

EUROPEAN TRANSPORT REGULATION OBSERVER

Towards a Common European Framework for Sustainable Urban Mobility Indicators

Matthias Finger and Teodora Serafimova, EUI

As a cornerstone of its urban mobility policy, the European Commission has strongly encouraged European towns and cities of all sizes to embrace the concept of Sustainable Urban Mobility Plans (SUMPs). By improving accessibility to, through and within urban areas and promoting the shift towards more sustainable modes of transport, SUMPs hold the potential to improve the overall quality of life for residents by addressing issues of congestion, air- and noise-pollution, climate change, road accidents, unsightly on-street parking and the integration of new mobility services.

Despite the increasing recognition of the wide range of benefits linked to this strategic urban mobility planning approach, the implementation of SUMPs has been voluntary and remains limited to a small proportion of European cities. This can be attributed to the lack of financial, technical and political support as well as quality control for SUMPs from national and regional levels in the Member States where devolution gives regions more competences. Furthermore, where plans have been developed these have often failed to fulfil minimum quality standards due to a lack of uniform understanding of the SUMP concept.

A number of measures have been considered by Member States to improve SUMPs' enforcement, such as for instance preconditioning the provision of operational subsidies or grants on an approved SUMP and trained mobility department. In order to overcome existing barriers and accelerate the uptake of high-quality SUMPs Europe-wide, the European Commission is now exploring the idea of developing a common EU-framework for sustainable urban mobility indicators (SUMI), which, in turn, formed the focus of discussions at our [7th Florence Intermodal Forum](#). More specifically, the forum brought together key stakeholders for a discussion on the definition and appropriate indicator parameters; data collection techniques and data standardisation, as well as more generally the question of enhancing the enforcement of SUMPs. Last but not least, the forum drew on the lessons learnt from the COVID-19 pandemic in relation to urban mobility in as far as SUMI are concerned.

POLICY
BRIEF



Placing Governance Considerations at the Core of the SUMI Design Process

A comment by Matthias Finger and Teodora Serafimova, Florence School of Regulation – Transport Area

European Commission President von der Leyen's [State of the Union address](#) unequivocally signaled the need for accelerated and ambitious climate action with its proposal to tighten the EU's 2030 emissions reduction target to 55% as compared to 1990 levels. All sectors of the economy will have to do their fair share in fulfilling the objectives laid out in the [European Green Deal](#) and the [Climate Law](#), namely to achieve net zero CO₂ emissions in Europe by mid-century. The transport sector will have to become drastically less polluting, especially in cities, where a combination of measures will have to be adopted to address emissions, urban congestion, and to bolster public transport.

Cities, or rather metropolitan areas (FUA or Functional Urban Areas in EU parlance), where the implications of the COVID-19 pandemic have been particularly strongly felt, will have to play a central role in leading the green recovery and implementing the necessary measures to bring transport emissions on a firm path to climate neutrality. The adoption of an EU-wide framework for [Sustainable Urban Mobility Indicators \(SUMI\)](#) stands to assist cities in meeting both of these challenges: by safeguarding a more efficient spending of public finances in the budget-cautious COVID-19 aftermath, while fostering the implementation of SUMP and smart mobility strategies.

SUMI: Concept vs. Reality

As local authorities pursue efforts to align with EU policy goals, it becomes increasingly evident that uniform systems for the monitoring and reporting of progress need to be put into place. The discussions during the [7th Florence Intermodal Forum](#) brought to light the numerous prospective benefits linked to SUMI implementation. A standardised, methodically sound and practically feasible indicator set can enable public authorities to gain a better understanding of the current status of the city with regard to sustainable urban mobility.

More specifically, SUMI can serve as an important tool for cities to identify deficiency areas where additional action may be required, to track progress towards set policy goals, and to evaluate the effectiveness and overall impact of urban mobility policies. SUMI can also enable cities to benchmark against other cities and compare against national and international data sets, while facilitating the replicability of the best practices across cities with similar characteristics. The benchmarking attribute of SUMI can, thus, be used to build political pressure and to 'set the agenda' for required policy implementation and actions. Not the least, alignment of the indicators' scaling system with EU policy goals can support cities in advancing the EU's climate and sustainability agenda, while ensuring that scarce resources are channeled towards smart and sustainable projects and policies.

The experience gathered in the course of the EU-funded [SUMI project](#), however, shows that the concept has met frictions when it comes to its practical implementation: while SUMP consider the whole functional urban area and foresee cooperation across different policy areas, across different levels of government, as well as with local residents and other principal stakeholders, data availability and the subsequent calculation of indicators turns out not to be up to that ambition.

Confronting the Mismatch Between Cities and Their Administrative Boundaries

In practice, the definition and calculation of the indicators has proven to be a complex exercise. The SUMI project has rightfully targeted the 'functional urban area' (FUA) as the geographical scope for the collection of data and calculation of indicators; according to the European Commission's definition, the FUA comprises the city and its commuter catchment area. However, the participating cities' experience shows that the FUA does not always correspond to the political-administrative reality and therefore not to the available data. This is because normally data tend to be available both at the city and national levels, whereas the FUA often falls somewhere in between. This mismatch between cities and their administrative boundaries has not only created a challenge on the data collection level, it of course also constitutes a challenge at the policy level.



As a result, the data collection efforts conducted in SUMI have shown that a combination of city- and urban area-level data have been used, as each city has had to make an explicit decision as to which definition of ‘urban area’ to use, based on its own administrative boundaries and data availability. This inconsistency in the geographical areas used as the basis for the calculation of the indicators, however, risks distorting the results and undermining the possibility for comparison and benchmarking, which are at the heart of the SUMI exercise. For instance, a city’s indicator score for ‘Air Quality’ could become artificially inflated (i.e. thus exaggerating the city’s performance with regards to curbing air pollution) if the entire urban area is considered, given that air quality tends to be lower in the city centres as opposed to its suburban areas.

