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– COHESION OR COMPETITIVENESS

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EDITORIAL

In the view of many, the alternative options of cohesion versus competitiveness represent one of the most important dilemmas underpinning development in today's Europe. It remains unclear whether we will be able to reconcile the ambitious goals of the Lisbon Strategy with the desire that all regions of the European Union should develop cohesively. What is more, we may even encounter difficulties in understanding the nature of the cohesion being referred to. These issues are particularly pertinent in the newly acceded member states, whose relatively rapid overall economic growth coincides with increasing internal disparities from region to region. This problem is noted *inter alia* in the EU's Territorial Agenda adopted at Leipzig in spring 2007, but it would seem that the curtailment of disparities between regions may not be treated as an end in itself in the countries in question. Rather, what would seem to be of the greatest importance is that a relatively high rate of growth be maintained in all regions. For this reason, any striving for equality (or cohesion) ought to relate less to the level of GDP and growth indices therefore, and more to what can be broadly conceived as spatial accessibility and the state of human capital. In the same way, the efforts should be taken to denote priority status for infrastructure (in transport and telecommunications) and the decentralisation of education (affording equality of opportunity). Beyond that, the depicting of disparities in the Central European countries is often very much more complicated than is the case at the main levels on which statistical data are gathered, i.e. the so-called NUTS-2 or NUTS-3. In conditions of impaired accessibility plus limited migrational mobility, regions themselves are found to be differentiated internally, ensuring the establishment of a mosaic of towns and communes more or less developed and offering better or worse living standards for inhabitants.

It is this lack of cohesion to be observed on various spatial scales that constitutes the lead theme in this next (16th) volume in the *Europa XXI* series. Thus, this volume brings together scientific papers devoted to metropolitan areas and industrial clusters on the one hand, and to peripheral near-border areas in need of support on the other. These are supplemented by texts on European transport linkages, while each of the parts mentioned also includes a study uncovering such additional problems as declining towns and cities, the conflict between infrastructural development and environmental protection, and the ethnic diversity to be found in near-border areas. Some of the articles in question draw upon the papers given and discussions held during the Third Warsaw Regional Forum convened in October 2007.

Specifically, then, the first part of the volume concerns itself with the development of actually or potentially competitive areas. Most of the articles deal with Central Europe. In this region, the initial phase of transformation saw main centres of economic growth largely being confined to national capitals, and hence to urban areas concentrating administrative functions (A. Kuć-Czajkowska). With time, the competitiveness of second-order metropolitan centres also began to increase, these including the Polish cities of Poznań (T. Strykiewicz) and Kraków (P. Trzepacz and J. Więclaw-Michniewska). Equally, not all urban centres can be pointed to as beneficiaries of change. Some have witnessed degradation of their settlement systems, losing demographic and economic potential, in spite of efforts at countermeasures. A famous example here is provided by the cities of Germany's eastern Länder (A. Cieśla).

Joining the large centres as highly-competitive regional structures in today's Europe are the industrial clusters. However, in line with the prevalent economic cycles and the economic integration of the Central European countries, these have been subject to both delocalisation and structural transformation (S. Ileris).

A condition if centres and regions are to avail themselves of a competitive position is that they should have good transport linkages; these translating into a high level of mutual accessibility on both the national and international scales. The achievement of the goals of cohesion policy requires improvements in both road and rail accessibility (J. Bagińska). Furthermore, the connections present in passenger transport serve in portraying the spatial breakdown to international relations of both a social and economic nature within different countries (e.g. Slovakia – D. Michniak). However, the desired development of transport infrastructure in the new Member States often seems to come up against difficulties, as conflicts with nature conservation functions (e.g. in NATURA 2000 areas) arise. One such conflict exists in Poland, along the Via Baltica route linking Lithuania, Latvia and Estonia with the rest of the European Union (R. Szul).

The regions to which cohesion policy is traditionally addressed are the near-border areas, in particular those located along what is now the external frontier of the European Union as a whole. While it is true that such a location is increasingly likely to be seen in terms of opportunity, inter alia as regards the development of broader dimensions to cooperation (G. Cotella) or the obtainment of structural funding (e.g. from the INTERREG Community Initiative; S. Dolzblasz and A. Raczyk), it may also hold socioeconomic development back significantly where a border is of limited permeability (as in the case of tourism – M. Bednarek). There may even be a disruption of interactions that were shaped under previous conditions, as in the case of commutes to work across the Slovenian-Croatian border (D. and M. Bogataj). In addition to all this, ethnic diversity remains a factor conditioning the situation in near-border areas (J. Majo and M. Hornák), as does political instability in the case of Eastern European countries once part of the USSR (K. Sato).

