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Diffusing Sustainable Urban Mobility Planning in the EU

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Abstract: This paper explores how the European Commission promotes the concept of Sustainable Urban Mobility Planning (SUMP) among European cities. Despite the strong uptake of the SUMP concept, mobility-related problems persist in European municipalities. Linking theoretical approaches to understand the diffusion of policies with empirical findings from working with cities in the SUMP context, this article explores channels of policy diffusion and investigates shortcomings related to the respective approaches. Studies on the diffusion, the transfer and the convergence of policies identify formal hierarchy, coercion, competition, learning and networking, and the diffusion of international norms as channels for policy transfer. The findings which are presented in this paper are twofold: First, the paper finds evidence that the Commission takes different roles and uses all mechanisms in parallel, albeit with different intensity. It concludes that the approaches to explain policy diffusion are not competing or mutually exclusive but are applied by the same actor to address different aspects of a policy field, or to reach out to different actors. Second, the article provides first evidence of factors that limit the mechanisms' abilities to directly influence urban mobility systems and mobility behaviour.

Keywords: sustainable urban mobility planning; sump; policy diffusion; policy transfer; paradigm; urban mobility; transport planning

1. Introduction

Urban areas are attracting more and more people. In 2018, 74% of all Europeans lived in towns and cities, and this share is expected to increase over the coming decades [1]. Growing population, urban sprawl and the extension of commuting distances beyond municipal boundaries intensifies the demand for urban mobility, thus aggravating congestion, environmental issues and social disparities. About one fourth of European greenhouse gas (GHG) emissions stem from the transport sector, and urban mobility is responsible for 23% of all transport-related GHG emissions in the EU [2]. A large share of cities in the EU struggles with poor air quality, noise pollution and an intolerable number of urban road accidents [3].

Urbanisation requires better coordinated, sustainable and future-proof transport systems in functional areas. In its Communication on competitive and resource-efficient urban mobility, the European Commission acknowledges the importance of supporting local authorities "so that all cities across the Union can achieve a step-change in their efforts for more competitive and resource-efficient urban mobility" [4]. Still, the impact assessment accompanying the 2013 Urban Mobility Directive found that most European cities have not solved their urban mobility challenges, and that deficient planning practices on the local level endangered key European objectives, including a competitive and resource-efficient transport system, the EU's future prosperity and its international economic competitiveness [2] (p. 18). In an attempt to address these shortcomings, the Commission introduced the concept of Sustainable Urban Mobility Planning (SUMP) with its 2013 Urban Mobility Package.

In August 2020, the eltis city database reported almost 830 finalised SUMPs and more than 100 plans under preparation for the EU [5]. This article aims at understanding how the European Commission promotes the take-up of the SUMP concept in municipal administrations and how these approaches link to each other. In the article, I review and apply findings from the literature on policy diffusion, policy transfer and policy convergence. It is not the intention of this paper to examine the differences and complementarities of these approaches or to evaluate their adequacy for explaining the diffusion of the SUMP concept in the EU. Rather, assuming that all approaches provide insights on the mechanisms how policies diffuse among receiving actors [6,7], the paper brings together theoretical approaches to describe and understand the diffusion of policies on the one hand, and empirical findings from practical work with cities in the SUMP context on the other hand.

Second, noting that, despite this proliferation of sustainable urban mobility planning, private car use remains the dominant mode throughout European cities, the limits of the transfer mechanisms require explication. Building on qualitative data from the evaluation of an EU-sponsored urban mobility leaning programme, the article provides a first and preliminary approach to identify the shortcomings of policy transfer mechanisms that lead to weak policy impacts on the ground.

The article proceeds as follows: After providing a short insight into the materials and data sources in chapter 2, chapter 3 describes key elements of the SUMP concept. Chapter 4 reviews the political science literature on policy transfer, policy diffusion, and policy convergence. It derives and briefly describes key mechanisms—formal hierarchy, coercion, competition, networking, and norm diffusion—and links these findings to empirical data on mobility planning in the EU. The discussion and conclusion section compiles the findings from chapter 4 to derive an overview picture of the Commission's efforts to alter urban mobility planning practices in the European municipalities.

For reasons of simplification, the Commission refers to the Directorate-General for Mobility and Transport (DG MOVE) and its implementation agencies, most notably the Innovation and Networks Executive Agency (INEA). It will be shown later that other Directorate-Generals (DGs), including the DG for Environment and the DG for Regional and Urban Policy, influence urban mobility decisions in the EU. Where activities of these DGs are considered, this is made explicit.

2. Materials, Data Sources and Methods

The paper builds upon experiences and data from the evaluation of the CIVITAS SUMPs Up project, which was conducted from September 2016 to February 2020. The project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 690669.

During the scientific evaluation of the project, both a quantitative large-N survey among 100 European cities that participated in a learning programme and qualitative methods, such as interviews, participant reports and focus groups, were used. (The qualitative data collected in the SUMPs Up project were compiled in two evaluation reports (Deliverable 7.4 and 7.5). The reports are currently (May 2020) being reviewed and will be published on the project's website https://sumps-up.eu after approval of the European Commission.) Moreover, the paper builds on participatory research from the author's active involvement in the SUMPs Up project, including the preparation of SUMP topic guides, the organisation of side events to European mobility conferences, and teaching activities during learning events for cities and practitioners. The development of European Urban Mobility policy was assessed via desk research, building on the analysis of policy documents and scientific literature.

