles from entering designated areas. This will result in a more organized and controlled urban environment, reducing congestion and improving compliance with existing regulations.
- Enhanced quality of life for residents of the historic city center through reduced unauthorized traffic - By limiting unauthorized traffic, the pilot action will lead to quieter, safer, and less polluted streets, significantly improving the living conditions for residents. Reduced vehicle movement will also enhance pedestrian safety, promote alternative modes of transportation, and create a more pleasant public space.
- Collection of detailed data on vehicle movements to inform future urban mobility and parking strategies.

The Local Community proposes that the first step be to conduct an analysis of the current traffic situation, including traffic counting, which will allow for an accurate assessment of the current problems and needs. Based on this analysis, the municipality must prepare concrete solutions, along with appropriate justifications, based on actual data.

It is important that the municipality also holds meetings with all key stakeholders in the area, such as owners of the laundry, bar, glass factory, as well as representatives of residents and other business entities. This will ensure that all relevant interests are covered and that broader support for the proposed solutions is achieved.

4. Conclusions and Proposed Next Steps:

[Summarize the conclusions of the meeting and outline any proposed actions or follow-up steps.]

Step 1: Analysis of the current traffic situation at Kosovel square.

Step 2: Development of concrete solutions, supported by relevant justifications and based on actual data.

Step 3: Presentation of proposed solutions to involved parties SWG members.

5. Attachments:

- Photos from the meeting

Photos



4. Country-specific Insights

This deliverable presents a comprehensive overview of the mobility planning documents and regulatory frameworks in the countries of the SMARTMOBAIR program, which include Bosnia and Herzegovina, Albania, Italy, Slovenia, Serbia and Greece. The analysis was carried out as part of Activity 1.3 of the project, with the aim of identifying existing barriers and obstacles to the implementation of smart and sustainable mobility solutions.

All tasks within the urban mobility objectives can also be linked to the 2030 climate and energy framework, which contains target indicators and policy objectives at EU level for the period 2020-2030, and aims to help the EU achieve a more competitive, secure and sustainable energy system and to achieve the long-term goal of reducing greenhouse gases by 2050. The projected target indicators for 2030 are: a 40% reduction in greenhouse gas emissions compared to 1990 levels at least a 32% share of gross final consumption from renewable energy sources a target indicator for improving energy efficiency at EU level of at least 32.5%, following the existing improvement of 20% for 2020 support the creation of the internal energy market by achieving the existing target indicator of electricity market interconnection of 10% by 2020, with the prospect of achieving 15% by 2030.

4.1. Albania

Albania has established several foundational documents relevant to smart mobility, including the National Transport Plan, the Road Code, and a national ITS strategy. However, these instruments lack clear operational mechanisms for integrating smart mobility into urban planning. Regulatory documents remain largely aspirational, with insufficient connections to actual city-level implementation. There is limited budgeting for ITS technologies at the municipal level, and local institutions often lack the technical capacity to manage digital transport systems.

Moreover, the strategy for intelligent transport systems does not address critical issues such as data privacy and cybersecurity, which are essential for building trust in real-time monitoring tools. Urban mobility is still approached as a subset of territorial planning rather than as an integrated and dynamic field in its own right.

To bridge the gap between strategy and practice, Albania should develop specific urban mobility guidelines linked to its spatial planning legislation. Establishing pilot ITS centers in collaboration with municipalities could serve as a stepping stone toward broader adoption. These centers would also help improve data governance practices, enabling secure and efficient use of transport data. Additionally, a clear monitoring and evaluation framework is needed to assess the impact of ITS deployment, supported by capacity-building programs for municipal staff. Creating pathways for co-financing and public-private partnerships could further support Albania's smart mobility ambitions.

4.2. Bosnia and Herzegovina

Bosnia and Herzegovina faces some of the most complex challenges in implementing smart mobility solutions due to its highly fragmented institutional and legal landscape. The country's governance structure, divided between multiple entities and cantons, creates significant disparities in transport legislation and planning

frameworks. While some jurisdictions, such as Sarajevo Canton or Republika Srpska, have adopted partial regulations to govern micromobility, there is no coherent or unified national strategy for sustainable urban mobility. This inconsistency results in varying levels of safety, enforcement, and public understanding, particularly in relation to emerging modes such as electric scooters.

In addition to legislative fragmentation, the lack of technical and administrative capacity at the local level further hinders progress. Municipalities struggle to develop and implement mobility plans, especially those that incorporate digital tools and smart transport systems. Infrastructure remains car-centric, with limited investment in cycling infrastructure, pedestrian safety, or integrated transport networks.

