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Andrej GULIČ^{1*}

PROSPECTS FOR INTERLINKING TRANSPORT, SPATIAL, AND DEVELOPMENT PLANNING AT THE REGIONAL LEVEL IN SLOVENIA

Summary. The prospects for aligning transport, spatial, and development planning at the regional level in Slovenia are presented in this article. We focus primarily on assessing the possibility of linking and interweaving the contents of documents provided for existing legislation, as well as legislation that is in the preparation phase. First, we present the general factors of differentiation and connection between the documents of the considered areas of planning. Then, we present the substantive factors of differentiation and the connection between the documents at the state level. In the next chapter, we present emerging technologies and transport services and their inclusion in spatial, development, and transport planning in national documents and regional development programs. In the last part of the article, we present the final findings and proposals for the substantive integration of the preparation of transport, spatial, and development planning documents at the regional level in Slovenia. The article was prepared in the framework of the CARE4CLIMATE project – boosting greenhouse gas emissions reduction by 2020 with a view to 2030 – promoting sustainable transport, energy efficiency, renewable energies, and sustainable, climate-protecting land use in the transition to a low-carbon society.

1. INTRODUCTION

This paper addresses the prospects for connecting three types of planning (transport, spatial, and development), with an emphasis on the specifics determined by the regional level of examination. All three types of planning have a long tradition in Slovenia, which is implemented in laws, policies, strategies, plans, and measures. Despite the many contact points and the intertwining of content, the integration of these types of planning in practice remains limited, mainly to general and declarative definitions within individual documents. Each of the types of planning is the responsibility of another ministry, which affects the sectoral distribution of tasks, contents, and powers in the implementation of the planning process. The integration of planning contents of all three types does not take place within the framework of transparent management mechanisms, which would also include representatives of various disciplines. It usually takes place in a way of coordination and reaching consensus between representative planning bodies. In such a situation, individual types of planning are poorly defined or even non-existent. For this reason, we propose working definitions of the terms “planning,” “development planning,” “spatial planning,” and “transport planning.” We would like to emphasize that the elements that define the concept of planning are, in principle, present in all three types of planning; therefore, we do not specifically repeat them in the definitions.

Planning is a regulated and focused process based on scientific knowledge and experience, in which a particular entity or territorial community, based on the findings of the analysis of the situation and consideration of possible futures, defines the objectives to be achieved, as well as the measures, resources, time periods implementation, and methods of monitoring and the evaluation of the

¹ Urban Planning Institute of the Republic of Slovenia; Trnovski pristan 2, 1000 Ljubljana, Slovenia; e-mail: andrejg@uir.si; orcid.org/0000-0003-3700-4972

achievement of objectives. The result of planning is a valid and binding plan or strategy for the participating entities and territorial communities and, in turn, the management of current and future targeted activities.

Development planning is the process by which natural assets and environmental elements are preserved and social and economic conditions are created in order to raise the standard of living and quality of life of the population, both in the present and the future. The result of development planning is a development plan or strategy.

Spatial planning, on the one hand, lends a spatial dimension to the economic, social, cultural, and ecological policies of society and, on the other hand, contributes to their mutual coordination and balance. This results in a more rational and sustainable use of space. Spatial planning is also a scientific discipline, administrative procedure, and policy based on an interdisciplinary and comprehensive approach aimed at the balanced development and organization of physical space in accordance with the development strategy. Therefore, it is an important factor in promoting sustainable development and improving quality of life. The result of spatial planning is a spatial plan.

Transport planning ensures the functioning of existing components and determines the future components of the transport system (transport infrastructure, means of transport, functional and spatial networks, and traffic flows) in order to achieve sustainable access to employment centres, services, and other activities according to current and future traffic demand. The role of transport planning is to respond to current and future transport demand. It also includes traffic management, which can effectively influence changes in travel habits, as well as preferences and demand for passenger and freight transport services towards more sustainable mobility. There is a strong causal link between transport and spatial planning, which affects how space is used, as well as the scope, quality, and efficiency of traffic flows, mobility, and accessibility.