The discussions of the Forum seemed to largely point in the direction of using the ‘city level’ as the default geographical area for data collection. Here, the need to have a uniform and well-understood definition of EU urban areas will be key to safeguarding the integrity and comparability of the data. In the future, however, the need to collect data also on the larger functional urban area may become increasingly important in view of accommodating urban sprawling trends.

The Need for Inter-Institutional Backing and Private Sector Involvement

Another challenge has been the unavailability of certain types of data, which had simply not been collected by city governments previously, such as for example data on accessibility of public transport for mobility-impaired groups (Indicator 2). In order to fill these gaps, local authorities have had to either initiate costly and often difficult to implement data collection activities, or, alternatively, involve external organisations for the procurement of this data. In the case of the latter, however, we have seen that inter-institutional problems (between the city government and the municipal police for example) can deter the swift exchange of such data. Data collection at the FUA level has thus proven challenging in the absence of institutional backing and political support. In other cases, the necessary data may be owned by private companies. Here the need for data sharing obligations, as well as a clear narrative regarding the intended use and the expected outcome of data

sharing with public authorities, will be key to building the needed trust to facilitate the exchange of data. Needless to say, data sharing obligations need to be accompanied by rules on data privacy, ownership, and governance.

Getting National Governments to Support and Own the SUMI Process

Indicators must be widely applicable across Europe, irrespective of city size and local characteristics in order to enable cities to benchmark and compare. The enormous heterogeneity across European cities, in terms of data gathering and monitoring capabilities, however, renders this exercise particularly challenging. Due to financial and technical staff constraints, cities may be obliged to prioritise data collection and reporting requirements vis-à-vis national- or regional-governance levels. In light of this, ensuring the full support of national stakeholders for SUMI, is crucial to their large-scale take up at urban levels. In fact, important synergies can be exploited if the indicators are incorporated into national level reporting cycles. A greater involvement from national and regional governments, who already collect and dispose of large amounts of relevant and reliable data, should come in support of cities’ data gathering efforts. Not the least, bridging the gap in the different data collection and monitoring capabilities across European cities, will require some sort of EU capacity building mechanism, so as to help cities acquire data, develop corresponding tools, as well as foster cooperation with data gathering organisations.

Designing a Future-Proof and Adaptable Indicator Set

Lastly, the indicator set needs to be future-proof and adaptable to the rapidly evolving urban mobility technologies (e.g., electrification, automatisisation and digitalisation), as well as to changing travel habits. The COVID-19 crisis serves just as the latest reminder of how quickly urban mobility systems and environments can transform. The indicator set needs to reflect this reality and be able to take into account changing demand, behaviour and technologies.

For example, the COVID-19 period saw many governments reconsider space regulations and adopt



policies in favour of pedestrians, micro-mobility and other types of clean urban mobility. The increased recognition of the importance of 'public spaces' and their use should also be reflected in the indicator set. Multimodality, another trend of growing significance in urban mobility, should be included in the definition of modal-split, which in turn, is an important parameter for the calculation of a number of core indicators.

While the need for a common framework and definitions are paramount, these will have to each time take into account local needs and specificities. Ensuring sufficient room for flexibility will, thus, be key to ensuring that the cities will ultimately own, understand and make use of the SUMI process, at both political and administrative levels.



Main Takeaways from the Discussions

By Teodora Serafimova, Florence School of Regulation – Transport Area

Context

The 7th [Florence Intermodal Forum](#), co-hosted by the Transport Area of the Florence School of Regulation and the European Commission's DG MOVE, provided a well-timed platform for discussion on the rationale behind and challenges towards a common European framework for Sustainable Urban Mobility Indicators (SUMI). The forum took place against the backdrop of the annual [European Mobility Week](#), whose theme this year was 'Zero Emission Mobility For All', and following the delivery of Commission President von der Leyen's annual [State of the Union speech](#), which reinforced the building blocks of the [European Green Deal](#) and proposed to step up Europe's 2030 climate ambition. The proposal for an EU-wide net greenhouse gas (GHG) emissions reduction target of at least 55% by 2030, compared to 1990 levels, underlines the need for urgent climate action and places a particular responsibility on the transport sector, whose emissions account for a quarter of the EU's total GHG emissions and are still on the rise. As concentrations of both human activity and emission sources, cities have a central role to play in tackling issues of congestion, air pollution, and road safety, while shifting towards more sustainable and zero-emission mobility systems. In parallel, the ongoing COVID-19 pandemic has had profound implications on urban mobility patterns, with sharp drops in public transport ridership and revenue losses for operators. With a view to providing guidance on restoring transport and connectivity, the European Commission issued its [SUMP practitioners' briefing on COVID-19](#) in July 2020.

Furthermore, the Commission is currently evaluating its [Urban Mobility Package](#) dating from 2013; a Staff Working Document is expected in December 2020. It is the Urban Mobility Package that first introduced the concept of 'step change' in urban mobility, referring to the need of ensuring that Europe's urban areas develop along a more sustainable path and in line with EU goals, while overcoming fragmented approaches and advancing the single market for innovative urban mobility. Seven years

after its adoption, however, significant discrepancies persist in both the level of progress across European cities, as well as in the level of support local governments receive from national and EU levels. This message was echoed by the European Court of Auditors' (ECA) recently published [Special Report on Sustainable Urban Mobility in the EU](#). The report, furthermore, issues clear recommendations to the Commission regarding the gathering and publication of data on urban mobility from Member States, as well as regarding the linkage of access to EU funding and financing to the sustainable urban mobility plans (SUMPs) and SUMI processes.