To sum up, the studies brought together here can be said to demonstrate that social and economic differentiation and disparities present in Central Europe can in some cases run counter to the traditional divisions underpinning the Western European paradigm on cohesion policy that has been put in place. They thus show how necessary further discussion on that policy's future is, along with an indication of how the relative strength of areas that have emerged as "transformation winners" may nevertheless prove unequal to the task of competing with the regions of Western Europe that are economically the strongest. In these terms, even the capitals of the Central European states are seen to be in need of some kind of cohesion policy (inter alia in the context of a desire that the so-called "Pentagon" be decentralised). However, in this case, what is first, and foremost being sought is improved functional cohesion, as manifested in the way that certain Central European centres of growth are better interlinked mutually and externally. On the other hand, more traditional assistance for certain peripheral (including near-border) areas, remains desirable. The weighing up of the two types of support remains a challenge in respect of yet another EU financing period (2014–2020).

Tomasz Komornicki

TOWARDS COMPETITIVE METROPOLITAN AREAS AND CLUSTERS

THE DEVELOPMENT OF A CREATIVE KNOWLEDGE SECTOR IN METROPOLITAN REGIONS: THE CASE OF POZNAŃ

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Abstract. The emergence of a creative knowledge sector is one of the features of both a structural change of the world economy and society as well as the process of advancing metropolitanisation. Metropolitan areas are among those where this sector develops especially dynamically, and is turning into one of the most important markers of their competitiveness. The identification of mutual interdependencies between the process of accommodating creative knowledge and a competitiveness of metropolitan regions within the enlarged European Union has become a subject of an international research project called ACRE, implemented within the EU Sixth Framework Programme. The project's central question is: What are the conditions (in particular, the role of so-called "soft" factors) for creating or stimulating "creative knowledge regions"? The article presents:

- a) an outline of the above mentioned project in the context of R. Florida's concept of a creative class and a creative city; and
- b) preliminary results of the project on the example of the Poznań metropolitan region.

Key words: creative knowledge sector, metropolitan regions, competitiveness, Poznań

INTRODUCTION

The emergence of a creative knowledge sector is one of the features of both a structural change in the world economy and society as well as the process of growing metropolitanisation. Its spatial consequences are not fully recognised yet. For instance, the research results obtained to date do not provide an unequivocal answer to the question of whether the growth of creative sectors and creative regions undermines social cohesion or offers new chances for marginalised social groups and peripheral areas to participate in economic and social progress. There is no doubt, however, that metropolitan areas are among those where the creative knowledge sector develops especially dynamically, turning into one of the most important markers of their com-

petitiveness. To be more precise, there is an interdependence (or feedback) between the process of accommodating creative knowledge and the competitiveness of metropolitan regions. The identification of this interdependence has become a subject of an international research project called ACRE (which is the acronym of its title, "Accommodating Creative Knowledge: Competitiveness of European Metropolitan Regions within the Enlarged Union"). The aim of the article is to present the outline of this project and its preliminary results, using the case of the Poznań metropolitan region (PMR).

THE OUTLINE OF THE ACRE PROJECT AND ITS THEORETICAL FOUNDATIONS

The ACRE project has been implemented under Priority 7 "Citizens and governance in a knowledge-based society", within the EU Sixth Framework Programme. It was launched in October 2006 and its anticipated implementation time is 48 months. It involves a consortium of 13 partners from different parts of Europe: Amsterdam, Barcelona, Birmingham, Budapest, Dublin, Helsinki, Leipzig, Milan, Munich, Poznań, Riga, Sofia, and Toulouse. As can be seen, the list of metropolitan regions does not include obvious success stories like London or Paris. The aim is to find if and how ordinary, lower-ranking European cities can be competitive in the field of creative knowledge, and to identify the factors that promote or prevent success in this respect. The project is co-ordinated by Professor Sako Musterd from the Amsterdam Institute for Metropolitan and International Development Studies (AMIDSt). The research in Poznań is conducted by the team of the Institute of Socio-Economic Geography and Spatial Management, Adam Mickiewicz University, under the supervision of the present author.