The result of transport planning is a transport plan or strategy. The next chapter presents the factors of differentiation and integration between the documents of the considered types of planning. The text uses abbreviations for all titles of laws and development documents used at the national and regional level, which are presented in Tab. 1.

Table 1

List of abbreviations used (source: [9])

Laws		
Applicable law	Spatial planning act	SPA
Applicable law	Act on the promotion of harmonious regional development.	APRD
Draft law	Integrated Transport Planning Act	ITPA
Strategic development documents at the state level		
Valid document	Spatial Development Strategy of Slovenia	SDRS
Document in preparation	Spatial Development Strategy of Slovenia 2050	SDRS 2050
Valid document	Slovenian development strategy 2030	SDS 2030
Valid document	Transport Development Strategy of the Republic of Slovenia Until 2030	TDS 2030
Document does not exist yet	National Integrated Transport Strategy	NIPS
Strategic development documents at the regional level		
Documents do not exist yet	Regional spatial plans	RSP
Documents in the adoption phase	Regional development programmes	RDP
Documents do not exist yet	Regional integrated transport strategies	RITS

2. GENERAL FACTORS OF DISTINCTION AND SIMILARITY BETWEEN DOCUMENTS OF THE CONSIDERED TYPES OF PLANNING

2.1. General factors of distinction

Among the factors influencing the distinction between the types of planning considered, we have included some general conditions that frame the preparation and implementation of documents. These conditions are the legal definitions of the territorial framework and the period of validity of the document, the status of the legal basis, and the existence of a superior strategic document at the state level.

There are significant differences between the documents studied, considering the selected general conditions. An appropriate legal basis exists for RSP and RDP, while RITS is in preparation. The superior strategic document exists for the RSP (SDRS) and the RDP (SDS 2030), although it is slightly older for the RPP (SDRS 2004) and the preparation of the new one (SDRS 2050) has been delayed. The territorial framework in which the preparation and implementation of all three considered documents are envisaged is different. The preparation of RSP and RDP is envisaged within homogeneous development and statistical regions, while the preparation of RITS is envisaged within transport and problem regions, which are not defined by nominally defined limits but are the result of the assessment of each functional relationship. Differences between documents also exist, given the time of their validity. While the time frame for RITS and RDP is seven years, it is about 15 years for RSP. The presented situation objectively complicates the conditions for achieving appropriate content connectivity and coherence between documents.

2.2. General factors of similarity

One of the general factors of similarity between the considered types of planning is the expressed need to prepare background studies. In its most unambiguous form, this requirement is present in SPA, which states that the preparation of the RSP is also based on appropriate background studies provided by the draftsman and other spatial planning bodies for their area of competence.

APRD does not unequivocally claim that the preparation of the RDP is based on appropriate professional bases, but Article 9 of this act states that the state body responsible for regional policy is also responsible for providing research bases in the field of regional development and care for the transfer of good practices.

Draft ITPA stipulates that the ministry responsible for transport formulates proposals grounded on scientific bases for amending regulations and adopting other measures. At the same time, the document highlights the role of the Integrated Transport Planning Council, which aims to ensure the coordination of expert solutions in the field of integrated transport planning.

The simultaneous and mutually coordinated preparation of background studies is partly responsible for the opportunity for closer substantive integration in the preparation of the discussed documents.

3. SUBSTANTIVE FACTORS OF DISTINCTION AND SIMILARITY BETWEEN DOCUMENTS OF THE CONSIDERED TYPES OF PLANNING AT THE STATE LEVEL

In addition to identifying and assessing some general factors of distinction and similarity that frame the preparation and implementation of RSP, RDP, and RITS, we were interested in the key substantive factors on which selected national development documents are based and the extent to which they include or draw attention to content factors discussed in other strategic development documents at the state level.

