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FACT-FINDING STUDY ON STATUS AND FUTURE NEEDS REGARDING LOW- AND ZERO-EMISSION URBAN MOBILITY

Executive Summary

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Directorate-General for Mobility and Transport
Directorate B — Investment, Innovative & Sustainable Transport
Unit B.3 — Innovation & Research
Contact: Piotr RAPACZ
E-mail: Piotr.rapacz@ec.europa.eu

European Commission
B-1049 Brussels

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Glossary of terms, abbreviations and acronyms

Abbreviation	Description
ADEME	Agence de la transition écologique
BMLFUW	Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft
BRT	Bus rapid transit
CEF	Connecting Europe Facility
CEREMA	Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement
CLARS	Charging, Low Emission Zones, other Access Regulation Schemes
CO_2	Carbon Dioxide
DG MOVE	Directorate-General for Mobility and Transport
EAFO	European Alternative Fuels Observatory
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
EGUM	Expert Group on Urban Mobility
EU	European Union
FCL	Freight Leaders Council
FFS	Fact-finding Study
GHG	Greenhouse Gas
GIS	Geographic Information Systems
GMNI	Gemeentelijk Netwerk voor Mobiliteit en Infrastructuur
HGV	Heavy Goods Vehicle
ITS	Intelligent Transport Services
KPI	Key Performance Indicator
LEZ	Low Emission Zone
LGV	Light Good Vehicle
LILI	Linnadja Liikuvus ("Cities and Mobility" in Estonian)
MaaS	Mobility as a Service
MAGDA	Maximum Data Sharing between Agencies
MS	Member State
NGO	Non-governmental Organisation
NO_2	Nitrogen Dioxide
NSSPs	National SUMP Supporting Programmes
PDU	Plan de Déplacements Urbains
PM	Particulate Matter
PMT	Plan de Mobilidade e Trasportes
PT	Public Transport
SULP	Sustainable Urban Logistics Plan
SUMI	Sustainable Urban Mobility Indicator
SUMP	Sustainable Urban Mobility Plan
SUMPSP	Sustainable Mobility and Public Space Plan
TEN-T	Trans-European Transport Network
TOD	Transit-Oriented Development
ToR	Terms of Reference
TTS	Telematica Trasporti e Sicurezza

ULEZ	Ultra-Low Emission Zone
UMP	Urban Mobility Package
UVAR	Urban Access Vehicle Regulation
WWF	World Wildlife Fund
ZES	Zero Emission City Logistics

The key terms used in this report are defined here:

Active parking management is the dynamic management of parking facilities in a region to optimise performance and utilisation of those facilities while influencing travel behaviour at various stages along the trip making process: i.e., from origin to destination.

Clean buses are buses using one of the following alternative fuels: hydrogen (fuel cells), battery electric (including plug-in hybrids), natural gas (both CNG and LNG, including biomethane), liquid biofuels, synthetic and paraffinic fuels, liquified petroleum gas (LPG).

Free-floating stand-up e-scooter sharing schemes are schemes that offers the opportunity to park e-scooters anywhere within the city's designated area.

Mobility as a Service is the integration of various forms of transport services into a single mobility service accessible on demand. To meet a customer's request, a MaaS operator facilitates a diverse menu of transport options, be they public transport, ride-, car- or bike-sharing, taxi or car rental/lease, or a combination thereof. The MaaS integrator gathers and integrates data from mobility service providers. For the user, MaaS offers added value through the use of a single application to provide access to mobility, with a single payment channel instead of multiple ticketing and payment operations.

Mobility-related data and indicators are data collection routines of local authorities, data collected on specific mobility issues and the calculation of selected SUMI indicators and simplified proxy indicators respectively.

Proxy indicators are a simplified version of the sustainable urban mobility indicators (description provided below). The definitions of the proxy indicators included in this study are as follows:

- The proxy indicator "**Access to public transport**" consists in the percentage of the population with appropriate access to public transport;
- The proxy indicator "**Affordability of public transport**" is defined as the price per single trip ticket, which allows one journey for an adult without special benefits to travel from the city boundary to the city centre, weighted by national Purchasing Power Parity;
- The proxy indicator "**Air pollutant emissions**" is defined as the average annual NO_2 and PM emissions from road transport within the city;
- The proxy indicator "**Congestion**" captures the congestion level in a city based on established congestion indices (TomTom, INRIX and/or Traffic Index) or city-own calculation method;
- The proxy indicator "**Greenhouse gas emissions**" is defined as the transport-related greenhouse gas emissions in metric tons of CO_2 (equivalents) per capita and per year;
- The proxy indicator "**Modal split**" is defined as the percentage share of each mode of transport for passenger mobility.

Station-based stand-up e-scooter sharing schemes consist in schemes that do not necessarily have a station but for which e-scooters may only be parked in designated areas of the city.

Sustainable Urban Mobility Indicators are a tool for cities and urban areas to identify the strengths and weaknesses of their mobility system and to focus on areas for improvement. The definitions of the SUMI indicators included in this study are as follows:

- The SUMI indicator "**Access to mobility services**" is defined as the share of population with appropriate access to mobility services (public transport);
- The SUMI indicator "**Affordability of public transport for the poorest group**" is defined as the share of the poorest quartile of the population's household budget required to hold public transport (PT) passes (unlimited monthly travel or equivalent) in the urban area of residence;
- The SUMI indicator "**Air pollutant emissions**" is defined as air pollutant emissions of all passenger and freight transport modes (exhaust and non-exhaust for $PM_{2.5}$) in the urban area;
- The SUMI indicator "**Congestion and delays**" captures delays in road traffic and in public transport during peak hours compared to off peak travel (private road traffic) and optimal public transport travel time (public transport);
- The SUMI indicator "**Emissions of greenhouse gases**" is defined as well-to-wheels greenhouse gas emissions by all urban area passenger and freight transport modes;
- The SUMI indicator "**Modal split**" requests cities to provide modal split data according to different methodologies. For passenger mobility: Vehicle kilometres driven; Passenger kilometres driven; Number of trips; Vehicle kilometres per trip driven. For freight: Goods vehicles kilometres driven; Freight tonnes kilometres driven. For shared mobility: Vehicle kilometres driven; Number of trips;
- The SUMI indicator "**Road deaths**" is defined as road deaths by all transport accidents in the urban area on a yearly basis;
- The SUMI indicator "**Traffic active safety modes**" is defined as the fatalities of active modes users in traffic accidents in the city in relation to their exposure to traffic.

Sustainable Urban Mobility Planning is a continual integrated planning process at the local or regional level to increase urban accessibility and quality of life, which is often summarised in a policy document, a SUMP.

Sustainable Urban Logistics Planning is a strategic and integrated policy-making process, often resulting in an action plan, a chapter in a SUMP or in a separate SULP policy plan, supporting local public decision makers and stakeholders in developing, implementing and monitoring city logistics policy measures.