To advance smart mobility, Bosnia and Herzegovina must prioritize the creation of a unified national strategy that acknowledges the complexity of its political structure but seeks harmonization across entities. Legal reforms should address gaps in micromobility regulation, enabling safe and clear use of new transport modes. Pilot projects could serve as learning laboratories for practical ITS application, while coordinated stakeholder engagement – including civil society and transport operators – is essential for fostering implementation ownership. Capacity-building at the municipal level is equally urgent and must be supported by national funding and targeted training programs.

4.3. Greece

Greece represents a country in mobility transition. On paper, it has adopted several advanced strategic documents related to mobility – from walking and cycling strategies to laws governing micromobility and Sustainable Urban Mobility Plans (SUMP). However, the actual implementation of these frameworks often encounters administrative inertia, overlapping mandates, and under-resourced local authorities. A particular challenge is the coexistence of multiple strategies issued by different ministries, which sometimes lack coordination, creating confusion at the implementation level.

Local governments such as Rethymno, the SMARTMOBAIR pilot site, show initiative but are constrained by bureaucratic delays and limited technical staff. The transition towards integrated ITS is also slow, not necessarily due to a lack of willingness, but because of insufficient funding, inadequate expertise, and lack of centralized support for best practice sharing.

To overcome these challenges, Greece needs to institutionalize cross-ministerial coordination mechanisms to harmonize national strategies and reduce overlaps. A national digital knowledge platform would allow local authorities to access technical guidance, case studies, and procurement models. Capacity development programs for municipalities, especially smaller ones, should be prioritized, focusing on technical skills related to ITS and behavioral mobility planning. Finally, public participation and local stakeholder inclusion need to be mainstreamed across all levels of urban mobility planning to ensure societal buy-in and long-term sustainability.

4.4. Italy

Italy stands out as one of the more advanced countries in terms of regulatory preparedness for smart mobility, especially at the regional level. The Friuli Venezia Giulia region, for instance, demonstrates a well-organized system for local public transport (LPT), supported by clear legal frameworks and funding mechanisms. Flexible

mobility services, such as demand-responsive transport (call bus), are formally recognized in the legislation and supported by targeted policies encouraging low-emission vehicles and digital innovation.

Nonetheless, practical implementation presents several non-regulatory hurdles. One major issue is demand forecasting for newly introduced services – without historical data or established user patterns, planning becomes a matter of approximation. Additionally, technological integration – particularly ensuring that booking systems and fleet management platforms are user-friendly and inclusive – remains a work in progress. Social acceptance is another key variable, with older or rural populations potentially resistant to replacing traditional fixed-route services with dynamic alternatives.

Italy's path forward should emphasize user-centered design and digital inclusion in smart service deployment. This includes investing in intuitive digital interfaces, offering non-digital access points for underserved groups, and launching targeted information campaigns to build trust in new systems. Regional authorities can play a leading role in piloting and scaling up flexible mobility services, but success will depend on real-time data collection, user feedback loops, and effective integration with existing transport networks. The role of municipalities in adapting bus stops and ensuring accessibility, especially for people with disabilities, is also critical to success.

4.5. Serbia

Serbia has made notable strides in acknowledging the importance of smart mobility through the adoption of the Strategy for Sustainable Urban Development and the ongoing development of the National Transport Strategy. Yet, the country's legal and planning frameworks still primarily support conventional, car-centric mobility models. Smart mobility principles such as Mobility-as-a-Service (MaaS), micromobility, and integrated transport networks remain underdeveloped in both law and practice.

Local governments, while showing interest, face significant administrative and technical barriers. The City of Niš, for instance, has begun the SUMP process and developed concepts for digital public transport displays, but the realization of these ideas is slowed by rigid procedures, staff shortages, and insufficient coordination across departments. The decentralization of planning responsibilities without adequate capacity-building at the local level exacerbates these difficulties.

To move forward, Serbia should finalize and operationalize its pending strategic documents, ensuring they explicitly address smart mobility innovations. Regulatory reforms should support digitalization, data sharing, and the simplification of administrative procedures. Municipalities need both financial resources and technical support to implement SUMPs and ITS-based services. Awareness campaigns promoting behavioral change and digital literacy among the public would complement infrastructural and technological investments. A stronger national-local coordination mechanism is essential to avoid policy fragmentation and to create scalable, interoperable mobility solutions.

4.6. Slovenia

Slovenia presents a strong institutional foundation for smart and sustainable mobility, largely due to its Act on Integrated Transport Planning and comprehensive national strategies promoting Sustainable Urban Mobility Plans (SUMPs). The legal framework mandates that municipalities develop SUMPs, which has led to widespread

adoption at the local level. Accompanying these mandates are national guidelines covering nearly every aspect of mobility planning—from parking policy to urban logistics and cycling infrastructure.