We decided to focus on the presentation and comparison of the selected set of strategic goals due to the identified general differences between the considered documents, which are evidenced by differences in the duration of documents; differences in the procedural stages of their preparation, adoption, and implementation; differences in their timing; and the predominant absence of

implementing documents operationalizing defined strategic directions and objectives. We were interested in how extensively the key strategic goals that ground an individual type of planning at the national level are (in)directly present in the national development documents of the other types of planning discussed.

For this purpose, for each type of planning discussed, we prepared a set of key objectives defined in strategic development documents at the state level and qualitatively assessed the extent to which their content is present in the objectives of other types of planning.

3.1. Development planning at the national level – SDS 2030

Of the 12 development goals of SDS 2030, we identified six that can be found in most of the discussed spatial and transport planning documents. Of the 30 possible links between the objectives defined in the discussed development documents, we found 25 (approximately 83%). The highest level of content relatedness can be found in the nominal objectives of human health and the environment, the promotion of stable and efficient economic development and the sustainable management of natural resources. These are objectives that reflect the three key pillars of sustainable development: economic development, social development, and environmental protection. The relatively high degree of content interdependence of documents is encouraging, given that SDS 2030 and other documents under consideration were not prepared in the same period. This indirectly speaks to the success of formal inter-ministerial coordination in which representatives of individual government departments and the public realize the possibility of changing and supplementing documents in the early stages of their preparation.

3.2. Spatial planning at the national level – SDRS and SDRS 2050

We dealt with all 12 goals of Slovenia's spatial development, which are set out in the current SDRS. We compared them with the objectives or, if this was not possible, the guidelines and measures of other documents discussed. Of the 60 possible links between the objectives defined in the discussed development documents, we found 43 (approximately 71%). As expected, there is a high degree of content relatedness between the spatial development objectives defined in the SDRS and the SDRS 2050; some objectives in the SDRS 2050 are only slightly transformed or placed in a different content framework. A high level of content relatedness also exists between the spatial development goals and the development goals defined in SDS 2030. To a lesser extent, content relatedness can be identified between SDRS and SDRS 2050 and the considered documents in the field of transport planning. It should be noted that transport planning documents mainly lack spatial objectives that are not especially relevant for transport planning.

3.3. Transport planning at the state level – TDS 2030 and NIPS

In the field of transport planning, we discussed a total of nine objectives, which are defined in the TDS 2030 and the NIPS. We compared these with the objectives or, if this was not possible, with the guidelines and measures of other documents discussed. Of the 45 possible links between the objectives defined in the debated development documents, we found 24 (approximately 55%). The goals of transport planning at the national level are present to a lesser extent in the goals of the discussed development and spatial planning strategic documents. At the same time, we found a lower degree of content relatedness between the two transport planning documents. The review of the articulated goals shows that the NIPS proposal offers a certain paradigmatic change in the field of transport planning, which has not yet been expressed largely in spatial planning documents and even less in the practice of their implementation. We have two objectives (instrumentalized principles) of the NIPS in mind: (1) prioritizing the better use of existing transport infrastructure and traffic management measures before investing in new infrastructure capacity and (2) requiring transport infrastructure users to cover as much of the total external transport costs as possible. In the current SDRS and the proposed SDRS 2050 in the field of transport infrastructure, the primary emphasis is on the construction, upgrading,

reconstruction, and modernization of transport infrastructure. Traffic management is not mentioned in either document. The issue of external transport costs is mentioned in SDRS 2050 mainly in terms of their reduction but not in terms of the requirement that users of transport infrastructure must cover the costs incurred as much as possible. There is no mention of this issue in the valid SDRS.