Urban Vehicle Access Regulation (UVAR) is a set of measures to regulate vehicular access to urban infrastructure, specific urban areas and/or road networks. Limitations to vehicle circulation involving individual roads, e.g. parking measures, are not included in the study.

Zero emission buses are buses, which emit no tailpipe emissions, that are, purely battery electric buses (excluding hybrid buses) or hydrogen-powered buses

EXECUTIVE SUMMARY

Objectives and scope of the study

The general objective of the study is to provide the Commission with the **status** of current **urban mobility situation** and indicate **gaps** and related **needs** of cities when it comes to achieving safe, accessible (incl. affordable), smart and low- and zero-emission urban mobility. More specifically, this study will:

- Analyse **urban mobility situation** in a large sample of EU cities of different sizes and types, from all Member States, with regards to Sustainable Urban Mobility Planning, Urban Vehicle Access Regulation (UVAR), urban logistics and urban mobility data collection and indicators;
- Understand the **level of support** of Member States on urban mobility policy;
- Identify the main **challenges, gaps and needs** when it comes to the analysed urban mobility situation at city level and the level of support of Member States;
- Provide an **indication** how the analysed situation **compares** with the EU-level objectives, in particular referred to in the White Paper 2011, the Green Deal and the Smart and Sustainable Mobility Strategy, regarding achieving low- and zero-emission, accessible (incl. affordable), smart and safe urban mobility;
- Draw **meaningful conclusions** on the type of support that cities should receive to achieve safe, accessible, affordable, smart, and low and zero-emissions urban mobility.

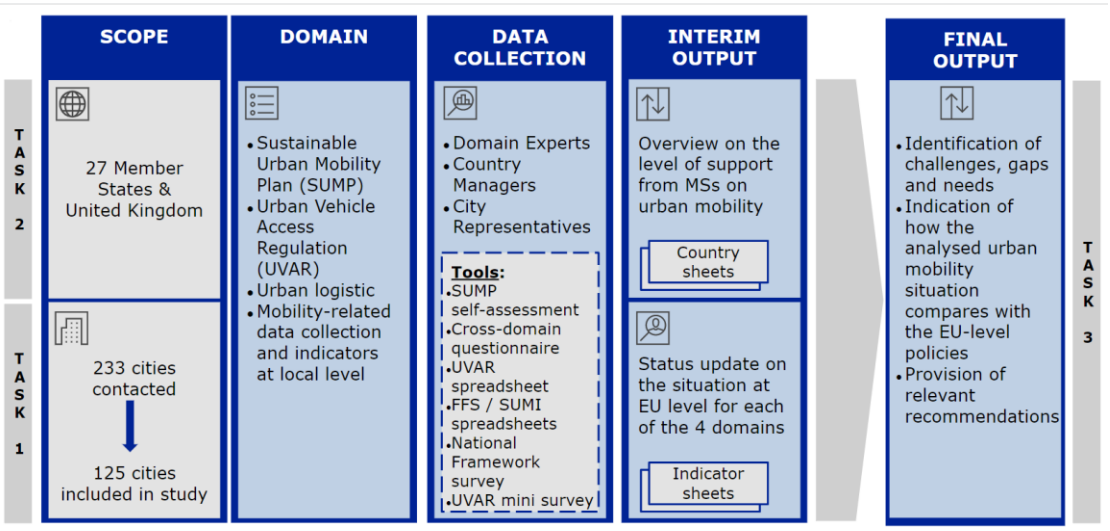
Overview of the methodology

The methodology consists of three tasks:

- **Task 1**, with the detailed description of the current situation regarding urban mobility at local level by collecting information on four domains:
  a. Domain A (Sustainable Urban Mobility Planning);
  b. Domain B (Urban Vehicle Access Regulation - UVAR);
  c. Domain C (Sustainable Urban Logistics Planning); and
  d. Domain D (mobility-related data collection and indicators at local level, Sustainable Urban Mobility Indicators - SUMI - included).
- **Task 2**, with the analysis of the situation at Member States level and specifically on the level of support from MS on urban mobility topics;
- **Task 3,** with the identification of challenges, gaps and needs in view of reaching the EU objectives and the related recommendations to address such gaps, challenges and needs.

The figure below depicts the study's methodological approach.

Figure 1. Project in a Box



This fact-finding exercise included a coordinated multi-level research whereby data was collected in **three different phases** with the use of different tools (e.g. SUMP Self-assessment tool, spreadsheets, questionnaires). This involved leveraging on different Consortium partners expertise, geographical outreach and language proficiency as well as on local connections with city representatives.

The data collection covered all EU Member States through the careful selection of a sample of **125 cities** matching the following requirements:

- Balanced number of cities according to city size;
- Balanced number of cities with and without SUMP or equivalent;
- Balanced number of cities with and without UVARs;
- Share of cities on TEN-T network (core and comprehensive);
- Share of cities which are member of the CIVITAS Forum network, or which are part of a currently funded CIVITAS project;
- Share of cities which are partner in a currently funded Smart City Lighthouse project;
- Share of cities involved in the SUMI project.

Unfortunately, the data collection was carried out during the **Covid-19 pandemic** which caused the response rate of some data collection tools to be lower than expected. Therefore, the data collection was completed via desk research by domain experts and country managers, to compensate for the missing information.

The data collection allowed drawing several key findings for both the analysis at local and national level, as well as meaningful conclusions and recommendations.

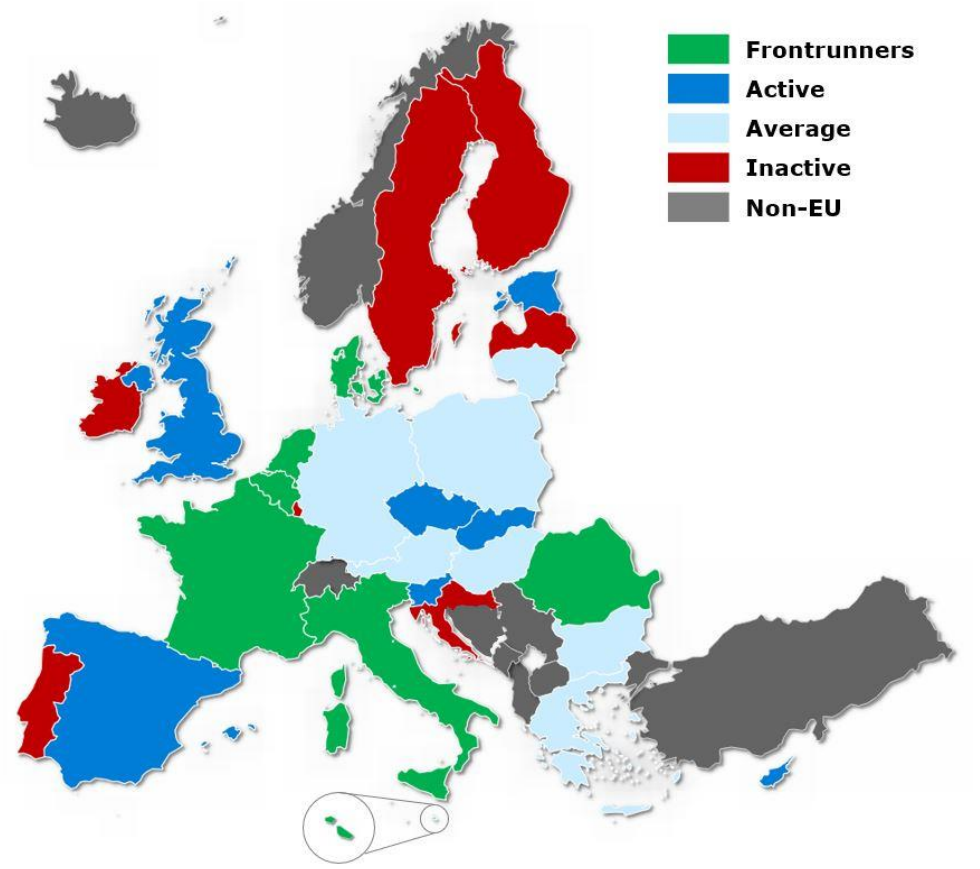
Level of support on urban mobility at member state level

