

## Learning to plan? Knowledge framework and plan quality assessment dimensions for developing transport planning practice in South-East Europe

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### ABSTRACT

Development of urban transport planning practices in South-East Europe (SEE) must still rise to the standards of EU Sustainable Urban Mobility Plan guidelines. However, institutions in these regions also lack capacity for development, despite the urgency for action. As theory of transport planning focuses mostly on institutional contexts outside of SEE, and practical guidelines often lack depth for providing plan assessment recommendations, there is a clear need to develop further connections between theory and practice. This research synthesizes key concepts from neo-institutional, policy transfer, and organizational learning theory, to outline a knowledge framework for urban transport planning as a process. Suggesting that planning should be understood as an organized process of creative experimentation and learning aiming for sustainable outcomes, two dimensions for plan quality assessment are introduced. The framework is exemplified using a combination of quantitative and qualitative aspects for long-term organizational learning including plan quality assessment as a major milestone in the planning process. Future research directions should emphasise further the processual nature of planning, including a higher emphasis on collaborative and action-research methods, which would closely engage both practice and academia.

### 1. Introduction

Developing a sustainable transport system is exceptionally challenging for the rapidly growing cities in South-East European (SEE) countries. At the root of most of the challenges is a rapid motorization related to the increased desire for car use [1]. Accompanying increasing motorization, cities in SEE countries often face significant congestion and parking challenges, lack of investment in public transport, deteriorating environmental conditions, decreased safety and security, and declining accessibility for the poor [2,3]. In addition to challenges stemming from rapid motorization that cities in SEE countries have, a significant set of challenges stems from significant funding constraints [4,5]. Scarce investment funds thus highlight the importance of integrated planning practice, which would allow proactive, long-term consideration of all available options. Besides economic efficiency, transport planning institutions must confront functional effectiveness and political legitimacy during their gradual evolution [6,7].

In the context of rapid rate of change and significant externalities, institutional capacity for adaptation under limited resources is often exceeded [8]. Thus, a result is very limited agreement on planning approaches and weak planning overview, where planning processes are significantly affected by non-democratic political decisions, in the paradoxical situation of skill shortage [1]. Consequently, there is an essential need for developing new practices of sustainable urban transport planning.

Due to the importance of planning practice for public agencies in SEE countries, our starting premise is that planning knowledge is one of the most critical pillars of institutional evolution. Thus, in addition to many other dimensions of planning practice, this research argues that we need to take into account that planning is a practice of organizational learning and knowledge co-creation [9-11]. Despite a plethora of previous research in urban planning that emphasizes that planning is a practice of knowing [12], transport planning theory lacks the formulation of knowledge and learning among its central components, as well as accompanying methods for knowledge and learning assessment.

Recent years have brought us the guidelines for developing Sustainable Urban Mobility Plan (SUMP) [13-15], which only hint at questions of learning through plan quality assessment while elaborating the plan, and before plan adoption. As such, we have a gap in both transport planning theory and practice, where explicit knowledge framework and plan quality evaluation criteria are missing.

Given the above gap, the objective of this paper is to develop a framework for knowledge creation and plan evaluation, appropriate for agencies in SEE countries. In order to develop a comprehensive framework of knowledge creation in transport planning, we draw from several relevant research fields. In the next section, the knowledge assessment framework builds upon the perspective of organizational institutionalism and policy transfer theory, which have been previously applied in some studies of transport policy. In the third section, in order to shed light on the learning process as the crucial part of knowledge creation in transport planning, we draw from the notion of organizational learning and expansive learning, which are less common in transport planning literature. The fourth section outlines a knowledge framework for transport planning practice, while the fifth section introduces two dimensions for plan quality assessment, together with a combination of quantitative and qualitative aspects. Section six presents an example of quality assessment, while the section seven concludes the paper, including suggestions for future actions in research and practice.