However, implementation challenges persist. Many municipalities lack the capacity to turn plans into action, particularly when it comes to integrating different transport modes into a cohesive system. Coordination between municipal and national levels is sometimes uneven, which can cause duplication of effort or policy misalignment. Moreover, while Slovenia is advanced in regulation, innovation uptake remains slow. Smart mobility solutions, such as real-time traffic management or Mobility-as-a-Service (MaaS), are not yet fully operationalized.

To maximize the benefits of its regulatory strength, Slovenia must shift focus from planning to execution. National authorities could assist by establishing technical support units that help municipalities implement mobility innovations. Public transport operators and local governments should be encouraged to pilot MaaS platforms with built-in feedback mechanisms. Increased investment in infrastructure, particularly in rural areas where public transport is underdeveloped, is also vital. Lastly, stronger data collection practices and open data policies can accelerate the integration of ITS into municipal planning.

5. Comparative Summary: Smart Mobility Readiness in the SMARTMOBAIR Region

The countries covered in the SMARTMOBAIR project – Bosnia and Herzegovina, Greece, Italy, Slovenia, Serbia, and Albania – exhibit a diverse range of readiness levels in planning and implementing smart mobility solutions. While their starting points and institutional structures vary, several shared trends emerge.

Table 1. Comparative analysis of smart mobility by country

Country	National SUMP strategy in place	ITS regulation	Legal framework updated	Local SUMP implementations	Main challenges identified
Albania	No	Partially	No	Limited	Financing, technical capability, ITS integration
Bosnia and Herzegovina	No	No	No	Very limited	Fragmentation between entities, law does not recognize e-scooters
Greece	Yes	Yes	Yes	In progress	Lack of coordination between ministries
Italy	Yes	Yes	Yes	Yes	Technical barriers to flexible services (call bus)
Serbia	Partially	No	No	Only larger cities	Administration, outdated laws, poor coordination
Slovenia	Yes	Yes	Yes	Yes	Poor integration between modes, insufficient innovation

5.1. Policy Maturity vs. Implementation Capacity

Italy and Slovenia represent the most advanced regulatory environments, underpinned by national and regional strategies that mandate Sustainable Urban Mobility Plans (SUMPs) and promote flexible, data-driven mobility services. Yet even in these cases, implementation hurdles persist – from user acceptance in Italy to capacity constraints at the municipal level in Slovenia.

In contrast, countries like Albania and Bosnia and Herzegovina have yet to operationalize their mobility frameworks. Although strategic documents exist, their influence rarely extends to local planning, and budgetary limitations or institutional fragmentation often block execution. Serbia and Greece sit somewhere in the middle – with evolving frameworks and active pilot initiatives, but continued struggles with interdepartmental coordination, staffing, and enforcement.

5.2. Institutional Fragmentation and Local Autonomy

Fragmentation is a recurring obstacle. Bosnia and Herzegovina suffers from deeply divided governance, making cohesive national planning nearly impossible. Greece faces a similar challenge, though more related to the vertical disconnect between ministries and municipalities. In Serbia, decentralization without adequate capacity-building has created uneven readiness across cities.

In these cases, policy harmonization and stronger vertical coordination are crucial. Pilot actions offer valuable leverage for policy refinement – but only if results are systematically fed back into the institutional learning loop.

5.3. Innovation Gaps and the Role of Digital Tools

Although ITS and Mobility-as-a-Service (MaaS) are common policy aspirations, few countries have successfully embedded these tools in everyday practice. Most pilots remain isolated or experimental. Issues such as digital illiteracy, non-user-friendly systems, and lack of open data policies hamper the adoption of ITS platforms. In Albania and Serbia, data protection and cybersecurity are underdeveloped, undermining trust in smart systems.

Targeted capacity-building, national digital platforms, and user-centric service design are essential next steps to unlock innovation at scale. Peer learning across the region could accelerate this process.

5.4. Behavioral Change and Public Engagement

Across all countries, behavioral change remains under-addressed. While infrastructure and regulatory reforms are progressing, strategies to shift user habits away from car dependence are weak. Public outreach, education, and co-design are often missing from the mobility planning process.

Sustainable mobility cannot succeed without user ownership. Governments must pair technological upgrades with soft measures – from digital literacy and awareness campaigns to participatory planning models.

6. Concluding remarks and recommendations

To ensure alignment with European Union priorities for sustainable transport, countries in the SMARTMOBAIR region must reinforce both the adoption and implementation of Sustainable Urban Mobility Plans (SUMPs). While SUMP methodologies have been promoted in several national contexts, practical deployment remains uneven and insufficiently linked to EU policy instruments.

