

REGIONAL COMPETITIVENESS AND TERRITORIAL INDUSTRIAL DEVELOPMENT IN SERBIA

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In the paper are investigated the regional competitiveness and the territorial aspects of industry in Serbia. There are analysed the key recent movement in industrial development of Serbia and macrolocal factors and territorial organisation of industry. The research of possible structural changes of industry and identification of its key development sectors is the important component of territorial development analysis in Serbia. This paper points to the kinds and types of industrial zones and industrial parks as fundamental models of regional and urban development of that activity with critical retrospection on the industrial zones in Serbia (greenfield and brownfield industrial locations). There are shown results of evaluation the regional competitiveness from a stand-point of possibilities of industrial development on the regional level (NUTS 3) by comparative analyses and Spider method. Results are used as one of the bases for making preliminary draft of territorial development scenario of this activity in Serbia and for the possible allocation of the future industrial zones and industrial parks in region level.

Key words: territorial development of industry, regional competitiveness, industrial zone and industrial park, greenfield and brownfield locations

INTRODUCTION

The spatial organization of Serbia's industry is a reflection of the previous development policy and territorial aims of industry. In the conditions of a global economic and financial crisis and due to the impact of the transitional recession, a strong process of deindustrialization has intensified in the towns of Serbia and large territorial differences have emerged, thereby resulting in a concentration of capacities in the Belgrade and Novi Sad region. The inherited regional disparities in the levels of development are a huge development problem, as they are a consequence of spatial concentration, spatial polarization, specialization and fragmentation of the elements of industrial structure in the urban tissues of towns and along the corridors of thoroughfares.

From the viewpoint of planning Serbia's territorial development, many questions are asked in order to alleviate and eliminate the unfavorable effects of rapid structural change

in this sector and the unfavorable effects of possible scenarios for the total and industrial development. In the future, it will be inevitable to introduce new patterns regarding organization and exploitation of territorial capital on the grounds of sustainability.

One of the key issues is the adoption and harmonization of Serbia's new industrial policy with the EU industrial policy (Lisbon revisited, 2004, EC, 2003, Savić, Zeković, 2004) based on the principles of competitiveness and sustainability. This process has its own territorialized expression, evident in the dynamic changes of the spatial structures of towns and regional wholes, in the emergence of new economic poles in urban areas, new locational-spatial forms of industry and economic activity. The contemporary regional/territorial industrial development based on sustainability implies the implementation of instruments of industrial zones and parks as models of regional and urban development. The development strategies and disposition of industrial zones and parks of different ranks has not yet been determined in Serbia. Their allocation should respect macro-locational factors and criteria, the capacity for organizing creative resources

of a region, regional and metropolitan advantages. TA preliminary draft of the scenario for the territorial development of industry has been analyzed, with suggestions of possible solutions at the level of district groups in Serbia (NUTS 3).

TERRITORIAL INDUSTRIAL DEVELOPMENT IN SERBIA

Main tendencies in the industrial development of Serbia

The main problems of Serbia's economic and industrial development even before the global economic crisis have largely been a consequence of the process of transitional recession and the changes in the wider surroundings, and they have had an impact on the polarization and concentration of spatial

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development (Zeković, Hadžić, 2006). The key problems have stemmed from an insufficiently competitive economy/industry, untransformed current structure, and a slow transitional process of privatization and the restructuring of enterprises (Zeković, 2006). Among them, especially, are important the relatively low level of economic and industrial activity, slow structural change, large regional disparities in development and disposition of industrial capacities, low level of investments, high unemployment, low competitiveness, a lagging in innovations, know-how, new technologies, inefficiency in the use of material input, and ill-equipped infrastructure of industrial locations.

Based on the findings of the document *Industry of Serbia, 2008* and the *Report on Serbia's Development (2007)*, the structural changes in the industry in the period 2001-2008 were characterized by the beginning of the process of reforms of economic subjects; by a low level of industrial production (on average 2.1% annually or 49.1% of the level from 1990); growth of work productivity rate by 10.8% which indicates growth of its competitiveness; by a big share of food processing and chemical industries in the GDP; reduction of industrial employment in the period 1995-2008 by 319,238 persons (Table 1); and by participation of industry in the gross added value by 23.7%.

In 2008, 181,148 enterprises were registered in Serbia, of which 6,150 enterprises were in the industry. In 2008, 2,006,047 persons were employed in Serbia, of which 493,867 persons or 24.6% in industry (in 1996, 41.6%, Table 1). In the industrial structure, there are 2,568 enterprises that employ 11-50 workers, 1,045 enterprises with 51-250 employees and 360 big enterprises with over 250 workers. The

process of privatization, restructuring and bankruptcy is the most intensive in the industry, with big socio-economic consequences, a reduction of employees and impact on the spatial disbalance in the regional development of Serbia. According to the Agency for Privatization (2007), the bankruptcy has been filed for 451 enterprises. Most of the enterprises filing for bankruptcy are from the textile industry, wood processing, metals processing, the production of metal products and machines, food processing industry, lead and zinc, stone and nonmetals mining, production of cellulose, electronic industry etc. Regional differences in industrial development and the gap between the undeveloped regions and the Belgrade region has widened, which is illustrated by data on the concentration of industry in Belgrade (Table 2).

Territorial guidance of industrial development

Estimations of the territorial development of Serbia's industry are based on the use of several available sources, records of the republic agencies for economic registry, privatization, development of small and medium enterprises, promotion of export, statistical data, verified development documents (National Strategy for Economic Development 2007-2012; Strategy for the Regional Development of Serbia by 2012, (2007); Serbia's Strategy for Joining the EU, 2005), data of the Economic Chamber of Serbia, regional spatial plans.

One of the consequences of transitional recession is also the drastic fall in the total and industrial employment in Serbia. In the period 1990-2008, the total number of employees in Serbia was reduced by 407,000 persons, of

which the highest number in the industry - 320,000 persons. Large industrial centers, which were employing over 20,000 workers fell from 9 to 2 in the period 1996-2008; the number of medium industrial centers with 10-20,000 workers dropped from 17 to 4; and the number of medium industrial centers employing 5-10,000 workers dropped from 26 to 18 (Table 3, Graph 1). These changes in the numbers of industrial centers are indicators of large regional spatial disparities. Industrial employment has increased in Novi Sad, Mladenovac, Lajkovac, Žitište, Bogatić, Lapovo, Kladovo and Žagubica, while in around 50 small and medium centers the level is stagnant. (Table 3)

Within the Danube-Sava area and in the valleys of the Big, West and South Morava rivers, there were 420,000 industrial workers in 1991 (46% of industrial employment in Serbia), while in 2008, there were 345,000 workers (64.7% of industrial employment).

Spatial concentration of industry in the Belgrade and Novi Sad area is a result of global inefficiency of production factors. It is also the result of a lack of engagement of resources by undeveloped regions, such as Southern Serbia, region of Stari Ras (municipalities Novi Pazar, Tutin, Sjenica, Prijepolje, Priboj and Nova Varoš), or the result of the process of transitional recession in the devastated regions (Eastern Serbia, part of Central Serbia).

