

# Adapting the ITF's Transport Policy with a Focus on the EU's Strategy of Sustainable Mobility

Katalin Tánczos<sup>1\*</sup>

<sup>1</sup> Department of Transport Technology and Economics, Faculty of Transport Engineering and Vehicle Engineering, Budapest University of Technology and Economics, Műegyetem rkp 3., H-1111 Budapest, Hungary

\* Corresponding author, e-mail: [tanczos.laszlone@kjk.bme.hu](mailto:tanczos.laszlone@kjk.bme.hu)

Received: 02 January 2025, Accepted: 06 January 2025, Published online: 14 January 2025

## Abstract

Urban regions worldwide face increasing challenges in mobility planning due to transformative developments such as climate change, energy crises, migration, digitalisation, and the rise of artificial intelligence. In Europe, frameworks like the European Union's Sustainable and Smart Mobility Strategy and the International Transport Forum's (ITF) policy measures aim to create sustainable, multimodal, and efficient urban transport systems. This paper explores how these frameworks can be integrated to enhance urban mobility governance, focusing on the Brussels-Capital Region's Good Move plan. The plan emphasises shared mobility, digitalised multimodal systems like mobility as a Service (MaaS), and a regulatory framework that balances innovation with public oversight. Through a "learning by doing" approach, this study highlights the interplay between public and private actors, effective data governance, and market regulation to establish a viable MaaS ecosystem. Key findings underline the potential of MaaS to reduce urban emissions, improve accessibility, and promote sustainable travel while addressing regulatory challenges such as data-sharing, competition safeguards, and equitable mobility subsidies. The paper concludes with actionable recommendations to optimise MaaS integration and support urban regions in achieving resilient, livable cities through sustainable mobility solutions.

## Keywords

sustainable mobility, Mobility as a Service (MaaS), urban transport governance, regulatory frameworks, multimodal transportation

## 1 Introduction

At the end year of the planning period and the beginning of a new time section, the leaders of all communities, like large cities, try to create new strategies and apply new political approaches not only in Europe but everywhere in the World. Considering the many changes in the last years (e.g. climate change, energy crisis, epidemic, local wars, migration, digitalisation, AI), planning and managing the mobility of people and goods, especially in densely populated large size towns, in general in the urban regions is a huge task with a lot of new challenges (European Commission, 2021).

The close to 10 million people of Hungary and its capital, Budapest, with her 2 million residents, together with the few hundred thousand inhabitants of the larger cities of the country, are in a good position because they enjoy the membership not only of the European Union but of the OECD - ITF (International Transport Forum), too. They have the huge competencies to plan and analyse the selected, merged data set, to manage and operate the whole mobility sector, including the newest research results, the advanced theoretical

knowledge, and apply multisided skills and rich practical experience of these top-level organisations and human communities of the World (for instance: Lagadic et al., 2024).

Recently, not only did the DG Move (the transport ministry) of the European Commission issue the lists of fresh results of the last research period on the field of sustainable mobility in urban regions, but a lot of useful documents have also been published by the ITF, to dealing with the actual problems and solutions of urban transport.

The European Union's 2020 Sustainable and Smart Mobility Strategy and its accompanying action plan set out how the EU's transport sector can develop innovative and energy-efficient technologies for producing new types of vehicles and newly constructed infrastructures to reduce the sector's emissions by 90% by 2050. This document's key element of the strategy is to develop seamless multimodality to improve sustainable travel.

At the centre of the ITF's transport policy approaches, the problem-solving is generally based on other key elements:

the regulatory framework, the data governance, and the institutional and financial co-operation of the stakeholders. The effective transport policy measures of the ITF have been developed on these key factors because they have the power to shape the built environment of a city and the quality of life of residents and visitors. Also, they contribute substantially to the results perceived by the people, e.g., the reduction of CO<sub>2</sub> emissions (Zsombók, 2024) and the improvement of transport safety indicators. Therefore, applying the transport policy approach is necessary for developing a more resilient city with happier, healthier inhabitants.

