

## Notes

- <sup>1</sup> According to the research: Dimitrovska Andrews, Kaliopa et al.: Concept of urbanisation, phases 1–9, Urban planning institute, Ljubljana 1995–98, that was carried out by the research team: dr. Branka Berce Bratko, Jože Dekleva, Majda Dekleva, doc. dr. Kaliopa Dimitrovska Andrews, prof. dr. Lojza Gosar, Aleksander Jakoš, prof. mag. Vladimir Braco Mušič, mag. Nataša Pichler Milanović, Angelca Rus, dr. Richard Senti, mag. Vladimir Stefanović, Marijana Velepec Vahtar.
- <sup>2</sup> According to the contribution by Marijana Velepec Vahtar. In: Concept of urbanisation, Phase 7.

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## Illustrations:

**Figure 1:** The concept of centres and development axes according to recommendations of the European spatial policy

**Figure 2:** Ljubljana – the new infrastructure condition

**Figure 3:** Functional urban region Ljubljana, the Domžale branch

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# Analyses and problems of spatial development for planning networks of social and economic infrastructure on the national level

## 1. Introduction

The question of networks is a core issue in the European Union (in the article the term 'network' is used in the sense of infrastructure). The issue is real, since it is aligned with the foundation of EU spatial policies – integration. Whether we want it or not, the issue is vital even for Slovenia, because ignoring the problem could place Slovenia in a peripheral position. We would be simple minded if we thought that that ties to the main economic direction of the EU, towards the East grants us possibilities. Relying on such a hypothesis could condition national development into a nation on a corridor.

The concern of most important EU programmes are transport networks, even more precisely, the European network of high speed trains and fast railway lines, as well as the reorganisation of airborne transport. In the case of the European high speed railway network and fast railway lines the network density in central Europe cannot be compared to the proposed network in the French and German regions. Added circumstantial impediments in connecting Slovenia to Europe are the connections themselves to the European high speed railway network and fast railway lines, while airports are not even present in the structural policy.

In the northern part of the EU we are witness to intensive planning, designing and creating foundations for connecting mobility routes of expansive territorial basins with international destinations, all of which are also directing the transport within a global economy. In these issues Slovenia is surely lagging behind and is trying to diminish the delay by building limited bits of mono-modal networks without a clear comprehensive strategy. Such actions could become counterproductive, since Europe is offering Slovenia important perspectives: high speeds and a network of corridors.

The necessary action for Slovenia is to first create a national spatial plan, where policies for stimulating synergetic network effects would be realised, along the East-West axis, as well as the North-South axis, that would by mutual effects compose a uniform system for the transport of freight and passengers and also an adequate basis for connecting central stations, airports, harbours, intermediate stations and commercial centres. However, we mustn't forget the important potential of combined rail and maritime transport, which has vital importance for Slovenia.

This quick and superficial global (existential) overview on Slovenia, positioned in the framework of European integration, dictates an interpretation of development of transport networks, namely, it is the logistic condition for any development. How or infrastructure network is and will be connected into Europe, also depends on other systems and their networks. Particular high quality potentials will also condition the strategy for defining multi-modal connections between different networks. This article is intended for enlightening such analyses and issues.

## 2. Analyses

### 2.1 Settlement system

#### Demographic stagnation

The population of Slovenia grew rapidly after WWII mainly because of immigration from former Yugoslav republics (after 1957 Slovenia had a positive migration saldo). This was one of the reasons for the large number of newborn children and until do late 70s was higher than 30.000 annually. Major demographic changes in Slovenia can be estimated into two periods. In 1980 the number of births started decreasing and has diminished to 18.000 per year. Because of political changes in 1990, after a long time Slovenia had a negative migration saldo (Jakoš, 1999).

