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OBJECTIVES AND GUIDELINES FOR BUSINESS ZONE DEVELOPMENT AS A DRIVER OF ECONOMIC, SOCIAL, AND SPATIAL DEVELOPMENT IN SLOVENIA

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Abstract: In response to global structural changes and an evolving geopolitical context, Slovenia faces an urgent need to redefine its development model. The lack of a coherent strategic framework constrains the country's ability to address emerging challenges and leverage development opportunities. A transition toward innovation-driven growth, a low-carbon circular economy, and a resilient society supported by effective institutions is therefore essential. This paper argues for a development breakthrough model that integrates innovation, green transformation, and circular economy principles within a unified planning framework. Sustainable development requires a holistic transformation across economic, social, environmental, and institutional dimensions, supported by enhanced strategic foresight and adaptive capacity. The declining competitiveness of Slovenia as a destination for foreign direct investment further underscores the necessity of coordinated and strategic action. The paper focuses on the role of spatial planning in the development of business zones, emphasizing its interdependence with economic and social planning. Spatial planning defines location, structure, connectivity, and standards; economic planning directs sectoral development, investment, and employment; while social planning ensures equitable outcomes and supports quality of life. Empirical evidence demonstrates that the integration of these three planning dimensions significantly improves the performance, resilience, and long-term viability of business zones.

Key words: business zones, spatial planning, development, Slovenia

CILJEVI I SMERNICE ZA RAZVOJ POSLOVNIH ZONA KAO POKRETAČA EKONOMSKOG, DRUŠTVENOG I PROSTORNOG RAZVOJA U SLOVENIJI

Apstrakt: U odgovoru na globalne strukturne promene i promenljiv geopolitički kontekst, Slovenija se suočava sa hitnom potrebom da redefiniše svoj razvojni model. Nedostatak koherentnog strateškog okvira ograničava sposobnost zemlje da odgovori na nove izazove i da iskoristi razvojne mogućnosti. Stoga je neophodna tranzicija ka razvoju zasnovanom na inovacijama, niskougljeničnoj cirkularnoj ekonomiji i otpornom društvu koje podržavaju efikasne institucije. Ovaj rad zagovara model razvojnog proboja koji integriše inovacije, zelenu transformaciju i principe cirkularne ekonomije u jedinstven planski okvir. Održivi razvoj zahteva holističku transformaciju ekonomskih, društvenih, ekoloških i institucionalnih dimenzija, uz unapređene kapacitete za strateško predviđanje i prilagođavanje. Opadajuća konkurentnost Slovenije kao destinacije za strane direktne investicije dodatno naglašava

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potrebu za koordinisanim i strateškim delovanjem. Rad se fokusira na ulogu prostornog planiranja u razvoju poslovnih zona, uz isticanje njegove međuzavisnosti sa ekonomskim i društvenim planiranjem. Prostorno planiranje definiše lokaciju, strukturu, povezanost i standarde; ekonomsko planiranje usmerava sektorski razvoj, investicije i zapošljavanje; dok društveno planiranje obezbeđuje pravične ishode i podržava kvalitet života. Empirijski dokazi pokazuju da integracija ove tri dimenzije planiranja značajno unapređuje performanse, otpornost i dugoročnu održivost poslovnih zona.

Ključne reči: poslovne zone, prostorno planiranje, razvoj, Slovenija

INTRODUCTION

The role of spatial planning in the development of business zones is primarily manifested in the identification of optimal locations and the definition of appropriate spatial typologies, with priority given to the regeneration of degraded (brownfield) sites and to high accessibility to major transport nodes. Empirical research demonstrates that spatial morphology, multimodal accessibility, and the functional integration of business zones with residential areas and transport infrastructure significantly influence their vitality and long-term performance, as well as the resilience of the broader economic system. Equally critical is the planning of infrastructural and mobility capacities, encompassing road and rail connectivity, public transport systems, the implementation of the 15-minute sustainable accessibility concept at the local scale, and the development of pedestrian and cycling networks. Such integrated mobility planning reduces traffic conflicts and greenhouse gas emissions while enhancing functional efficiency and environmental performance.

Spatial planning also establishes environmental standards and mitigation measures, including the deployment of green and blue infrastructure, noise attenuation buffers, and the remediation and adaptive reuse of degraded land. Scholarly evidence confirms that strategically planned spatial regeneration of brownfield areas generates measurable sustainability outcomes across environmental, social, and economic dimensions.