In the analysis of the situation at Member State level, the study has assessed the **presence of SUMPs** across Member States and the **link** between **national frameworks**[1] affecting urban mobility and three of the four domains: UVAR, Sustainable Urban Mobility Planning, and Sustainable Urban Logistics Planning. The fourth domain, Domain D, consisting in a set of different mobility-related indicators, is

[1] National frameworks stand for all those documents, which may be of a normative nature or not, which regulate the above-mentioned domains at a national level.

not being assessed as part of this task. Based on this assessment, Member States have been ranked depending on their level of support on local mobility, as shown below.

Figure 2. General overview of the implementation of national urban mobility approaches



As depicted in the picture above, the analysis at the national level presents a **heterogenous picture** across Member States. The level of support in relation to urban mobility varies country by country. There are some countries that are frontrunners (e.g. France, Belgium and Italy) on this topic while others seem doing very little (e.g. Sweden, Ireland and Portugal).

Synthesis of analysis by domain

The report analyses the **current situation** regarding **urban mobility** and provides a detailed description of the status of cities in the study with regards to the **four domains**: Sustainable Urban Mobility Planning; UVAR; Sustainable Urban Logistics Planning; and mobility-related data collection and indicators. This section presents the summary of such analysis, as well as the challenges, gaps and needs and related conclusions and recommendations for each domain.

The key findings identified for each of the domains, are provided below:

DOMAIN A - SUSTAINABLE URBAN MOBILITY PLANNING

State of play at local level

The analysis on the status of Sustainable Urban Mobility Planning in Europe paints overall a positive picture.

The results of the analysis show, that the current urban mobility situation concerning Sustainable Urban Mobility Plans (SUMPs) is generally **in line with EU-level objectives**. While not being official objectives yet, it is being discussed that all large and medium-sized urban nodes have implemented a SUMP by at the latest 2030 at the latest, possibly already by 2025.

As shown in further detail in the table below that lists the key takeaways from the analysis on the state of play, European cities are generally **aware** of the concept of SUMPs and there is a **large presence of SUMPs** – or equivalent plans - in place in the European Union.

However, the **quality** of planning processes can **vary considerably** between cities, revealing the further **need for harmonisation** across Europe. SUMP can be seen as a mainstream concept that reaches cities of all sizes and of different countries, but still shows room for improvement towards feasibility of application of the SUMP concept and the quality of planning processes.

In addition, the results show that cities' plans are somewhat **compliant** with **European SUMP principles**, although the lower level of compliance for small urban areas highlights the need of these cities for further support when developing a SUMP. The analysis of the level of compliance has revealed also the difficulty of cities in the **implementation of SUMPs**, for example, regarding the planning scope.

Finally, SUMP principles and its participatory and collaborative workflow have the potential to improve the development of other sustainable policy fields, such as climate action planning and resilient planning.

Table 1. Domain A – Key Takeaways

Indicator	Key Takeaways
Presence of a local transport or mobility plan (125/125 sampled cities)	• 91% of cities in the study have a local transport or mobility plan in place. • 45% of cities in the study that do not currently have a transport plan are planning to develop one or are already in the process of doing so. • The presence of a transport plan is higher in large metropolitan cities than small urban areas (100% vs. 83%).
Presence of a local transport plan compliant with the European SUMP Guidelines (90/125 sampled cities)	• 73% of cities in the study have a local transport plan somewhat compliant with the European EU Guidelines • 74% of SUMPs are from the older planning generation, before the year 2015.
Scope of transport plan and (111/125 sampled cities) consideration of the functional urban area (FUA) in the SUMP (or	• 59% of cities in the study have a transport plan covering the city area, 22% cover the FUA and 22% cover the region or metropolitan area. • 42% of cities in the study have a SUMP (or equivalent plan) in place that considers the FUA. • 35% of cities in the study have a SUMP (or equivalent plan) in

equivalent plan) (103/125 sampled cities)	place that considers both the TEN-T network and the FUA. • Small urban areas are less likely to consider the FUA in the SUMP than large metropolitan cities (33% vs. 53%). • Cities not part of the TEN-T network are less likely to consider the FUA in their SUMP than cities on the network (30% vs. 58%).
Compliance of planning process with the principles of the European SUMP Guidelines (88/125 sampled cities)	• The planning processes in cities in the study reached an overall compliance of 60% with the European SUMP principles. • 42% of planning process of sampled cities have an overall high compliance with the principles of the European SUMP Guidelines, 49% have an overall medium compliance and 9% have a low compliance. • The overall level of compliance of large metropolitan cities is higher than small urban areas (68% vs. 56%). • Planning processes have the highest level of compliance with the SUMP principle "Assessment of current and future performance (75%).
Presence of SMART targets and sustainable indicators for monitoring in the SUMP (or equivalent plan) (targets: 83/125 sampled cities; monitoring: 73/125 sampled cities; indicators: 71/125 sampled cities)	• 81% of transport plans of the city sample include SMART (Specific, Measurable, Achievable, Realistic and Timely) targets in the SUMP. • 60% of cities in the study have a monitoring scheme in place. • 80% of plans of the city sample include sustainable indicators for monitoring. Sustainable indicators for monitoring include: o output indicators (e.g. newly built infrastructure); o transport activity indicators (e.g. modal split, travel behaviour); o outcome indicators (e.g. on accessibility, liveability, air or noise pollution).
Consideration of TEN-T network aspects in the SUMP (or equivalent plan) (112/125 sampled cities)	• 79% of cities include TEN-T network aspects in the SUMP (or equivalent plan). • The consideration of TEN-T network aspects in the SUMP (or equivalent plan) is higher in large metropolitan cities than in small urban areas (93% vs. 65%).

Challenges, gaps and needs

During the analysis of the state of play at local level and the analysis of the level of support at national level a number of key challenges, gaps and needs concerning SUMP were identified.