#### Dispersed settlement

From the viewpoint of territorial organisation of the country, the ration between demographic stagnation and widespread phenomenon of dispersion is surprising. The population and activities are steadily decentralising and utilising the network of basic, almost uniformly distributed services. These statements, taken from research studies commissioned by the Office for physical planning unfortunately cannot be fully argued for because of the poor tool box for researching the phenomenon. Primarily the issue is the distinction between settlements and their corresponding influential areas, in which migration figures between cities and their regions could be registered, as well as other settlements and the region. In this way we could measure the centripetal migration trends of a whole region. The main indicators would be: population growth, migration saldo, migration within a region,

building properties, old age index. The key information would be dynamics of emigration and distribution of activities. The latter implies processes that are widespread in the service sector, retail and manufacturing.

An estimate was given by the Urban planning institute. In the research The settlement system, effects of migration changes of the last two decades (or more) were shown. The largest central places in Slovenia grew at the expense of exterior migration. When the flow stopped, population growth in these places also stopped. The statement also applies to those central places, that had inadequately developed third and fourth sector functions. The exception is Ljubljana, that gained the status of capital city and with it numerous new functions and chances for employment. In the recent years population figures in Slovenia are increasing in small, local development centres, that formally often don't even reach the rank of municipal centres. Numerous larger cities are already below the average population growth (Jakoš, 1999).

The phenomenon of dispersion is such, that it cannot be easily interpreted as decentralisation or physiological redistribution of activities and homes. Thus the question arises, whether the increasing costs of organising and managing service networks are admissible (water provision and treatment, natural gas supply, transport and waste disposal), as well as for other services (social, support, cultural) or negative effects on the environment and natural resources. It is a phenomenon surpassing traditionally interpreted decentralisation. The estimated progressive growth applies to social costs, as well as individual costs (time of journeys, costs, services, etc.). To illustrate the condition the analysis of employment in municipalities is also beneficial. Survey data about employment in the public sector indicates massive concentration of employment, much higher than the concentration of inhabitants, therefore municipalities with a lack of employment are in the majority. This deficiency is especially prominent in municipalities close to the main employment centres, although they generally provide a lot of employment. Ljubljana has an exceptional advantage, as well as other regional centres. Concerning sectors of employment, the primary sector dominates in subpanonian Slovenia, the second sector in traditional industrial areas, while the third and fourth sector are largely represented in larger centres. Again Prekmurje and eastern Slovenia show very limited employment in the third and fourth sector (Gosar, 1995). The information provides an illustration of difficulties in employment mobility and volume of traffic that it causes.

#### Causes of dispersed settlement

The reasons conditioning specific types of settlement distribution are numerous and often contradictory: for companies they are smaller expenses for housing provision, better accessibility and greater functionality for production activities; individuals search for better living conditions, tightly connected to the so called anthropological syndrom of autonomous and not collective space, less construction and residential expenses and better availability of services. As we can see, there are no direct links between the logic of settlement for companies or the logic driving individual settlement choices, although both act as multipliers of the mobility ratio, especially since the ratios between population and employment are spontaneous. An indicator of changing relations within a region could be the ratio between the increase of built-up land and third sector activities in the region, but even between regional centres.

Regional centres are some kind of motors of dispersion, because they increase the extensiveness of urban relations following occupation of the so called urbanised countryside continuously searching for new areas for residential purposes or production.

The beginning of spatial »diffusion« can be found in the system of social planning on the national and local level (devoid of an intermediate level) and the doctrine of communal self-sufficiency and territorial equality. So far, the process hasn't stopped.

In the period since the adoption of the long-term plan of the Socialist Republic of Slovenia for the period 1986–2000, Slovenia has been subject to two increasingly strong tendencies: – placement of economic activities and population in the wider area of regional centres in an extensive fashion and – the centralisation of specialised functions and specific services in the main centres, especially Ljubljana.

## 2.2 The urban system

Territorial relations shown through migratory flows, distribution of employment and changes in places of settlement indicate growing relationships between municipalities. However the majority of municipalities are still planning numerous potential relations with neighbouring municipalities and even regional centres. The exception is the region of Ljubljana. Relationships are extremely simplified and running towards the national capital–macro-regional centres–municipal centres and back. Thus we can identify certain flows, that can, in view of their intensity (measured by reciprocal relations), be separated according to the »entropic« principle and can represent the structure of a region. Here the most important question is, are we dealing with the urban settlement structure of Slovenia at all, since the presented variety of relations isn't supported by infrastructure.