## 2. Organizational institutionalism and policy transfer theories

The main concern of organizational institutionalism is with how and why organizations behave in certain ways [16]. In early 1970, in response to the increasing rational actor-centred theories, a new interest to redefine the role of institutions as creators and stabilizers of the system of actors emerged. The new institutionalism turned towards cognitive and cultural explanations, de-emphasizing the role of actors as being influenced by institutions and culture [17]. The two major currents in the neo-institutional theory include sociological and historical institutionalism. Sociological institutionalism focuses on the influence of broader social structures, where procedures are culturally specific practices, while historical institutionalism focuses on institutional emergence and embeddedness in temporal processes, through path dependence and divergence at critical points in time.

Nowadays, the question associated with the change of existing institutions through construction and legitimation of new practices remains one of the central focal areas of organizational institutionalism [16].

Sociological and historical currents are increasingly intertwined, analysing how institutions provide a cultural model or script for action in path development, asymmetries of power, and unintended consequences over time. The current neo-institutional perspective interprets institutions as more-or-less taken-for-granted repetitive social behaviour of everyday interpretation and action of individuals [16,17]. Essentially, institutions include a range of formal rules and procedures that provide templates for behaviour. However, institutional repetition, routinization, and transmission are also framed by a network of symbols, cognitive scripts, and moral templates embedded within particular sociocultural and historical moments [16-18]. In this institutional frame, actor's identity, i.e., actorhood, is scripted by institutional structures, and actor-action relation is thus a socially-constructed package engaged in power relations. As a result, institutions influence individual's behaviour by specifying what one should do by ascribing meaning to theories about daily practices, but also by specifying what an individual can imagine doing within a given context.

As organizations often adopt new practices aiming to advance efficiency as well as social legitimacy, knowledge is an important focal point for neo-institutional theory [16]. In this context, organizational institutionalism recognizes the role of search for knowledge as well as the role of forgetting through unlearning, disadoption, and deinstitutionalization. Furthermore, neo-institutional theory recognizes mimetic institutionalization that occurs when uncertain organizations copy others, in addition to notions of appropriateness and fashion, imitation and identification, translation and editing of ideas. Similarly, neo-institutional theory recognizes the role of selective and inferential learning, as decoupling, where institutions under pressure adopt new structures without necessarily implementing the related practices. Finally, considering the importance of socialization and internalization in the neo-institutional perspective, language and written artefacts have a significant role, as prime instruments of transmission of knowledge.

As mentioned in the introduction, public organizations in CEE and elsewhere often do not have the expertise to tackle all the problems they confront, and increasingly look outside of their organizations for answers [19]. In particular, Dolowitz and Marsh define policy transfer as a "process in which knowledge about policies, administrative arrangements, institutions, etc. in one time and/or place is used in the development of policies, administrative arrangements and institutions in another time and/or place [20]. In another definition, policy transfer analysis is a "theory of policy development that seeks to make sense of a process or set of processes in which knowledge about institutions, policies or delivery systems at one sector or level of governance is used in the development of institutions, policies, or delivery systems at another sector or level of governance" [21].

Moving beyond the narrow notion of policy, policy transfer can actually include a range of elements transferred, including policy goals, policy content, policy instruments, policy programs, institutions, ideologies, ideas, attitudes, 'good practices', negative lessons, and technologies [22,23]. On the one side, rapid growth in global communication has stimulated policy transfer. On the other side, policy transfer has often been stimulated with public or professional dissatisfaction with efficiency of the existing policy, or as a way of generating legitimacy by imitating more legitimate or more successful organizations. In addition, the level of voluntary transfer can span from completely voluntary to coercive transfer processes [23], thus including different gradations of transfer (e.g., copying, emulation, hybridization, inspiration) [24].

The central pillar of policy transfer theory is that simply importing model of practice from abroad will not result in success [25]. The voluntary policy transfer process transitions through several phases, starting with problem recognition and the search for ideas, followed by the contact with potential agents of transfer, the emergence of an information feeder network, cognition and reception, up to formal policy processes and implementation [26]. In addition to these general phases, it is important to highlight that policy transfer is gradual, repetitive, delayed [27], sometimes having incomplete information and even leading to transfer failure. Furthermore, policy transfer process highlights the importance of internal and external information networks.