One of the main challenges when it comes to SUMP is **extending planning activities beyond city boundaries**, which is one of the main pillars of a good SUMP process. The reason for this may be due to a lack of feasibility of the Functional Urban Area concept, as identified by the analysis at city level. There is a need therefore, for widening the scope of strategic mobility planning to the whole city area and beyond urban boundaries, with a focus on regional cooperation.

Another challenge is the development of a **standardised definition for SUMP** for all EU countries. This in fact, does not currently exist and the analysis on the presence and qualities of SUMPs has revealed a clear need for a standardised definition of the term "SUMP" across Europe, including the meaning and how SUMPs can be differentiated from other plans, as well as measured and recognized.

Furthermore, **monitoring of SUMPs**, including the definition of clear evaluation targets and indicators, appears to be a challenge. Both the analyses at city and national level have shown that currently there is a lack of monitoring schemes in place in cities and in Member States in general. It is necessary therefore to provide cities

and MS of guidance on monitoring and evaluation of SUMPs, including a comparable set of indicators.

Lastly, the analysis at national level has identified a lack in the **use of social media and newsletters** to provide information on SUMP. Member States and cities, therefore, should increase the use of different means of communication for SUMP, including social media and newsletters.

Conclusions and recommendations

As a conclusion of the status of Sustainable Urban Mobility Planning across Europe, SUMP can be seen as a **mainstream concept** that reaches cities of all sizes and of different countries. SUMP will support urban areas to contribute to reaching European climate goals. In order to continue this success, **promote** further the concept and **improve** the quality of processes. Of course, it is always recommended to continuously support cities on national (and regional) level, meaning (adapted, translated) guidance, integration of SUMP into national strategic policy documents, funding, national support points, capacity building programmes, learning resources etc.

1. **Many cities struggle with a planning scope beyond the city boundaries. The functional urban area as a concept is not a realistic approach for all European cities and therefore needs adaptation and flexibility for different context as well as a better integration with the TEN-T network.**

Related recommendations:

- Further work, research and promotion of the FUA as an important dimension of transport planning. The focus should be on functional regional cooperation rather than on a clear definition of the geographic scope. For improving and consolidating regional cooperation, cities need support and guidance for feasible cooperation models beyond the city boundaries. This should also entail the relation with urban nodes and a focus on the broader transport perspective such as long-distance transport.
- Support and financially incentivize strategic planning for regional cooperation in planning.
- Funding tied to planning processes considering the wider planning scope.
- Guidance would be helpful on how to link SULPs and SUMPs or how both planning concepts could be integrated or which aspects could even be harmonised.
- Capacity building, awareness building and support for cities on planning as a city being part of the TEN-T network.

2. **The variety of planning approaches across Europe and the differences of quality show a need for a standardised definition of SUMP, also with view to conditionality.**

Related recommendations:

- Clearer operational definition of SUMP (along SUMP self-assessment) and minimum (relative[2]) planning targets as an addition to the SUMP Guidelines.

[2] Relative in the sense of "relative improvements, not absolute target values".

- Minimum criteria for content should be defined: e.g. concrete and measurable contribution to Green Deal targets, integrated coverage of all policy fields mentioned in the Annex A (and the SUMP guidelines), minimum relative improvement levels on SUMI indicators, planning scope, resilience aspects etc.
- If concepts for conditionality or dependent funding are developed, the condition should go beyond the pure existence of the plan as this doesn't ensure the implementation of actions and the quality of the plan. Therefore, the above-mentioned points regarding minimum criteria or targets/definition of SUMP should be considered in this context.
- Building up on a standardised definition of SUMP, the idea of SUMP certification on European or national level could be further explored.
- Further promotion and continuous development of the SUMP self-assessment tool for quality assurance and harmonisation of quality understanding across Europe.
- Establishment and adaptation of SUMP planning principles for other policy areas and planning levels and setting of principles for integration.

3. The results of the study indicate that the integration of specific but highly relevant policy fields, such as climate or road safety, need further integration and consideration in SUMP planning processes.

Related recommendations:

- Research the needs and city support required for assuring the integration of policy fields such as urban logistics, road safety or climate within SUMP processes.
- Capacity building and support for how to interlink policies and potential criterion for standardised SUMP definition.

4. SUMP should be promoted and established as a consistent planning framework for long-term resilient planning, also as an answer to crises (especially view with to COVID-19 pandemic and climate crisis). Monitoring should be an integral part of this.

Related recommendations:

- Funding/financial incentives, promotion and support for SUMP updates and next generation SUMPs.
- More guidance and clarity for cities on how to close the gap between planning generations; Capacity building and support on national level for appropriate monitoring.
- Support and capacity building on systematic monitoring to improve the next generation SUMPs and consider lessons learned from the former planning cycle.
- Provision of adapted guidance on monitoring, targeted to different types of contexts, such as smaller cities.
- Making monitoring based on a given set of European indicators a criterion for the definition as a SUMP and with view to conditionality and funding.
- Promotion, support and capacity building for resilient urban mobility planning, integration of resilience principles into SUMPs and to link resilience plans with SUMPs.
- Making the link between SUMP and emergency action plans, climate change adaptation plans and resilience plans. This will require further research and work on how to link these topics and encourage cities to take up the topic of resilience.

- Making resilience planning, including measures towards the climate crisis, a minimum criterion or condition in the standardised definition of SUMP (towards conditionality).
- Further development, promotion and establishment of a harmonised and standardised set of urban mobility indicators for monitoring progress.

5. **While the SUMP concept has proven to be successful in many different city types, the differences among regions and city sizes shows a need of contextualisation of the concept, for example for smaller cities.**

Related recommendations:

- Capacity building targeted to smaller cities. As an adapted guidance for smaller cities, the topic guide published in 2021 is a start for providing specialised support.
- Funding and support programmes targeted to small cities.
- Specific consideration of different city sizes in standardised definition, conditionality approaches and quality assessment (e.g. SUMP self-assessment).
- Further contextualisation of the concept to different situations, for example regarding region, national context, city size.

DOMAIN B - URBAN VEHICLES ACCESS REGULATIONS

State of play at local level

The analysis carried out paints overall a positive picture of the uptake of Urban Vehicle Access Regulations (UVAR) in EU cities.

The results of the analysis show in fact, that the current urban mobility situation concerning UVAR is **generally in line** with EU-level objectives, in terms of pursuing cleaner and liveable cities, as confirmed by the data presented in the table below.

Firstly, the study's results show that **almost all sampled cities** have one or more **UVARs in place** (as shown in the table below). The schemes are present especially in the city centre – to tackle increased noise, congestion and pollution, and improve safety.

At the same time, the Sustainable and Smart Mobility Strategy acknowledges that better information on low and zero emission zones and common labels as well as digital solutions for vehicles can help maintain a well-functioning single market and ease the exercise of fundamental freedoms.

Another objective set in the aforementioned strategy consists in UVARs of cities being part of **integrated mobility policies**; more specifically, SUMPs and air quality plans should, whenever applicable, cover also the subject of UVAR. The study does not fully support this as about **half of cities** have declared that their SUMPs include UVAR measures and that UVAR are also correlated to a local air quality plan (refer to the table below for further details).