The paper links key mechanisms of policy diffusion and policy transfer, which were derived from a review of case examples (e.g., on energy policy) and existing review articles e.g., [6,8] to the findings of the SUMPs Up project evaluation. As a note of caution, it needs to be mentioned that policy outputs—i.e., the adoption of SUMPs in European municipalities—can be measured in a straightforward way. Policy outcomes—i.e., the implementation of sustainable urban mobility measures or policy impacts—such as changes in modal shares, noise levels, or greenhouse gas emissions, however, are only indirectly related to the diffusion of the SUMP concept and shaped through a variety of case-specific intervening variables. Factors range from the political commitment

of local politicians, to the national legal framework, up to the influence of competing policy areas on the national or EU level. The available empirical data may open lines of reasoning and give a first orientation but are far from providing systemic and generalisable evidence for explaining the latter dimensions of policy change.

3. Background

The SUMP concept aims at altering mobility planning practices in European cities. Rather than prescribing specific policy instruments, such as the introduction of congestion charges or parking management systems, the concept provides a process standard for urban mobility planning. The approach inter alia promotes policy integration, interdisciplinary planning, involvement of the public and of stakeholders, and a stronger focus on people and quality of life instead of on undisturbed traffic flows. The SUMP cycle—which is an idealised planning stages approach—contains extensive elements of public participation, expert consultation, the use of scenarios, policy integration, and continuous monitoring and evaluation. In short, the SUMP concept aims at altering mobility planning practices in local administrations from a traffic-centred, predict and provide approach e.g., [9–11] into people centred demand management planning. Table 1 depicts the differences between the traditional planning paradigm and the SUMP approach:

Table 1. Traditional transport planning and Sustainable Urban Mobility Planning [12].

Traditional Transport Planning		Sustainable Urban Mobility Planning
Focus on traffic	→	Focus on people
Primary objectives: Traffic flow capacity and speed	→	Primary objectives: Accessibility and quality of life, including social equity, health and environmental quality, and economic viability
Mode-focussed	→	Integrated development of all transport modes and shift towards sustainable mobility
Infrastructure as the main topic	→	Combination of infrastructure, market, regulation, information and promotion
Sectoral planning document	→	Planning document consistent with related policy areas
Short and medium-term delivery plan	→	short and medium-term delivery plan embedded in a long-term vision and strategy
Covering an administrative area	→	Covering a functional urban area based on travel-to-work flows
Domain of traffic engineers	→	Interdisciplinary planning teams
Planning by experts	→	Planning with the involvement of stakeholders and citizens using a transparent and participatory approach
Limited impact assessment	→	Systematic evaluation of impacts to facilitate learning and improvement

4. Insights from City Practice and Reflections on the Literature

The diffusion or transfer of policy innovations, and the cross-boundary convergence of policies has long been researched in International Relations theory (IR) e.g., [13], comparative and European Studies e.g., [14–16] and in the analysis of individual policy fields, including environmental policy studies e.g., [17–19]. While the scope of the approaches might differ, all are concerned with the adoption of policy innovations across different settings e.g., [7] (p. 267).

The following chapter provides a short review of the mechanisms of policy diffusion that IR, European, comparative and environmental policy scholars have identified. The common starting point is the observation that—under increasing international interdependencies—the implementation of policy instruments not only depends on domestic considerations, but also on

experiences and policy implementation in other states [8]. While the horizontal diffusion of policies between national states has been at the core of the research programme, some studies also considered the role of international institutions, including the European Union, the World Bank, the International Monetary Fund or the UNESCO [9,16]. Still, examining the attempts of a supra- or international institution to influence subnational entities adds both another layer to the multi-level perspective and an actor perspective to the existing literature.

Studies refer to a range of objects that are diffused, ranging from specific instruments, such as feed-in tariffs for renewable energy sources [17,19] up to ideational frameworks and paradigms, such as economic neoliberalism and deregulation [20–22]. Policy transfer and diffusion scholars observed five broader mechanisms for how policies spread among states. The list consists of (1) formal hierarchy, (2) coercion, (3) competition (4) learning and networking, and (5) the influence of international norm entrepreneurs [6–8,13,20,23]. This chapter describes the main mechanisms of policy diffusion from the literature and links them to evidence from the evaluation of the SUMPs Up project.

4.1. Fomral Hierarchy

Hierarchical policy diffusion refers to the imposition of policies through external actors, such as powerful states or international institutions [24,25]. Formal hierarchy requires an explicit organisational structure with clearly designed institutionalised relationships [26]. In the EU, formal hierarchical steering occurs in areas in which the EU has exclusive competences (Art 3 TFEU) or where, under shared competences (Art 4 TFEU), the EU can take action given this is more effective than action taken at national, regional or local level. Art 5.3 TFEU states that, according to the principle of subsidiarity, the EU "shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather […] be better achieved at Union level".