Taking into account the findings of the Urban Mobility Package evaluation and the subsequent Staff Working Document, the recommendations of the ECA Report, as well as the messages of the Smart and Sustainable Mobility Strategy expected in December 2020, the Commission intends to put forward a proposal for a new Urban Package in 2021 and a revised Trans-European Transport Network (TEN-T) Regulation. The introduction of legal obligations for the TEN-T core urban nodes to have SUMPs, thus paving the way for a shift away from the purely subsidiarity-based approach towards an approach based on SUMPs and SUMI, is being considered. The 7th Florence Intermodal Forum explored the reception as well as potential implications of such a transition, by addressing a set of three concrete questions. The main takeaways from the discussions on each of these three questions are synthesised below.

What Are the Areas Needing Improvement and How Can We Ensure a Proper Link Between the SUMP Process and the Green Deal/Climate Law?

Over the past 15 years, the European Commission has systematically developed its urban policy, an integral part of which pertains to urban mobility planning. Today, SUMPs have become a mainstream approach to strategic urban mobility planning in Europe, with growing interest and take-up of the concept internationally, including in Latin America and Asia. The SUMP is not a mere transport plan, but a plan with the aim of sustainability in the functional urban area (FUA). A key problem in the deployment of SUMPs has been the lack of institutional cooperation, which in turn needs to be overcome by actively involving citizens among other relevant stakeholders. An assessment of current



and future urban mobility performance, a clear future vision and milestones, as well as an implementation plan are all key elements of future SUMP development and deployment processes. SUMP foresees the development of all transport modes in an integrated manner, while arranging for monitoring and evaluation, as well as for quality assurance. SUMI, on the other hand, offers a tool to evaluate the effectiveness of implemented measures and policies, so as to compare a city's progress over time, as well as to compare with and benchmark against other EU cities.

The [SUMI project](#), funded by the EU, was set up with the objective of providing technical assistance on the development of SUMI. The indicator set, originally developed by the World Business Council for Sustainable Development (WBCSD), has formed the basis of the work of the SUMI consortium, which has reviewed and subsequently tailored it to the European context. In other words, the aim was to develop an indicator set for EU cities, in line with standardised EU data formats and data sets available at EU level, and taking also into account EU policies and targets. The [indicator set](#), composed of 19 indicators, was extensively tested in 46 European urban areas, based on which the consortium has subsequently issued its final recommendations. The indicator set, sub-divided into core and non-core indicators, covers all major policy areas. A benchmarking tool was also developed as part of the project.

The city of Antwerp, which has a long tradition of working with indicators since 2009 across all policy fields, has offered a particularly interesting testing ground for SUMI. Antwerp is the largest city of Flanders, with more than half a million residents and a large number of commuters, more than half of them coming from the FUA. Antwerp hosts the second largest port in Europe, which is a node for three TEN-T corridors. Port logistics and freight transport thus have a strong impact on the mobility in and around the city. Antwerp drew up its SUMP in 2006, which was subsequently updated in 2015, and is now once again undergoing revision. The city has put together a dashboard, which provides an overview of all the indicators that Antwerp has been working with so as to measure progress. There are 30 mobility-related indicators (out of a total of 150), which are being collected and displayed on the dashboard. Among these are modal split, road allocation, user satisfaction, roads dedicated for pedestrians/cyclists, infrastructure for

cyclists, (parking) infrastructures for cars, access to hubs within a five-minute walk, and access to hubs within a 15-minute walk or a five-minute bike trip.

Though Antwerp has been able to provide data for 12 out of the 19 indicators as part of the SUMI pilot, a large number of the data sets were derived on the basis of assumptions. These assumptions were, in turn, based on models developed at the beginning of this millennium. Taking a closer look at the individual indicators, modal split has been among the more complex ones, given the absence of an EU-wide definition. New definitions and techniques of collecting data can be difficult to introduce due to the lack of human resources (i.e. people with the necessary expertise to analyse the data), as well as the lack of tools to analyse the data. In the case of Antwerp, for example, all the planning instruments share the same objective, namely making the modal split in the city and in the region more sustainable and ultimately, arriving at a modal split of 50/50 (i.e. a 50/50 split between carbonised modes of transport and non-carbonised modes of transport). The calculation of these parameters requires data on vehicle and passenger kilometers travelled, as well as on the number of trips made for both passengers and freight transport. This type of data, however, has not been available to the local authorities and its calculation has been largely made on the basis of assumptions. This problem is not limited to Antwerp alone, and is representative of the barriers faced by local authorities Europe-wide. What is more, in the SUMI project only four modes of transport were considered, namely cycling, walking, private car and public transport. In the case of Antwerp, an additional category of 'other' has had to be introduced for 'intermodal' trips (i.e. where multiple modes were used to complete the trip), which account for roughly 5% of all trips. Given its growing significance, participants underlined the need for intermodal transport to be reflected in the indicator set.

Whereas 'public spaces' are not featured among the core indicators, the recognition of their importance appears to have been growing in the aftermath of the COVID-19 pandemic with many cities re-assessing space allocation and relevant regulations. From an urban development point of view, cities are responsible for public space. When a significant share of this public space is allocated to mobility, alternative social and economic uses of this space are inevitably reduced, potentially rendering it more difficult to tackle emissions of air pollutants and



GHGs, while also raising questions of social justice. In recognition of these elements, participants urged the need to consider the expansion of the indicator set to also include public spaces.

Drawing on the very visible trend towards increasingly aging societies and the growing number of people with disabilities across the continent, participants also stressed the importance of ‘accessibility’ to be included in the indicator set, as well as in the future concept of sustainability. This, in turn, would be essential for allowing people with disabilities to choose sustainable mobility solutions thus contributing to EU long-term objectives. Given that minimum standards for accessibility have already been developed at EU level, it was suggested that these could be effectively used in this context of sustainable urban mobility and SUMI.