#### Relations between centres

In the analysis of importance of regional centres the territorial division of Slovenia was respected. There are three macro-regions and 12 so called statistical regions. Hereby regional centres were defined as primary generators of economic and social relations of the whole territory of a region.

From the regional point of view, with the exception of the Posavje, Notranjska or Zasavje regions, more or less expansive hinterlands were formed around regional centres, usually spread along the main transport corridors and surrounding ridges. Owing to the changed geo-strategic position of Slovenia following independence, there have also been changes in the importance of certain main centres, as well as changes in the intensity of their relations. Thus on the macro-regional level the following macro-regional centres are being established: Maribor, Ljubljana, Koper, whereby Koper is, because of its size, in an inferior position. It also seems that Koper doesn't have emphasised regional relationships. Relations with the hinterland are still weak and limited, while Trieste is increasing and intensifying its influence on neighbouring municipalities, even on Slovenian territory, pursuing the logic of forming a ring of lower ranking centres around the regional centre. Koper as a macro-regional centre hasn't been successful in integrating the traditional relationship with Izola and Piran, by which a linear city could be formed and even less successful in forming new (radial) relations with

the hinterland, as well as other neighbouring regional centres, especially Gorizia and Rijeka. However Ljubljana has tightened its net on the whole region and tied it into its gravitational pull with extremely intense relationships, even at the expense of lower ranking centres. Kranj for example, competing with the attractive offer of Ljubljana, is subject to weaker intensity of relationships.

Even in the hinterland of Maribor a group of municipalities has emerged, but the intensity of relationships with Maribor are much lesser, than they are in the Ljubljana region. In the Maribor macro-region the lack of another complete regional centre, such as Celje, is evident. For this reason the polycentric structure of the Maribor macro-region is weak and under strong tensions from Zagreb and Graz.

#### Relations between flows

Modern trends in forming relations between flows are gaining in value, whereby new urban systems at different levels are envisioned, outside traditional regional centres. The areas of regional centres have established strong relationships along available routes through the hilly hinterland and along the transport corridors, the so called transport cross, but with inadequate radial routes, essential for their transformations into real urban centres. Therefore generally binary relations prevail. There are areas with different scope, different intensity of relations and different urban character: from the extremely powerful hinterland of Ljubljana and hilly hinterland of Novo mesto, to the weaker and less elaborate hilly hinterland of Slovenj Gradec ...

Outside these routes other systems of relationships can be recognised, that can express the existence of subordinate urban systems. Municipalities in the region of Ljubljana maintain strong mutual relationships along the transport corridor and, physiographic conditions permitting, in radial directions, enabling the formation of sub-centres like Domžale. To a lesser degree the latter applies to Maribor, and as we have seen earlier, it will be possible in Koper and Celje, after the highway system is completed. Celje is still part of the Maribor macro-region, but it represents a bridge between the two main macro-regions – Ljubljana and Maribor, implying the possible formation of a new macro-region. The strengthened role of Celje in the urban system can also be seen from its possible ties with Novo mesto, an old idea, that was so far dealt with only hypothetically.

Nevertheless, already existing ties between macro-regional territories show three poles of relationships, whose subordinate contents are represented in relations whose nature stems from production, housing and function. In the rest of Slovenia, especially outside the transport cross, such as northern Primorska, Koroška, Zasavje and possibly the new Kočevje region, settlements are still robbed of their inter-urban nature.

### 2.3 The territorial system

In European regions large territorial elements, such as: cities, countryside, hilly and coastal areas are progressively losing their autonomy, relative to growing intensity of relationships. Indicators speaking for such development are: growth of dispersion and competitiveness, loss of identity and breaking down of mono-directional relationships. New dynamic relationships also condition the nature of the am-

biental matrix, that is becoming increasingly complex, i.e. fragments of primary forms are preserved, while the prevailing urban structure is scattered and dispersed with all entropic consequences. Cities and other settlements are becoming parts and assuming the character of the ambient matrix.