The efficacy and goodness of fit of the policy are an important but not the only determinant of the policy transfer success. In addition, socio-cultural values and institutional structure of the policy system have a significant impact on patterns of borrowing and diffusion [20]. Similarly to the neo-institutional theoretical perspective, at the core of policy transfer are complex socialization and learning processes, with the main institutional resource being knowledge. This complexity of organizational learning processes increases as actors have varying capacities for learning and differing agendas [20].

Having the learning process as the central column of policy transfer, previous research informs us about the importance of the compatibility with the value system and strengths of the recipient organization [21]. In addition, it is very important to take into account the inclusion of indigenous knowledge, as local voices and priorities of the prevailing organizational culture [24]. This requires openness to distinct forms of knowledge development and creative integration in the context, but also promises empowerment through ownership of the process. Taking these points into account, there is a need for developing methodologies for comprehensive evaluation of cognitive obstacles,

including a detailed specification of different knowledge acquisition processes [24]. In addition to the critical ability of the public institution to assess the quality of the receiving information, an evaluation of the current status of knowledge is essential for further information seeking and knowledge integration processes [26]. The documentation and evaluation of the learning processes is often difficult, since learning process is often not visible as cognitive changes are difficult to follow. In addition, policy transfer theory informs us that transferring benefits of learning from individuals to the organizational level can be observed as effective changes in behaviour and practices. Referring to the context of SEE countries, policy transfer is additionally constrained due to a lack of national cases to imitate. Additional unknowns originate from a general lack of policy transfer research focused on SEE countries.

Transport planning has been one of the areas influenced by policy transfer, as it is a common practice that national and city governments look for solutions from other locations to tackle transport policy problems [28]. To this end, developing a culture of learning, especially learning from outside, has been identified as an important aspect of transport planning. Similarly to the general policy transfer theory, previous research in transport planning informs us about the importance of the broader social system, institutional conditions and learning culture, and networks of external contacts [28, 29]. On the good side, the developing cities have the opportunity to learn from the planning mistakes of the Western European countries and leapfrog to the latest sustainable transport planning approaches.

### 3. Organizational (un)learning as a process

Since the late 1980s, the research on organizational learning has been wide and focusing on several deep currents [30]. These currents include the elements involved in the organizational learning process, such as, experience, members, and context. Although the organizational learning concept has emerged and developed primarily focused on private organizations, there has been an increasing interest in public organizations [31,32]. Similarly to the neo-institutional and policy transfer theory, organizational learning theory argues that knowledge is one of the most important organizational assets, which should be carefully managed within an organization due to its criticality for the performance and the long-term success [33]. Having in mind a dynamic accountability of public organizations, there is a need for continuous organizational learning, where learning is not an end in itself, but rather a means [34]. Organizational learning theories distinguish between information and knowledge, where knowledge is created and organized by the information flow, and stabilized by the

commitment and beliefs of its holders. In addition, the knowledge could be either tacit or explicit. Tacit knowledge is what we know but cannot easily express, while explicit knowledge is more technical and academic that could be described by various means [35].

As the knowledge is captured, dispersed, and ingrained in organizational features, knowledge becomes a component of an organizational context and code. In turn, changing the organizational context influences what and how individuals and groups learn. Learning starts with individuals, but individual learning does not necessarily result in organizational learning [36]. Organizational learning relies on interaction between individuals in the organization. However, instead of solely focusing on individuals' cognitive processes, higher emphasis is placed on social interaction within a specific organizational context. Consequently, strategies, processes and outcomes of organizational learning are shaped by organizational culture, practices, meanings, norms, and routines [36]. In turn, expectations and behaviour are shaped by learning processes, thus indicating a mutual dependence between structural and cultural aspects, underlying the importance of commitment to structural interventions.