The project is based on different theoretical inspirations. As Musterd et al. (2007) state, the traditional agglomeration concept, introduced by Marshall (1890) and used to explain the rise of new urban-economic clusters, no longer applies in its original sense in the post-industrial (or post-Fordist) era. A significant progress in the discussion on the importance of knowledge and creativity in regional development was made in the 1980s by Törnqvist (1983), who drew attention to the role of the creative environment (or creative milieu). However, it is Richard Florida's concept of a creative class and a creative city (Florida 2002, 2005a, 2005b) which seems most inspiring for the ACRE project. In many circles this concept is being criticised, vulgarised and reduced merely to an analysis of the gay index (with sensational overtones – see e.g. Stüber 2007). I am among those who share the opinion that one should also see its valuable ideas that offer progress, and it is those ideas that are being adopted in the project. They can be summarised as follows:

1. Creativity is becoming a basic source of social and economic development.
2. A creative class has emerged as a new form of social stratification. According to Florida (2005, p. 34) "the distinguishing characteristic of the creative class is that its members engage in work whose function is to create meaningful new forms." Hence, a significant part of value added of such work is non-material.
3. The creative class looks for locations characterised by 3 x T: Technology – Talent – Tolerance. There has appeared new global competition for talent, and the areas winning this competition can be called creative regions (or – as in the ACRE project – creative knowledge regions).

American data show that the creative-sector workers account for 30.1% of total US employment but as much as 47.0% of total wages, with the average salary being about twice that paid in the manufacturing and service sectors (Table 1). The ACRE project seeks to relate the American experience to the European context.

Table 1. The creative sector in USA

SECTOR	Workers		Wages		Average salary (in USD)
	number	%	billion USD	%	
Creative sector	38,893,360	30.1	1,993	47.0	51,244
Manufacturing sector	33,498,670	26.0	966	22.8	28,852
Service sector	56,171,370	43.5	1,273	30.0	22,657
TOTAL	129,024,100	100.0	4,241	100.0	32,869

Source: Florida (2005, p. 4)

The project's central question is: What are the conditions for creating or stimulating creative knowledge regions in the context of the extended European Union? More particularly, what is the role of so-called 'soft' factors in creating and stimulating creative knowledge regions? (Musterd et al. 2007). One of the major research issues is, for example, to what extent such factors as the attractiveness of the residential environment, public space and meeting places, the diversity of the local population, a tolerant atmosphere, the cultural heritage, a subjective feeling of security, and job satisfaction, affect the creativity of both individuals and metropolitan regions. To answer this question, a wide-ranging empirical research has been instituted which rests on questionnaires, surveys and interviews, and embraces the following target groups: higher school graduates, workers and managers in creative and knowledge-intensive industries, and transnational migrants. It is too early, though, to present full results, as the work is still in progress.

CREATIVE KNOWLEDGE SECTOR AND ITS SPATIAL DIMENSION

Before presenting some preliminary conclusions following from the first stage of the research, it is necessary to give a more precise definition of the very notion of the creative knowledge sector and its scope. This notion is not unequivocal, and similar to other concepts listed in Table 2. Their wider discussion can be found in Musterd et al. (2007). In the ACRE project, and consequently in the present article, the creative knowledge sector is taken to fall into two sub-sectors: (1) creative industries, and (2) knowledge-intensive industries.

Creative industries (according to the definition of the UK Department of Culture, Media and Sport) include:

- advertising,
- architecture,
- arts and antiques,
- artistic crafts,
- design and designer fashion,
- video, film, music and photography,

- visual and performing arts and music,
- publishing, and
- radio and TV.

Table 2. Creative knowledge sector – different definitions

Creative industries	Copyright industries	Content industries	Cultural industries	Digital content
Largely characterized by nature of labour inputs: 'creative individual'	Defined by nature of asset and industry output	Defined by focus of industry production	Defined by public policy function and funding	Defined by combination of technology and focus of industry production
Advertising Architecture Design Interactive Software Film and TV Music Publishing Performing Arts	Commercial art Creative arts Film and Video Music Publishing Recorded media Data-processing Software	Pre-recorded music Recorder music Music retailing Broadcasting and film Software Multimedia services	Museums and galleries Visual arts and crafts Arts education Broadcasting and film Music Performing Arts Literature Libraries	Commercial arts Film and video Photography Electronic games Recorded media Sound recording Information storage and retrieval

Source: Hartley (2005, p. 30)

Knowledge intensive industries, in turn, embrace:

- information and communication technologies (ICT),
- financial services,
- law and other business services (e.g. accounting, market research, consultancy), and
- R&D and higher education.

The preliminary conclusions stemming from the first stage of the research emphasise that the spatial behaviour of the creative class and its spatial concentration are connected with the processes of (1) urban renewal/revitalising, and (2) suburbanisation. In the latter case, the research has revealed a shift in the location of both, some creative firms and residential areas to the suburbs. This concerns especially those cities, which have not worked out a renewal policy. This example shows that the future of metropolitan regions largely depends on policies focusing on the development of their creativity and innovativeness (at the EU, national, regional and local levels).

The success stories of creative regions, can be divided into those that are more business- and technology-oriented and those that are more culture-oriented. The question that arises is whether those two orientations are complementary or whether the predominance of one weakens the other.