Hilly areas in Slovenia are still not connected into the logic of metropolitan relations and from the viewpoint of social and production relations are being increasingly distanced from urban areas in valleys, with the exception of settlement and leisure activities. Although certain areas show capacities for relations, that could occur after the reorganisation of the development of industry (Žiri), most of these areas utilise only local resources (natural, countryside or available high quality areas for residential purposes) as offer for housing and leisure and base their economic activities on complementary offer.

In the remaining areas, especially border areas representing one third of Slovenian territory, conditions of transport isolation remain, with a poor service network stimulating processes of dilapidation. Morphologically speaking Slovenia is inherently a consistent surface unit in almost all physiographic aspects. The main phenomenon are the hills and related structuring into separate valleys and basins. They cause problems in passage from one to another and difficult living conditions or organising activities. Almost all valleys and basins are open where they meet other natural units and are directed into neighbouring regions. The latter causes regional centripetality and further disintegration of particular parts of the Slovenian territory.

The coastal belt is becoming an urban system, where tourism is only one of the specialised components, diminishing segregation of touristic activities from proper urban activities. The tourism economy is subject to new entrepreneurial possibilities: congresses, cultural meetings, spectacles. Formerly driven by natural and cultural offer, tourism has actually gained from the development of urban functions. Special weight is given by the development of the education – research sector.

Coastal and other touristic regions however lack evaluation of various territorial features and based on such evaluation established co-operation between municipalities – especially in financing. Because of emphasised intertwinement of activities guidelines and limitations are missed, especially for the production sector, as well as other economic functions in view of urgent urban and ambient problems.

Activities tied to the distribution of urban infrastructure (services in relation to production and the population) have in the past significantly influenced the growth of occupied land, although cities (i.e. central places) were recognised as main bearers of production and the exchange of information and knowledge. Primary processes of dispersion, penetrating deeply into the urbanised countryside, especially the valleys and first hill slopes, followed certain connecting routes, not necessarily those generated by regional centres. Above all they are the routes of the »transport cross«. The transport cross remains the target of primary settlement, mainly because of the elaborate construction of access nodes. In long-term municipal plans proposed primary areas for the development of production are transforming into areas of urban services for vast areas of the urbanised countryside.

## 2.4 The position and role of Slovenian towns

### Sources of the polarisation effects

It appears that alongside consistent and widespread dispersion, including a wide range of settlement types (housing, production, large and small scale retail), there is another direction of relationships: polarisation in cities, especially in Ljubljana.

The growth of services in the third sector is transforming production areas and local economies are joined by phenomena contrary to dispersion. Urban systems with local character are gradually opening to new economic and social relationships, with selective top functions leading the way. They could again trigger the emancipation of hierarchy in an urban poly-centric regional system. To put it differently, possibilities for increasing the attraction of regional centres is increasing.

These predictions can be strengthened with an analysis of sites taken by new companies, operating at the top of the third sector and coupled with the question, whether they choose cities as the environment, adequate to their development relationships. The service economy has of course in the last decade experienced a real »boom« and by occupying central urban areas also replenished the centrality of cities, thus enabling evolutionary dynamics.

On the other hand, careful introduction of the necessity of competition in leading functions, except for a small segment of the private sector, hasn't caused the necessary selection of a small share of competitive enterprises, that could confront the European or global level.

A rough estimate is that we can identify tough private initiatives that are ploughing through adversities to recognition and that identify a series of polarising phenomena.

Since the mid 80s a new general statistical growth indicators of relations between macro-regional centres, is the frequency of air traffic, both for passengers, as well as freight. The indicator is especially important for Ljubljana. Another indicator, suitable also for other regional centres, is the dynamic frequency of fairs. A third indicator is the growth of activity in conference centres, and a fourth is the increase in enrolment to university.

The mentioned top functions affect the international level and act in relative autonomy, with respect to local environments. Entrepreneurial ideas are formed in relation to international competitors, therefore the important group of activity includes: fairs, organisation of transport, research and development projects, top art production, development of industrial and financial groups etc. Similarly local service offer is becoming comparable with suitable international offer: specialised supply for services and industry, technological and commercial partnerships, thus relationships with the local environment are become increasingly selective.