Recipients of European legislation are usually the Member States. According to Article 258 TFEU, the Member States and their central governments are responsible for ensuring compliance with EU law, even if the responsibility lies with subnational bodies, such as city governments. Typical instruments are EU directives that state policy objectives and define targets while leaving the implementation to the individual member states. Still, some European environmental regulations de facto target transport planning in urban agglomerations and prescribe specific policy actions: the Noise Directive (Directive 2002/49/EC) forces member states to ensure that "local competent authorities" in urban agglomerations prepare noise maps and define action plans for the reduction in noise pollution. European air quality legislation (Directive 2008/50/EC) requires that member states hold "the competent authorities and bodies" in urban agglomerations responsible for complying with maximum concentrations of air pollutants and for taking adequate measures when limits are exceeded. Specifically, larger cities and regional authorities that participated in the SUMPs Up project mentioned that air pollution was one major concern of urban mobility activities, and also one source of legitimacy for restricting car use, and the European Court of Auditors found that air quality and noise regulations have "created a strong incentive for cities to take action to avoid the risk of infringing environmental thresholds" [27] (p. 22). Still, these regulations may trigger punctual shifts in planning practices, but are far from transmitting a systematic approach to alter urban mobility planning practices.

While hierarchical steering through the EU environmental legislation directly targets cities and urban agglomerations, the existing transport legislation does not systematically address urban mobility planning [28]. Translated to the diffusion of the SUMP concept, European top down policy transfer would force cities to adopt sustainable mobility plans and to implement planning practices that correspond to the SUMP guideline. Transport is a shared responsibility between the EU and the Member States, and the 2011 White Paper on transport called for examining "the possibility of a mandatory approach for cities of a certain size, according to national standards based on EU guidelines" [29]. Whether the EU had the competence to take hierarchical action on urban mobility—i.e., to force Member States to make sustainable urban mobility planning mandatory for cities within

their territory—was debated during the preparation of the European Urban Mobility Package [2]. Proponents of a mandatory approach argued that non-action would endanger the achievement of key European objectives, including a competitive and resource-efficient transport system, the reduction in GHG emissions air pollution and noise pollution reduce the effectiveness of businesses and hence "impacting the well-being of virtually all populations, including those living in cities" [2] (p. 17, p. 485).

One line of reasoning was to link urban mobility to the European Trans-European Network (TEN-T) policy, under which DG MOVE has a strong influence on mobility policies: Articles 170 and 171 (2) of the TFEU empower the EU to "contribute to the establishment and development of trans-European networks" and that the "Commission may, in close cooperation with the Member States, take any useful initiative to promote such coordination" [30] (p. 28). It was argued that since "urban congestion has a negative impact on inter-urban and cross-border travel, as most transport starts and ends in urban areas" [2] (p. 14), urban mobility was an integral part of the Trans-European Transport Network. The TEN-T Regulation (EU) No. 1315/20131 inter alia defines standards for the development of roads, railway systems, waterways and airports that are part of the network. Urban nodes and sustainable mobility are explicitly mentioned in the TEN-T Regulation, and the Commission has the right to start up a procedure against Member States if their infrastructure is not adapted to the requirements [31].

Although the impact assessment accompanying the 2013 urban mobility Communication [2] found that making SUMPs mandatory for cities would be more effective than voluntary instruments, the top-down approach was dismissed. Main arguments were the higher administrative costs, lower flexibility and adaptability to national situations and city specific circumstances, and concerns that mandatory approaches would reduce the commitment of cities. As a result, urban mobility was addressed in a non-binding Communication from the Commission and did not proceed to a Directive which would legally bind national governments to force "their" cities to adopt Sustainable Urban Mobility Plans. Halpern found that European urban mobility policy making is lacking a consistent regulatory framework, "heavily constrained by the strict understanding of the subsidiary principle" and restricted to non-binding instruments [28] (p. 2537). More recently, the European Court of Auditors found that "in the absence of legislative compulsion, there was limited take-up of the Commission's guidance on the part of many Member States and cities–notably in terms of preparing 'Sustainable Urban Mobility Plans'" [27] (p. 5).

Some Member States and regions, including France, the UK, Italy, Romania, Catalonia, and Flanders made Sustainable Urban Mobility Planning mandatory for "their" cities [32]. Although the EU was not formally involved, the diverging results of these cases provide valuable insights into the factors that support or hamper hierarchical policy diffusion. The introduction of SUMP was considered successful in forerunner countries that also provided national guidelines, funding lines, knowledge centres, and a monitoring and evaluation framework [32]. Pflieger, for example, describes that "European measures were used strategically by politicians and transport planners to support the transformation of local policies in Toulouse and to legitimize the implementation of new instruments" [33] (p. 336); or participants of the SUMPs Up project reported that, having a SUMP enhanced planning departments' legitimacy vis-à-vis political decision makers, specifically when governments and political objectives changed.

On the other hand, we found strong evidence for only formal compliance in cases where a national SUMP framework was missing. Specifically, representatives of Romanian cities reported that local administrations were confronted with the task of preparing a SUMP without adequate personnel resources, sufficient knowledge, or financial support. This resulted in mere formal compliance, with urban mobility plans being developed by external consultants as "one size fits all" products without involvement of the administration and often without taking the local circumstances into account.

To sum up, formal hierarchy cannot sufficiently explain the diffusion of the SUMP concept in the EU. DG MOVE lacks the legal power to force cities to adopt urban mobility plans. Hierarchical impact on decision making can be observed punctually—for example, related to air pollution and, as

explained below, the access to financial support. This confirms the findings of Halpern that European regulations do influence urban mobility decisions, but mostly under the supervision of DGs other than DG MOVE. This import of policy instruments from external non-transport policy fields, which build upon their particular agendas and interests, inhibited a coherent urban mobility policy on the EU level [28] (p. 2534). Still, experience from Member States and regions that implemented hierarchical steering by making sustainable urban mobility planning mandatory showed that support from the national level was crucial to achieve a profound change in mobility planning practices beyond mere formal compliance.