The general concept of decentralization and partial demetropolization of industrial activity, predicted by the Spatial Plan of RS (1996), has not been carried out for various reasons, mainly, because of the accumulated socio-economic problems, development problems in the industry, impact of transitional recession and market factors, general macro-economic policy, lack of industrial and regional policy, policy of competition and policy of innovation, the influence of the institutional frameworks and other factors.

In the previous period, there has been no intensifying of development in the planned zones (firstly, in the Danube-Sava zone and the valleys of Big Morava, W. Morava and S. Morava), but there has been further concentration of industry in the area of Belgrade and Novi Sad. The area of metropolitan suburbia is, even in the European frame, a space that is characterized by dynamic development and structural changes. The intensifying of development of this area is

Table 1. Main indicators of industrial growth in Serbia for the period 1996-2008

Indicators	1996.	2008.	Difference 2005/96
-industrial share in the national income of RS (in %)	31.05	34.05	+ 4
-industrial share in total employment in RS (in %)	41.62	24.61	- 17.01
-number of employed in industry	813,195	493,867	- 319,328
-total number of employed	1,953,678	2,006,047	+ 52,369

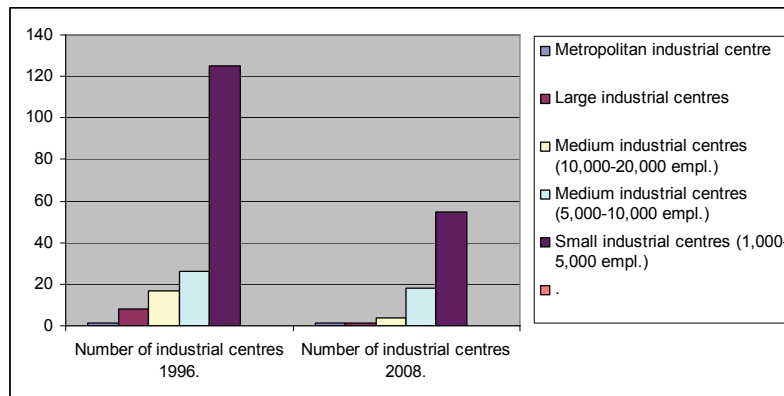
Table 2. Indicators of change of industrial growth and concentration of industry in Belgrade (Zeković S. 2008)

Indicator	1996.	2008.	Difference 2005/96
-share of national income of BG's economy in the national income of RS (in %)	24.14	33.74	+ 9.6
-share of total number of BG's employees in the total number of employed in RS (in %)	24.01	31.24	+ 6.23
-share of BG's industry in the national income of RS's industry (in %)	22.61	25.32	+ 2.71
-share of employees in BG's industry in the number of employees in the RS's industry (in %)	15.23	16.37	+ 1.14

Table 3. Changes in the number of industrial centers in Serbia in the period 1996-2008 (Zeković S., 2009, in Strategy of Spatial Development of Serbia by 2020)

Size of industrial centre (number of industrial workers)	Number of industrial centers 1996.	Number of industrial centers 2008.	Difference + or -
1. Metropolitan-industrial centre >50,000 employees	1 (Beograd)	1 (Beograd)	0
2. Large industrial centres (20,000-50,000 employees)	8 (Novi Sad, Niš, Kruševac, Subotica, Kragujevac, Pančevo, Smederevo i Leskovac)	1 (Novi Sad)	-7
3. Medium industrial centres (10,000-20,000 employees)	17 (Zrenjanin, Kikinda, Sombor, S.Mitrovica, Lazarevac, Požarevac, Užice, Kraljevo, Čačak, Šabac, Loznica, Valjevo, Trstenik, Jagodina, Bor, Vranje, Pirot, Priština)	4 (Subotica, Pančevo, Kragujevac, Niš)	-13
4. Medium industrial centres (5,000-10,000 employees)	26	18 (Kikinda, Zrenjanin, Pančevo, Valjevo, Šabac, Valjevo, Smederevo, Požarevac, Jagodina, Trstenik, Užice, Čačak, Kraljevo, Kruševac, Pirot, Leskovac, Vranje, Bor)	-8
5. Small industrial centres (1,000-5,000 employees)	125 (with Kosovo)	55 (without Kosovo)	-70

Graph 1. The process of deindustrialization in Serbia – according to the size indicator of industrial centers, in the period 1996-2008.



conditioned by strong influences of the process of the globalization of economy, in which foreign investments are the pivot of big structural and spatial changes. The obvious lack of space for economic purposes in the Belgrade metropolitan area offers strong chances of development to the surrounding areas of municipalities that are along the highway. However, the phenomenon of a potential development and the consequences of a linear urban agglomeration in the direction Belgrade - Novi Sad have not been studied enough in the republic and regional frames. The Spatial Plan of the Republic of Serbia projects the development of high tech economic activities in the areas of Belgrade, Novi Sad, Niš, Kruševac, Pančevo, Trstenik, Kragujevac and Subotica. In practice, a technological park was realized in Vršac (Concern „Hemofarm” on 25ha), Zeković S., 2004. In Belgrade, the scientific-technical park „IHIS”, Zemun was founded in 2006.

In the spatial structure of industry, new spatial forms have been initiated – *free zones, industrial parks, technological parks, business*

incubators for SME. Although according to the SPRS, the realization of 23 free zones has been projected, however based on the available data in 2007, four free zones were registered. In the last several years, the establishments of business incubators for SME have been initiated in Bor, Knjaževac, and Lazarevac etc.

During the last 2-3 years, an important process of implementing the planned solutions for spatial organization of industry has begun with the *National Investment Plan of Serbia* (by building a regional transportation infrastructure, communal infrastructure, by supporting the construction of industrial zones, by financing production programs and small and medium enterprises etc). The support for building 64 industrial zones in the towns of Serbia, at the same time, means support for the realization of the planned solutions and competitiveness of economy and area on a national and local level.

Industrial localities

An industrial zone is a collective location, or limited space belonging to a greater number of firms from the same or different industrial branches, i.e., a locational form of business infrastructure, which apart from other location models (industrial park, technological park, free zone, business incubator, business center, airport zone of development et al.) represents an attractive instrument for drawing investments into the region or country, in order to reduce the territorial disparities at the levels of total and industrial development. Based on available knowledge, there is little available space for industrial development in the towns of Serbia in the form of infrastructurally organized locations. Usually, investors are offered individual undeveloped locations. In view of providing attractive and convenient industrial localities in towns, Serbia has strong competition in its neighboring countries, especially in the category of *greenfield* investments, which have a key role in the growth of national economy.

According to type of investments and the establishment and construction of zones, *greenfield zones* are more frequently in use, and more rarely are *brownfield zones*. *Greenfield* zones mean construction on undeveloped localities, while *brownfield* zones include developed spaces, usually abandoned or devastated industrial and other complexes in town centers. Activating brownfield localities is one of the key instruments of functional and urban transformation of a larger part of space in the towns of Serbia.