According to Argote and Miron-Spektor [33], organizational knowledge is embedded in a variety of repositories, including individuals, routines, and transactive memory systems. This embedding and changes in the organization's knowledge happen through the acquired experience. Argote and Miron-Spektor's theoretical framework aims to analytically tract the learning process through a theoretical framework including members, tools, tasks, and their networks. However, similarly to the notion of explicit and tacit knowledge, learning is rooted in a specific domain and part of the "idiosyncratic" knowledge cannot be transferred [32]. Thus, knowledge transfer cannot exist independently from creation. The learning process includes several sub-processes such as searching, creating, retaining, and transferring knowledge. First, the process starts with individual intuition and thinking, followed by development of shared group understandings through interaction. Following these processes, diffusion through organizations happens through organizational routines, communication and interaction, ending with application, institutionalization, and embedding of knowledge through organizational routines [32].

In order to understand the learning process involved in the new form of activities that conventional learning theories cannot properly address, here we introduce the expansive learning theory [37]. The new approach, building upon activity theory and Bateson's idea of three levels of learning, aims to deal with unstable and vague essence of the learning object, important for

transformation of organizational practices [38]. Contrary to the standard learning theories that generally deal with the stable and well-defined objects, expansive learning theory focuses on learning something that is not stable, and not even defined or understood ahead of time. Thus, organizational practices are learned as they are created, as learners learn something that is not yet there [37]. In a theoretical movement from actions to activity, the specific learning actions of participants are analyzed for inner contradictions [38]. In practice, expansive learning comprises of specific sequential learning actions in the form of an expansive cycle or spiral which helps to move from the abstract to the concrete. Moreover, the theory of expansive learning puts the primacy on the communities as learners, on transformation and creation of culture, on horizontal movement and hybridization, and on the formation of theoretical concepts. Finally, as nobody knows what exactly needs to be learned, a special emphasis should be placed on the assessment of preconceptions in the existing knowledge.

#### **4. A knowledge framework for transport planning practice**

As agencies in SEE countries are developing their transport planning practice, they need to account for some essential elements. First, planning is a future-oriented practice, focused on possible, probable, and desirable futures [39]. Second, planning, is a practice of shaping people's lives, as complex social beings [40]. Third, planning is practice of shaping interdependent infrastructural and technological systems, which requires a systemic approach [41]. Fourth, transport planning is an institutionalized practice with inevitable political nature [42]. Finally, planning is also a multi-dimensional practice that takes place in a certain time, space and context, including diverse planning actants [11]. Several common threads in the theories presented in the previous two sections have foundational implications for the knowledge framework in transport planning. The following are the ten main points framing organizational learning in transport planning:

1. Institutions are embedded in a broader socio-cultural system and temporal processes.
2. Socio-cultural structures in institutions provide templates for actant's behaviour and identity, and are in return shaped by actant's activities.
3. Actants have varying capacity for learning, different agendas, and form networks, including external contacts.
4. Learning starts with individuals but organizational learning requires shared group understanding.
5. Knowledge processes are interdependent and often sequential, including different components, such as

searching, reception, combination, diffusion, and unlearning.

6. New practices are transferred and learned as they are created.
7. Learning often involves learning from others.
8. There is also knowledge that cannot be transferred.
9. Learning requires coping with social dynamics of these processes.
10. Learning requires emotional support.

Within this frame, knowledge becomes one of the most important organizational assets that needs to be carefully nurtured. As highlighted in the introduction, knowledge as an asset has even greater importance for institutions in the process of developing their transport planning practice. Developing a culture of learning requires evaluation of the current status of knowledge. In this evaluation, particular attention should be paid to preconceptions that can affect further learning processes. Within this framework, the argument that planning is a practice of organizational learning and knowledge creation builds upon Davoudi's perspective on planning activity as the practice of knowing [12]. This "knowing" is situated in time and space, and specific to a particular context. Such contextual knowing is provisional in the sense that it is constructed and constantly changing in a context which is itself constantly developing. Finally, knowing is distributed and collective, pragmatic and purposive, mediated and contested. The knowledge dimensions that Davoudi proposes include "knowing what (cognitive/theoretical knowledge), knowing how (skills/technical knowledge), knowing to what end (moral choices), and doing (action/practice)" [12].