4.1.1. Coercion and Conditionality

Coercion is another, less formalised, kind of hierarchical steering. This mechanism exploits power asymmetries and dependencies between actors—for example, between international financing institutions and developing states [7,23,34]. The access to financial resources can be linked to conditionalities, such as the adaptation of specific policies. Bulmer and Pagett found that conditionality is commonly used to spread procedural standards, such as the SUMP approach, rather than specific policy instruments [24] (p. 109). Gore observed, for example, that major donors, such as the World Bank, linked financial aid to the implementation of sector liberalisation policies [34].

Access to European funding and financing programmes is one key concern for cities when implementing mobility measures [35]. During the SUMPs Up evaluation, several interviewees claimed that one motivation for formulating SUMP was to easier access European funding sources for mobility projects. Hence, one could expect that the Commission exploits this dependence strategically, by making funding and financing arrangements for transport-related investments contingent on the adoption of sustainable urban mobility planning practices [24] (p. 109). To which degree the Commissions uses conditionality for spreading the SUMP concept is explored below, for its main funding and financing institutions, namely the European Structural and Investment Funds (ESIF) and the European Investment Bank (EIB).

The ESIF is the central funding mechanism of the European regional development and cohesion policy. It consists of five funding programmes, including the European Regional Development Fund (ERDF) and the Cohesion Fund, which are particularly relevant for funding urban mobility projects. For the 2014–2020 programming period, the European Cohesion Policy has set 11 thematic objectives, including the shift towards a low-carbon economy and the promotion of sustainable transport [36]. In fact, the current provisions for European support programmes stress that Member States should focus on sustainable forms of transport and sustainable urban mobility and prioritise measures according to their contribution to mobility, sustainability, and the reduction in GHG emissions [37] (Annex I). The ESIF's Guidance Fiche for Sustainable Multimodal Urban Mobility [38] explicitly refers to sustainable urban mobility plans, but states that the current legislation offers no legal basis for making sustainable urban mobility plans mandatory when asking for ESIF support. The European Court of Auditors found that EU funded projects "were not always based on sound urban mobility strategies" what strongly compromised their effectiveness [27] (p. 38).

In 2020, the Commission assessed the progress on the implementation of the TEN-T network for the years 2016–2017 [39]. The report shows that the shares of transport-related expenditures by mode vary considerably between the funding and financing mechanisms. On the one hand, the Connective Europe Facility (CEF), which is managed by INEA, focuses on sustainable modes (railways and waterways), and only used seven per cent of its transport funding for road projects. On the other hand, the European regional development and cohesion policy retains a strong focus on roads with almost 80 per cent of transport funding going to such infrastructure. Multimodal transport, which is at the core of SUMP planning, only plays a marginal role. This focus on focus on car- and truck-based mobility shows the lack of SUMP mainstreaming across the Commission's DGs and, in the end, is likely to compromise the establishment of sustainable urban mobility systems in European cities. Figure 1 shows the allocation of transport funding by mobility mode under the CEF and the ESIF.

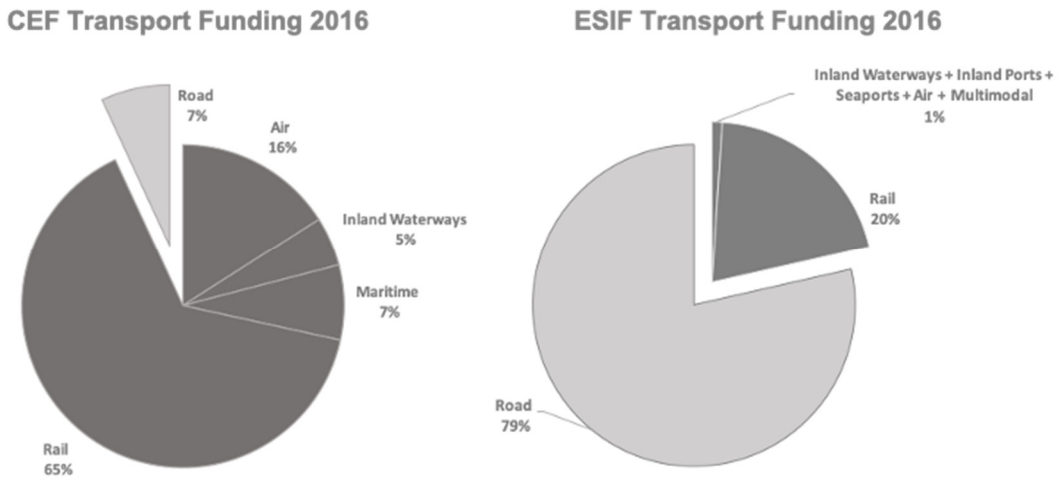

Figure 1. CEF and ESIF Transport Funding 2016/2017. Data Source: COM(2020) 433 final [39].

The European Investment Bank (EIB) is publicly owned by the EU Member States and provides loans and financial support, inter alia for major infrastructure projects in cities. The EIB's 2011 Transport Lending Policy explicitly claims that "standalone projects that are not part of an integrated urban mobility plan are unlikely to be effective in reducing congestion and environmental externalities and should not be supported". In fact, both the absolute amount and the share of EIB financing that was dedicated to road projects decreased between 2013 and 2019, which might be an indication for the increased uptake of sustainability concerns in the EIB lending policy (Figure 2).