Industrial zones are an important instrument of the new industrial, regional and spatial development policies of Serbia. They are based on the principles of European industrial policy, primarily, in view of eco-restructuring of production, growth of employment, growth of business competitiveness and territorial competitiveness of regions in which they are located, encouragement of cooperation, development of low-carbon production activities, transfer of technological innovations, challenges and development of SME.

Based on the definition from the *Report on the state of certain industrial sectors of RS, 2008*, *industrial parks* represent groups of enterprises in the field of production activities and services concentrated on a specified territory and sharing the same infrastructure. Industrial zones and parks in Serbia are in the initial phase of development and are mainly of the general type (with exceptions like the automobile industry complex in Kragujevac). Potential foreign investors have an interest in dislocating parts of their production from their home (and other) locations because of the group of favorable macro-locational factors in Serbia, as well as for a group of attractive micro-locational conditions in the potential and planned zones, especially due to cheaper highly-skilled workforce, market etc. An alternative to industrial zones and parks in attracting foreign investors are individual locations that are acquired in the privatization process of former social enterprises or by purchasing land for construction outside the developed economic localities. Unequal development of industry and economy has left relatively large areas of Serbia far behind, causing spontaneous migration processes from rural to urban, from undeveloped to more developed regions. This process has led to a territorial disbalance in the disposition of populations and industries in a relatively narrow region of Serbia. The intensity and dynamics of these processes, with the applied

method of industrialization, have been reflected in the territorial disparities and distinct domination of Belgrade in the spatial structure of Serbia.

A wider analysis should provide insight into the current patterns of land use in industrial zones, their spatial organization and disposition in towns and regions of Serbia, in a way that would enable further harmonization of branch and spatial structures of industry with the market trends and pressures on areas. The main problem is that there is no informational database regarding the final account of spaces and other parameters of the current zones in the towns of Serbia. According to incomplete data of the Serbian Chamber of Economy (SCE), there are over 320 existing and planned industrial zones (IZs) in Serbia, and currently a process is undergoing for the collection and processing of data about industrial zones for the realization of the project "CD Industrial zones in Serbia", which the SCE is working on together with the National Chamber Pordenonea, from Italy.

Brownfield industrial localities

In the process of industrial transition, previous industrial centers/towns, as local and/or regional leaders of development, have been hit the most so far. Previous industrial giants (former public enterprises), today, are mainly inflexible systems with outdated technology, unused capacities, uncompetitive products, with problems with liquidity, efficiency, redundancy etc. A greater number of these companies are undergoing restructuring; some of them have successfully been restructured, while others have filed for bankruptcy. Once they employed vast numbers of workers, while today they have reduced many times over their number of employees because of transitional recession and other factors. Their collapse during the process of transition has brought significant social tensions due to loss of jobs. There are such enterprises in all the industrial sectors, especially in the production of transportation vehicles, electronic industry, non-ferrous metallurgy, cellulose production, processing of paper, food-processing complex, sector of specific industry etc. The capacities of these enterprises are mainly located in big and medium towns (such as Belgrade, Kragujevac, Niš, Bor, Sremska Mitrovica, Loznica, Čačak, Valjevo, et al.) and they command with big, more or less neglected and dilapidated complexes and localities that have a brownfield character on very attractive populated positions. Untransformed and

neglected production, degraded business property, infrastructure and important complete and undeveloped surfaces of the complexes have a character of recessive or stagnant points in the urban structures in which they are located. As such, they still present an important development potential for a possible conversion and development of new production or service industry within their „reactivation” into models of zones and parks. Considering their character and the complexity of their re/activation, it is necessary to come up with a special methodology for their transformation into potential zones or parks. The government has started with defining the active industrial policies aimed at structural adaptation of the industrial sector in total and certain industrial fields, including solving the problems of former giants. However, the spatial-environmental aspect of the recovery and transformation of these companies has not been analyzed. Identifying the neglected localities of the former big (or smaller) industrial capacities, capacities of specific industry destroyed during the bombing in 1999, and certain military complexes is an initial step in the process of researching the possibilities for their re/activation. Setting them into function by forming new or transforming old complexes is possible by using instruments of industrial zones and parks. There are many examples of industrial brownfields in the towns of Serbia – enterprises that have gone bankrupt or on the verge of bankruptcy. Industrial brownfields in towns are very often associated with enterprises of traditional branches of production – textile industry, leather processing, metals processing industry, wood processing, food processing industry, production of building materials etc. Even in the sector of enterprises that have a propulsive character, such as the production of chemical products, metallurgy, production of machinery, production of electronic machines and electronics et al., there are brownfield locations (e.g., Fertilizer factory in Subotica et al.). In the complex of specific industries, there are a certain number of brownfield localities in several towns of Serbia, which are a consequence of the NATO bombing in 1999 (e.g. Pančevo, Novi Sad, Bor, Kragujevac, Valjevo, Čačak etc.).

The process of transition of the economic system has influenced the changes in the process of territorial development of industry and the insufficient use of „hard” and/or neglected or devastated locations in the town

fabric (Zeković, 2008). A question can be posed concerning the mechanisms for supporting the organization and 'recycling' of abandoned locations, especially industrial ones, for economic and other purposes, in the situation when it is evident that the price of land, construction, organizing and equipping the location is lower than in the peripheral, free and unconstructed areas (on the outskirts or the outer zone of town). On the other hand, the complexity of reactivating brownfields is evident in the need for the harmonization of the legitimate interests of many different parties, in the lack of mechanisms for coordinating local and other levels of competence and activity, in the need for building an adequate model of communication, information exchange, understanding certain aspects of problems, in the many different stages of the processes of planning and the realization of "reconstructing" localities. Lack of an adequate information database regarding these localities is characteristic for many municipalities in Serbia. The process of reactivating brownfields is, mainly, more complex compared to the concept of greenfield localities. The specifics of planning the reactivation of abandoned and/or dilapidated industrial locations means a synchronization of various planning and sectoral activities, sorting out/restricting competence/authority, coordinating the projected solution in implementation and a number of other measures. Their „reconstruction“ is an integral part of the process of increasing competitiveness of towns and areas. At the same time, because of a strong impact of market mechanisms in the allocation of potential new economic localities on one side, and the complexity of "recycling" and expensive investment in brownfield localities on the other, the process of transition in our environment additionally complicates their reactivation. The most frequent form of their reconstruction is through the process of privatization of public enterprises, especially those with attractive urban locations, with dilapidated buildings and capacities, low value of property, small number of workers et al. Such locations have a significant potential for „self-development“, and usually are attractive for private investors (primarily because of their position, accessibility, various advantages and possible business effects, changes of purpose etc). In addition to the above-mentioned „soft“ brownfields, there are also localities that have significant limitations that could make them less attractive and efficient compared to the previous group. An especially significant form of „hard“ brownfield localities are the

neglected and devastated spaces that have numerous locational, infrastructural, environmental, technical, ownership and other problems, and whose activation means large investments. For such localities, private investors are mainly not interested, because big investments and a longterm and complicated process of solving certain problems and the realization make them unattractive for investments. Their reactivation demands the mandatory participation of the public sector, especially regarding their decontamination, demolition of existing capacities, prospective relocation, the equipping with new infrastructure, regulating ownership relations and questions of prospective restitution etc. Due to the mentioned problems of brownfield locations in practice, the estimation is that the dominant trend in the construction of new industrial objects is on free locations in the suburbs of towns.