In addition to the importance of socio-cultural context and actants in planning, an essential aspect of planning activity is an ongoing process of learning, as cognition iterates cyclically through different stages. Within our knowledge framework, this recurring learning cycle includes three general stages. The first stage is knowledge exploration and inquiry. This stage, for example, focuses on questioning the accepted practice by different knowledge actants, who might end up looking for best practice examples elsewhere. The second stage is knowledge acquisition and integration, focusing on developing a model of substitute practice or data analysis for planning purposes. The third stage is knowledge synthesis and creation, where planning involves creation of new knowledge through plan creation. These different stages of the cognition process also have different levels of learning involved. For example, integration refers to a higher learning level than acquisition.

## 5. Plan quality assessment dimensions

Intuitively, the importance of context, actants, and knowledge creation process in planning could make sense to many veteran transport planners, even if they were not formulated explicitly before. However, the explicit formulation enables development of relevant knowledge assessment methods. Let us turn now to the state-of-the-practice in transport planning. For example, the practice includes such elements as data collection and analysis, travel demand modelling or scenario development, evaluation of alternatives, and determining the action roadmap and project priority. Within this set of practices, evaluation of alternative plans and their implementation has been part of the state-of-the-practice since the foundational stages of transport planning [44]. However, considering the central premise that planning is a practice of organizational learning and knowledge creation, a question on assessing this learning and knowledge remains open. In practice, there are rarely any mechanisms focused on assessing the organizational learning and knowledge creation processes. The lack of such mechanisms has even greater importance for agencies that are in the process of developing their planning practice, such as those in SEE countries.

Contrary to the conventional transport planning practice, planning theory more broadly has already recognized that systematic evaluation of planning practice can contribute to improving the continuous learning process by providing important lessons and guidelines [45-48]. One aspect of planning practice evaluation is ex ante analysis of planning documents, where the focus is on the proposed practice before the implementation [49-51]. One reason why plan is an appropriate object of learning and knowledge analysis is that plan is a communicative policy act directly related to planning agency's intentions [52]. Thus, plan quality is correlated with the quality of the planning and policy-making process. In addition, plans are contextual collections of information about intentions, actions, possible futures, and possible outcomes [52]. Consequently, plan is a focal point of action among different actants in a planning context as a 'tangible' artefact that is a prime instrument of knowledge transmission.

An often-used plan assessment method is content analysis, focusing on the plan as a document [46,52,53]. This method can include content and format analysis, but also scope assessment accounting for relevant stakeholder values and local situation. In addition, plan assessment can focus on comparison to model plans [54]. Moreover, plan assessment can centre on comparison to desired planning outcomes, having in mind affected parties [48, 55] or principles of sustainable development [46]. However, despite recognizing the importance of plan evaluation for decades, the reality is that plans are not systematically evaluated against the best practice standards [46,48].

The second version of SUMP guidelines relevant for SEE countries as well includes an activity 9.2, titled Finalize and assure quality of SUMP document. The guidelines only go so far as to recommend a task that would involve checking the whole SUMP document draft, using internal and/or external peer review, while supported by guiding questions in SUMP Self-Assessment tool ([www.sump-assessment.eu](http://www.sump-assessment.eu)). After completing this questionnaire, one can expect to receive feedback on how well the SUMP document in question fulfills the principles of SUMP, and possible suggestions for good practice. The guidelines also recommend that self-assessment is completed by several people of the SUMP core team. The timing of this task is critical, especially having in mind agencies developing their transport planning practice. Usually, the plans are developed over a longer period of time, ending with a plan “embodiment” stage, when a plan becomes an actual tangible (or digital) object, i.e., document. Once the plan becomes a tangible object, there is an opportunity for proper plan quality assessment and immediate action on making amendments to the plan.