Furthermore, the Urban Mobility Package[3] has called for the **restriction of private cars** accessing urban areas and for the need of doing this with a **more harmonized**

[3] Urban Mobility Package, 2013, A call for smarter urban vehicle access regulations [SWD (2013) 526]. https://ec.europa.eu/transport/themes/urban/urban-mobility/urban-mobility-package_en

and **coordinated** approach. The results of the study are in line also with this objective as the majority of UVAR schemes of cities are accessible by only public transport, cycling, walking or allow the circulation pure electric or hydrogen vehicles while limiting access of private cars.

Table 2. Domain B – Key Takeaways

Indicator	Key Takeaways
UVAR existence and types (existence: 125/125 sampled cities; types: 110/110 sampled cities)	• 88% of cities in the study have an UVAR scheme in place. • The most popular types are Low Zero Emission Zones (31%) and pedestrian zones (31%), followed by traffic restrictions (18%), permit schemes (11%), 30 km/h zones (6%) and congestion charges (3%).
UVAR accessibility (101/110 sampled cities)	• 25% of UVARs are accessible only by cycling and walking, 57% is also served by public transport and 18% of UVARs can be accessed by vehicles categorised as "other" (e.g. electric vehicles). • Accessibility is a vital aspect to consider when designing an UVAR as otherwise, it may be perceived as a limitation to personal freedom as well as to the circulation of goods, impacting negatively the local economic development.
UVAR integration in city plans (SUMP, local air quality plan) (103/110 sampled cities)	• 57% of UVARs in the study reported the presence of a link between UVAR schemes and local air quality plan. • 67% of UVARs in the study reported the presence of a link between UVAR and cities' SUMPs. • It is difficult however to determine the relevance of such relationship between the UVAR and the local strategic plans of cities.
UVAR treatment of foreign vehicles (85/110 sampled cities)	• 43% of UVARs in the study require foreign drivers to either register their vehicles on a website, fill-in an on-line form or contact a municipal office; 40% of UVARs provide information to foreign drivers about UVAR measures only through road signs. • In the remaining 17% of UVARs, there is either no regulative framework (13%) or the scheme does not affect foreign vehicles (4%).
UVAR monitoring and assessing impacts (101/110 sampled cities)	• 50% of UVARs monitor and assess urban emissions (i.e. CO_2, NO_2, PM_{10} and $PM_{2.5}$); 12% of UVARs evaluate other impacts such as congestion, quality of life, tourist flow, etc. and 2% monitor the modal share. • A considerable portion of UVARs (37%) do not monitor and assess UVAR impacts.
Plans for future UVAR developments (99/110 sampled cities)	• 76% of UVARs plan for future development. More specifically: • 37% plan to implement stricter measures in the next few years by incrementally raising the emission class eligibility threshold; • 23% plan to increase their UVAR area; • 8% plan both the implementation of stricter measures and the enlargement of the UVAR area.

** It should be noted that while the sample was made of 125 cities, for 15 cities no UVARs were found. Consequently, the data collection was based on the 110 cities for which an UVAR was available.*

Challenges, gaps and needs

During the analysis of the state of play at local level and the analysis of the level of support at national level several key challenges, gaps and needs concerning UVAR were identified.

The **identification of foreign vehicles** is among the emerging challenges for UVARs. European cities currently use different methods in order to identify foreign vehicles, which causes a gap in the availability of data on foreign vehicles which would allow cities to identify these vehicles and check their compliance with the UVAR. It is necessary for cities, to be able to gain access to foreign vehicle database, which would allow an easier identification of these vehicles and enforcement of UVARs. In order to further improve this enforcement, cities could adopt camera-based control tools for enforcement.

The study also identified a more general lack of **platforms providing information on UVAR schemes** (i.e. websites, social media, newsletter, events and conferences) as reliable and up-to-date data on rules and regulations of UVAR schemes is especially difficult to find for foreign and non-local drivers. It is necessary therefore, to provide information on UVAR - especially reliable and up-to-date data for foreign and non-local drivers - through the use of websites, social media accounts, newsletters.

Reinforcing the strategic role of UVARs in urban transport policies and plans has also been identified as challenge. The analysis at city level in fact, shows that the UVAR of several cities in the study have no direct linkages to SUMP. This highlights the need therefore, to reinforce the relationship between UVAR and strategic planning.

Other challenges for cities include the **wide variability in the number and types of exemptions** to UVARs and the **justification of the effectiveness and rationale behind UVAR schemes**.

Furthermore, both analyses identified a gap in the **monitoring** of UVAR and of its impacts (e.g. on local economy, quality of life and acceptability). There is a need therefore, for systematic monitoring of UVAR and its impacts and production of evaluation reports to allow a better communication of UVAR's results.

Lastly, the analysis at national level has identified also a lack in the availability of **detailed guidelines** on UVAR, of **financial support and tools** in place for UVAR and **technical assistance** in support of municipalities and regions for the development and implementation of UVAR schemes. It is necessary therefore, to further develop and enrich existing UVAR guidelines through the inclusion of measures, objectives, national plan with milestones and best practices, to provide financial support and tools for the development, implementation and data collection on UVAR as well as provide technical assistance in support of cities and regions.

Conclusions and recommendations

As a conclusion of the status of UVAR schemes across Europe, it is important to mention their importance in the **overall management** of urban mobility. Low Emission Zones, congestion charges areas, pedestrian zones, areas with limited circulation for specific types of vehicles, etc., are nowadays **integral part** of the urban mobility regulation and are deemed to further increase their role in the near future. UVAR schemes reflect the heterogenic structure of the urban fabric of European cities: for example, regulating vehicles circulation to protect historical sites, curbing congestion in big cities and preserving cycling and walking in small and compact cities. The fact-finding study suggests developing a **shortlist of actions** that can improve UVAR effectiveness, leading at the same time towards a better harmonisation at EU level. The actions range from **technical solutions** (e.g. digitalisation of enforcement and access to foreign vehicles registration database) to changes in the UVAR design as reducing types and number of exemptions, and ensuring the solidity of the policy framework, as a systematic monitoring & evaluation (communication with stakeholders) and a better integration in local strategic plan (air quality plan, SUMP).

6. **The identification and enforcement of foreign vehicles represents a challenge: facilitating the access to foreign vehicle registration data may be the solution.**

Related recommendations:

- The set-up of a common European standard procedure (a consistent legal and technical base) allowing municipalities to
    - have access to foreign vehicle database (e.g. including environmental characteristics of the vehicle to check its compliance with UVARs);
    - to solve technical problems of database harmonisation.
- Favouring the cooperation and coordination of Member States (with relevant cross-border movements), funding pilot cases and demonstrators.

7. **Improving monitoring and evaluation activities as the systematic delivering of monitoring and evaluation reports for a better communication of results has been unsatisfactory.**

Related recommendations:

- Supporting initiatives, both financial and technical, from the national or EU level, to improve the municipality capacity building.
- Favouring the dissemination of best practices.