Greenfield industrial localities

In some big towns of Serbia (Belgrade, Novi Sad, Niš), the new economic poles – new business, commercial, industrial, entrepreneurial zones that have developed as a result of planning, or spontaneously in the suburban areas (along highways, main routes) have a priority in the spatial development and planning of the regional spatial organization.

The main spatial forms of new economic/business poles in the peripheral urban areas are industrial parks, technological parks, production complexes, shopping centers, business-commercial complexes, logistic centers, business centers et al. The tendency of „breaking up“ urban structures into many specialized and fragmented localities is noticeable, through clusters of activities that are located in dispersion in the settlement and regional structure. The cumulative effects of the development of new poles lead to a new concept of growth of the urban/metropolitan suburbia (Dovenyi, 2003). The initial nuclei of development are most often shopping centers, business-commercial centers et al., which is a consequence of the transition of the industrial society into a post-industrial one, i.e., the transfer of agglomerative advantages of towns onto the regional/peripheral environment. In the typology of new economic poles of growth in the urban environment, the classification on „dynamic“ and „stagnant“ poles is generally accepted (Burdach, 2006, Bertaud, 2006). The former are associated with, for example, shopping centers, airport zones of

development, industrial and technological parks, zones of business and commercial activities in the urban periphery, and the latter („stagnant“) are usually relics of an earlier period (classic industrial, work zones et al.), among which the greatest number are industrial brownfields.

Market mechanisms and factors of international dimensions initiate direct foreign investment into metropolitan/urban peripheries, primarily for economic agglomeration, reduction of various costs, favorable locational economics etc. In an urban-spatial context this can be directly visible in the radical changes (even the caving in) of the current spatial organization of towns, town zonings, propositions, rules and standards of regulation for the use of urban land et al. In our towns, these processes have been initiated by inadequate measures of urban policy and policy of building land.

In accordance with the restructuring of economy towards the development of services, the stagnation and „disappearance“ of classic industrial zones can be noticed in the spatial structure of urban areas. A functional conversion of these zones is evident, supported on one side by the process of privatization of public enterprises in these zones, and on the other, by the pressures of direct foreign investment. The process of change of these hardened industrial localities is often complicated and slow, expensive and uncertain; therefore, the development of new zones/economic poles in the urban matrix has greater volume and significance. In the downtown zones of big towns (Belgrade, Novi Sad and Niš), a rapid growth is evident in the investments in real estate, the financial sector (banks, insurance), shopping centers, shops, business activities, culture, education, art, luxury apartments and houses. Simultaneously, numerous shopping centers have been built in the suburbs and urban peripheries of big towns, as well as logistic-transport centers and warehouses, depots, zones etc.

The process of post-suburbanization is a consequence of the effects of market forces, and it is taking place in the metropolitan peripheries of Belgrade and Novi Sad. Foreign investments and the locations of 1/3 of the new enterprises in Belgrade illustrate a more significant role of market mechanisms in allocating new economic matters in the metropolitan area. According to new data of the Serbian investment climate assessment (2004), only in the Belgrade area, a "new wave" of building has started on some new

20.000 ha of construction land (agricultural land) in the peripheral area. A significant residential pressure on the suburbs is evident and free agricultural land of the Belgrade agglomeration (e.g., the Zemun line, zone of highway towards Surčin, Batajnica, Novi Sad, the Avala line, Borča, Ovča, Pančevo line etc.), as well as the establishment of new small enterprises. The metropolitan periphery outside the city borders of Belgrade is becoming attractive for settlements (e.g., zones along the highways Belgrade–Novi Sad, Belgrade–Zagreb, Belgrade–Niš, the Ibar line, Avala line, Zrenjanin line et al.) because of better accessibility, corridors, nature etc. An increase is evident in the concentration of economic activities along the highway from Belgrade to Batajnica, Novi Sad, airport “Nikola Tesla”, Dobanovci, Zemun, Pančevo road etc. A very important concentration of economic activities developed alongside the highways – e.g., big economic-industrial zone in Šimanovci, Pećinci, Krnješevci etc. Municipalities that have better transportation and communication links with the surrounding area and Belgrade, and have an efficient entrepreneurial oriented local government are advantages for attracting new content.

According to the Regional Spatial Plan of the administrative region of Belgrade, 2004 and the Master Urban Plan of Belgrade (2005), the most important zones for locating the industry and other economic activities are Upper Zemun, Surčin–Dobanovci, Highway and Pančevo marshes–Reva of the total surface of 2,570 ha. In the Belgrade area, a deficit of localities for economic production and other purposes is evident, that is why the localities and zones have been activated on the periphery of the metropolitan area. The current economic zones in the metropolitan area of Belgrade cover a large surface (municipality Pećinci 1,000 ha - zones Šimanovci 500 ha, Pećinci 500 ha, Krnješevci 350 ha, Inđija 900 ha, Stara Pazova 1,900 ha, Pančevo), Zeković, Maričić, 2008., Zeković, Spasić, Maričić, 2007.

The localities of new economic, industrial zones are a mixture of old spatial structures and new locational-spatial models in the urban fabric (Zeković, 2008.). What should be researched are the elaborate analysis of the potential implications of the new poles on the regional environment, the manner of coexistence of the growth area and the area of stagnation and depression, the disappearance of traditional industrial production, the

expansion of the services sector, and the boom in the growth of the suburbia.

Macro-locational factors of industrial relocation

The previous theoretical and empirical starting-points in the analysis of locational and development factors have been founded on traditional theories of industrial and territorial development. However, the experiences of highly developed industrial countries, based on contemporary theoretical viewpoints regarding the role of applied scientific-technical innovations and the development of high-tech industry, point to radical deviations in the importance of locational factors. The most important factors are the scientific and expert human resources, the presence of scientific and research-development institutions, quality of living, proximity to international terminals and communications (airports, railways) and external economies of agglomeration (economy of locations and urban economies).

In the process of improving regional competitiveness and territorial development of industry, the capacity of organizing the creative resources complex of a region and their interactive relation is of key importance. According to Nijkamp P., Zwetsloot F. et al, 2007, the creative resources of a region form three groups; 1) Research and development (university, research institutes, public development institutions), 2) Entrepreneurial activities and contents (incubators, scientific parks, network of entrepreneurs), 3) System of investing (encouraging venture capital, „business angels“, regional funds) and 4) Talent (researchers, innovators etc.).