Achieving a 55% emission reduction of GHG emissions by 2030 in line with the European Green Deal and Climate Law objectives will require the adoption of a scientific approach to regulation and target setting at both national and local levels. A growing number of cities, especially those having signed up to the Covenant of Mayors, have started to integrate their SUMP into their overarching climate plans. Similarly, in Antwerp, the SUMP has been converted into a chapter of the city’s climate plan, whereby each sector needs to play its fair share towards reducing emissions. Ensuring a proper link between the SUMP process and the EU climate and sustainability objectives, it was argued, will necessitate regular measurement of cities’ performance on the basis of SUMI and an alignment of the indicator scaling system with specified EU policy goals.

The score that a city receives for a specific indicator varies between 0 and 10 (with 10 being the highest value achievable). In the case of the CO₂ emissions and air quality, for instance, where EU legislation specifies minimum and maximum thresholds that have to be respected, a scientific approach is taken in determining the scoring of the indicators. For other indicators, however, determining when and how a city can achieve the highest score is less straightforward. Looking at Indicator 5 on ‘Road Deaths’, since the number of road traffic fatalities in European cities is relatively low in a global perspective and shows an overall downwards trend, it might become less relevant as an indicator for road safety in the future. In light of this, looking at the

number of serious injuries may become a more relevant metric, for which the acquisition of data can be more challenging.

What is more, participants stressed the importance of approaching indicators holistically, as opposed to in isolation. The development of air quality and climate policies, for instance, needs to go in parallel. What is more, sometimes congestion can be functional for sustainable urban mobility, given that the more roads are congested the more transport users will be encouraged to avoid private cars and shift to more sustainable modes of transport. Participants also pointed out to the tension between the short-term nature of projects and the long time periods needed for effects to display and thus be reflected in the indicators. To illustrate this complexity, it would take roughly five years before we start to observe any change in the indicators resulting from the implementation of Antwerp’s low-emission zone at the beginning of 2017. Therefore, today it is still too early to deduct the true effect of the low-emissions zone and to establish a cause-effect relation.

How Should Data Gathering Be Approached in Cities of Different Sizes?

To address the questions of data gathering and quality control, it is important to first clarify the objectives and rationale behind the indicators. A common, methodically sound and practically feasible indicator set can enable public authorities to determine the current status of the city with regard to sustainable urban mobility. Furthermore, it can help the identification of deficiency areas where additional action may be required, thus enabling the tracking of progress towards set policy goals, the identification of scope for improvement, and a better understanding of the overall impact of urban mobility policies. It can also enable cities to benchmark against other cities and compare against national and international data sets. To this end, a consistent definition and calculation algorithm need to be developed that enable comparable calculation of the indicators. Data collection requirements need to be feasible and the geographical scope over which data needs to be collected well delimited.



Cities' ability to collect and analyse data is influenced by a number of factors, including financial and human resources, knowledge, experience, as well as history. As elaborated above, while some larger cities, such as Antwerp, already have traffic models in place, these are often based on assumptions and outdated models. Larger cities are more likely to be equipped with Geographical Information Systems (GIS), which are key for the data collection requirements for some of the indicators. Larger cities are also more likely to have dedicated personnel and skills to collect and analyse the data. The calculation of some of the more complex indicators, such as Indicator 7 on 'GHG Emissions', indeed requires municipalities to have specialised staff. In fact, 86% of respondents to an online SUMI survey indicated they would need technical support and called upon the Commission to create a long-term mechanism to facilitate the collection of data on urban mobility aspects at the FUA levels.

A closer look at the experience of Romania showed that cities have no preexisting data collection and monitoring culture. Even if in terms of population, cities can be categorised into large, medium and small, the challenges they encounter in collecting data tend to be very similar. In fact, almost 55% of all data needed for the core indicators was never collected previously. Furthermore, 30% of all the data required for the core indicators is data produced within the municipalities, and such data had never been collected previously. For instance, simple data such as the length of streets, which are pedestrianised, had not been gathered so far.

In other cases, the required data was available elsewhere and the municipalities thus had to procure it or alternatively use institutional cooperation to acquire the data. Indicator 5 on 'Road Deaths', for instance, requires collection of data on the number of fatalities per transport mode. Given that this type of data is normally collected by the police, means that in theory it should be straightforward to obtain. However, the Romanian experience shows that inter-institutional problems between the police and the local authorities can hamper this exchange of data. National programmes, in particular, will be key for helping to set up SUMP and SUMI, given that significant amounts of statistical data are already being collected at the national level. Participants argued that there is significant overlap but also potential for synergies in data collection with the

requirement for National Access Points to provide data sets to facilitate multimodality, as well as with Eurostat, which has co-financed projects for the development of passenger mobility statistics.

As a direct result of the trend towards increasing digitalisation in transport, we are seeing the creation of vast amounts of data, which are in the hands of private companies. To secure access to such data, participants therefore stressed the importance of closely involving the private sector, as well as the need to define some sort of data sharing obligations with the public sector. The Commission's Data Strategy, expected later this year, will be an important step in providing more clarity as to the kind of legislation that can be expected at EU level for the transport sector. Here, participants stressed the need to provide private actors with a clear narrative as to rationale behind data sharing with public authorities, with explanations as to how this data will be used, as well as what the envisaged outcomes would be. Not the least, private actors would need guarantees that the provision of access to data would not be used to undermine the commercial nature of their businesses.

The project also revealed that some cities did not dispose of data covering the appropriate geographical area. The geographical scope over which data needs to be collected thus has to be defined and well understood, given that it affects the relevant entity for data collection. Whereas data tends to be gathered at the city and national levels, the FUA including the catchment area, often fall somewhere in between. The fact that cities and their administrative boundaries are not in line creates a challenge on the policy level as well as on the data level. Furthermore, the definition of FUA is not always applicable for smaller cities. Participants stressed the need for a common EU definition of urban areas, given that these are the most realistic level for cities, and suggested their use as the default geographical area. In the future, however, it may become increasingly important to collect data also on the larger urban area, especially in light of urban sprawling.