What are the territorial relationships between different areas, e.g. regions, could be depict by the following indicators: migration ratios between regions and macro-regions and inter-regional migratory ratios.

### The role of Ljubljana

Nevertheless, the presence of top functions and the presence of expansive ambiental qualities don't close the possible spheres of metropolitan development. Above all we are deal-

ing with conditions of connectedness between metropolitan development of the capital city and the metropolitan region or development of the whole of Slovenia. If we lean on the »network« metaphor, we can define all those functions or activities, that perform key roles in connecting leading regional activities with the highest ranking networks in the international scale. An important part of the mobility functions are carried out by airports, providing a good intercontinental network. Besides their finale service, as nodal points they also offer the possibility of multiple and even intermodal connections. The same applies to railway stations for high speed trains, that are properly tied with metropolitan regional connections, enabling access to vast areas of users and thus connected services in the national and international space.

Similarly the presence of an articulate and solid network of financial services can function as a service for accessing primary financial networks for a wide range of local entrepreneurs.

Access to networks of top functions seems to be crucial in establishing the role of Ljubljana in a metropolitan poly-centric regional system and defines the possibilities and limits of metropolitan growth. The possible decision of making Ljubljana a metropolitan city opens the possibility for efficient execution of the spatial plan and within its framework, also the execution of a hierarchical poly-centric settlement system. This is however still a hypothesis, because Slovenia hasn't as yet adopted a resolution concerning national spatial development.

The resolution should present the possibilities of using all specific potentials of the urban regional system, besides emphasising solutions to spatial issues. Only in this context can the role and importance of regional centres be foreseen and strategies of regional development devised.

Before us we therefore have a contextual problem of precise definition of the functions of centres, forming the regional system, as well as definitions of connections between various areas on the macro-regional, regional and micro-regional level. If we solve the problem, we could relinquish the present practice of sectorial policies with a low redistribution profile and focus on improving the quality of plans for urban areas. Today, they are inadequate for connecting all implicit synergy in potential regional development.

### The role of other centres

The delays in opening numerous new disciplines of economic activity to the European and international market is causing delays in specialisation and connections between economic disciplines and consequently cities as well. The earlier mentioned indicators of trends could point out »directions for development« of integration and increasing mutual relationships. Which cities should be tightly connected with adequate levels of infrastructure? Which areas grow in close relationships with their macro-regional structures? Which areas should be re-categorised because of their mono-functionality? Which areas present higher positions with special functions? Which areas are intensifying the creation of new jobs?

Even in these questions that have gone unanswered in professional circles, some weren't even raised, reasons for delays in the creation of new municipal spatial plans can be found. Spatial plans should have priority because of their high level of specialisation and consequentially higher level of mu-

tual co-operation, that could stimulate numerous relationships and other forms of integration. The fact is especially urgent for macro-regional centres in tight relationships with the capital. The condition is somewhat alleviated with the highway cross, that besides macro-regional problems, also solves many regional or local ones – if we count the number of highway exits. But, then again it also stimulates dispersion.

Ljubljana is already becoming the main national service centre. Especially with the concentration of large retail stores. Here the traditional self-sufficiency of traditional industrial centres is collapsing, as can be best seen in the Zasavje region, placing under scrutiny the nominal survival of the (statistical) region. From the macro-regional viewpoint the same fate is endangering most of Slovenia, unless we will position the country in a global production network. From the spatial point of view and the viewpoint of establishing new relationships with Ljubljana, Maribor is strengthening its position with special functions, for example the university, but it unfortunately cannot provide new jobs, putting it in a weaker position in dialogues with Ljubljana.

Despite delays in the spatial sense of development, certain disciplines are following globalisation trends. The education sector is decentralising: the management school in Brdo and other institutions of education and training are operating outside the universities with satisfactory results concerning number of enrolled students and effect on local environments; expansion of activities of the university in Maribor; increasing importance of fair organisers throughout Slovenia; trends in privatising health care institutions etc. On the other hand, regional theatres are plagued by financial problems, but they never considered co-operation, improving their service or diminishing management costs. Public health care structures haven't started harmonising their service on the regional level, thus providing services aligned with the demands of their users, also implying shorter waiting periods for specialist service.