CREATIVE KNOWLEDGE SECTOR IN THE POZNAŃ METROPOLITAN REGION ON THE BACKCLOTH OF OTHER METROPOLITAN REGIONS IN EUROPE

Poznań is one of the oldest, largest and fastest-growing cities in Poland, located in the west-central part of the country on the Warta river, halfway between Warsaw and Berlin.

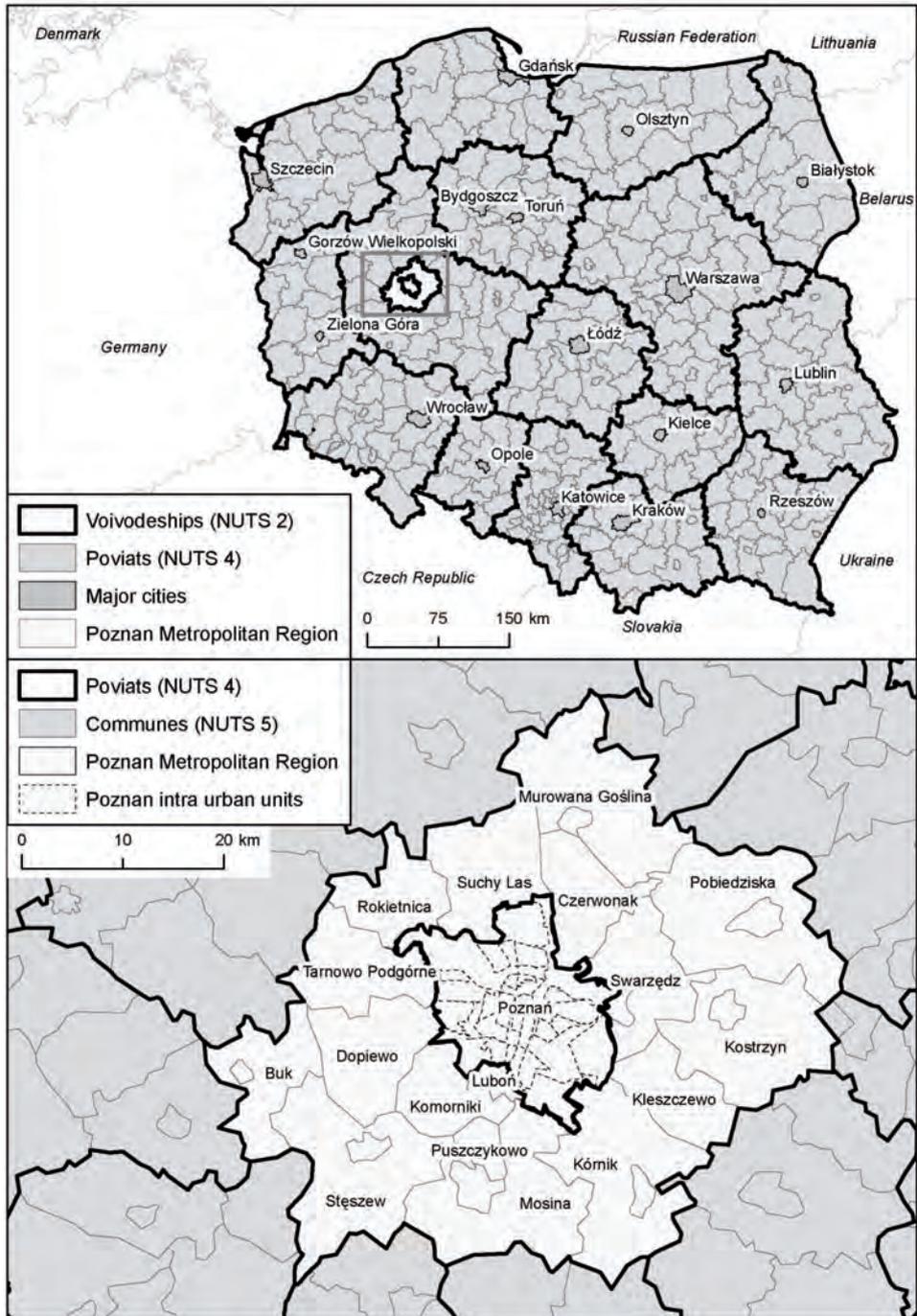


Figure 1. Poznań region – the research area

Source: *The ACRE project.*

It is the capital of the Wielkopolska (Greater Poland) region where the Polish statehood originated more than 1,000 years ago. With its 568,000 inhabitants (2005), Poznań is the fifth largest city in Poland (after Warsaw, Łódź, Cracow, and Wrocław). The population of the Poznań metropolitan region (PMR) is about 856,000. The spatial range of the region adopted in the ACRE project, apart from the city, coincides with the boundaries of the administrative unit called Poznan powiat (district). It corresponds to the NUTS 4 level and includes the adjacent towns and communes (gmina) (Figure 1).