In some cities it was observed that while data had been collected, it was not in line with EU formats and requirements for data collection. A notable example here is Indicator 6 on 'Access to Mobility Services', for which the availability of GIS is a pre-condition. Two out of three cities did not dispose of GIS, thus making it impossible to calculate the indicator even if the cities did have the



data available. As the responsible entities for the issuance of identity cards, municipalities have the necessary information about the numbers of residents living on a given street; however, it appears that many were unable to provide the data in the format required.

The calculation of the modal split, which constitutes an important parameter for the calculation of several of the indicators, was quoted as particularly challenging, given its special requirements in terms of resources. In response, some cities have organised sampling efforts for the collection of data, which however faces the risk of limited representativeness and should thus be practiced with caution. What is more, numerous new data collection technologies and methods have been emerging in recent years, including apps, crowdsourcing and citizen science. These offer important opportunities, as they enable data collection while providing services to people. Notwithstanding, their use should be accompanied by a careful assessment so as to ensure the reliability and quality of the data in order to avoid biased conclusions. In the SUMI project, an assistance tool was developed to enable a reasonable estimation of the 'GHG Emissions' Indicator; however, the use of new technologies could certainly be valuable for providing more detailed information.

Furthermore, participants also touched upon the relevance of objective vs. subjective data in the calculation of the indicators. Almost all core indicators are based on *objective* data, with only one, namely Indicator 12 on the 'Satisfaction with Public Transport', being based on *subjective* data. The importance of gathering more subjective data and combining it with objective data is crucial for offering the 'full picture'. To put things into perspective, Indicator 10 on the 'Opportunity for Active Mobility', is based solely on objective and quantitative data, such as the length of streets, the length of pedestrianised streets, and the length of bike lanes, among others. However, this approach omits the 'quality' aspect, which in turn can only be derived from subjective data, i.e. how these bike lanes or streets are perceived by the residents in the city. London's 'Healthy Streets' approach was highlighted as being an illustrative example confirming the importance of subjective data. As part of its transport strategy, the city collects quantitative data (e.g., monitoring emissions of air pollutants), and complements these with survey data, which in turn involves a high degree of subjectivity (e.g.,

asking residents whether they feel safe). A combination of quantitative and qualitative data is therefore crucial for informing decisions at the local level.

While a need for further revision of the definitions was acknowledged, participants agreed that the work done by SUMI provides a good basis for this further work. For some of the indicators, participants stressed the need to provide different options (and thus flexibility) for their calculation in order to accommodate the local specificities and data availability. Having said that, it is crucial that cities own and understand these indicators both on a political and on administrative level. To this end, it was urged that the indicator set be rebuilt in a bottom-up manner, namely by incorporating input and throughput indicators, by involving national and regional levels, which already collect and dispose of large amounts of relevant and reliable data. Not the least, local authorities should be supported with advisory and technical guidance as well as provided with guidelines on sound methodologies so as to avoid flawed and unreliable data.

To conclude this session, participants warned that if the data gathering exercise results in mere descriptions and analyses of the current situation, there may not be sufficient incentive for cities to collect the data and work on indicators. In light of this, indicators need to be transformed into added value, as opposed to mere obligations for cities. Data collection can enable cities to gain a better understanding of the impacts of previously adopted policy measures, but also to better anticipate and evaluate future policies (e.g., calculating the implications of different public transport and cycling infrastructure investments). Furthermore, planning for quantifiable goals becomes impossible in the absence of an understanding of the ongoing and future trends in the city, which, however, can be enabled thanks to indicators. Not the least, facilitating the access to development funding should be a clear motivation for cities undertaking data gathering and working on indicators.

Implementation and the Way Forward: Funding and the EU Urban Mobility Scoreboard

The objective behind the recently published European Court of Auditors' (ECA) Report was to assess whether EU funding has successfully contributed to delivering



more sustainable urban mobility. As part of this exercise a total of 50 projects in eight cities were audited, all of which form part of the urban nodes of the core TEN-T network and thus constitute projects of Europe-wide relevance as transit hubs. The study has involved geo-spatial analysis, surveys and consultations with relevant experts.

The audit concludes that a ‘step change’ in sustainable urban mobility has not materialised: a message that was also confirmed in the evaluation of the Commission’s Urban Mobility Package, where the notion of a step change was first introduced. Despite the fact that positive examples have been observed across both larger and smaller cities, there is no evidence of a widespread coordinated effort or change in attitude towards more sustainable mobility. While air quality has improved in urban nodes, pollution levels continue to exceed safe levels. A closer look at modal share figures reveals no clear trend towards more sustainable modes. In seven out of the eight cities analysed, it was found that using a private car was still considered more efficient than using public transport. Only in the case of Madrid, the use of public transport in some areas was significantly more time-efficient than the use of private cars. As a result, urban mobility was found to be deteriorating for road users due to congestion.

Reacting to the report’s findings, some participants cautioned against an overly negative approach to the progress towards sustainable urban mobility, quoting that in the absence of the right governance architecture and lack of support from the national levels, results are difficult to achieve. What is more, transport is a particularly complex sector, where transport users are confronted with making mobility choices on a nearly daily basis, which in turn makes it more challenging to observe tangible progress at the EU-level.