Based on the SMARTMOBAIR assessment, the following countries are particularly relevant for these recommendations:

- **Serbia**, which is in the process of developing national transport strategies and has initiated SUMP processes in some cities (e.g., Niš), but still lacks clear legal and procedural integration of SUMPs.
- **Bosnia and Herzegovina**, where no national strategy exists and planning occurs in a highly fragmented legal environment. SUMP uptake remains limited and uncoordinated.
- **Albania**, which has national ITS and transport strategies, but urban mobility is weakly integrated and SUMP methodologies are not formally adopted.
- **Greece**, despite having adopted SUMPs in several municipalities, still faces significant implementation barriers due to bureaucratic complexity and under-resourced local authorities.

Key Recommendations:

1. **Legal Recognition of SUMPs:** SUMPs should be anchored in national legislation as either mandatory or strongly encouraged tools for urban mobility planning. Embedding SUMPs in legal frameworks enhances their legitimacy and facilitates access to EU structural and investment funds.
2. **Policy Alignment with the EU Urban Mobility Framework (2021):** SUMPs should integrate the priorities set out in the updated EU Urban Mobility Framework, including zero-emission mobility, multimodal logistics, and the linkage between transport and land-use planning.
3. **Capacity-Building for Local Authorities:** Municipalities often lack the expertise and financial resources needed to prepare high-quality SUMPs. Dedicated national support programs and participation in EU networks such as CIVITAS should be expanded.
4. **Integration of Monitoring and Evaluation Mechanisms:** Future SUMPs should include key performance indicators aligned with EU metrics, enabling tracking of modal shift, emissions reduction, and access improvements. Regular monitoring and adaptive updates should be required.
5. **Conditional Funding Based on SUMP Quality:** National or EU-supported investment in urban transport infrastructure should be linked to the presence of credible, implemented SUMPs. This would ensure strategic prioritization and long-term sustainability.
6. **Cross-Sectoral and Multi-Level Coordination:** SUMPs must be developed through inclusive processes, integrating sectors such as climate, digital transformation, public health, and urban planning. Coordination across government levels should be institutionalized.

These recommendations aim to support the transition toward low-carbon, people-centered, and technologically advanced mobility systems in line with European Green Deal objectives and the Sustainable and Smart Mobility Strategy (2020).

The comparative analysis of the six countries participating in the SMARTMOBAIR project reveals significant disparities in the regulatory and institutional preparedness for implementing smart and sustainable urban mobility. While Italy and Slovenia demonstrate mature planning systems and relatively robust legal frameworks, their main challenges lie in execution, user adaptation, and technological integration. On the other hand, countries like Bosnia and Herzegovina, Albania, and to a lesser extent Serbia, face more structural issues including fragmented legal environments, limited strategic coherence, and constrained local capacities.

Greece emerges as a transitional case, possessing multiple national strategies and legal instruments, but facing persistent bureaucratic and administrative limitations that hinder effective implementation. Across the region, common obstacles include inconsistent legislation on micromobility, limited data governance, low ITS penetration, and insufficient mechanisms for cross-sectoral coordination and monitoring.

Despite these challenges, there are clear opportunities for accelerated progress. All countries show growing awareness of the importance of digitalization and sustainability in transport, and some have initiated pilot projects or strategic frameworks that can be scaled up with appropriate support.

Recommendations for Regional Harmonization

- Develop a regional platform or observatory for smart mobility policy exchange, benchmarking, and knowledge sharing, modeled on existing EU networks such as CIVITAS or POLIS.
- Promote regional alignment with the EU Urban Mobility Framework by encouraging adoption of common principles (e.g., integration of SUMP, low-emission zones, data-driven mobility planning).
- Encourage bilateral or multilateral cooperation on cross-border ITS services, harmonized data standards, and interoperable ticketing or fleet management systems.

Priority Legal Reforms

- Clarify and harmonize legal definitions and classifications of micromobility devices, including safety standards and usage rules.
- Introduce or update national legislation to formally recognize SUMP and link them to urban development and investment planning.
- Adopt legal provisions ensuring data protection, cybersecurity, and ethical standards in ITS applications, especially in contexts with low regulatory maturity.

Strategies for Institutional Capacity Building and ITS Development

- Establish national support units or mobility agencies responsible for providing technical assistance and oversight for local SUMP and ITS implementation.
- Launch targeted training programs for local government staff, planners, and public transport operators, with a focus on digital tools, behavioral planning, and performance monitoring.
- Pilot integrated ITS platforms in medium-sized cities and assess scalability, emphasizing real-time data usage, open data policies, and multi-modal service integration.
- Secure co-financing mechanisms for ITS infrastructure through a mix of national, EU, and international donor funding.

In conclusion, while the path toward smart mobility is uneven across the SMARTMOBAIR region, the shared challenges also present a shared opportunity for collective progress. Through harmonized legal frameworks, empowered institutions, and strategic investments in innovation, the region can take decisive steps toward inclusive, low-carbon, and future-ready urban mobility systems.

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