8. **A high number of exemptions may weaken UVAR effectiveness, making control more difficult. Finding the trade-off between the number of UVAR exemptions and UVAR effectiveness is a pre-condition for an effective regulation.**

Related recommendations:

- Favouring the dissemination of best practices on the wide range of exemptions in use for UVAR regulations, considering the specific situations at urban level.

9. **Reinforcing the UVAR inclusion in strategic plans is a key issue in strategic local planning, both local and European added value, given that the effectiveness of any kind of UVAR schemes depends on such a link.**

Related recommendations:

- In national initiatives, provide conditional national/regional funding and support to the inclusion of UVAR in strategic local plans. In addition, legal measures should play a role by, for example, ensuring the compliance of UVARs with air quality norms and including UVARs in local plans and regulations (e.g. SUMPs);
- Favouring the dissemination of best practices.

10. The progressive shifting to the use of digital tools (camera, sensors) in UVAR enforcement is conducive towards better data collection and higher compliance rates.

Related recommendations:

- National/regional initiatives favouring the access to national vehicle databases: harmonisation of information.
- Financial and technical support from national and EU level in technologies, and training.

DOMAIN C - SUSTAINABLE URBAN LOGISTICS PLANNING

State of play at local level

The results of the analysis show that the current urban mobility situation concerning Sustainable Urban Logistics Planning is **not fully in line with EU-level objectives**, as confirmed by the data presented in the table below. More specifically, the results of the study are not in line with the EU's White Paper policy objectives which aim at reaching **CO_2-free city logistics** in major urban centres by 2030. The table below, shows that only a small minority of cities have set measurable targets/indicators for sustainable urban logistics planning. Many do not set reaching zero-emission at any point in time as an objective.

In addition, the results of the analysis demonstrate that only a **limited number of local transport plans** of cities in the study give somehow attention to urban logistics while even less cities have developed a separate SULP, as shown by the data presented in the table below. This is also **not in accordance with the EU objective** set in the Sustainable and Smart Mobility Strategy, which states that planning urban mobility policy processes should also include the freight dimension, when making use of the guidance documents on logistics planning.

Furthermore, the current level of consideration of the connectivity of urban areas with **TEN-T** is not in line with the European policy objectives as results shows that only a minority of cities in the study consider this link (refer to table below for further details). However, it should also be noted that in most cases SUMPs cover the topic of connectivity with TEN-T and, to a minor extent, the freight aspects of TEN-T. This is demonstrated by the fact that 79% of cities of the study include TEN-T network aspects in the SUMP (or equivalent plan).

Lastly, even though freight externalities are tackled by many specific actions, the study shows that **very few cities pay attention to logistics** as few of these have signed fully a green deal on CO_2-free city logistics and have regulation on zero-emission integrated in the policy plan.

Table 3. Domain C – Key Takeaways

Indicator	Key Takeaways
Existence of local transport plan with attention on urban logistics (107/125 sampled cities)	• 20% of cities have a clear planning approach on urban logistics (e.g. with the use of a plan-do-check-act method), confirming that in many Member States urban logistics policymaking is still undergrown to date. • 13% of cities has developed a separate Urban Logistics Plan; of the remaining share, 58% of sampled cities stated having some logistics

Indicator	Key Takeaways
	elements integrated in their mobility planning document (i.e. SUMP). • In general, it seems that city administrations seem to be less focused on urban logistics management in comparison to passenger mobility.
Awareness of the concept of SULP (European guidelines) (85/125 sampled cities)	• 68% of cities is aware of the existence of European guidance on SULP; the awareness rate is higher in medium- and large-sized cities.
Specific expertise in place on urban logistics (60/94 sampled cities)	• The design and implementation of a plan with attention to urban logistics is in most cases supported through the expertise provided by local government (88%) and/or appointed professionals (68%).
Extent to which urban logistics plan considers the connectivity with TEN-T network (62/94 sampled cities)	• 16% consider the connectivity between urban area and TEN-T network to a full extent, while 42% consider the connectivity to a lesser extent.
Extent to which urban logistics plan considers the wider functional urban area (FUA) (61/94 sampled cities)	• 31% consider to a full extent the connectivity between urban area and the wider Functional Area, and an additional 52% consider that connectivity only to a limited extent.
Data collection on urban logistics (82/125 sampled cities)	• Only 29% of the cities collect data on urban logistics. • Lack of agreements with private actors in the logistics sector, insufficient knowledge and scarcity of resources are some of the barriers for cities intending to collect data on urban logistics.
Extent to which the urban logistics plan contains certain elements (80/125 sampled cities)	• Urban Logistics Plans may contain certain elements found to be recurrent, among which are reported: ○ 27% of the administrations signed a green deal on CO_2-free city logistics by 2030 (17% in full, 10% to a limited extent); ○ 66% of cities included elements converged on planning and infrastructural aspects: Micro-distribution / (micro) consolidation hubs / lockers / mobi-points (21% full coverage, 45% partial coverage); ○ inclusion of mechanisms for monitoring the impacts of the urban logistics measures was found to be somehow lacking; for example, impacts on a modal shift to zero emission modalities were included only by 31% of cities (9% in full, 22% partially).

Challenges, gaps and needs

During the analysis of the state of play at local level and the analysis of the level of support at national level several key challenges, gaps and needs concerning SUMP were identified.

One of the main challenges regarding SULP is increasing the **awareness of the concept of "SULP"** which the analysis shows, currently lacks in a number of cities in the study. It is necessary, therefore, to improve the awareness on this concept.

Going beyond the inclusion of logistics measures in a SUMP – or equivalent plan - by developing a **separate Urban Logistics Plan** has been identified as a challenge. The analysis shows in fact, that currently while a considerable number of cities mention logistics in their local transport plan, very few cities have a separate plan for urban logistics.

Other challenges consist in strengthening the **link between UVAR and logistic activities** (e.g. inclusion of specific measures for freight / urban logistics in UVAR), improving the **collection of data** on urban logistics activities and considering the **wider regional scope** for the policy planning framework. In order to improve the current gaps on these, identified by the analysis at city level, it is necessary therefore, to provide further guidance on such topics.

Lastly, the analysis at national level has identified also a lack in the **use of platforms to provide information on SULP** (i.e. website, social media, newsletters, events and conferences), in the **endorsement of politicians and ministries** on SULP, in the availability of **guidelines** on SULP and the provision of **financial and technical support** in support of municipalities and regions for the correct development and implementation of SULPs. Therefore, Member States and cities should use different means of communication for SULP, including social media and newsletter) should develop guidelines for SULP, should provide financial support and technical support for the development, implementation and data collection on SULP (this is particularly relevant for smaller cities).