A key governance dimension lies in the vertical coordination of spatial planning instruments - ranging from national and regional frameworks to municipal and detailed implementation plans. Post-2020 reforms within European planning systems have strengthened the strategic alignment of spatial development with other public policy domains, reinforcing cross-sectoral integration. Contemporary academic literature further emphasizes the renewed strategic relevance of business zones within spatial planning. They are no longer conceptualized merely as sites for economic activities but increasingly as multifunctional territories for protection, upgrading, and the development of mixed-use environments (Zhang et al., 2024; Grodach et al., 2024).

CHALLENGES

This chapter outlines the key development challenges related to promoting the development of business zones in Slovenia. The analysis is grounded in a general definition of a "development challenge" as a complex barrier, need, or opportunity arising in the processes of social, economic, and spatial development and environmental protection, which requires targeted responses, adjustments, or innovations to achieve sustainable, inclusive, and efficient development objectives. The chapter subsequently identifies the key barriers, needs, and opportunities as the core components of challenges affecting priority areas for economic development.

Barriers

- Terminological ambiguity: Key term business zone is not clearly defined in strategic and legislative documents, leading to fragmented interpretation and inconsistent application.
- Weak integration of strategic and spatial frameworks: The lack of concrete criteria, locational guidance, and implementation instruments results in development objectives that remain declarative and lack spatial grounding.
- Fragmented classification of business zones: The absence of a unified classification and hierarchy limits effective investment targeting and strategic decision-making at national and regional levels.
- Dispersed and underutilised business zones: Most identified zones are small, spatially constrained, and poorly occupied, reducing both investment attractiveness and land-use efficiency.
- Insufficient governance structures: The lack of formal management and coordination mechanisms leads to fragmented governance, limited information flows, and weak strategic steering of business zone development.

Needs

- Terminology standardisation: Harmonised definitions and classifications across governance levels are required to ensure coherent communication and effective policy implementation.
- Spatial integration of strategic objectives: Economic development objectives must be explicitly embedded in spatial planning documents to ensure operational feasibility.
- Unified classification of business zones: A standardised system categorising zones by role, function, and development potential is essential for strategic investment guidance.
- Professional governance models: Dedicated management structures are needed to ensure coordinated leadership, promotion, maintenance, and strategic development of business zones.

Opportunities

- Strategic business zone network: A coordinated and strategically managed network of business zones can effectively steer economic development and strengthen regional cohesion.
- Adoption of advanced practices: Industrial symbiosis, investor-oriented digital platforms, joint promotion, and other innovative approaches can enhance value creation and support sustainable land use.
- Enhanced regional competitiveness: Targeted development of business zones in less developed regions can reduce territorial disparities and strengthen economic resilience.
- Alignment of spatial assets with economic objectives: Spatial planning grounded in resource availability and economic demand increases flexibility and responsiveness to changing investment conditions.
- Proactive spatial-locational policy based on circular land management: This includes multifunctional and flexible land use, prioritisation of brownfield redevelopment, the use of building rights or leasing models, inter-site circulation, and sustainable resource management.

DEVELOPMENT DIRECTIONS

The design of the network of business zones is professionally grounded in the application of the methodology for defining criteria for the classification of types of business zones and innovation ecosystem actors in Slovenia (Gulič, A., 2019), which was developed within the project "Methodology for the inventory of business zones and innovation ecosystem actors in Slovenia, implementation of field data collection, and establishment of an up-to-date register" (Bizjak et al., 2019). The proposed methodology builds on a set of quantitative data on business zones compiled within the project. It defines criteria for determining types of business zones, taking into account functional, spatial, and environmental protection aspects. Based on these criteria, a typology of business zones is established according to spatial significance and predominant economic activities.

Table 1: Classification of business zones in Slovenia by spatial significance across statistical regions (source: Bizjak, I., et al., 2019)

Statistical regions	International	National	Regional	Inter-municipal	Municipal	Total
Gorenjska		1	4	6	80	91
Goriška		1	2	4	75	82
Jugovzhodna Slovenija		1	4	4	64	73
Koroška		1	3	2	22	28
Obalno-kraška	1	1	4	1	28	34
Osrednjeslovenska	1	1	4	5	74	84
Podravska	1	1	3	2	57	63
Pomurska		1	3	5	40	49
Posavska		1	4	2	17	24
Primorsko-notranjska		1	5	2	16	24
Savinjska		1	5	4	80	90
Zasavska		1	2	1	7	11
Total		12	43	38	560	653

According to the criterion of spatial significance, business zones are classified into the following categories: international, national, regional, inter-municipal, and local significance. According to the criterion of predominant economic activity, zones are classified into eight categories: industrial zones; transport-logistics and commercial zones; technology-oriented zones; information and communication activities zones; zones with multiple economic activities; zones with unspecified economic activities; and zones characterised by diverse economic activities. The table 1 and the figure 1 present business zones in Slovenia according to their level of spatial significance.