4. INCLUSION OF EMERGING TRANSPORT TECHNOLOGIES AND SERVICES IN SPATIAL, DEVELOPMENT, AND TRANSPORT PLANNING

During the period of the implementation of existing and preparation of new documents of spatial, development, and transport planning at the national level, many new and rapidly developing technologies and services are emerging at the global and European level, as well as in Slovenia. We were interested in the extent to which they are present in the documents under consideration. In this paper, we focus on the following technologies and services: active mobility, vehicle sharing, driving and microtransit sharing, electric road vehicles, autonomous vehicles, mobility as a service, and teleworking. We also included the issue of mobility behaviour. In addition to the technologies and services discussed, there are other important ones that we have not included in this discussion. These include, for example, logistics management, priority choice of mobility mode, tunnel roads, and pneumatic pipe transport. In the following paragraphs, we briefly present a selection of new technologies and services and their conceptual definitions.

Active (non-motorized) mobility means walking, cycling, and other forms of mobility that include movement (such as scooters and skateboards) [20]. The concept of active mobility also has equivalent synonyms (e.g., non-motorized mobility or human-driven mobility). These forms of mobility take place mainly on pedestrian and cycling paths, along which there are usually also parking spaces. The positive effects of active mobility include improving the health of their users, reducing the volume of traffic and the consequent burden on the environment, achieving social justice goals, and reducing the cost of building and maintaining infrastructure for road transport.

Vehicle sharing refers to the rental of cars, bicycles, electric bicycles, and scooters in order to replace private ownership over them. The positive effects of vehicle sharing are an increased choice of mobility; the effective tackling of the first and last parts of routes; reductions in traffic congestion, environmental pollution, and transport costs; fairer access to jobs and other resources among those who cannot afford to purchase and maintain a vehicle; and accessible mobility opportunities for those with disabilities [25].

Ridesharing and microtransit. Companies that enable ridesharing (e.g., Uber and Lyft) use smartphone apps to provide personal mobility services. Microtransit uses vans and small buses to provide mobility services through group transport (e.g., GoOpti) [26]. The effects of the mobility services in question are evidenced by the fact that they are generally faster and more convenient than traditional public transport services and cheaper than taxis (though they are more expensive than public transport) [23]. At the same time, in areas where they increase the volume of joint vehicle journeys, they consequently increase traffic congestion, traffic costs, accidents, and emissions [2]. They cause mixed effects in the field of social justice. On the one hand, they provide an affordable mobility option for low-income passengers, but their impacts on reducing the number of public transport passengers reduce their efficiency and deteriorate their attractiveness and usability in the long term [14].

Electric road vehicles include battery electric bicycles, scooters, motorcycles, cars, buses, and trucks. Electric road vehicles reduce noise and air pollution [22] and the external costs of producing and distributing fossil fuels. The purchase of electric road vehicles is usually subsidized in the same way as the purchase of electricity at charging stations. Because their drivers (unlike drivers of internal combustion vehicles) do not pay the (fossil) fuel tax, their use of road infrastructure is partially subsidized. The lower total costs of using electric road vehicles encourage an increase in the volume of their joint trips, which, in turn, increases traffic jams, as well as the costs of maintaining transport infrastructure and repairing damage due to traffic accidents. At the same time, such trends further lead to unsustainable dispersed settlements [15].

Autonomous (self-driving or robotic) road vehicles include motor vehicles (passenger cars, buses, trucks, and local vans) with built-in systems that can independently operate the vehicle in traffic without a driver. According to some optimistic forecasts, fifth-generation autonomous vehicles will be commercially available and legally allowed for use in some developed countries by the end of the 2020s but will initially have relatively high costs and a limited capacity. Autonomous vehicles are not expected to become common or affordable to many users until the 2040s. Their development and implementation are expected to have several positive and negative externalities. Positive externalities include increased traffic safety, increased road capacity and cost reduction, reduced parking costs, reduced energy and pollution consumption, and support for increased vehicle sharing. Negative externalities include increased costs of building and maintaining physical and digital infrastructure; risks to other road users; potential criminal activities, increased traffic problems; and reduced affordable mobility opportunities, including walking, cycling, and public transport [16]. Despite the relative time lag between the development and introduction of autonomous mobility, some European countries (e.g., Germany, France, and Austria) have already developed strategies and action plans to accelerate its introduction into national transport systems [5].