Based on the available knowledge, in the process of diversification of the branch and spatial structures of industry, the main criteria of allocation are experience, knowledge and skills of the workforce, transfer and flexibility in the movement of highly educated human resources. Allocation of high tech industry is carried out by agglomeration or diffusion of capacities along with vertical integration and spatial disaggregation. The process of vertical integration and agglomeration of industry is conditioned by a relatively small impact on the local environment, due to the export and extraterritorial character of production.

From the viewpoint of spatial/regional and urban planning, the locational factors of high tech industry can be categorized into two groups: a) regional innovative infrastructure,

which includes research-development institutions, the university, scientific and engineering staff, the market, b) urban innovative infrastructure, which make the spatial conditions, quality of dwelling, quality of living, urban equipment, public contents, greenery and recreational contents, attractive physical land of the settlement and its surroundings and local business climate. "New" development and locational factors are relevant in the establishment of modern "artificial landscapes" and spatial forms of industrial locations – high tech agglomerations, corridors, scientific and industrial parks, technological parks, industrial zones and complexes as components of urban and spatial structures.

In the research of the birth and evolution of new spatial and urban forms of high tech industry, there are many unanswered questions. Some of them refer to the impact assessment of the diffusion of technologies on the land use in urban agglomerations, to the changes of the industry's locational conduct in a regional context, to the coordination of technological, urban and regional development and to the possible impact of technologies on the area and environment.

According to the data of UNCTAD and the World Association of Investment Promotion Agencies (WAIPA), 2007, the key macro-locational factors are macro-economic and political stability. The other key factors in the selection of location are quality telecommunications, supply and costs of highly skilled workforce, corporative taxes et al. (Table 4). Locational-development factors are the main starting-point in identifying the spatial entities and towns, as points in which IZs and IPs (industrial parks) will develop. Selecting the locations for IZs and IPs will depend on the competitiveness of the locational-development potential of the area in relation to other areas, as well as on the concrete requirements of the investors from certain branches of production.

The main criteria for selecting the area (macro and micro locations) for bigger more attractive localities of IZs and IPs are: *socio-economic criteria; availability of regional heavy infrastructure; infrastructurally equipped localities; urban centers, existing developed and organized space; proximity of existing industrial localities; natural-geographical conditions for accommodation; criteria for environmental protection, and institutional-organizational criteria* (proactive approach to local home rule and regional authorities,

Table 4. Key factors in the decision-making regarding allocation of foreign investments and the proposal of factors and criteria for the selection of locations in Serbia

Key factors in decision-making regarding the macro-location of foreign investment – according to rank	Other factors in the selection of location for foreign investment
1. Political and macro-economic stability	9. Access to airports
2. Supply and costs of highly-skilled workforce	10. Quality of road infrastructure
3. Quality telecommunications	11. Prices of energy sources
4. Quality of banking and financial services	12. Presence of other investors from the same business activity
5. Labor legislation	13. Rail, road and marine infrastructure
6. Corporate taxes	14. Natural goods and resources
7. Attitude towards foreign investors	15. Costs of low-qualified workforce
8. Investment stimuli	

efficient work of local authorities, competent services and institutions, informational system regarding the area, the cadastre, real estate, infrastructure, land, informational services, the efficient organization of administrative procedures, location management, inspection offices, controls, promotional approach and local political support for the development of SMEs and IZs and IPs, management of local resources by implementing the available measures et al.).

Criteria and factors for selecting locations are different and have unequal importance for each production type. That is why it is necessary to apply a sector locational analysis. According to MERR RS, FIAS, SIEPA, IFC 2008, the common ground for all industrial sectors make the following „positive“ criteria for selecting localities (of different importance): Possibilities for expanding the location, access to highways and other important roads, access to ports, railways, airports, access to big towns, access to neighboring countries-trade partners, availability of local labor, access to materials, social conditions in the vicinity (proximity to social infrastructures), proximity to industrial areas, proximity and correlation with the previous and later phases of production, access to the infrastructure on location. The group of „negative“ criteria are: a) on the location – density of population and development in the surroundings of the location and the proximity of potentially dangerous infrastructure; b) the physical conditions for construction (problematic state of land, erosion and earth flows, problems with underground and surface waters, contaminated soil et al.); c) general ecological conditions (protected floodable areas, etc); d) social conditions (avoiding zones where political riots and weaker security can be expected, avoiding areas of cultural monuments, localities that are sensitive for their religious and social context, avoiding potential settlements in the vicinity of the location).

POSSIBLE STRUCTURAL CHANGES OF INDUSTRY IN SERBIA

Growth of competitiveness and success of industrial development is conditioned by different types and integration relations within territorial networking – clusters on the local and regional level. Cappelin R.(2005), demonstrates several types of integration that are important for the local system of production: a) *technological integration* (implies the development of production know-how, the promotion of training and knowledge of work, permanent education of workers, investment in research and development on the level of local firms and their corporation with foreign firms), b) *integration of the local labor market* (cooperation between employees and firms, mobility of employees between firms from the same sector, ability to attract employees from other sectors), c) *integration of production between firms* (gradual diversification of local/regional producers has a crucial role), d) *territorial integration on a local level* (with demand for the improvement of infrastructural networks and better spatial planning and protection of the quality of environment), e) *social and cultural integration* (achieving a consensus in the local community and earlier involvement of the community in the decision-making regarding development projects), f) *territorial integration on the interregional and international level* (leads to interregional openness and cooperation, includes the policy of attracting investments, measures of „market area/location“ that are crucial for attracting foreign investment and promoting internationalization of local firms).

The future structural changes in the industry of Serbia are conditioned by a macro-economic development frame, as well as by the solutions of industrial policy, policy of innovation, policy of development of SMEs and entrepreneurship.

The implementation of the general concept of *development phases*, which is within the

strategy of competitiveness that has already been confirmed in the practice of the countries in transition, can enable the widest prognostic frame for the territorial development of industry in Serbia. From the standpoint of spatial organization, the most general frames are enabled by the *zebra concept* that implies the existence of zones of high activity and attractiveness for investments („black zones“) and zones of low-level activity and attractiveness for investments („white“ zones). Market and investment pressures on „black“ zones due to their attractiveness enable the growth of territorial and sector competitiveness. The concept of development phases is characterized by:

1. *Development phase based on resources*, i.e., on the dominant exploitation of natural resources (ores, energy sources, wood, farming products) in industries with low value added. It is characterized by low prices of production factors, low level of wages, large investments, as well as extensive employment and low competitiveness. In Serbia, this phase was characteristic for the 1990s (food, raw materials and energy supply production).
2. *Development phase based on efficiency of resources exploitation* - this implies a significant growth of investment and productivity in the processing industry. This sector has an impact on the growth of competitiveness of export, on the increase of value added. The processing sector attracts a smaller amount of FDI, while the greater part is directed towards the banking sector, commercial activities, trade, insurance, hotel industry, logistics and storage, business services etc.
3. *Development phase based on innovation and knowledge* - it is aimed at significant investments in the development of scientific and technological research and activation of the infrastructures of knowledge (universities, research

institutions et al). Investments are directed towards the large revenue productions (ICT, biotechnologies, electronics, pharmaceuticals, automobile, airplane, measuring and optical instruments etc) along with fragmentation, dislocation or extinguishing traditional industries.