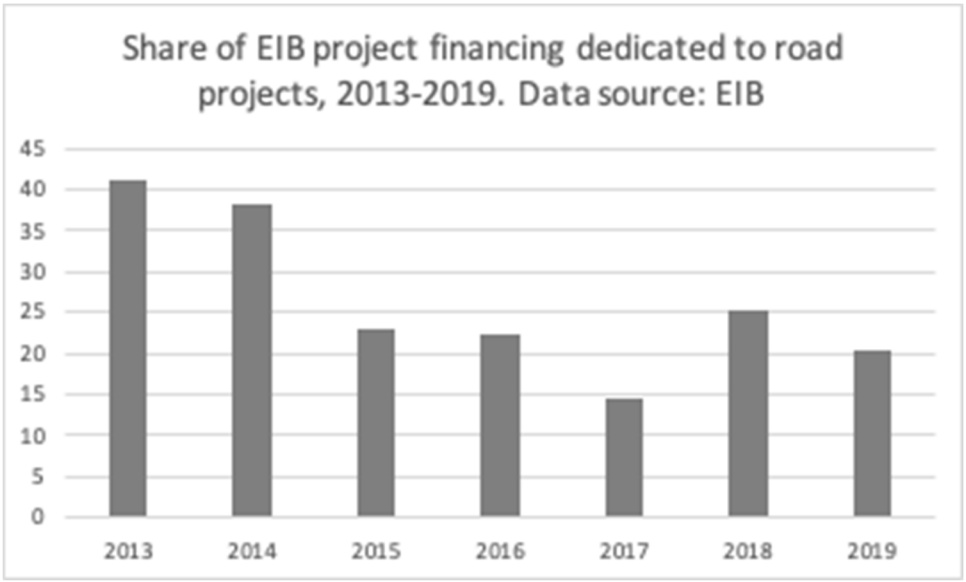

Figure 2. Share of EIB project financing dedicated to road projects (EIB projects that explicitly mention motorways, expressways, Autobahn, or road tunnel in the short description) in the EU related to the total EIB project financing in the EU. Data Source: EIB list of financed projects (https://www.eib.org/en/projects/loans/). Selection criteria: transport; European Union; 2013–2019.

Notwithstanding, this general shift from car-oriented project financing to other modes, EIB financing for urban mobility is not subject to any specific restriction [40]. Having an integrated urban mobility plan is a selection criterion—but not an exclusion criterion—for applications to the financing mechanisms. Besides this weak conditionality, the overall influence of EIB financing on urban mobility systems across the EU is limited due to the required size of investments: EIB financing is

confined to projects with total investment costs over 50 million Euros, which is beyond the scope of most smaller and medium sized cities—which is by far biggest share of European cities.

To sum up, there is evidence that compliance with the SUMP approach is increasingly considered in some European financing institutions and funding programmes. Still, strict compliance with the SUMP principles is not mandatory in order to profit from EU funding and financing [27], despite this being demanded by the European Parliament in 2009 and in the Commission's 2011 White Paper on transport [41] (p. 23). As mentioned above, most financing and funding programmes are not under the immediate control of DG Move and follow own rationalities—which are not necessarily aligned with DG MOVE's objective of spreading the SUMP approach. The lack of policy integration and SUMP mainstreaming is reflected in the persistently high share of road investment in the European regional and cohesion policy—despite ESIF's formal backing of the SUMP approach in its public guiding documents. For the upcoming 2021–2027 programming period, the European Court of Auditors has been suggested to make the existence of SUMP a mandatory requirement to access EU funding for urban mobility investments [27] (p. 38), [42].

4.1.2. Competition

Approaches that refer to regulatory competition [43] among states as the main driving mechanism of policy diffusion claim that actors adopt policy instruments strategically, in order to improve their position vis-à-vis their competitors. Policies in different political settings—mostly countries, but also regions and cities—are expected to converge with increasing competitive pressure between these settings [44] (p. 26). Hence, competition requires a market on which actors compete over scarce resources—for example when trying to attract business and investments to their territory [23] (p. 1247). The assumed consequences of this mechanism are twofold: some scholars argue that under increasing international interdependency, governments could refrain from unilaterally implementing policies to avoid disadvantages compared to other countries or even lower regulations to attract new enterprises. This race-to-the-bottom ultimately leads to policy convergence in the sense that certain policies are relaxed or not implemented [45]. Examples are the non-implementation, the reduction or the abandonment of corporate taxes, environmental deregulation, or diminishing fuel taxes [46,47]. Conversely, other scholars claim that competition can foster the diffusion of stricter standards, when access restriction to important markets push other countries to adapt to these standards and initiate a "race-to-the top" [48,49]. Holzinger et al. suggest that countries that already have demanding regulatory standards and frameworks in place try to upload their national approach to the European level in order to "minimising the institutional costs of adjusting domestic regulatory arrangements to EU policy requirements", which would, in the end, result in stricter European standards [44].

On a local small scale, interviews found anecdotal evidence for a regulatory competition [43] (p. 876) which led to a "race to the bottom" between neighbouring communities. For example, cities refrained from increasing parking fees in their city centres so as not to lose customers to neighbouring cities with lower rates. This finding is in line with the strategic behaviour that Baybeck et al. or Shipan and Volden expect under neighbouring states or cities [46,47].