The ECA Report has not identified a mechanism for the assessment of the *quality* of the SUMP in any of the Member States, which formed part of the audit. Several factors were identified that hamper the Commission’s support and the shift towards sustainable urban mobility. Two of these are the financing needs of urban transport and policy coherence. While the Commission provides considerable amount of funding for investments into infrastructure and rolling stock, there are also significant costs for operation and maintenance. The report finds that

cities struggle to cover these operational and maintenance costs, which, in turn, can be detrimental for the quality and reliability of public transport. Notable examples of this have been Naples and Palermo. Besides the financial needs and investments into infrastructure and rolling stock, the shift to sustainable urban mobility also entails the enactment of softer measures such as discouraging the use of cars, and encouraging public transport. However, a lack of coherence and even contradictions were found to hamper the effectiveness of these policies.

The implementation of SUMP has been voluntary and remains limited to a small proportion of European cities. Though the Commission has issued guidelines for their adoption, these have not been systematically followed by the Member States and local authorities. While the Commission has allocated increasing amounts of funding for sustainable urban mobility, in particular in the European Regional Development Fund (ERDF) and the Cohesion Policy Funds, the adoption of a SUMP has generally not been a pre-condition for obtaining such funding. There are only few exceptions, including Spain where SUMP are a pre-condition for accessing cohesion policy funds, and Italy, where SUMP are a pre-condition for accessing national funds. In particular, in the case of Spain, this has resulted in an increase in the adoption of SUMP by cities. As implied, however, this conditionality of the funding has not been mandated at the European level, but has been left to the discretion of the local and national authorities.

Still, EU funding should play an important role in delivering relevant projects at local level while also supporting the achievement of EU objectives. The preconditioning of EU funding on the presence of SUMP, was argued to be particularly important because of political considerations (e.g., reelection chances) which can pose a hurdle to the development of SUMP and the adoption of measures aimed at promoting more sustainable urban mobility. A push from the European level can therefore make the introduction of policies at local level easier. The imposition of strict conditionalities, however, risks transforming data gathering and indicators’ calculation into a bureaucratic exercise with the sole objective of obtaining EU funds, without any motivation to improve performance. Furthermore, some participants cautioned against a ‘Matthew effect’ resulting from an overly strict approach to preconditioning of EU funding.



In other words, smaller and less resourced cities, without a preexisting data gathering and monitoring culture, could become excluded from EU funding opportunities. In view of this, a more nuanced approach could be considered, whereby, for instance, some core indicators related to SUMP become an obligatory requirement for funding, or are, alternatively, considered a competitive advantage for the acquisition of EU funds. In the case of Flanders, for instance, where conditionality has been imposed on funding, some types of projects linked to safety-critical infrastructures and road safety have been exempted. This, in turn, could help to partially mitigate the Matthew effect.

Another proposal was for the conditions to be imposed only after the application process and once the funding has been committed, in order to ensure that all cities can commit to *ex-ante* and *ex-post* collection of data, to using centralised tools for data collection and thus to embarking on the learning process. Making data gathering in the framework of the indicator set conditional upon funding, could help achieve a high quality completion of the data set but also create a sustained data monitoring culture. The conditionality of EU funding should ultimately aim to improve urban mobility performance. In fact, the ECA Report issues a recommendation for EU funds to be pre-conditioned upon the *commitment* to a SUMP, rather than its immediate availability, in order to avoid unintentionally excluding cities without an existing SUMP. However, in this case, a clear political commitment and communication are key. In addition to the commitment to a SUMP, the ECA Report recommends to make EU funding conditional upon the availability of funds to secure the operation and maintenance of public transport. Whether the EU should consider the definition of minimum quality standards when it comes to the provision of public transport remains a question requiring further discussion.

While there have been attempts in some Member States to create observatories, the ECA Report shows that it was not possible to find reliable and up-to-date data at European level. A survey carried out by ECA found that not a single city was able to reply to all sets of questions relating to modal split, availability of public transport, financial, demographic, safety and pollution data. Very few cities were able to provide up-to-date data on modal share and only half of the respondents provided data per mode on a yearly basis. What is more, very

few cities could provide data for the FUA. Since target setting is tightly linked to the availability of up-to-date and reliable data, the above mentioned data gaps can explain the limited objectives observed in cities' urban mobility plans. Furthermore, if SUMP are not tailored to specific EU goals, their monitoring at EU level becomes less valuable. EU goals' incorporation should thus form the basis to enhance the national reporting and tracking of the results of cities. Based on these findings, the ECA report recommends to publish data on urban mobility and, more specifically, for the Commission to propose legislation requiring Member States to collect and regularly publish relevant data on urban mobility and on the adoption of SUMP, and to report regularly on the progress made in the urban nodes.

Similarly, the final SUMI recommendations carefully point in the direction of support mechanisms for data acquisition, data gathering tools, but also pooling across cities to procure data from data owners and cooperation with data gathering organisations. Enhanced coordination is needed between the ERDF and the European Social Funds to train local governments in GIS analysis, among other urban planning and analytical skills. Finally, participants called for greater involvement from Member States in supporting cities with the calculation of the indicators and the shift towards more sustainable urban mobility.

Conclusion

The work done by the SUMI consortium was broadly welcomed as a solid basis for further refinement of the indicator set in line with the specificities of the European context. The need for further revision was particularly evident for indicators associated with data collection problems. The close linking of the indicators' scaling system with EU policy goals is key to advancing the EU's climate and sustainability agenda while safeguarding more efficient spending of public finances.

The need for a more nuanced approach to conditionality, however, appeared to resonate among participants. While SUMP and SUMI clearly need to be streamlined into EU funding and financing programmes, the further elaboration of SUMP should not be constrained by bureaucratic rules. The absence of a readily available SUMP should not deprive less well resourced cities,



with no preexisting data collection and monitoring practices, from getting access to EU funding. Instead, preconditioning should be based upon a city's firm commitment to a SUMP, with sufficient reassurance of cities' willingness to cooperate.