4. *Development phase based on wealth*, when the postindustrial society is developed and the industries are dislocated to other countries, and there is export of capital and the development of highly sophisticated services.

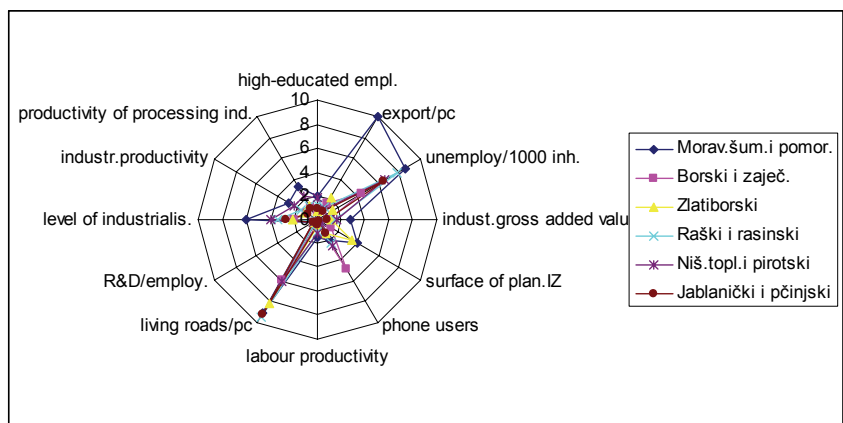
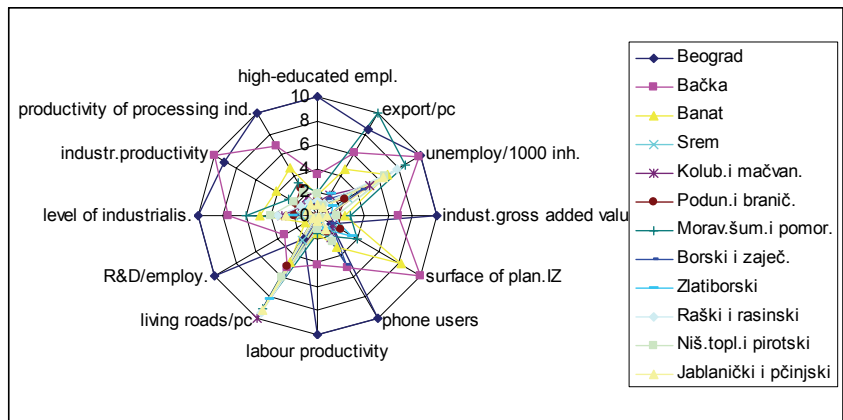
The economic and industrial structure of Serbia is characterized by a combination of the first two phases, with fragments of the third in some of the industrial sectors (the pharmaceutical industry, ICT, chemical and food processing industry). In Serbia, the development phase based on efficiency is directed by significant investments and implies not just investments into development projects, but into regional heavy infrastructure. The highlight of this development phase is on the construction of highways, modern railways, telecommunications, airports and electric energy systems, on intensifying logistic services. From the viewpoint of organization and use of space, these demands imply a huge absorption of space, increase of market pressures and the demands for building land. The demand for big investments surpasses the possibilities of the public sector and available market resources, for which new models and financial sources are being introduced for heavy infrastructural projects. This phase implies that investments are directed in the application of technical progress and knowledge, equipment, technological development, attracting strategic partners that have the necessary know-how and abilities for efficient investing. Simultaneously, there is demand for the initiation of reforms in the public sector towards deregulation and liberalization of business in order to attract FDI (foreign direct investment) and private capital, through privatization, initiation of partnerships of the public and private sector. The global economic and financial crisis has moved the limits by introducing means of public budget to reclaim the debts of private financial and other organizations. The promotion of attracting FDIs in the activities that are important for the competitiveness of Serbia is characteristic of this phase (e.g., automobile industry, oil industry, food processing, iron-and steel and non-ferrous metallurgy etc), i.e., partnerships between domestic and foreign companies.

Opting for potential reindustrialization in Serbia has its foundation in the fact that the industry is an activity that can ensure the achievement of key development aims – growth of employment, growth of competitiveness, export, attracting new investments, applying technical progress, the creation of new SMEs. The option of deepening the process of deindustrialization in Serbia implies a further weakening of the role of this activity in the economic structure with the strengthening of the services sector, and a partial qualitative change of the branch structure of production. According to the Report on the state of certain sectors of industry, 2008, the promising key sectors of the processing industry in Serbia are *the production of electronic equipment (radio, TV and telecommunications), production of motor vehicles and their components, and information technologies.*

EVALUATION OF REGIONAL COMPETITIVENESS OF AREAS FROM THE STANDPOINT OF TERRITORIAL INDUSTRIAL DEVELOPMENT IN SERBIA

Evaluation of regional competitiveness of areas from the standpoint of possibilities of industrial development in Serbia is one of the necessary steps from the standpoint of territorial/regional planning of industrial development. In the process of evaluation, different methodological approaches are used, as well as techniques and indicators. Zonneveld W. (2008), points to the significance of mapping the entire economic and territorial development with the structuring of all the activities, characteristics, priorities, functional connections et al. In the graph 2, the results of the research of industrial development and regional competitiveness are presented at the level of district groups (level NUTS 3) as part of the research-development basis in the making of the *Strategy of spatial development of Serbia, 2009*, which shows the big territorial differences and domination of the

Graph 2. Comparative demonstration of the indicators of Serbia's regional competitiveness, at the level of district groups (NUTS3), 2007-2008.



Belgrade area. In the assessment of regional competitiveness as the basis of territorial development of Serbia, a comparative analysis has been applied based on the SPIDER model or the so-called "Ameba" method or "Radar" method.

The SPIDER model is an analytical tool that is used for comparing and visualizing the relative advantages and flaws of a certain territory, or different scenarios of development, based on a multitude of factors. (Reinstra, 1998; Deakin M. et al, 2007). The model represents a powerful means of introducing bigger areas or different development options and enables the evaluation of the suggested development policies (Bruinsma et al, 2001). The model is relevant for the better understanding of the relations between factors, as well as for the development and evaluation of „hypothetical scenarios“ in the planning and managing of area. The previous experience shows that the SPIDER analysis is used as an efficient instrument in the comparison of different scenarios and in the comparative studies of certain spatial entities (regions, towns). The SPIDER model is not a real model in the sense that it uses mathematical and econometric methods for the prediction of certain factors, but it is a reliable tool for visualizing the results of the analysis of certain factors and indicators. In the use of models, firstly, the numerical data about each factor/indicator is standardized, and then, they are mapped on the axis starting from the inside towards the outside end of the „spider“. The lowest values are gathered closer to the point of the intersection of axis, while the higher values are closer to the outside end of the „spider“. The higher values of the factors show their better performances. The data can be quantitative and qualitative, whose absolute and relative values are aggregated on a 10-point scale of values. The area size presented on both axes does not have statistical significance, and the absolute values of the data on them are converted into relative ratios. The first step in the implementation of the model is based on the standardization of quantitative data. General data are used (socio-economic data such as, surface, population, density of population, unemployment, income et. al), and the derived data on factors, indicators, parameters. The second step implies the use of standardized data values (from the first step) on a 10-point „spider“ scale for every factor/indicator, and their visualization on the SPIDER model. In graph 2, the results of the evaluation of Serbia's regional competitiveness are presented, which

is important for the territorial development of Serbia's industry, based on the comparative analysis of standardized values of 12 indicators on the level of district groups (NUTS 3), which were obtained by applying the SPIDER method. They confirm the absolute and relative domination of Belgrade City in the regional competitiveness of areas in Serbia and demonstrate the significant interregional differences in the efficient exploitation of territorial capital.