Beyond such examples under immediate spatial proximity, there is also evidence for a "race to the top". Cities compete to attract new businesses and residents, claiming to be the most liveable or innovative city [47] (p. 843). Pflieger notes that "local authorities mobilize strongly on a European level in order to distinguish themselves", leading to a strong political competition between cities at a European level and reinforcing a network of innovative cities [33] (p. 331). In her assessment of certification systems, Kern notes that "leading cities join certification schemes […], apply for awards and participate in rankings […] to brand the city as 'sustainable city', 'green city', 'smart city', etc." [14] (p. 132), [50]. Under these circumstances, one could expect that highly visible mobility awards and prices can promote a race-to-the-top for the most sustainable urban mobility systems or the most innovative planning practices. Indeed, the Commission and other members of the SUMP community have implemented a number of contests, including the European Mobility Week Awards, the Award for Sustainable Urban Mobility Planning, or the CIVITAS Awards [41] (see also the section on

networking). Sustainable urban mobility is also one evaluation criterion for the Commission's Green Leaf Award. Hence, the European Commission can be understood as an initiator and facilitator of competition on sustainable urban mobility.

An earlier impact assessment of the European Action Plan on Urban Mobility which was conducted in 2013 [41] acknowledged the high visibility and contribution of mobility awards to raise awareness for sustainable urban mobility. The immediate outreach of these competition, however, is limited. For example, only 11 cities applied for the 2019 CIVITAS Awards; the target group mainly consists of already convinced forerunner cities. Still, beyond this immediate impact, competition can contribute to setting a standard for urban mobility measures and to raising benchmarks, as depicted in chapter 4.

4.2. Networks and Learning

In the absence of hierarchical top-down prescriptions, decision-making and policy implementation remains in the hands of individual states or sub-national entities. The active search for policy solutions and the selection of appropriate measures burdens local administrations with additional transaction costs. Rational or instrumental learning approaches claim that, to reduce this extra effort, decision makers may "simplify the task of finding a solution by choosing an alternative that has proven successful elsewhere" [46] (p. 505). Reference to tested and proven solutions reduces the uncertainty about impacts, can help overcome political resistance and, in the end, lead to policy convergence [7,8]. Jänicke and Wurzel claim that such lesson-drawing is widespread in the European climate governance system and that it "may offer followers a shortcut to innovative solutions and/or reduce their domestic learning costs" [51] (p. 23). International institutions, such as the World Bank, the UNESCO, or the UNDP, can act as information providers and facilitators of exchange—for example, as sponsors of studies or as organisers of international conferences for policymakers and experts [52] (p. 32).

The lack of personnel resources and specialist expertise is a key barrier to the implementation of innovative policy measures, specifically in smaller cities [53]. A facilitated exchange among peer countries or cities and the provision of processed expert information through learning programmes may reduce costs and favour the uptake of measures that proved to be successful in similar settings. Moreover, targeted capacity building programmes and participation in networks can bridge the gap between larger and more innovative communities and cities with less capacities [54] (p. 52) [43] (p. 828). Studies on the diffusion of climate policies found that the likeliness of countries to adopt policies increases with their interactions with forerunner countries that already have climate policies in place [18] (p. 479). A number of sustainability-related city networks emerged between the mid-1980s and the early 1990s, including ICLEI, Eurocities, the Union of Baltic Cities and Polis, which is a network of cities and regions with a specific focus on sustainable mobility. The existence of city and regional networks is considered to strongly support the diffusion of policies among their members [14,55].

As described above, the institutionalisation process of a European urban mobility policy was stalled and remained at the stage of building networks and collecting expertise, instead of moving on towards a genuinely European policy field. As a result, Halpern found that "the EU emerges as a network facilitator, but not as a regulator" in the policy field [28] (p. 2539). In fact, the European Commission strongly supports the production, the processing and the dissemination of knowledge on sustainable urban mobility planning. The Commission has initialised a variety of networking initiatives to support sustainable urban mobility initiatives [41]. For example, the European Commission launched and finances the Covenant of Mayors for Climate and Energy, which acts as a platform for sharing action plans and good practice examples, arranges learning events, or provides expert advice [51] (p. 28). DG MOVE finances the eltis Mobility Observatory, which is a networking and support platform for cities. Eltis facilitates the exchange of information, knowledge and experience on sustainable urban mobility planning and hosts the SUMP guidelines, which were developed through a network of mobility experts, The European Commission launched and co-funds the CIVITAS city network, which is dedicated to the promotion of cleaner and better urban mobility systems [41]. CIVITAS supports research and demonstration projects and living labs, offers learning

programmes, arranges study visits, or provides a tool database for mobility practitioners. The annual CIVITAS Forum provides a venue for the dissemination of good practice examples, and the exchange among cities, decision makers and mobility experts. Moreover, the Commission's DGs finance research projects and coordination and support actions on sustainable urban mobility with strong involvement of city partners under the EU's main research programme Horizon2020, or under the Interreg Programme.

Learning and network facilitation forms the core of DG MOVEs activities to spread the SUMP concept among European cities. It addresses one key concern of city administrations by providing knowledge and supporting capacity building. Still, experience from European learning events suggest that the success of learning programmes depends on the transferability of good practice examples to the recipient's context. The applicability of many measures and instruments is subject to national legislation, such as whether cities are allowed to raise congestion charges [40], or national limits on the fees for resident parking permits. Finally, the implementation of mobility measures critically depends on political support on the local level. Interviews confirmed that having a SUMP increases the administrations' legitimacy, sets a long-term direction for urban mobility planning, but implementing measures often required the consent of political decision makers.