Conclusions and recommendations

In order to reach the objectives of the Sustainable and Smart Mobility Strategy related to city logistics, European cities should **increase the focus on urban logistics** during all the stages of their urban mobility planning process. Currently, only a small selection of Member States can be defined as "frontrunners" or "early adopters" in terms of the development and implementation of SULPs. To allow an increase in the uptake of SULP guidance on logistics policymaking and an improvement of policies, it is necessary to enable data collection, monitoring and evaluation of frameworks, knowledge building and capacity building on SULP.

11. Non-binding guidance on the inclusion of urban logistics aspects in urban mobility planning processes is available (e.g. for building SULPs) at European level. However, only a limited number of cities are aware of this guidance and even less applies logistics principles in their urban mobility planning approaches.

Related recommendations:

- Translate results of the different living labs (e.g. 'City Logistics in Living Laboratories – CITY LAB', or 'Towards a Shared European Logistics Intelligent Information Space – SELIS') on logistics policymaking into practical guidance.
- Provide support on the understanding of logistics segments and their impacts on policy objectives. Although the current policy focus is strongly on e-commerce, logistics is made of different segments that may have a different impact in each city. Cities should understand which segment has the most impact, so that expertise and capacity can be effectively put in place.

12. Technical capacity on urban logistics policymaking at the city level is scarce due to a lack of expertise and/or appointed professionals.

Related recommendations:

- Increase EU support for capacity building in the area of urban logistics policymaking (e.g. the inclusion of logistics elements in planning processes as well as the provision of training for both civil servants working for local and national authorities).
    a. National authorities should be encouraged to set frameworks, and regional objectives for sustainable city logistics. The goal should be to focus on including logistics aspects in the planning process in a way to allow the reaching of the objectives set. National authorities should empower regional and local authorities by fitting their local perspective in a wider approach, as logistics activities are organised on a global, regional and local scale.
    b. EC might start this discussion by establishing a working group, within DG MOVE, with national authorities.
    c. Support might also be found through knowledge exchange between early adopters and frontrunners, and/or between followers.
    d. The planning concept should be adaptable to local and regional situations. The "SULP" concept should not be a goal in itself but should act as guidance for planning processes.
- Integration of logistics in planning processes might be a prerequisite for access to cohesion funds and CEF funding.
- Support capacity building: the capacity in the city is a prerequisite for effective implementation of SULP.
- Need for EU support for poly-centric areas, multi-scale nodes, integration of scales. There is a need to increase the attention regarding spatial planning in and outside the city, the functional area and the relation with long distance networks given their role of stakeholder in a multi-scale area, where urban nodes are particularly relevant. Also, poly-centric areas play an important role (and not only metropolitan areas). Indeed, cooperation between cities organised via poly-centric areas raises the capacity of smaller cities. For these reasons, national authorities (which set priorities of funding) should empower local and regional authorities to organise poly-centric approaches, also across Member State borders.

13. There is a close relation between setting SMART-objectives, indicators, and the need for data collection / monitoring.

Related recommendations:

- Increase EU support to improve the interaction between stakeholders in the urban logistics supply chain and policy makers, including the involvement of private stakeholders, such as shipping and logistics companies.
- Financial incentives could create the ground for the developments of sustainable business cases by logistics operators and cargo owners. Public-private partnerships can be shaped to pilot different approaches.
- Increase EU support for data collection on urban logistics, and on the setting of indicators.

DOMAIN D - MOBILITY-RELATED DATA COLLECTION AND INDICATORS AT LOCAL LEVEL

State of play at local level

The results of the analysis show that the current urban mobility situation concerning 'Mobility related data collection and indicators at local level' confirms the picture already drawn at EU level[4]. Considering that there are **no legal requirements at EU level** to systematically collect relevant local/urban transport data, this results in very different approaches across and within Member States and difficulties in the development of evidence-based policies to manage urban mobility challenges.

In fact, the results of the analysis on the status of mobility-related data collection and indicators at local level presents a **mixed picture** across European countries. Although 90% of all sampled cities declared that they are routinely collecting some kind of urban mobility-related data, the availability of up-to-date and quality data varies considerably across cities. The **most common reasons** for this include data being held by many different departments, agencies, companies and the difficulty to compile the data in one place, lack of staff to collect, compile and analyse data, and the costs related to the collection of purchase of data. This is especially true for smaller cities.

The lack of urban mobility data is an issue that has also been recognised by the **Court of Auditors'** report on EU urban mobility policy and funding. The report recommended to the Commission, among other things, to "propose legislation requiring Member States to collect and submit regularly relevant data on urban mobility and on the adoption of SUMPs in all EU urban nodes of the core and comprehensive TEN-T networks, including their surrounding areas". The study's findings confirm that this aim is achievable as almost all sampled cities routinely collect some kind of urban mobility-related data, even though the availability of up-to-date and methodologically sound and comparable data varies considerably across cities.

The table below presents the key takeaways of the analysis of Domain D.

Table 4. Domain D – Key Takeaways

Indicator	Key Takeaways
Source: Online Survey	
Data availability at the local level and related challenges (90/125 sampled cities for overall data; 66/125 sampled cities for responsibility on data collection; 18/125 sampled cities for data storage; 90/125 sampled cities for data on frequency)	• 90% of the sampled cities routinely collect urban mobility-related data at city-level or another geographic area (e.g. inner-urban area); in some cases, the responsibility for data collection is outsourced to city-owned agencies/companies or private companies. • In 39% of cities there is a central city department, responsible for storing the data collected; data is usually stored on city-owned servers, according to data privacy regulations. • Some cities collect data on certain indicators more often than once a year, e.g. data on air pollutant emissions, greenhouse gas emissions, road deaths and congestion are in some cases collected/ reported/ summarised on a monthly basis.

[4] Court of Auditors' report on EU urban mobility policy and funding.

Indicator	Key Takeaways
Availability of shared mobility services (109/125 sampled cities for overall data; 86/125 for type of services)	• 80% of cities have shared mobility services. • Services are available as follows: bike sharing (63%), e-scooter sharing (stand-up) (50%), station-based car sharing (40%), free-floating car sharing (39%), e-bike/ pedelec sharing (30%), and e-scooter sharing (seated) (17%).
Typology of public transport buses in active use (85/125 sampled cities for overall data; 58/125 sampled cities for share of clean buses)	• In the majority (57%) of cities clean public transport buses are in operation • The number of buses is relatively low compared to conventional buses (the average share of clean buses of the total number of public transport buses is 16.1%).
Availability of digital public transport tickets (110/125 sampled cities)	• For 62% of cities digital public transport tickets are available for all modes/ services. • For 26% of cities digital public transport tickets are available for some modes/ services.
Presence of an active parking management policy in effect (108/125 sampled cities)	• 77% of cities have active parking management policies in place.
Presence of a Mobility-as-a-Service (MaaS) offer (123/125 sampled cities)	• 28% of cities have a MaaS offer in place. • 43% of cities have no MaaS in place but plan to introduce one in the foreseeable future.
Retrieval of data from mobility operators and mobility platforms (67/125 sampled cities)	• 75% of mobility operators and platforms that provide services in the city share their data with the city authority, at least partially.
Source: Proxy data spreadsheets prepared for this study	
Affordability of public transport (114/125 sampled cities)	• The price of a single trip ticket, which allows one public transport journey for an adult without special benefits to travel from the city boundary to the city centre, varies broadly from city to city: from €5.62 to €0.00 weighed by national purchase power. • In three sampled cities public transport is free of charge: Luxembourg city, Sanem/ Luxembourg and Koprivnica/ Croatia.
Access to public transport (50/125 sampled cities)	• The access to the public transport system, measured as the percentage of population residing <500 metres from a public transport stop, can be considered reasonably good (in 82% of cities that provided this information, this translate into more than 80% of the urban population having appropriate access to public transport).
Congestion (87/125 sampled cities)	• 42% of cities do not collect any data on congestion levels themselves; several cities rely on external data sources, e.g. TomTom, INRIX or Traffic Index.
Modal Split (101/125 sampled cities)	• Most medium- and large-sized cities have a balanced share of different transport modes, with large urban areas characterized usually by a lower share of cycling.