Europe's cities and regions are working to find the most appropriate ways to improve accessibility while cutting greenhouse gas emissions through more efficient transport and sustainable mobility plans (Wengritzky, 2023).

Modelling by the ITF suggests that digitalised multi-modal travel systems, such as mobility as a Service (MaaS), underpinned by reliable public transport and shared mobility options, can enhance equitable accessibility and play an important role in reducing the emissions from urban mobility.

This paper would like to give a short overview of the whole process of how the elements of the EC DG Move Strategy and the tools of the ITF transport policy can be combined in a "learning by doing" type managing procedure of the leadership of the urban region to achieve a higher level of living standard with special regard to transport services.

## 2 The conceptional frame of the transport policy

It is based on the plan titled "Good Move" (Lagadic et al., 2024), the Brussels-Capital Region's sustainable urban mobility plan, which addresses congestion, pollution, road safety, and transport efficiency to create a more livable city. Several of the actions in the plan relate to combined and shared mobility and mobility as a Service (MaaS). MaaS and mass transit go well together. Integrating shared mobility with public transport is a key part of the strategy. Its success depends on establishing an efficient MaaS system under an effective regulatory framework.

MaaS is a relatively new concept. Therefore, recently, only a few PhD dissertations and research studies could set up different business models, analyse the simulated business cases, and compare and evaluate the different frameworks (Chen et al., 2025; Kandanaarachchi et al., 2024). The results are promising but not yet enough. Cities and regions are, therefore, trying to advance the introduction of MaaS models. The developed conceptional framework identifies policies supporting a hybrid MaaS ecosystem with public and private actors based on regulation and

data governance (Coppola et al., 2025). MaaS introduces a new dynamic into the mobility services sector: that of a digital market. The relationships between the actors and data management in the ecosystem is very important, as MaaS aggregators have access to proprietary operator information and user data. In the interests of innovation and competition, the regulatory framework for MaaS must also facilitate market entry and address potential market dominance effectively (Nayeem et al., 2024).

As MaaS is still evolving, the regulatory framework should also recognise the need for public authorities to be able to react should any unexpected negative outcomes arise. A pro-competitive regulatory approach should encourage a commercially viable MaaS model to emerge to support sustainable mobility across the region. MaaS is intended to foster more sustainable travel choices and should be part of a wider package of mobility policies. The combination of measures, the redistribution of space and the integration of technological innovations such as MaaS will help people make the most sustainable choice, creating a vibrant city on a human scale.

## 3 Scope

Brussels-Capital Region (BCR) adopted its latest regional mobility plan, Good Move, in 2020. The objectives of Good Move are to improve the environment and the quality of life of the people of Brussels while supporting the BCR's economic development. The focus is on addressing congestion, pollution, transport efficiency and road safety in Brussels. Good Move incorporates 50 concrete actions. Four relate to integrated, shared mobility and mobility as a Service (MaaS). The BCR government believes that the successful development of MaaS will support a shift to more sustainable modes of transport than private cars. In the longer term, the BCR anticipates that a thriving MaaS ecosystem will foster further innovation in sustainable travel.

Because of the above and in reviewing the regulatory environment for MaaS, the BCR requested support from the European Union's Structural Reform Support Program and developed a project with the International Transport Forum (ITF) to inform the development of a sustainable regulatory framework for MaaS. Project outputs will inform the design of the regulatory and data management frameworks for MaaS in the BCR.

This report summarises the findings of the project. It describes a healthy MaaS ecosystem and how the BCR can facilitate its emergence through a MaaS-specific ordinance and by adapting existing regulatory frameworks relating to mobility markets and services. The recommendations

proposed in this report seek to support the development of a competitive and innovative MaaS market that includes both private and public sector actors and support the BCR government in achieving the objectives of its regional mobility plan.