4.3. International Norms

Scholars that emphasize the role of international norms argue that actors align their behaviour to what is societally considered appropriate. States comply with international norms to demonstrate that they are part of their peer community, to gain international reputation, to demonstrate the country's modernity and to avoid the stigma of backwardness [6–8,13]. The emergence and recognition of international norms can encourage states to adopt practices, institutions, and political processes on the domestic or city level.

Some researchers understand norm based policy diffusion as a blind and unreflected emulation of social leaders, often resulting in inefficient and ill-aligned policies [6] (p. 272): "Governments may imitate what peer countries do simply because they are peers, or governments may imitate what apparently successful countries do simply because they are high-status countries that are considered to know best" [22] (p. 73). Other scholars, however, claim that emerging international norms can challenge the understanding of problems and adequate policy responses—i.e., they address the ideas behind the policy or program, promote new ways of talking about and understanding issues and change the reasoning which actions are considered legitimate [13,20].

Following this "logic of appropriateness" argument, policy diffusion via international norms is related to learning and networking mechanisms as described above, and often uses similar channels for the diffusion of policies. However, diffusion via international norms goes beyond instrumental learning about policy instruments. In his highly referenced article, "Policy Paradigms, Social Learning, and the State", Peter Hall distinguishes between three orders of political learning. While first and second order learning comprises the adoption and adjustment policy instruments to solve a given and undisputed issue, third order change fundamentally alters norms, or the prevalent policy paradigm. Paradigm changes concern the "framework of ideas and standards that specifies not only the goals of policy and the kind of instruments that can be used to attain them, but also the very nature of the problems they are meant to be addressing" [56] (p. 279). Accordingly, norm based policy transfer often relates to formal and informal rules and procedures that guide decision-making processes rather than to specific policy instruments [57].

Norms often emerge in individual states and are then taken up and disseminated through international organisations that act as norm entrepreneurs [13] (p. 895), [58] (p. 227). Norm entrepreneurs can define specific policies or instruments as "an attractive symbol of modernity or a normatively appropriate model and thus induce many countries to enhance their legitimacy by importing the new policy scheme" [7] (p. 274). For example, related to education and the concept of life-long learning, Kleibrink states that the EU institutions problematised an "allegedly out-dated understanding of education" and instead promoted the paradigm of lifelong learning" [59] (p. 72); or

Barnett and Finnemore argue that the International Monetary Fund defined what "good economy" is for its members [60] (p. 33).

International networks of practitioners and scientists can play an important role in shaping problem conceptualisations and the determination of "adequate" solutions in policy subsystems. Beyond the provision of information and good practice examples, the establishment of transnational networks of practitioners, policy makers and experts allows for transnational problem solving—i.e., the joint development of problem definition and solutions [16] (p. 784). In the literature, such networks are often referred to as epistemic communities [61] or advocacy coalitions [62]. Their members share a common problem conceptualisation and promote "adequate" instruments to deal with the problem. They may exert influence by capturing advisory bodies or by staffing key positions in international organisations with members of their community and thus determining their agendas and rationales.

As shown in Table 1, the SUMP concept can be conceived as a new planning paradigm, that aims at replacing "traditional" planning practices with a radically new concept that focuses on people rather than on traffic, and sectoral expert planning with strong elements of policy integration, participation and consultation. The SUMP approach is embedded in a broader discourse on sustainable mobility that questions the (car-)traffic centred "predict and provide" approach [9–11], and which promotes mobility planning "to reduce the need to travel […], to encourage modal shift, to reduce trip lengths and to encourage greater efficiency in the transport system" [10]. This avoid–shift–improve framework, which was developed in the early 1990s [63,64] includes integrated land-use and urban planning to reduce trip lengths, the use of ICT technologies to replace physical travel, measures to shift private car use to sustainable transport modes (i.e., discouraging car use by pricing measures that partially reflect the true costs of car transport to society) or technological innovations to improve the efficiency of the transport system.

Hence, with the SUMP concept, the European Commission promotes social expectations of adequate planning practices. These expectations link to broader normative discourses on policy integration and civil society participation. A policy paradigm is "a cognitive model shared by a particular community of actors, and which facilitates problem solving" [65] (p. 38). These shared beliefs "structure how problems are understood and which instruments are adequate to solve them [56] (p. 278). Paradigms materialise, for example, in the selection of performance indicators or in institutional arrangements, such as in the configuration of government departments [66] (p. 271).

Sustainable Urban Mobility Planning or similar practices had been well established in some European states and regions, notably in France, the UK, Catalonia, or Flanders [60]. These countries and regions, however, have not systematically promoted the transnational dissemination of the SUMP concept. Instead, this role has been taken on by the European Commission and an international transdisciplinary community of mobility experts, scientists, NGOs, forerunner cities, individual practitioners and city networks [28] (p. 2531). The community is shaped through exchange at recurring conferences (including the CIVITAS Forum or the Eltis Conference series), and cooperation in transdisciplinary research projects and demonstration actions, which, in the largest part, are funded by the Commission. The implicit role of the community is to provide external advice to the European Commission and its implementing agencies, to organise training programmes for cities, to prepare issue-specific manuals for practitioners, or to highlight good practice examples of sustainable planning practices. Building on the expertise of the sustainable urban mobility community, the European Commission acts as norm entrepreneur and aims at "normalising" SUMP as standard planning approach in European city administrations.