A total of 653 business zones have been identified, including 3 of international significance, 12 of national significance, 43 of regional significance, 38 of inter-municipal significance, and 560 of municipal significance. The highest numbers of business zones are

recorded in the Gorenjska (91) and Savinjska (90) regions, followed by the Osrednjeslovenska (84) and Goriška (82) regions. The lowest number of business zones is found in the Zasavje region (11), while the Posavje and Primorsko-Notranjska regions each record 24 business zones. Municipal zones account for the majority, representing approximately 86% of all planned zones, highlighting the strong role of local-level orientation in the development of economic infrastructure.

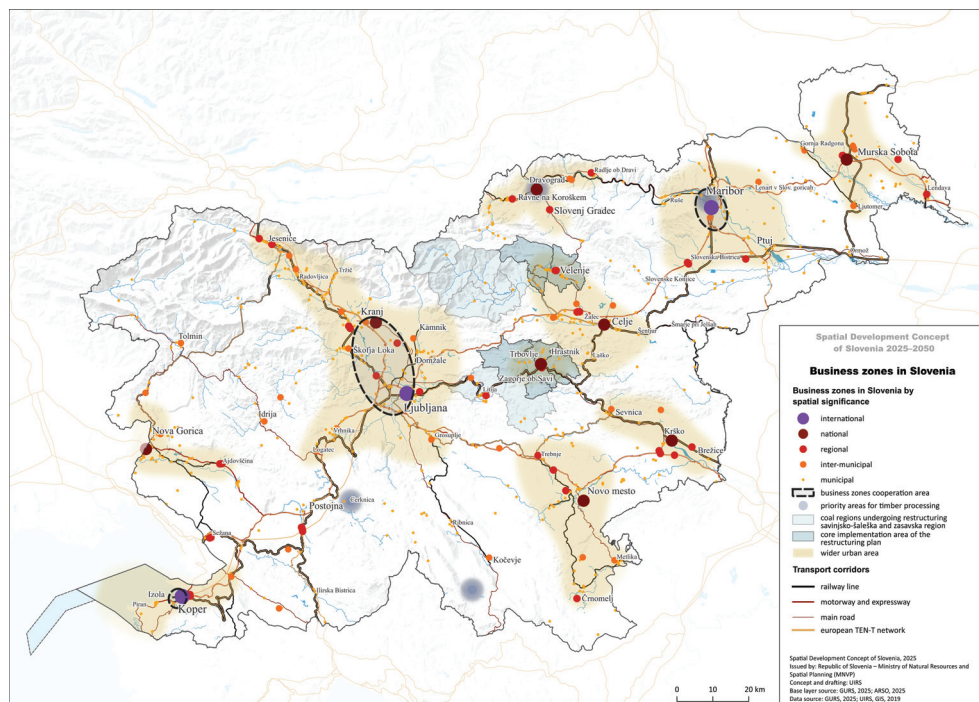


Figure 1: Classification of business zones in Slovenia by spatial significance (source: Bizjak, I., et al., 2019; UIRS, 2025)

Business zones of international significance are macro-locationally situated within first-level urban centres (Ljubljana, Maribor, and Koper). In these first-level centres, business zones of international significance overlap with zones of national significance, meaning that zones of international significance simultaneously qualify as zones of national significance. Business zones of national significance are evenly distributed across regions, with each statistical/development region hosting one such zone, thereby supporting a spatially balanced approach to their strategic development.

Business zones of national significance are located in second-level centres (Kranj, Celje, Novo mesto, Nova Gorica, Murska Sobota, Slovenj Gradec, and Ptuj) or within their wider urban areas. Business zones of regional significance are located in selected third-level centres (Črnomelj, Dravograd, Jesenice, Ravne na Koroškem), as well as in certain fourth-level centres (Ajdovščina, Grosuplje, Ilirska Bistrica, Lendava, Litija, Radlje ob Dravi, Sežana, Slovenska Bistrica, Slovenske Konjice, and Zalec).