Concerning networks, the equal distribution of potentials (even natural) within a network is important for cities, if it possesses network nodes connecting the most important European centres and if it is the seat of specialised functions, relatively autonomous to the urban context. Here, we are dealing with the main innovative potential. The idea is to expand the network of equal potential, while at the same time activating resources in the wider area and in those places, that offer specialised organised resources or the potential possibility for their organisation, such as: direct investment, attracting companies or the use of local natural and cultural amenities. Such a position and organisation of a city could establish conditions of urban wealth.

Introducing activities on the local level from the point of view of global activity is neither automatic nor obvious. However it is also true that such introduction doesn't necessarily act as a local generator of production or complementarity of services. Anyway, the indicator of direct foreign investment is extremely unpleasant and one of the smallest in »transition« countries.

Top functions are not the only functions that could identify metropolitan areas as primary providers of global networks for defining roles and ranks of particular cities, but also the density and complexity of functions, that present the city as the primary coincidence between the local and global level.

### 3. Problems

#### 3.1 Population

The progressively ageing population coupled with weak immigration flows will impose difficult tasks on the service network and functionality and efficiency of social policies. Even in the future Slovenia will be faced with a decreasing population and increasing social transfers. The labour market presents both qualified individuals, available for the most pulsive activities, as well as those with lowest qualification. If in the next ten years the birth and death rates remain on the present level and the number of immigrants and emigrants becomes zero, the population would grow until 2003. After that it would steadily decrease. In some 200 years there would be only 400.000 of us, the present population of Ljubljana. Low birth rates don't imply only a decrease in population, but also changes in the age structure of the population. The number of younger population is decreasing, later on implying a smaller share of active population, and the share of older population is increasing rapidly. In 1991 10,9 % of the population were older than 65 years, by 2040 their share will be higher than 20 % (Jakoš, 1999).

Numerous services will thus have to be reorganised and rethought, because of demographic and social changes, with respect to differing regions, i.e. the region of Ljubljana with highest dynamism and peripheral border regions with explicit regression.

#### 3.2 Costs of dispersed settlement

Despite the directives in the long-term plan concerning processes of dispersed settlement and planned »spatial placement« in above all, regional centres, dispersion is continuing. In addition, the plan is not being implemented on the practical administrative level. It seems that the long-term plan has no influence on such occurrence. Every commune exaggerated its use of land by registering so called »spatial needs«. The prestige and identity of communes were based on population growth and growth of employment. The search for new green-site areas for known developers was a priority for all administrators, as opposed to »good« communal policies, offering building sites to unknown developers. The condition remains.

The consequence of such land policies is the over exaggerated and poor use of building sites. In comparison the Netherlands and Denmark on average use 4,5 times less land for every new inhabitant, than we do in Slovenia (Dekleva, 1998). Because of the lack of communally equipped building sites – except for the offer by private owners – and the increasing demand, the logical condition is, that private developers have to fend for themselves.

From the point of view of location, companies and individuals are logically distributed within the territory of a region or municipality, since they use the presence of a network (roads, technological network, public services), almost equally distributed and well located in central places.

Until recently costs of residential provision, managed privately, were very low, since they didn't include environmental costs especially for irreversible changes. Here we imply changes for the worse in land use and soil protection, the

countryside, especially agrarian and hilly areas. The problems are poor urban quality of new settlement, waste disposal and protection of water resources.

Other costs are economic costs of ensured territorial equality in the distribution of services. This principle is followed by the regime of general taxation and socialisation of costs. A modern solution would be to establish a different regime, focusing on transparency of rates set at different levels and paid by the user. In relation to demographic indicators and necessary increase in competitiveness of regions and municipalities during the accession process to the EU, the building of networks for the distribution of water, energy, waste water disposal, communal waste disposal, indispensable social services (schools, health care centres, other forms of aid) will not be able to follow any kind of territorial settlement distribution. On the contrary, joining investments and providing enduring service networks will have to be enforced. The present fragmented system has to be overcome by comprehensive connected and reorganised approaches.