PRELIMINARY SKETCH SCENARIOS FOR THE TERRITORIAL DEVELOPMENT OF INDUSTRY IN SERBIA

In accordance with the assumptions regarding the impact of key exogen and endogen risks and uncertainties in the process of industrial territorial development of Serbia, two potential scenarios have been proposed with their frames, assumptions, prospects and potential environmental-spatial effects for the spatial development of this activity (Table 5):

- Scenario of recessive growth (continuation of the process of deindustrialization with a negative growth),
- Scenario of sustainable spatial development of industry.

The process of globalization, new technologies, the global financial and economic crisis have and will have in the foreseeable future a significant impact on the territorial development of Serbia's industry, in all the scenarios of development. Spatial development of industry and total industrial activity in Serbia are under the influence of market economy policies, which, although they clearly promote regional balance, they favor the further concentration of industrial and total development in the metropolitan regions of Belgrade, Novi Sad, Niš and the highway corridors. This trend is compatible with the European trends. In accordance with the aims and principles of the Lisbon Strategy, the governments are concentrated on promoting metropolitan regions and national policies in transportation, innovation and competitiveness based on sustainability.

Contrary to the vision of the generally accepted concept of a more balanced regional development of Serbia, the scenario of recessive growth is more probable, which from the spatial standpoint, is characterized by:

1. *Further concentration in the metropolitan area* (Belgrade, Novi Sad, and Niš) and industrial and economic growth in the metropolitan cities and regions in accordance with the advantageous competitiveness of their areas, as centers of infrastructural networks and preferred locations with qualified, young, creative and mobile workers et al. The modern development discourse of the metropolitan area implies their competitiveness for investment, supported by political advisors, business consultants, researchers and town leaders.

2. *Spatial specialization and fragmentation of the regional area and towns.* The process of globalization and transitional recession is causing the mentioned trend on the national, regional, metropolitan and local level. The structural distribution of new investments and employment favors the branching of specialized production and services on selected special locations, and determining and respecting „new“ locational factors on a regional and local level. These results in spatial organization produce *monostructural development-location forms, new economic poles or „islands“*, whose locations are allocated to foreign and domestic investors for various activities. These spatial-locational forms include attractive financial-commercial centers in downtown areas, gentrification of interior areas of bigger cities or agricultural suburbia and post-industrial zones of technopoles and abandoned areas of former public enterprises.

3. *Spatial polarization* (of industries, development processes, populations, resources, investments, revenues, profits, etc.) in interregional, regional, and town agglomerations, development corridors, etc. Market economy is not always an efficient mechanism for encouraging sustainable industrial and economic growth and the gradual decrease of spatial disparities. Although the economic gap between developed and undeveloped regions of Europe is slowly narrowing, and the national differences between countries are slowly disappearing, the differences between regions and towns are increasing mainly, synchronically (Glasson, 2007). Such a trend can be expected in the future spatial development of Serbia as well. The general opinion is that a market neoliberal policy, like most of the other policies, has a tendency to increase spatial differences/disparities on account of the undeveloped, „less talented“

Table 5. Probable scenarios of industrial development in Serbia – the frame, presumptions, prospects and assessment of territorial influences

Scenario for the recessive growth of industry	Scenario for the sustainable spatial development of industry
<p>Development based on resources</p> <p>Standstill in transition, privatization Deindustrialization intensified by the process of transitional recession with a reduced role of industry in the economic structure and the strengthening of the sector of services Conservation of branch structure Implementation of current technologies Decrease in employment Decrease in industrial production, export and competitiveness Further devastation of the environment Additional pressure on the environment due to intensive exploitation of resources Production planning with political support</p> <p>Maintaining the current spatial structure in industry</p> <p>Metropolitan concentration of industry</p> <p>Polarization of the effects of industrial development</p> <p>Spatial specialization and spatial fragmentation of industry</p> <p>Increase in production and transportation costs Little application of new knowledge and technologies Lack of infrastructure for the development of new productions Lack of information for the initiation of different production capacities Lack of specific research centers and innovative industrial enterprises Inefficient exploitation of building land, energy sources, water and raw materials Possible conflicts with the surrounding areas and functions Closing and bankruptcy of one part of industrial firms Further drop in work productivity in industry</p>	<p>Development based on knowledge and innovations</p> <p>Successful transitional reforms and measures of promoting industrial development Reindustrialization – growth of employment, competitiveness, export, attracting new investments Eco-restructuring of industry Growth of domestic and FDI and the SME sector Decline of the role of the sector for processing raw materials, energy sources and primary processing of resources Destimulating the consumption and production of industrial products Industrial development based on sustainability and the control of ecological capacities Preventive approach in the ecological management of industry as an advantage in business Creating competitive advantages and promoting regional and local potentials and quality of living Mandatory implementation of SEA for all industrial programs (ex post, ex ante) Promotion of new production based on local ecological capacity Growth of the role of institutions in the promotion of industrial competitiveness Ecological factors included in all the phases of industrial projects – eco-management Use of the advantages of network communications and quality infrastructure Slight growth of employment</p> <p>Polycentric industrial growth</p> <p>Industrial development as an important factor in regional spatial cohesion</p> <p>Increase of the role of ecological factors in local development policy, spatial planning and decision-making concerning industrial development Training programs for industrial eco-management Opening the national center for the promotion of cleaner production, development and the promotion of cooperation among SMEs</p>

and more neglected regions with an unintentional polarization on all spatial levels (Zeković, 2007.). Therefore, the realization of the priorities of spatial development should allow the slowing of polarization and the alleviation of the territorial disparities in the regional, urban and rural development of Serbia.

Each of the mentioned scenarios has big implications in the domain of regional and urban allocation and organization of space, in socio-economic development, in land use, in the environment, as well as in the institutional domain. Each scenario requires the determination of spatial dispositions and the elaboration of development zones, developmental and infrastructural corridors, key urban junctions/towns and

points/terminals, as regional territorial “catalysts” of development.