Mobility as a service (mobility on demand) benefits mobile applications by providing integrated travel planning and payment for multiple modes of transport. A single digital mobility offer may include public transport; the sharing of rides, cars, bicycles, and scooters; taxi transport; car rentals; and vehicle parking and toll payments [7]. The mobility in question increases the attractiveness of multimodal travel. It reduces costs, benefits users, and enhances accessibility by improving cheaper travel options. By influencing the reduction of car ownership and use, it can reduce traffic and parking congestion, infrastructure costs, accidents, and pollution. It also supports the achievement of greater social inclusion by improving opportunities for disadvantaged groups, and it encourages active forms of mobility and greater use of public transport. In this way, it reduces the total volume of travel by vehicles and promotes the implementation of the concept of compact settlement development. The biggest disadvantage of this type of mobility is that it raises privacy issues on the World Wide Web [30].

Teleworking refers to telecommunications, which replace physical travel and includes working from home, e-commerce (online sales, banking, and other commercial services), e-health (internet health services) and e-government (online public services) [8]. The positive effects of teleworking are a reduced demand for commuting, an increased use of active modes of transport, and reduced congestion [3, 6]. However, the results of some studies point out that long-distance workers make more trips for other purposes, thus contributing to longer total distances travelled within a given time frame. There are also claims that telecommuting affects the uncontrolled expansion of cities or suburbanization [1].

Mobility behaviour refers to the complex decision-making process of passengers before and during their trips regarding their choices of destination, mode of travel, route, time of departure and return, and so on. [10]. Mobility behaviour is influenced by many factors. The influences of land use factors are especially important for our discussion. These include the location of the origin and destination of the trip, the location of the destination according to the (regional) urban centre, the density of the settlement area, proximity to various activities (employment, care, services), the centrality of activities (jobs and other activities in central centres), the interconnection of the transport network, the development of infrastructure for active mobility, the quality and accessibility of the public transport system, public car parks and their management, and mobility management that promotes more efficient travel activity. [17]. In addition to the above-mentioned factors, mobility behaviour is influenced by, for example, the demographic and socio-economic characteristics of passengers (e.g., age, gender, income, health status), (non)ownership of a personal vehicle, travel distance, and the possibility to work remotely [1, 12, 21]. Mobility behaviour is also strongly influenced by the preferences of the population. For decades, the prevailing preference for living in a single-family house on one's own land with one's own garden close to nature within a (subjectively determined) acceptable distance to employment centres and care and service activities has prevailed in Slovenia. Slovenian public opinion polls from 1968–1998 showed that the most desirable location for a single-family house is in a small town near the town in a suburban settlement [27]. Even though

similar opinion polls have not continued in recent times, we can say with a high degree of certainty that the presented preferences are still largely relevant today. When choosing the location of housing, the price of the land is crucial, but it must also be considered that public transportation may not be available in these areas. In the vast majority of cases, the realization of this preference is associated with the only possible type of mobility: automobility.

Tab. 2 presents the results of the assessment of the inclusion of new technologies, services, and behaviours in the discussed documents of spatial, development, and transport planning at the national level. For the SDRS, which was prepared in the period 20 years ago, we were not surprised by the absence of assessed technological and service innovations. We were surprised by their complete absence in the SDRS 2050, which is still in the preparation phase and contains long-term spatial development goals and orientations to be completed by 2050. They are mentioned only in general as new concepts of mobility. The importance of electric road vehicles is mentioned in SDS 2030. As can be seen from Tab. 2, most technological and service innovations in the field of mobility are included in the NIPS. Even though this is only a draft law and not an integrated transport strategy of the state, NIPS, in its principles and explanations, contains the most modern strategic content in the field of mobility.