The position of Poznań, in the European network of metropolitan regions is defined by the following features:

1. In comparison with the biggest European cities, Poznań's metropolitan functions are not fully formed yet.
2. Poznań's location halfway between Warsaw and Berlin puts the city under strong competitive pressure from those two capitals.
3. The discontinuity of the city's development path and its inability to keep up with global processes under the communist system (like in other cities of the Eastern bloc) have serious implications for accommodating creative knowledge.
4. In spite of all the above-mentioned reservations, Poznań is one of the most dynamic Polish cities, a leader in the process of social and economic transformation. It also has assets that can make it into a creative and knowledge-based metropolitan region. So far, this type of development path has been far from common in post-communist East-Central Europe. There are signs, however, that this unfavourable situation is gradually changing. Poznań provides many examples of this change.

Table 3. Employment in creative and knowledge intensive industries in 13 European metropolitan regions

City regions	Employment in creative industries (%)	Employment in knowledge intensive industries (%)	Employment in creative knowledge sector (%)
Amsterdam	8	18	26
Barcelona	12	10	22
Birmingham	6	19	25
Budapest	13	16	29
Dublin	11	10	21
Helsinki	7	17	24
Leipzig	9	16	25
Milan	14	17	31
Munich	8	21	29
Poznan	7	11	18
Riga	6	23	29
Sofia	8	19	27
Toulouse	6	16	22

Source: *The ACRE Reports 2.1-2.13.*

At present, Poznań’s share of the creative knowledge sector in total employment is the lowest among the 13 European metropolitan regions participating in the ACRE project (Table 3). Still, the figures listed in the table should be treated with caution owing to less-than-full compatibility of statistics in the different countries. Moreover, metropolises housing state capitals are generally characterised by a higher proportion of employment in the creative sectors (especially the media) than regions not performing national-capital functions.

A detailed empirical analysis of the creative knowledge sector in the Poznań metropolitan region (by sub-sector and territorial unit) is based on two main indicators: (1) the number of entities and (2) employment. Some of its results are presented in Figures 2–5 ¹. In 2005 there

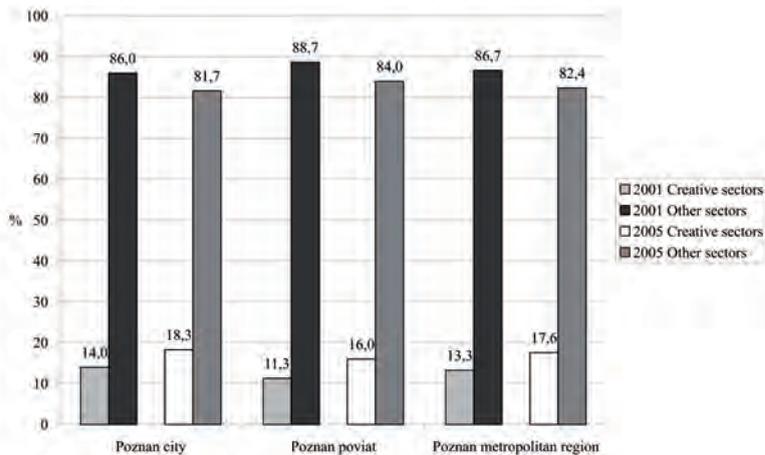


Figure 2. Number of entities of the creative knowledge sectors in the Poznań metropolitan region in 2001 and 2005

Source: own calculation based on data provided by the Statistical Office in Poznań.

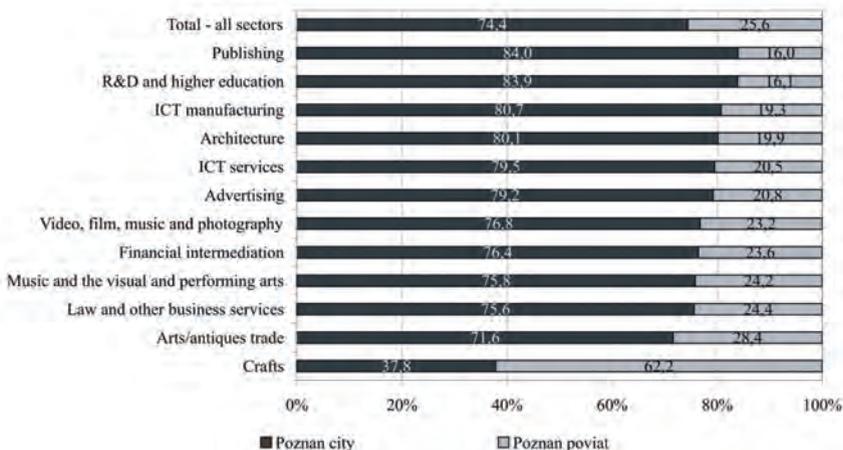


Figure 3. Number of entities of the creative knowledge sectors in the Poznań metropolitan region by sub-sectors (%), 2005

Source: own calculation based on data provided by the Statistical Office in Poznań.