An important question raised during the discussion pertained to how added value can be created for local authorities by using the scoreboard. While funding is unquestionably a key component of this process, the end result should be the establishment of a resilient learning system at local, national and European levels. In this regard, participants highlighted that in order to maximise the usefulness and applicability of the indicator set, cities should be granted flexibility to tailor the indicators (i.e. 'embed' the indicators into other indicators that are already being collected at the local level), thus enriching the local indicators. For instance, a more dynamic approach could be considered, whereby a minimal set of indicators is initially identified for all cities and progressively expanded over time. Within this set of indicators, discretion could be left up to the local authorities as regards the possible choice of a basket of the 'core' indicators, which in turn are to be defined with respect to the various underlying local conditions and characteristics.

Notwithstanding, participants were in agreement that this flexible, bottom-up approach needs to be combined with a well-defined top-down framework, which, in turn, is key to securing a level-playing field. In this regard, a common and clear definition needs to be agreed upon regarding the geographical area over which data is to be collected. The definition could possibly be based on the definition of a city, expanding beyond to the FUA and surrounding rural areas, where possible. Another takeaway from the discussions was the need for stability through the adoption of a long-term perspective, both when it comes to the legal framework and the evaluation of projects. Not the least, technical and advisory assistance should be granted to both small and larger cities, so as to address existing data collection challenges linked to financial and human resources among others.



Rationale and Key Challenges on the Way Towards a Common SUMI Framework

A comment by Ian Catlow, Head of London's European Office, and Chair of EUROCITIES working group on sustainable mobility planning

Many of us involved in public services rightly spend time trying to measure the outcomes and the effectiveness of policy interventions. This is as true in the domain of sustainable mobility as it is in any other field of public policy and such assessments help to support sound management and proper accountability. For cities it is very useful, where possible, to be able to compare and contrast the performance of our own urban mobility network against peers from around the world.

In London, the integrated transport authority responsible for delivering the Mayor's Transport Strategy (MTS), Transport for London, draws on input and experience from many sources, including stakeholders, researchers and other cities, when setting objectives in the MTS and measuring progress against them. Our monitoring is published regularly in the Travel in London reports¹ which, as well as focussing on specific MTS goals, also provide a broad picture of travel demand and modal split; road safety; active travel (principally walking and cycling) and air quality; the performance of public transport services; and how transport supports London's economic development. Importantly it contains interpretative analysis alongside data and performance indicators to help identify areas where intervention should be targeted to ensure progress towards policy goals.

Mayor of London's Transport Strategy: selected key policy objectives for 2041

80 per cent of all trips in London to be made on foot, by cycle or using public transport

All Londoners do at least the 20 minutes of active travel they need to stay healthy each day

Deaths and serious injuries from road collisions to be eliminated from London's streets

London also actively participates in discussion of international best practice by being a member of city and

transport networks such as EUROCITIES, POLIS and the International Association of Public Transport (UITP), and will continue to do so. Cities strongly support efforts to improve the quantity and quality of evidence on the impact of urban mobility policy and through these networks have contributed to the work done by the European Commission's DG MOVE to prepare sustainable urban mobility indicators. The Commission's approach to establishing indicators and the specific ones selected could play a valuable role in supporting the interpretation and monitoring of Sustainable Urban Mobility Plans and in identifying areas where further initiatives, whether at local, national or EU level, might be needed.

It is important to remember that indicators are just that – an indication of the situation at any one moment. They are less reliable as an absolute measure of performance or in making direct comparisons between different cities and regions. This is because cities have different starting points and data is collected in different ways at different times and for different purposes. Sometimes relevant data is not available, or it is not up to date, it covers different geographical areas or is defined in subtly different ways: for example, accurate measurement of air quality is affected by the positioning of sensors, and the way that road traffic fatalities and serious injuries are defined differs internationally.

But if indicators are used regularly over time and in a consistent way, they can be an extremely important tool in the assessment of whether policy interventions are having the desired effect.

Harmonisation of data collection methods could help address these weaknesses and we have seen convergence of methods over recent years, but there is also an issue of resources at local level. There has been increasing pressure on the finances of sub-national public authorities since the financial crash of 2008 and now the COVID crisis and the collapse of revenue from public transport fares means that cities and urban transport authorities have little capacity to establish and maintain new data collection systems. Financial support from the EU and national governments and further research into new and more efficient methods of sourcing data would be welcome.



It is also important not to forget more subjective indicators, such as whether people feel safe on public transport or in the street environment or when cycling. In London, the MTS is underpinned by the principles of “Healthy Streets” and the key indicators of this are shown below.

A number of these rely at least in part on individual perception. This is critical given that achieving modal



shift and many other sustainable mobility objectives requires people to change their behaviour and that in turn depends on the way they perceive the urban mobility environment. The monitoring in the Travel in London report reflects the results of a number of different methods of data collection, including the London Travel Demand Survey (LTDS), a continuous survey of London households that has been running since 2005/06; the “Care” online survey, which asks a sample of Londoners every quarter about their opinions of Transport for London itself; and the Healthy Streets Mystery Shopper Survey, where a dedicated surveyor assesses use and behaviour in 100-metre stretch of street against a number of metrics relating to the Healthy Streets Indicators.

While cities around Europe will always need the power to make decisions which suit local circumstances, they firmly believe in exchanging best practice and fully support efforts to facilitate international comparisons to help improve sustainable urban mobility.

Towards a European Standard for Impact Assessment of Sustainable Urban Mobility Planning

A comment by Dirk Lauwers, professor at Ghent University and University of Antwerp

‘You can't manage what you can't measure’ is a key message that managers in private business are familiar with. In urban mobility planning it sounds quite new. At least at the European level impact assessment in urban mobility planning is only now coming into the picture. Of course evaluation of policies and measures is a part of the SUMP methodology, version 1.0, dating already from 2013. But only in 2018 with the launching of the SUMI project a harmonised methodology, a set of indicators and tool for impact assessment for sustainable urban mobility planning in the EU were developed. The tool and methodology are based on the ‘Indicator set for urban sustainable mobility’, developed by World Business Council for Sustainable Development (WBCSD) in 2012.