The underlying challenge with current SUMP guidelines is that they do not take an explicit stance on plan crafting as a learning process, and thus the guidelines on conducting plan quality assessment can be open to various interpretations that might not lead to long-term organizational learning. As such, the single-loop of organizational learning can be accomplished, where consequences of plan lead to changes in actions and strategies. However, for double- or even triple-loop learning [53], an organization needs to be able to reflect on deeper rationales and governing variables framing SUMP process. Thus, in the context of agencies developing their planning practices, we need to further draw upon fundamental theories of institutions, policy and organizational learning. As such, this research proposes two dimensions of plan quality assessment.

**1. Internal assessment** aims at comparing the plan’s vision, including goals, to its own content, actions, and policies. Thus, internal assessment should identify potential inconsistencies between visions and plan’s content. The number of internal plan assessment criteria can vary based on the plan visions and other individual characteristics [53], which could include governance variables besides the plan vision itself. For each of the criteria, internal consistency is graded on the five-level scale, from high to low consistency, using a grading rubric. Moreover, internal assessment can also rely on quantitative methods (e.g., [57]) that are otherwise used for ex-ante assessment, for specific aspects of the plan goals.

**2. External assessment** aims at comparing the plan components to the “ideal” plan components. In order to identify missing plan components, a plan in question should be compared to SUMP components. Similar to the internal consistency, external consistency is graded on the five-level scale, from high to low consistency. A grading rubric for external evaluation could be developed based on the main SUMP components SUMP, such as those including:

- a) Clear goals and objectives
- b) A long-term vision and clear implementation plan
- c) An assessment of current and future performance
- d) The balanced and integrated development of all modes
- e) Horizontal and vertical integration
- f) Participatory approach
- g) Monitoring, review, reporting

Internal and external plan quality assessment, based on the grading rubric conversion to a scale from one to five, result in a plan quality indicator - Plan Overlap Index (POI). POI is calculated as:

$$POI = IPS \cdot W_i + EPS \cdot W_e \quad [1]$$

*Subject to:*

$$POI, IPS, W_i, EPS, W_e \in [0, 1]$$

$$W_i + W_e = 1$$

*Where:*

*POI = plan overlap index*

*IPS = internal plan score*

*W<sub>i</sub> = weight for IPS*

*EPS = external plan score*

*W<sub>e</sub> = weight for EPS*

Weights for IPS and EPS are something that planners can adjust according to their perception of the importance between internal and external assessment. Taking into account that there is a recommendation to review the plan by several experts, the weights provide an opportunity for the individual weights that experts assign. On the contrary, these weights can be defined as part of the organizational practice. In general, the closer the POI value is to zero, the more incoherence is there in the plan. However, accounting for IPS and EPS allows to identify critical aspects of incoherence.

## 6. Example of plan quality assessment

The following Tables 1, 2, and 3 illustrate a numerical example for calculating POI for three hypothetical plans. One should note that in this example, the internal plan assessment bases on five criteria – which are ideally related to five aspects of plan vision or goals.

In comparison, external plan assessment has fixed seven grading criteria, based on SUMP guidelines. In addition, considering that the summation of external criteria score can range between 7 (if plan receives score of one for each external criteria) and 35 (if a plan receives a score of five for each external criteria), EPS, similarly to IPS, is normalized on the scale of zero to one.