The evaluation of the SUMPs Up learning programme provided evidence that a number of participants "understood" the new planning paradigm. Still, in its 2018 analysis of the state of SUMP in European member states, Durlin found persisting "traditional transport planning approaches focused on infrastructure and motorised traffic, which results in other transport related measures being prioritized over SUMP measures" [32] (p. 65). According to one interviewee, it took 15 years after the mandatory introduction of SUMP in France (in 1996, Plan de Déplacements Urbains) until a "new planning mentality" emerged from these new rules.

Although this information was not systemically collected, the evaluation of SUMPs Up provided some potential explications for the resistance of the "traditional" planning paradigm. Interviewees mentioned that a change in university curricula would not address the current planners' mindsets or that priority for private motorised mobility was deeply inscribed in national legislation. Representatives of German cities, for example, suggested that the existing transport and road laws aim at ensuring undisturbed flow of car traffic, and that measures that challenged this objective, including speed limits or redistribution of road space to other modes, were considered as a disturbance and required profound justification.

5. Discussion and Conclusions

Applying the policy transfer and diffusion framework to the field of urban mobility in the EU has shown that, despite the incomplete institutionalisation of a European Urban Mobility Policy [28], the European Commission actively promotes the diffusion of sustainable urban mobility planning practices in European municipalities. We also found that the Commission's DGs took different roles with varying intensities: (1) as enforcer of environmental regulations that punctually influence urban mobility planning; (2) as a user of weak conditionality in financing and funding arrangements; (3) as initiator of competition for the most advanced planning processes; (4) as facilitator of instrumental learning and networking; (5) as norm entrepreneur and part of a network of experts and practitioners that aims at fundamentally changing the urban mobility planning paradigm. Hence, these mechanisms are not mutually exclusive, but are employed in parallel.

The findings also suggest that the individual mechanisms target different groups of municipalities, from forerunners to laggard cities. This resonates with insights from the models of change literature that explore the introduction and diffusion of social innovations [67,68] (Figure 3). Forerunners—i.e., those cities that are already experienced and well advanced in their planning practices—form part of the SUMP community and are attracted by competition and innovative actions. They contribute to the advancement of SUMP concept and may serve as role models for follower cities. Follower cities have already taken the decision to apply the SUMP concept and seek knowledge on how to implement planning practices. Participants of SUMPs Up learning activities wanted to avoid transactions costs by learning from peer cities, sought reassurance that they are on the right track and legitimacy vis-à-vis volatile political environments. Finally, pressure on laggard cities that have not been considered to adapt their planning practices or are not yet aware of the concept can be exerted through binding environmental regulations and conditionality in funding and financing arrangements.

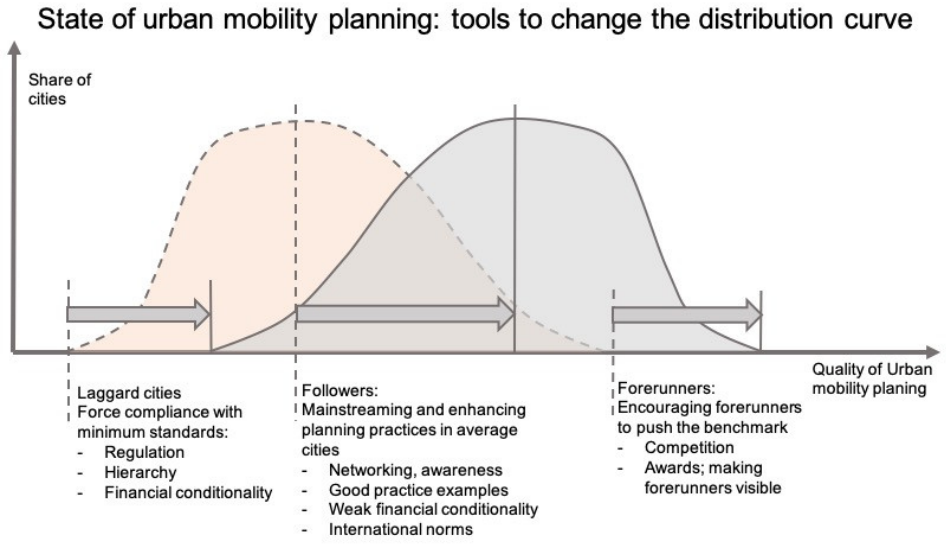

Figure 3. Tools to move the distribution curve of mobility planning practices. Adapted from Kristof/Hennike 2008 [68].

While voluntary forms of policy diffusion are well addressed through the provision of networking and learning opportunities or formalised competition for the most innovative planning practices, hierarchical steering remains punctual and dependent on other DGs' agendas. Besides the time lag between the adoption of new planning practices and observable impacts on mobility behaviour, DG MOVE's weakness in regard to hierarchical steering and a lack of SUMP mainstreaming across the DGs may explain the persistence of unsustainable mobility patterns despite the broad take up of the SUMP concept. Still, evidence from countries that have made SUMPs compulsory for their major cities showed that imposed regulations are prone to only formal compliance. This suggests that a successful diffusion of the SUMP approach that encourages forerunners, supports followers and pushes laggards towards more sustainable urban mobility planning processes requires a combination of all transfer mechanisms, including the strengthening of hierarchical elements. This article attempted to highlight several of these aspects, which also provides starting points for further research on the impacts of a new planning paradigm on urban mobility systems and behavioural change.

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