Indicator	Key Takeaways
Air pollutant emissions and (47/125 sampled cities) Greenhouse gas emissions (57/125 sampled cities)	• It has not been possible to draw conclusions on the data on air pollutant emissions and greenhouse gas emissions due to the heterogeneity of data sources and calculation approaches.
Source: SUMI indicator spreadsheets	
Road deaths (86/125 sampled cities)	• In terms of road deaths, measured as the number of persons killed within 30 days after the traffic accident, the motorcycle is the transport mode with the most fatalities, followed by pedestrians and cars. • The number of road fatalities per 100,000 inhabitants varies from city to city but is often correlated to the city size (i.e. smaller cities tend to have lower road fatalities than bigger cities).
Traffic safety active modes (43/125 sampled cities)	• Regarding road deaths among cyclists and pedestrians in relation to their exposure to traffic, overall cities have a high indicator score (7.9 being the lowest), i.e. relatively low numbers of fatalities.

Challenges, gaps and needs

During the analysis of the state of play at local level several key challenges, gaps and needs concerning mobility-related data collection and indicators at the local level were identified.

Firstly, the fact that **mobility-related data is scattered** across different city departments and external organisations is one of the main challenges for this domain. This is due to the lack of a central database for mobility-related data.

In addition, the lack of sufficient **resources** (financial resources, staff, etc.) - identified during the analysis - contributes to making the collection and analysis of mobility-related data extremely challenging for cities.

Another challenge consists in the **unavailability of data**; some data is simply not collected at all, and other data is held by private operators who sometimes are reluctant to share all their data to protect their competitiveness.

There is also the challenge posed by the **outdatedness of data** as it is often collected at irregular intervals due to the related costs.

In order to tackle these issues, there is firstly the need to offer **financial support** for data collection activities in order to improve data availability; the adoption of **capacity building initiatives** is also important (for example training for generating, processing and storing specific data). Lastly, it would be beneficial to have harmonised European or national **regulations** on mobility data standards, which would allow better comparability of data from different cities.

Conclusions and recommendations

Looking at the status of mobility-related data collection and indicators at the local level in European cities based on the analysis of the information and data collected in

this study, it can be concluded that **many cities struggle** with getting a hold of sufficient mobility related data for a comprehensive data-based overview of the current mobility situation in the city, at least based on data as requested in this study.

In order to tackle this, city authorities must have **competent staff** to collect, compile and analyse data, and sufficient budget for collecting and/ or purchasing data. In addition, a certain **degree of harmonisation** of data collection approaches and calculation methodologies in cities would have a positive impact on the comparability and usability of data sets from cities across Europe, as a sound basis for evidence-based policy making at the national and European level.

14. While a lot of mobility related data could be gathered at the local level on the topics addressed in this study, there are quite some data gaps, esp. related to the calculation of sustainable urban mobility indicators.

Related recommendations:

- Financial: Provision of funding to support data collection activities from the national or EU level to improve the level of data availability. More specifically:
    - funding to finance personnel costs related to data gathering, e.g. via data acquisition funds that cities can apply for (similar to the fund provided by the SUMI project);
    - funding for software (GIS, Transport Model), hardware (e.g. emissions measuring devices), or services (agencies conducting surveys).
- Capacity building: Provision of training offers on generating, processing and storing mobility related data (e.g. use of GIS or comprehensive data storage tools, or data sharing possibilities incl. open data platforms), esp. for smaller cities.

15. Most European cities have in place data collection routines and many have developed indicators (often related to their SUMP) and related calculation methodologies; differences in approaches makes comparability of data difficult.

Related recommendations:

- Provision of harmonised standards for mobility-related data at the European level, e.g. which data needs to be collected/ provided to national or European bodies at which intervals.
- Obligation for cities to collect specific data and to calculate certain mobility-related indicators according to a unified methodology, and to report these to national or EU bodies.
- To reduce the additional requirements for cities, some data could be collected by national or European bodies such as national statistics institutes or Eurostat.

KEY CONCLUSIONS AND RECOMMENDATIONS ACROSS DOMAINS

- Finally, based on the analysis' results across domains, a number of general conclusions and recommendations has been identified.

16. There is a need for standardised definitions as study domains (especially SUMP, UVAR and SULP) may be characterized by a variety of approaches and have sometimes different interpretations and scope.

Related recommendations:

- There should be a common language and an aligned set of definitions for urban mobility concepts (e.g. SUMP, UVAR, SULP, etc.) that lead to a uniform and collective perception of those concepts and enable their comparison, monitoring and provision of more accurate guidance and resources.

17. Policies by domain are interlinked but there is room for improvement, especially concerning the integration of UVAR and SUMP or regarding EU and national policy.

Related recommendations:

- The urban mobility policies should be better interlinked and converge towards the achievement of the shared objectives of the European and national policies on for instance climate and energy planning (e.g. CO_2 free city logistic, carbon neutrality, etc.).

18. Data collection practices are diversified across the EU and there are scarce incentives for the collection of such data, which are relevant for monitoring the performances of urban mobility policies.

Related recommendations:

- A consistent set of data standards should be defined at the European level (e.g. data typologies, frequency, calculation methods, etc.) and Member States should be incentivized in collecting and submitting urban-mobility-related data on a regular basis.

19. Due to a lack of data, monitoring and evaluation practices on urban mobility policies are somehow lacking and the use of digital tools to ease such a process is still limited.

Related recommendations:

- Urban mobility data standardisation and collection should be fostered and possibly channelled into public digital platforms that in time allows the creation of business intelligence for the public administration that can lead to the development of better future policies.

20. Local authorities, especially smaller cities, do not always have capacities to develop effective urban mobility policies, due to lack of resources, capacities and knowledge of processes.

Related recommendations:

- Local authorities should be provided with continued and enhanced financial and technical support (e.g. capacity building, guidance, information sharing, collaboration and cooperation) to allow the development of effective urban mobility measures.
- Specific consideration of different city sizes in standardised definition, conditionality approaches and quality assessment should be paid.

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