### 3.3 Crisis of public transport

During the last 10 years use of public transport has been decreasing and the use of private vehicles is increasing, both of which are a consequence of growing individual spatial mobility and retail. Dispersed settlement types are preventing even minimal conditions for functioning and accessibility of public transport.

Economic relations have diversified and multiplied. Inhabitants and employment are increasingly dispersed in regions. These conditions prevent provision of minimal competitiveness of public transport services, unless at high costs and exclusively along the radial-centric routes to central places. Last year we saw the number of railway routes shrink.

The consequence is that that transport issue has exploded in all the macro-regional centres and main transport destinations. We cannot establish what are the new urban – social and private costs of journeys.

Investment into roads has jumped to first position in public expenditure. In the recent years many local centres are trying to build by-pass roads and increasing permeability of regional roads. However, we haven't realised even half of the highway programme. Quite the contrary applies to railway transport, little is being done, but with expensive loans. Reorganisation aiming at improving commercial results is being achieved by reductions in local transport.

### 3.4 Issues on housing

High prices of real estate, small quantities of available and adequate flats and high rents, forced the inhabitants of cities to leave them and to search for cheaper solutions for their housing problem.

The unorganised real estate »market« causes dispersed behaviour of individuals and entrepreneurs. New taxes (communal taxes), property taxes and growing prices of real estate are additional problems. Developers are still focused on raising the price of real estate and corresponding decrease in building new homes, wherever their sites may be. The rea-

son is the lack of real estate annuities. The quantity of new homes isn't increasing, demand for purchase of real estate isn't decreasing. The main problem of urban areas is, how to ensure a better offer of apartments for rent at reasonable prices. In any case they are much too high for the socially weaker population.

### 3.5 Issues of towns

In the system of social planning the guiding ideas were communal self-sufficiency and enabling every communal territory the development of its role in a poly-centric system. The consequence was redundancy of activities and unnecessary occupation of vast expanses of land. For example almost all the former communes had their own garbage dump.

The long-term plan predicted necessary strengthening of cities and regional centres within regional systems. So called »development« was in practice focused into strengthening municipal centres. Faster technological development, higher level of services, in short, raising the level of functions within systems in relation to the regional system of towns, were also mentioned. However we can establish the opposite: relative loss of urban identity and pertaining territories tied to incapability in assessing resources and local capabilities necessary for economic success and break in communication between the society and government.

Presently we are in a position where cities should reorganise and raise their competitiveness and improve the quality of their activity in the relationship local/global, while strengthening of cities is based on equal conditions and not equal distribution of knowledge resources. In contrast local environments are not even on the level of recognising their own resources or promoting competition. Accepting the existing spatial structure and evolutionary spontaneous trends inherited from the past is not good enough. Our estimate is, that in finding solutions to prevailing problems today, the issue is raising the quality of existing processes already present in various regional environments, rather than searching for innovative ones.

Every city lives on the complementary relations it has with its territory, structured relations that are the basis for services and specialisation. It is the pre-condition for establishing the popularly termed network relations, whereby it is not necessary to possess everything, even the impossible. A much better solution is to be well connected with infrastructure, than having everything in one's own backyard.

### 3.6 Planning issues

With the long term plan Slovenia intends to overcome the non-differentiated settlement policy, services and structures, thus supporting clearer identity of places based on the logic of (relative) moderate concentration in sub-regional centres. The presumption of the spatial plan is however simultaneously in complete contradiction with cultural changes and also fundamentally with the contents of the communal programme. These contents are here and now and prevailing. The question is, to what degree do these divergencies in the plan add to the luxuriant programming of supply, that has largely hindered the basic concept of regional programming and is still being maintained in its definition.