For spatial planning at the national and regional levels, business zones of international, national, and regional significance are of primary relevance, while at the municipal and inter-municipal levels, business zones of inter-municipal and municipal significance are most relevant.

MEASURES TO ACHIEVE THE DEVELOPMENT DIRECTIONS

A set of measures and changes is proposed to improve the current situation and ensure more effective future development of business zones in Slovenia.

Harmonise definitions and terminology: Clear and consistent definitions of key terms in strategic and legal frameworks are required to enable coherent planning and implementation.

Introduce a unified classification and criteria for business zones: Formally integrate harmonised criteria for defining business zones into national strategic documents and the spatial planning system, including the classification of business zones by level of significance (international, national, regional, inter-municipal, municipal) in the Spatial Development Concept of Slovenia and regional spatial plans, with priority given to areas of higher strategic significance.

Improve alignment between sectoral strategies and spatial planning: Establish a permanent inter-ministerial coordination mechanism to align the designation of priority economic areas and integrate spatial considerations into sectoral strategies, while directing economic policy instruments (e.g. subsidies, calls, tax incentives) primarily towards investments in designated priority areas.

Establish national/regional coordination and governance: Create a formal institutional framework, including a national coordinator, to manage and monitor business zones, supported by structured multi-level coordination mechanisms and aligned public (national and EU) funding instruments targeting their development.

Focus on strategically significant and high-potential business zones: Given limited resources and the high fragmentation of existing zones, prioritise a selected set of key business zones - comprising the three zones of international significance, one zone of national significance per region, and one to two zones of regional significance - with preferential support for infrastructure upgrading, coordinated spatial expansion, targeted investment promotion, functional integration with technology parks and logistics centres, and streamlined administrative procedures.

Enhance efficiency of existing zones and activate underutilised areas: Improve infrastructure readiness, introduce targeted financial incentives for underused zones, implement integrated brownfield regeneration programmes (including public-private partnerships), reassess obsolete or unsuitable land uses, and establish professional management structures with minimum public-funding standards for major and strategic business zones.

Strengthen data support and monitoring: Upgrade the existing SPIRIT Slovenia Business Development Agency business zone register into an integrated information system for monitoring priority economic areas, enabling regularly updated data on land and capacity availability, infrastructure readiness, management contacts, and key performance indicators, alongside a systematic policy-implementation evaluation framework to support adaptive steering of development instruments.

Integrate sustainability and innovation in business zone development: Promote green and smart infrastructure, support specialised and innovation-driven zones aligned with national and regional priorities, prioritise brownfield regeneration with environmental safeguards, and plan new or expanded zones based on balanced inter-municipal accessibility to reduce commuting and support the green transition.

Implement a proactive spatial-locational policy based on circular land management: Introduce a proactive site-management model that promotes flexible and multifunctional land use, prioritises brownfield redevelopment, favours long-term leasing or building rights

over land sales, enables dynamic relocation of activities between zones, and ensures sustainable resource management, including energy efficiency, infrastructure reuse, waste reduction, and climate-risk adaptation.

Strengthen inter-municipal and regional cooperation: Establish mechanisms for coordinated planning and management of business zones within regions, promote thematic or sectoral specialisation based on local strengths, assign regions a coordinating and advisory role through regional spatial plans, and encourage resource sharing and the transfer of good practices among zones.

FINAL CONCLUSIONS

The paper identifies key systemic shortcomings, including unclear terminology and misaligned strategic documents, fragmentation and underutilisation of business zones, insufficient management and coordination capacity, and the absence of strategic steering and robust data support.

To address these shortcomings, it proposes a set of targeted measures: harmonisation of definitions and integration of a classification system into spatial planning; establishment of governance and coordination mechanisms at national and regional levels; strategic prioritisation of key zones; revitalisation of underutilised areas; strengthened inter-municipal cooperation; integration of sustainability and innovation dimensions; and implementation of a proactive spatial-locational policy based on circular management of business zone locations.

The proposed network of business zones therefore constitutes a key step towards more coordinated, efficient, and sustainable spatial development in Slovenia, while supporting economic objectives and regional competitiveness. Although implementation will require coordinated action across multiple decision-making levels, it is expected to deliver substantial benefits. A harmonised strategic framework and decisive implementation can position priority economic areas as an effective instrument for sustainable economic growth. Improved strategic clarity and professional management of business zones will enhance competitiveness and innovation, support more balanced regional development, strengthen spatial readiness for investment, and increase the resilience of the economic space to long-term structural and environmental change.

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