¹ Full results are published in the ACRE report 2.8. entitled Poznań faces the future. Pathways to creative and knowledge-based regions, edited by Stryjakiewicz et al. in 2007.

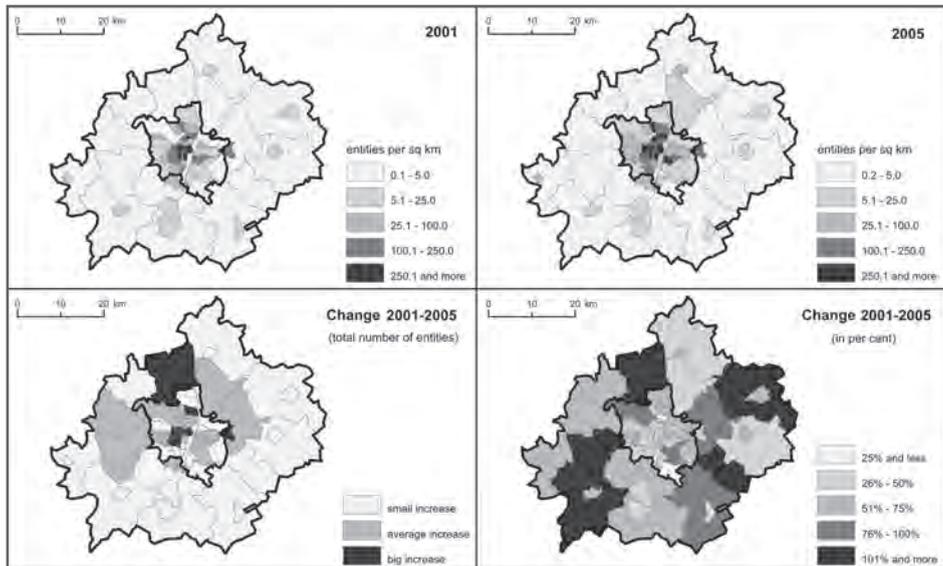


Figure 4. Spatial distribution of the creative knowledge sector in the Poznań metropolitan region, 2001–2005 – number of entities

Source: *The ACRE project.*

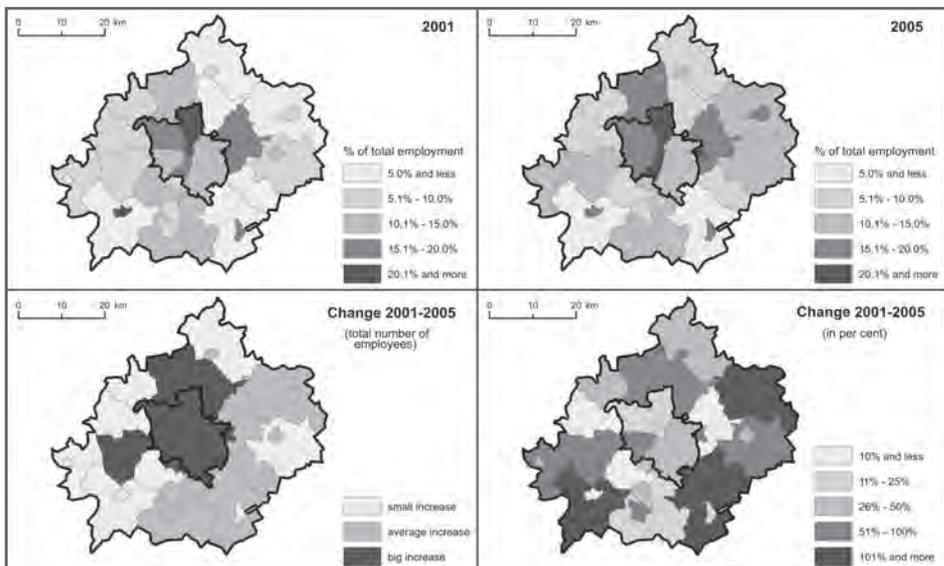


Figure 5. Spatial distribution of the creative knowledge sector in the Poznań metropolitan region, 2001–2005 – employment