Given that the treatment of new technologies, services, and behaviours in the field of mobility is practically absent (except in the case of NIPS), we were interested in the situation at the regional level. Given that the RSP and RITS do not exist yet, we tried to determine the extent to which these factors are included in the draft RDPs 2021–2027 and recorded projects of regional importance. We reviewed draft RDPs and available recorded projects of 12 statistical and development regions. Tab. 3 shows the situation in this area. The level of inclusion of selected new technologies, services, and behaviours in draft RDPs is generally higher than in the considered spatial, development, and transport planning documents at the national level. In most cases, they are only mentioned or briefly presented mainly at the strategic level and less at the program or project levels. Nevertheless, this fact is encouraging because it shows that their drafters are generally aware of their importance in the future. At the same time, this indirectly indicates that it is possible to prepare high-quality and useful RDP content, even though it is not possible to rely entirely on existing national strategic documents, either because they do not yet exist or because they are obsolete and not useful as an instrument for guiding future development.

Table 2

Presence of new technologies, services, and behaviours in spatial, development and transport planning documents at the national level. Legend: + (presence), – (absence) (Source: [9])

	Spatial planning documents		Development planning document	Transport planning documents	
	SDRS	SDRS 2050	SDS 2030	TDS 2030	NIPS
Modern technologies / services / behaviours					
Active mobility	–	–	–	–	+
Vehicle sharing	–	–	–	–	+
Ridesharing and microtransit	–	–	–	–	+
Electric road vehicles	–	–	–	+	+
Autonomous road vehicles	–	–	–	–	+
Mobility as a service	–	–	–	–	–
Teleworking	–	–	–	–	–
Mobility behaviour	–	–	–	–	+

Contrary to what has been said, the RDP drafts are still strongly dominated by objectives and orientations that plan to modernize and build new transport (and other economic public) infrastructure, which is one of the key measures for promoting regional development. The construction of new infrastructure is generally prioritized over improving the management of existing transport systems

and their infrastructure. Even though mainly foreign authors [11, 13, 18, 24, 28, 29] have shown that there is not merely a one-way positive link between transport infrastructure planning and the construction and economic development of the region, this opinion is also strongly rooted in the way main stakeholders think and act at the national, regional, and local levels. As we have already ascertained in previous chapters, the current SDRS and the proposed SDRS 2050 emphasize the construction, upgrading, reconstruction, and modernization of transportation infrastructure above all. Traffic management is not mentioned in either document. Such an approach in the program and project form can also be traced in the draft RDPs for the period from 2021–2027.

Improving transport accessibility through new transport infrastructure (e.g., highways, motorways, railways) in less developed and less accessible areas can speed up economic development. However, the opposite can happen if a new modern transport link allows a once less accessible region to compete with more efficient or cheaper suppliers in other regions. The new transport link can also increase the attractiveness of more remote urban and development centres and increase daily commuting (mostly by car) while also encouraging the permanent emigration of the most productive part of the population from less developed regions. The impacts and processes that will emerge in the real world will depend on many objectives (e.g., the economic, social, and demographic situation; the quality and effectiveness of structural assistance of the state and the EU; and proximity to more developed areas at home and abroad) and subjective factors (organization, empowerment, and the will to act from state, regional, local community, civil society and professional organization representatives).