The report draws on various pieces of evidence: international experiences in developing regulatory and data governance frameworks, a desk review of the BCR's current mobility landscape, and stakeholder consultations. The consultations included targeted interviews, workshops and an online survey. The report also builds on ITF's work on micromobility, app-based mobility, data-led transport policy, reducing car dependency and MaaS.

#### 4 Findings

Mobility operators provide physical mobility services like public transport or shared bicycles. MaaS providers aggregate different mobility operators' services into a single offer through an application (MaaS app) for users' mobile digital devices. The terms mobility operator and MaaS provider are used in this report to make a clear distinction between the two functions. At the same time, mobility operators may also be MaaS providers.

The BCR government aims to create an innovative MaaS market for the Brussels region that contains private and public sector mobility operators and MaaS providers. It expects MaaS to significantly contribute to improving accessibility and expanding sustainable transport options in the region. It wishes to ensure that MaaS develops in a way that supports the objectives of the Good Move plan while enabling the development of viable business models for mobility operators and MaaS providers. This report recommends a pro-competitive approach to market regulation that aligns with EU policies and OECD recommendations.

The BCR is in the process of preparing an ordinance to regulate the MaaS system. It is clear from stakeholder engagement on this and other projects that the existence of viable business models (i.e. consumer offers and pricing structures that yield positive net revenues) that would support a large-scale MaaS ecosystem has yet to be demonstrated. Overly restrictive or inflexible regulation of such a new and evolving market would risk undermining the ability of market actors to find sustainable business models. At the same time, the BCR needs to be able to respond should the MaaS market develop in ways that detract from the achievement of sustainable mobility.

Many stakeholders see clarity on data governance as an urgent requirement to support the uptake of MaaS. Thus, The MaaS ordinance is needed to implement a data

governance framework in support of MaaS and license the new MaaS provider business activity. The ordinance will not need to be an all-encompassing regulation for urban mobility services but can complement existing mode-specific and other market regulations. These already cover many aspects of sustainable mobility policy, such as vehicle standards. The simplest approach may be to revise existing mobility operator licensing requirements to incorporate MaaS data governance elements and to regulate MaaS providers through the new ordinance.

The public authorities should support the development of a competitive, open-entry MaaS ecosystem. There is a risk that dominant public or private actors could emerge and exercise substantial market power. Proactive oversight by competition authorities and engagement between the BCR authorities responsible for regulating MaaS and the competition authorities will help avoid this.

Public transport should form the backbone of a MaaS ecosystem if its contribution to the sustainable mobility objectives of the Good Move plan is to be maximised. A significant point of contention among stakeholders is the resale of public transport tickets. Concerns exist that a MaaS model with public transport at its core would struggle if MaaS providers cannot earn a margin on the resale of public transport tickets. Others worry that such resale of public transport tickets could reduce net revenues for public transport operators.

Public transport operators should be free to negotiate the terms of their engagement with the MaaS providers looking to resell public transport tickets while respecting the need to comply with the principle of equal treatment, as set out in their governing legislation. This could include selling access to public transport to MaaS providers on terms differing from existing ticketing structures and providing discounts on bulk sales. Enabling this will require revision of existing instruments, such as the management contract between BCR and public transport operator, rather than being addressed directly through the MaaS ordinance.

Some stakeholders have strong concerns that this approach would result in subsidies to public transport, effectively contributing to private profits. However, the resale of public transport services by MaaS providers is best understood as the MaaS provider acting as an agent for the public transport operator, with the potential to increase ridership and thus contribute to the government's modal shift objectives.

In the medium term, establishing a large-scale MaaS ecosystem could create significant opportunities to reform mobility subsidies and move from the current supply-side approach towards a user-based approach.