Source: *The ACRE project.*

were 22,200 entities of the discussed sector, or 17.6 % of all businesses in the region, whereas the employment figure was 94,260, or 17.5 % of total employment. Those firms show a high growth dynamics. In 2001–2005 their number increased by 45 %, which contributed substan-

tially to the increase in the total number of economic entities over that period (two-thirds of the new businesses were those in the creative sector). Also employment dynamics was higher in the creative and knowledge-intensive industries than in the economy as a whole. Over the years 2001–2005 those industries increased their employment in the Poznań metropolitan region by 31.9 % as against a rise in total employment of 10.3 %, with the increase being higher in the suburban communes than in the city. The highest dynamics was recorded in ICT services, in which employment grew by 137.3 %, followed by law and other business services – by 84.7 %.

A characteristic structural feature is a huge number of small businesses (with under 10 employees), which constitute 95.6 % of the total number of creative firms. Almost 75 % of them are located within the city limits (mostly in the downtown and the densely populated areas around it). The highest concentration in the city is characteristic of publishing, R&D and higher education, whereas crafts are located mostly in the suburbs (which is largely determined by the cluster of traditional carpenters' handicraft in Swarzędz resembling to some extent the 'Third Italy' model – for details see Stryjakiewicz 2005).

The creative knowledge sector is represented in Poznań primarily by business and ICT-oriented firms as well as institutions of higher education. The role of cultural industries (including the media) has so far been mediocre. Among the factors stimulating the development of the creative and knowledge-based industries, 'hard' factors still seem to predominate over 'soft' ones. This statement can be reconsidered after completion of the next Work Packages of the ACRE project. It seems, however, that the Poznań metropolitan region is one of those emerging metropolises in the European arena which seek to associate their future with the development of the creative knowledge sector.

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CLUSTERS IN AN AGE OF INCREASING INTERNATIONALISATION, HIGHLIGHTED BY THE CLOTHING CLUSTER OF HERNING, DENMARK

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Abstract. The paper examines the textile and clothes production cluster of Herning in western Jutland, Denmark, which came into existence from the 1930s and expanded successfully after World War II. Meeting competition from the low wage countries of Central-Eastern Europe and East Asia after 1990, it has survived with virtually no unemployment. On this background, three problems are discussed: The meeting of globalisation by openness, innovation and entrepreneurship. Current cluster theories, which are critiqued, in particular socio-cultural attitudes, are argued to be more important than trade relations between firms, and regional policies, which cannot be based on the creation of clusters.

Key words: clusters, industrial districts, clothes production, globalisation, regional policy, off-shoring

INTRODUCTION

This paper addresses some of the most important contemporary public and scientific problems:

- Increasing globalisation, and in particular its impact in the rich western world;
- Clusters or industrial districts, by which is meant geographical concentrations of similar or related firms. Though this phenomenon has existed for a long time, it was not until late 1970s that Italian economists (e.g. Becattini 1990) became aware of its importance in the “Third Italy”, and not until 1990 that the American economist Michael Porter mapped it in several countries. Since then, most of the scientific debate on regional development has focussed on clusters and the building of cluster theory.
- The role of clusters in regional policy. On the background of a certain unofficial dissatisfaction with the regional policies conducted by national governments and the European Union – not thought to produce value for money – cluster-building was seized by many authorities responsible for regional policy as a “miracle solution”.

Hence, there is a need to understand better, how and under what conditions clusters come into existence and develop, especially clusters which the increasing globalisation has exposed to international competition.

The first part of this paper is devoted to a case study of the textile and clothing district of Herning, a town with 60,000 inhabitants in the County of Ringkøbing (western Jutland). The case has been studied over two decades by an array of sources – statistics, interviews, scientific literature, memoirs of persons involved, newspapers, reports from various authorities. In the second part of the paper, the results will be related to the ways in which rich countries handle the contemporary wave of internationalisation, to current theoretical debates about clusters, and to regional policies based on cluster-building.

THE HERNING CLOTHING DISTRICT UP TO 1990

In the Herning area, the origins of the clothing production can be traced back to the poor farmers of the sandy, heath-covered western Jutland of the 17th century. The farmers started knitting wool clothes, which were sold all over Denmark and Norway by ambulant stocking vendors.

In the second half of the 19th century, the heathlands were recultivated, the population increased rapidly, and in the former townless district, Herning grew up at a highway crossings and railway junction. Herning was primarily a service town, but both in the town and in the surrounding district, some manufacturing enterprises were established, including textile and clothing production.