The predominant focus on the planning and construction of transport (and other economic public) infrastructure at the regional level is also reflected in the highly planned support for the construction of the electric vehicle charging stations infrastructure. Of all the modern technologies and services discussed, the greatest support was expressed for this infrastructure. Of the 12 RDPs, 10 include infrastructure as a target, priority, or measure. This is followed by teleworking (mentioned in five RDPs), vehicle sharing (mentioned in four RDPs), and mobility as a service (mentioned in three RDPs). Active mobility, ridesharing, and microtransit are mentioned in two RDPs, while autonomous road vehicles are mentioned in only one RDP. The issue of sustainable mobility behaviour, which is becoming a key mechanism for promoting sustainable mobility in developed countries, is not included in any of the 12 RDPs, either as an objective or as a priority or measure, for the period from 2021–2027. It should be noted that the RDP is not the most appropriate planning instrument for creating the conditions for promoting sustainable mobility behaviour. In the first place, appropriate objectives, guidelines, and measures should be formulated in non-existent RITs, as well as RSPs, especially to address the impacts of land use factors on human mobility behaviour.

Nevertheless, it should be pointed out that most RDPs, at least at the strategic level (if not also at the program and project level), emphasized the importance of many relevant topics, such as promoting sustainable mobility, public transport regulation, multimodality development, the preparation of integrated transport strategies, the establishment of regional mobility management centres, the expansion of mobility based on the alternative fuel sources. The RDP of the Gorenjska region from 2021–2027 can be highlighted as a positive example in this direction.

5. CONCLUDING REMARKS AND PROPOSALS FOR THE SUBSTANTIVE INTEGRATION OF THE PREPARATION OF SPATIAL, DEVELOPMENT, AND TRANSPORT PLANNING DOCUMENTS AT THE REGIONAL LEVEL

Our discussion can be completed with the following conclusions:

1. Considering the selected general conditions (the legal definition of the territorial framework and the period of validity of the document, the status of the legal basis, and the existence of a superior strategic document at the state level), we found significant differences between the considered documents, which objectively complicates the possibilities of their coordinated preparation.
2. Part of the opportunity for a closer integration of the contents of the discussed documents can be found in the simultaneous and mutually coordinated preparation of background studies.

3. The analysis of the presence and connection of key strategic goals justifying a particular field of planning in the national development documents of other addressed areas showed the greatest presence of development planning goals (83%), followed by spatial planning goals (71%), and finally, transport planning goals (55%).
4. The analysis of the inclusion of emerging transport technologies and services in spatial, development, and transport planning in national strategic documents showed low levels of their inclusion in all considered documents except the ITPA, which is currently only in draft form.
5. The analysis of the inclusion of emerging technologies and transport services in regional development programs showed that their levels of inclusion are generally higher than in the considered spatial, development, and transport planning documents at the national level.
6. The construction of new transport infrastructure to solve current transport problems is generally much more valued by stakeholders at the national, regional, and local levels than the introduction and development of instruments for managing existing transport systems and their infrastructure.
7. The presentation and analysis of some previous experiences in preparing background studies for regional spatial plans showed that, at the expert level, there is appropriate knowledge, capacity, and experience to permeate the content of development, spatial, and transport planning at all relevant territorial levels and for the coordinated preparation of legally defined documents. Meanwhile, it also showed that, except at the declarative level, the willingness and ability of coordinated development planning and action in various sectoral areas by state institutions is significantly lower. The reasons for this may be related to the desire to maintain intact competencies and influence in each sector, in the tendency to implement cross-sectoral coordination in a political way beyond the existing official legal and administrative channels, and in strengthening political influence within each sector and establishing opportunities for potential corruptive actions.

For the substantive integration of the preparation of spatial, development, and transport planning documents at the regional level, it would be advantageous if certain conditions were met at the national level:

1. Adoption of the Integrated Transport Planning Act (ITPA) as soon as possible.
2. Preparation of the National Integrated Transport Strategy (NIPS), which could also be carried out incrementally by restructuring, supplementing, and updating the contents of the existing current Transport Development Strategy of the Republic of Slovenia Until 2030 (TDS 2030) with new contents based on the purpose, goals, and principles of integrated transport planning in the draft Integrated Transport Planning Act (ITPA). In this way, the situation within the transport sector could be improved to change the way of thinking about the topics addressed by the ITPA and the challenges posed by emerging technologies and mobility services.
3. Establishment of legal, managerial, organizational, and financial conditions for the coordinated preparation of the state National Integrated Transport Strategy (NIPS) and SDRS 2050 while updating SDS 2030.
4. Designation of a supra-sectoral body within the Government of the Republic of Slovenia to lead the preparation and updating of all three state documents (NIPS, SDRS 2050, and SDS 2030).
5. Provision of conditions for the preparation of common comprehensive background studies for all three mentioned state documents at the same time.
6. Establishment of a joint system of monitoring and evaluating the implementation of objectives, guidelines, and measures of all three state documents, which also includes evaluating planned and unforeseen trans-sectoral impacts that will arise during their implementation.

If the above-mentioned conditions cannot be met for various reasons, a pilot regional integrated transport strategy (RITS) could be prepared with one of the interested regional development agencies (e.g., in the framework of an appropriate international project). If the preparation of the pilot RITS took place at the same time as the preparation of the pilot regional spatial plan (RSP), the possibilities for delineating the content areas on the one hand and their intertwining on the other hand would be almost complete. The possible simultaneous preparation of both documents could be related to the current regional development programme (RDP) or its supplementation, amendment, or preparation. The preparation of a pilot RITS and a pilot RSP, creating a cooperative approach and involving stakeholders and the general public, would create better conditions for understanding the need to

change the current way of thinking and acting based primarily on tracking and meeting traffic demand and, consequently, the construction (upgrading, reconstruction, and modernization) of transport infrastructure.

In such circumstances, we propose the concept of integrating spatial, development and transport planning at the regional level, as can be seen from the very simplified schematic presented in Fig. 1. All three types of planning are semantically and substantively equal. During the planning process within and between the individual disciplinary activity under consideration, spontaneous and planned changes and impacts take place, which influences the creation of mutually harmonized planning contents. The concept is based on the intertwining of content and relational components in a time dimension.

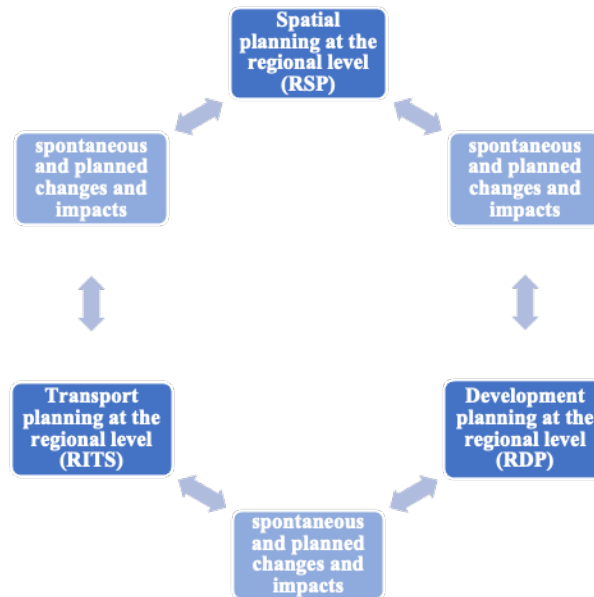


Fig. 1. Schematic representation of the integration of spatial, development and transport planning at the regional level (source: [9])

Within the CARE4CLIMATE project, we also prepared a proposal for a set of basic elements and factors of spatial, development, and transport planning, which is not exhaustive and can be supplemented and changed in accordance with new knowledge and information, as well as the expectations, wishes, and plans of relevant stakeholders. Due to restrictions on the length of the article, they are not presented here. We are convinced that the simultaneous preparation and implementation of the pilot RSP and RITS in the selected statistical and development region, in connection with the RDP, would decisively contribute to the effectiveness and efficiency of the preparation of both documents and their usefulness in planning and programming processes at the regional and local level. At the same time, it would make a significant contribution to the verification and upgrading of existing knowledge in all three planning areas, as well as at the inter- and meta-disciplinary levels.

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