Draft of outlined territorial development of IZs and IPs in Serbia

The draft of the outlined future territorial development of industry (IZs and IPs) on the level of district groups (NUTS 3) on the area of Serbia is based on the leading role of the current economic-industrial centers and development corridors X and VII, and on the development of medium towns in undeveloped regions. By 2020, in the spatial organization of Serbia's industry, especially IZs and IPs, the following is expected: a) activating greenfield IZs and IPs, b) exploiting locations within the current economic-industrial zones in towns, c)

activating new localities and spatial models for locating industry, d) dispersion of production and services capacities within small localities in an urban and rural area, e) Location of IZs and IPs within the development corridors, development zones and centers, f) Development of regional industrial clusters in several key sectors of production (automobile industry, production of motor vehicles and their components, electronic equipment -radio, TV, telecommunications), ICT, food processing complex, et al.

According to data of the National Investment Plan (NIP) of Serbia, the construction or the communal organization of 64 industrial zones and parks is projected in all the regional entities of Serbia. The suggestion for these zones was made based on the analysis and the collection of municipal proposals. In the region of 50 municipalities and towns, 64 localities have been suggested for the construction and formation of new IZs and IPs, or for the infrastructural organization of the current industrial and other zones (Table 6). Half of the planned industrial zones (32 IZs) are located in the areas of developed municipalities, while only one IZ is projected for the undeveloped Jablaničko-pčinjski district.

The total surface of the planned industrial zones and industrial parks in Serbia is 5,229.13 ha. In the following medium-term period, employment for 20,385 – 47,180 workers is projected within these zones. The average surface of the suggested industrial zones and parks in Serbia is 81.7 ha, with oscillations between 14.2 -921 ha.

One of the more serious problems of territorial development of IZs and IPs is the lack of suggested industrial zones and parks in the insufficiently developed and undeveloped regions of Serbia, especially in the Jablaničko-pčinjski, Raško-rasinski, Nišavsko-toplički and Podunavsko-braničevski regions. One industrial zone of 14.2 ha in surface in the Jablaničko-Pčinjski region, as the most undeveloped part of Serbia (excluding Kosovo and Metohija), is projected, as well as one IZ in the Nišavsko-toplički region of 54 ha in surface. Zones in Kruševac and Kraljevo have been projected in the Raško-rasinski region. The completion of the highway on the corridor X would contribute to a better competitiveness of IZs, and it would open and improve the accessibility to the undeveloped part of southern Serbia. While the construction of the highway towards Montenegro would lead to the improvement of the quality of its position, and

Table 6. Planned industrial zones and industrial parks according to districts (NUTS 3) based on the data MERR and NIP, 2009. (Strategy of Spatial Development of Serbia by 2020, 2009.)

NUTS 3	Location of IZs and IPs in towns/municipalities	Number of ind. zones	Surface (ha)	Expected number of employees	Average zone surface (ha)	Density employee/ha
1. Beograd	Obrenovac	1	55.8	-	55,8	-
2. Bačka	B.Topola, B.Petrovac, Bečež, M.Idoš, Sombor, Subotica	9	658.61	7.010-7.860	73,17	11,9
3. Banat	Ada, B.Crkva, Vršac, Kanjiža, Zrenjanin, Kikinda, Kovin, N.Bečež, N.Kneževac, Čoka/ Senta	14	767.22	2,375-5,700	54.80	7.4
4. Srem	Indjija, Irig, S.Mitrovica	4	380.54	1,110-1,450	95.13	3.8
5. Kol.mačvanski	Bogatić, Valjevo, Koceljeva, Loznica, Ljubovija, Šabac, M.Zvornik	9	1,280.1	1,135-9,870	142.22	7.7
6. Podun.branič.	Smederevo, V.Plana, M.Crniće	3	370.5	1,030-5,400	123.50	14.6
7.Pom.šum.morav.	Jagodina, Kragujevac, Čačak, Lapovo, Paraćin, Svilajnac	8	323.84	3,775-9,300	40.48	28.7
8.Bor.zaječarski	Bor, Zaječar, Kljaževac, Majdanpek, Negotin, Piroć	6	320.77	2,480-4,400	53.46	13.7
9.Zlatiborski	Požega, Prijepolje, Užice	4	720.5	550-1,500	180.12	2.1
10. Raš.rasinski	Kraljevo, Kruševac	2	283.05	350-700	141.52	2.5
11.Niš.toplički	Niš	1	54.0	500	54.00	9.2
12.Jabl.pčinjski	Vranje	1	14.2	70-500	14.20	35.2
13. Kosovo and Metohija		-	-	-	-	-
Serbia in total		64	5,229.13	20,385-47,180	81.70	9.0

it would attract investments into the southwestern and western Serbia.

Out of the 64 planned IZs and IPs, only one zone refers to a brownfield locality-revitalization of the old industrial zones in Smederevo, while the others refer to greenfield IZs and IPs. For realizing the goal of territorial cohesion of Serbia, a *stimulation of new localities of IZs in the undeveloped regions is suggested, in such a way that it does not limit their further development and allocation in towns in the more developed part of Serbian territory that has greater competitive advantages*. The issue of territorial allocation of IZs and IPs, apart from being essentially determined by market principles, is an important instrument of support for territorial development of the developed and undeveloped regions, i.e., an efficient means of stimulative policy.

Starting from the need to alleviate territorial differences on the levels of total and industrial development, it is suggested to stimulate IZs and IPs in the towns of the undeveloped regions: N.Pazar, Priboj, Raška, Prokuplje, Leskovac, Surdulica, Bujanovac, Vlasotince, Ivanjica, Despotovac, Kladovo, Požarevac, Šid, Bač, Titel, et al.

CONCLUSION

Based on the analysis of territorial industrial development of Serbia, it is estimated that the strong process of deindustrialization of towns, the concentration of production in the Belgrade and Novi Sad regions and the mounting disparity in industrial development are all consequences of transitional recession and a reflection of the absence of an adequate regional policy, a policy of regional industrial innovations and spatial orientation of activity. If appropriate measures and activities are not taken in the future, further spatial concentration can be expected, as well as spatial polarization, specialization and fragmentation of industrial structure in the metropolitan areas of Belgrade and Novi Sad, in the bigger cities and along the European Corridor X, which has been analyzed within the two scenarios of potential territorial industrial development – scenario of recessive growth and scenario of sustainable spatial development.

It has been concluded that it is necessary to make a strategy of territorial development of industrial zones and parks, which should include priorities of their activation in sectors and regional entities. It is estimated that this highlights the complexity of decision-making regarding their territorial allocation between developed and undeveloped districts/regions of Serbia. It has also been concluded that the

attractive competitive localities are in the bigger or medium towns of the developed areas, along the corridor X and VII, as well as in the medium-sized towns of the insufficiently developed areas. Metropolitan areas, big towns, zones of development and highway corridors and medium-sized towns in a developed area offer more attractive, competitive, favorable, and more quality conditions of industrial development. The strategy of territorial disposition of industrial zones and parks in Serbia should be based on the group of factors of market demand, competitiveness of area and available territorial capital and the principles of territorial cohesion. It is estimated that in this, the results (obtained by the application of the SPIDER analysis) of the evaluation of regional factors and advantages could be useful in the districts of Serbia.

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