The latter could be an incentive payment per passenger or a person-centred model. Such a change could significantly improve the equity and efficiency of mobility subsidies and help to achieve guaranteed minimum levels of accessibility cost-effectively. Creating the conditions for such a shift will take time, but policymakers should consider this possibility a significant potential long-term benefit of successfully establishing MaaS on a large scale.

## 5 Recommendations

The recommendations can be listed under three areas of action necessary to achieve specific outcomes.

To enable the creation of a MaaS ecosystem, both public and private actors:

- regulate mobility operators and MaaS providers separately,
- adopt an explicitly pro-competitive approach to MaaS in policy and legislation,
- establish the status of MaaS providers via a licensing scheme,
- review conditions for mobility operator licenses to ensure they do not include barriers to developing MaaS,
- add mandatory minimum data-sharing requirements

relating to informational and operational data to licenses for mobility operators.

To facilitate an efficient and equitable market for MaaS:

- build mandatory consumer data portability, subject to user consent, into the conditions of all mobility operator and MaaS provider licenses,
- adopt competition safeguards as part of the MaaS provider licensing framework,
- ensure public transport operators have the freedom to negotiate the terms of public transport ticket resale with MaaS providers, who, in turn, should be free to determine the pricing of services to consumers,
- apply OECD and EU best practice principles on regulatory policy and governance to inform approaches to regulating MaaS,
- make data reporting requirements to public authorities specific and directly related to regulatory tasks.

To manage the overall mobility outcomes to which MaaS should contribute:

- the Good Move policy package should remain the key to implementing sustainable urban mobility policies.

## References

- Chen, C. F., Lu, H. H., Tsai, W. L. (2025) "Investigating the unobserved heterogeneity in passenger satisfaction with Mobility-as-a-Service (MaaS) bundles", *Transportation Research Part F: Traffic Psychology and Behaviour*, 109, pp. 50–63.  
<https://doi.org/10.1016/j.trf.2024.11.026>
- Coppola, P., Silvestri, F., Pastorelli, L. (2025) "Mobility as a Service (MaaS) for university communities: Modeling preferences for integrated public transport bundles", *Travel Behaviour and Society*, 38, 100890.  
<https://doi.org/10.1016/j.tbs.2024.100890>
- European Commission (2021) "Sustainable & Smart Mobility Strategy – Putting European transport on track for the future. DG Mobility and Transport", [pdf] European Commission, Brussels, Belgium. Available at: <https://transport.ec.europa.eu/system/files/2021-04/2021-mobility-strategy-and-action-plan.pdf> [Accessed: 30 December 2024]
- Kandanaarachchi, T. B., Nelson, J. D., Ho, C. Q. (2024) "Conceptualising trust and collaboration among stakeholders in MaaS ecosystems", *Transport Policy*, 157, pp. 98–110.  
<https://doi.org/10.1016/j.tranpol.2024.08.009>
- Lagadic, M., Combe, C., Crist, P. (2024) "Reaching critical MaaS: interregional co-operation for seamless mobility in the Brussels-Capital region", [pdf] International Transport Forum, Paris, France. Available at: <https://www.itf-oecd.org/sites/default/files/docs/reaching-critical-maas-seamless-mobility-brussels.pdf> [Accessed: 30 December 2024]
- Nayeem, M. A., Alam, M. J., Habib, M. A., Rahman, M. S. (2024) "An agent-based simulation modeling framework for Mobility-as-a-Service (MaaS)", *Case Studies on Transport Policy*, 18, 101294.  
<https://doi.org/10.1016/j.cstp.2024.101294>
- Wengritsky, Zs. (2023) "Spatial analysis of the BEV market and the corresponding charging infrastructure in Hungary", *Cognitive Sustainability*, 2(2).  
<https://doi.org/10.55343/cogsust.50>
- Zsombók, I. (2024) "Investigating energy management of hybrid vehicle technologies to promote sustainable mobility paradigms", *Cognitive Sustainability*, 3(1).  
<https://doi.org/10.55343/cogsust.96>