As I was involved in the development of the WBCSD tool (as the leading expert for the Ghent University team that developed the methodology and tool for WBCSD) and member of the academic board for the consortium assigned for the SUMI study, this comment consists of some ‘inside-out’ reflections.

Within the SUMI project a review and “Europeanisation” of the worldwide oriented WBCSD indicator set was elaborated. Two aspects seem important:

- specific strengths and weaknesses in European cities regarding data availability
- orientation of the indicators on measuring European SUMP objectives or targets (including EU policy goals)

The WBCSD approach includes 22 indicators. Based on a pilot study involving 46 European cities the SUMI study came to the conclusion that ‘many indicators have proven to be either time-consuming to calculate due to the effort needed to collect data for certain parameters, or have even proven to be impossible to calculate as for certain parameters data were simply not gathered as it was too much effort, too expensive or not available at all’. So the original set was reduced to a set of 13 core and 5 non-core indicators. In fact – apart from rejecting some of

the WBCSD indicators - a new core indicator was added: traffic safety of active modes. It relates to the focus of the EC on promoting walking and cycling in cities and the ‘Vision Zero’ ambition for road traffic fatalities.

Avoid Blind Pragmatism

Of course a cost-efficiency approach on getting and processing the data is a legitimate consideration. On the other hand a purely pragmatic way – to withhold only easy to obtain indicators – is of course not acceptable. The late professor Bernardo Secchi – used to say: ‘there’s nothing against pragmatism; what we have to avoid is pragmatism without a vision, that’s blind pragmatism’. Though I do not want to suggest at all that the SUMI study blindly rejected some indicators – on the contrary the selection was done on a very sound basis – it might be relevant to highlight the underlying vision of the WBCSD approach. It consisted of a holistic approach of sustainable urban mobility. The methodology used was based on a systemic approach of the mobility system and a multidimensional view on sustainability, the well-known triple P (People, Planet, Prosperity) approach. Each of the WBCSD indicators explicitly refer either to dimensions of the mobility system, either of sustainability. My concerns in this perspective refer as well to the need of system approach of urban mobility as a profound consideration of the sustainability of urban mobility.

Multilevel Action Needed Regarding the Mobility System

In response to the Covid-19 crisis many cities developed an accelerated set of measures for a pandemic-proof mobility. Reflections on these policies concluded in the existence of a relation between these urgent measures and the long-term oriented sustainability objectives. Based on the sustainable mobility paradigm that in the academic world is seen as most authoritative (formulated by David Banister) four levels of actions can be distinguished:

- AVOID (travel), by telework, distant learning etc.
- SHORTEN (trips), by developing multifunctional and walkable and bike-able neighborhoods



- SHIFT (mode), more walking, biking and public transport trips, fewer car trips
- IMPROVE (technology), more less polluting vehicles, smarter traffic management

What the pandemic has also revealed is the importance of qualitative urban public spaces: green spaces such as parks, as well as space for walking, cycling, sporting but also for terraces and other social activities.

It would be wise to check what indicators can be used as proxies to measure progress on these action fields.

Multilevel Sustainability Boundaries for Urban Mobility

Contemporary scientific insight not only distinguishes the different dimensions of sustainable development, it recognises boundaries for development. The conceptual model used is the so-called doughnut model developed by Kate Raworth. This concept goes beyond the 3P approach that was the basis for the WBCSD methodology. Minimum and maximum thresholds should be respected. Of course this has consequences for the indicator choices and definitions. The indicator 'affordability of public transport for the poorest group' refers to the basic mobility that should be available from social point of view. Maximum values for greenhouse gases obviously refer to global and EC targets on climate emissions. Scaling of all the indicators is crucial in this perspective.

These considerations do not detract from the policy recommendations already formulated in the SUMI report.



Florence School of Regulation, Transport Area
Robert Schuman Centre
for Advanced Studies

European University Institute
Via Boccaccio, 121
50133 Florence
Italy

Contact:
FSR-Transport:
fsr.transport@eui.eu

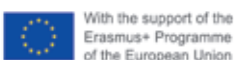
Robert Schuman Centre for Advanced Studies

The Robert Schuman Centre for Advanced Studies, created in 1992 and directed by Professor Brigid Laffan, aims to develop inter-disciplinary and comparative research on the major issues facing the process of European integration, European societies and Europe's place in 21st century global politics. The Centre is home to a large post-doctoral programme and hosts major research programmes, projects and data sets, in addition to a range of working groups and ad hoc initiatives. The research agenda is organised around a set of core themes and is continuously evolving, reflecting the changing agenda of European integration, the expanding membership of the European Union, developments in Europe's neighbourhood and the wider world.

FSR Transport

The Florence School of Regulation (FSR) is a project within the European University Institute (EUI) focusing on regulatory topics. It works closely with the European Commission, and is a growing point of reference for regulatory theory and practice. It covers four areas: Communications and Media, Energy (Electricity and Gas), Transport, and Water.

The FSR-Transport Area's main activities are the European Transport Regulation Forums, which address policy and regulatory topics in different transport sectors. They bring relevant stakeholders together to analyse and reflect upon the latest developments and important regulatory issues in the European transport sector. These Forums inspire the comments gathered in this European Transport Regulation Observer. Complete information on our activities can be found online at: fsr.eui.eu



Views expressed in this publication reflect the opinion of individual authors and not those of the European University Institute.

© European University Institute, 2020

Content © Matthias Finger and Teodora Serafimova, 2020

doi:10.2870/313906
ISSN:2467-4540
ISBN:978-92-9084-915-5