In the accession process to the EU and necessary increase in competitiveness of Slovenia as a region, aspects of dispersion are increasingly urgent. Today dispersion is only increasing costs, that are being steadily doubled and although the problem is being put aside for a later date, they are only growing. In this context the necessity of a kind of »order in ratios« is growing, a certain rationality leading to organisation of services, mobility, use of urban spaces and environments, integration of functions and relations between the main functions and cities. The market is also irrepressibly entering the organisation of services and forcing us into rationalisation, decreasing costs and optimising administrative fields, also improving the services, if we want them or not. The unpleasant occurrence, especially for those living further away from settlements, is that as users they will be called upon to cover the real costs of services, stated in price lists, rather than indirectly through taxation.

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## Physical Planning and the Network of Towns in Slovenia:

### How transport-logistic terminals and enterprise zones stimulate urban growth

*People are often not really satisfied with spatial plans or their physical aspects, their implementation. On the other hand enlightened individuals don't even dare to think, what could happen in space, if they wouldn't plan at all ...*

#### 1. Introduction

##### 1.1 Transport-logistic terminals

The article presumes the development conjunction between urban centres and transport networks. When we speak about this conjunction, we digress into the issue of so called circular causality, meaning that »transport can cause urban development and on the other hand urban development can be the cause of increased transport« (Johnston, Gregory, Smith, 94, pp. 643). In other words or in a banal sense, sometimes it is necessary to build a new transport commodity and sometimes a new building or city part. Why build one or the other, where to develop the building (or road) and when one or the other, are questions, that can be answered only

on the basis of a spatial plan. What kind of spatial plan is right to attempt answering the questions, where, how, when, and above all why, is not easy. But answers are possible.

On the other hand we are opening the debate on the nature of the urban (or neo-urban) in the post-industrial or information age. As Anthony Giddens, a popular (and politicised) author at the turn of the century in Slovenia, put it, centres of industrial power are not equal to pre-capitalistic centres (Giddens 82, pp. 108). In Slovenia such examples are the medieval centre Ptuj and industrial Maribor. The choice of suitable economic activity that could drive development in the post-industrial, information age is their main issue, assuming that activities such as transport, logistics, telecommunication and information technology are the key economic fields.

Here it is necessary to point out the relation between two planning paradigms. The first is the rigid and hierarchical settlement system, more or less obsolete, while the second is the emerging, not fully accepted, paradigm of a dynamic and egalitarian system of settlements. The answer is as usual somewhere in between. For a planner the important input are, for example, indicators defining the number of people working from home or the forecast of the same in some 10 – 15 years. The article only points out the relation, but the emphasis is on the meaning of hierarchy in transport-logistic terminals.

Transport knots with inter-modal transport logistic terminals are generally extremely important for efficient combined transport, urban and economic development and environmental protection. »The importance of transport knots for goods and people is still increasing, if we consider future high speed connections between European cities (urban network) and the development of combined transport (terminals)«<sup>1</sup>. According to the White book<sup>3</sup> projects on transport infrastructure will: »mutually connect national networks and facilitate their inter-operativity with access to networks, including crossing from one transport mode to another«. Inter-modal transport and inter-modal transport logistic knots are therefore important for urban development and economic growth. By improving transport and with better placement of inter-modal knots, the possibilities for developing entrepreneurial industrial clusters increase. Finally, inter-modal transport is the smallest evil for preserving the environment.

Inter-modal knots, above all in the Koper port, already exist and function, but other measures have to be taken to assure their future development and improve their efficiency, thus increasing Slovenian competitiveness in the transport-logistic sector. In Koper inter-modality implies the exchange of transport modes between maritime, railway and road transport, Ljubljana between road and railway transport, while in Maribor, road and railway transport, plus potentially air transport, Celje is a knot on the TEN/TINA corridor and regional connection Celovec-Rijeka, Novo mesto as an improved model split for transports of Revoz, etc.

Development of inter-modal transport and transport-logistic knots has to follow the growth of traffic flows and consequential development of transport infrastructure, which is, as mentioned earlier, in Slovenia very dynamic. Because of the substantial extensiveness of this development activity, certain measures have to be taken by public and private institutions, including the Government, local authorities, companies involved with transport infrastructure and other related enterprises.