**Table 1.** Example of plan assessment for extremely coherent plan

Internal		External	
IC1	5	EC1	5
IC2	5	EC2	5
IC3	5	EC3	5
IC4	5	EC4	5
IC5	5	EC5	5
SUM	25	EC6	5
<b>IPS</b>	<b>1</b>	EC7	5
<b>Wi</b>	<b>0.4</b>	SUM	35
<b>IPS*Wi</b>	<b>0.4</b>	<b>EPS</b>	<b>1.00</b>
		<b>We</b>	<b>0.6</b>
		<b>EPS * We</b>	<b>0.60</b>
<b>POI</b>	<b>1.00</b>		

Source: (Author)

**Table 2.** Example of plan assessment for very coherent plan

Internal		External	
IC1	5	EC1	3
IC2	3	EC2	5
IC3	5	EC3	3
IC4	3	EC4	5
IC5	3	EC5	5
SUM	19	EC6	3
<b>IPS</b>	<b>0.7</b>	EC7	5
<b>Wi</b>	<b>0.4</b>	SUM	29
<b>IPS*Wi</b>	<b>0.28</b>	<b>EPS</b>	<b>0.79</b>
		<b>We</b>	<b>0.6</b>
		<b>EPS * We</b>	<b>0.47</b>
<b>POI</b>	<b>0.75</b>		

Source: (Author)

**Table 3.** Example of plan assessment for very incoherent plan

Internal		External	
IC1	1	EC1	1
IC2	3	EC2	3
IC3	1	EC3	1
IC4	3	EC4	3
IC5	1	EC5	3
SUM	9	EC6	1
<b>IPS</b>	<b>0.2</b>	EC7	3
<b>Wi</b>	<b>0.4</b>	SUM	15
<b>IPS*Wi</b>	<b>0.08</b>	<b>EPS</b>	<b>0.29</b>
		<b>We</b>	<b>0.6</b>
		<b>EPS * We</b>	<b>0.17</b>
<b>POI</b>	<b>0.25</b>		

Source: (Author)

## 7. Conclusions

Planning, as making decisions about collective future, should be understood as an organized process of creative experimentation and learning aiming for sustainable outcomes. As process and outcome of planning are interdependent, just like mind-body, we need to avoid artificial separation between these aspects. After decades of institutionalized transport planning in SEE, given the urgency of climate crisis and global well-being, there is a need to leapfrog to a new level of planning practice. Here, we have to recognize that agencies in SEE region often lack funding, or wider institutional capacity of this organizational transition. However, this research argues that the challenge is not just in resources, but also in the approach to planning. Just as with triple-loop learning, changing core preconceptions in the governance system should open up opportunities for new paths away from the anchored institutional practices.

Beyond SEE, transport planning theory worldwide has attempted to move away from failed comprehensive rationality model, completely incapable to deal with the present-day world filled with deep uncertainty, vulnerability, and ambiguity. Following in the pathways of complexity theory more generally, we know that state-of-the-art planning process has to rely on structured communicative practices and a combination of different types of knowledges [11,58,59]. This research has attempted to contribute with a classical decision science action – making the implicit explicit. The implicit assumptions about the importance of institution, policy learning, and organizational learning have helped in outlining a larger framework of planning as a practice of knowing and learning. Moreover, this research has introduced a mixed-method example for plan quality assessment that can be used as a boundary object in communicative sense.

Subscribing to the model where both structure and agency shape the development of an institution, we have to recognize that institutionalized models impact practices independent of organized actor adoption. First few waves of SUMP research and development [60] has provided many practical aspects for growing the culture of modern transport planning around Europe. However, generic frameworks ultimately have to face the importance of cultural context for transfer and learning. As we know from policy transfer literature, policy ‘borrowing’ should not become an easy option, substituting for domestic innovation. Moreover, this kind of transfer can easily lead to the danger of transferring only the rhetoric, without the adequate substance of planning. As such, next generations of SUMP guidelines and EU structural funding have to explicitly target cultural and institutional forces that affect the development of contextualized institutional models around Europe.

For one, many of SEE cities could benefit from explicit funding for institutional development, as opposed to infrastructural investment.

Finally, we hope that this research opens new pathways for action that could tie into the ongoing SUMP development, hand in hand with changes in education, practice, and research activities. Further research in SEE region should focus more on understanding flows of knowledge in planning processes [10,11], the role that power and politics have directly or indirectly on planning [61,62], and closer collaboration between academia and planning practitioners, especially in the form of action-research [63].

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