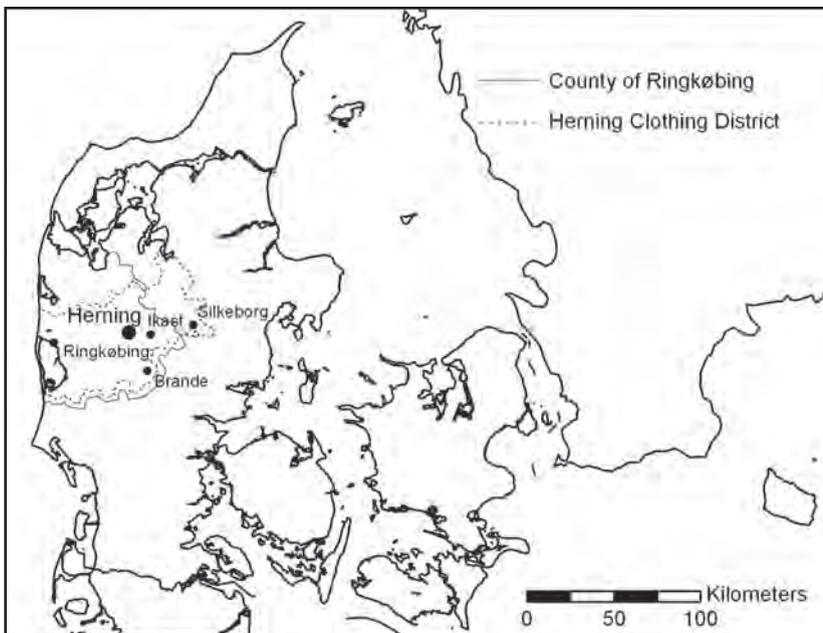


Figure 1. The situation of Herning, the Herning clothing district, and the County of Ringkøbing

Under the protectionist umbrella of the 1930s, entrepreneurs saw their chance to expand the textile and clothing industry. During World War II – with no imports and scarcity of raw materials – all that could be produced could be sold. After the war, international trade was liberalized in western Europe. Much of the West European textile and clothes production succumbed to the increased competition – including that of the previously leading Danish industry in Copenhagen, see Figure 2.

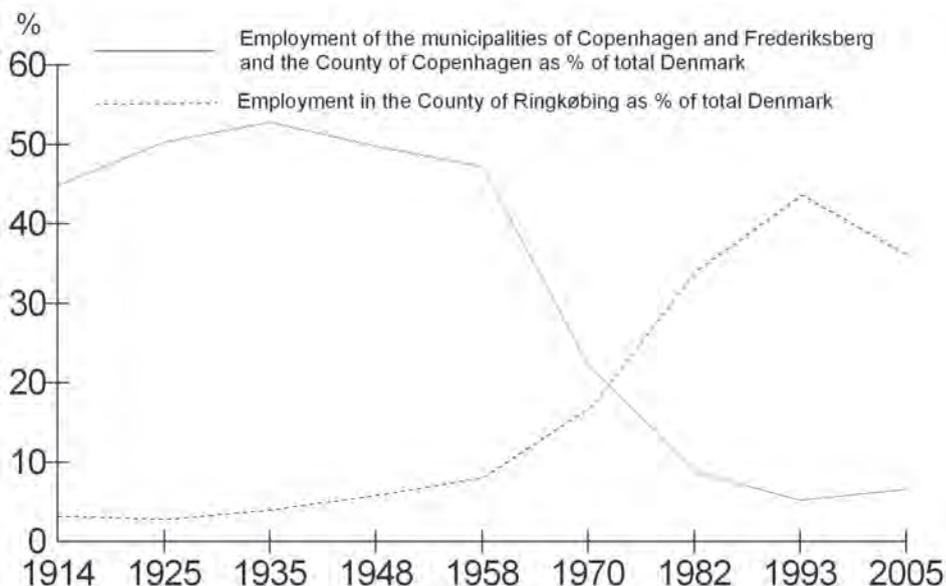


Figure 2. Employment in the Textile, Clothing and Leather Production in the countries of Copenhagen and Ringkøbing 1914–2005

The Herning firms, however, seized the liberalisation to expand their sales. In the 1950s, they started to export to the Scandinavian countries, and the Danish EC-membership in 1973 was used to start an export to West Germany. Table 1 shows the changing employment in the manufacturing of textiles and clothing.

Table 1. Employment in textile, clothing and leather manufacturing, 1925-2005

	Herning	County of Ringkøbing	Denmark
1925	806	2,010	70,706
1948	3,442	6,667	113,374
1970	5,563	10,980	65,266
1993	4,230	12,085	27,785
2005	1,330	3,626	10,031

Sources: 1925 and 1948: Censuses of industry. Herning = Borough of Herning. 1970: Census of population. 1993 and 2005: Register of labour force. Herning = the 1970 municipality.

While the County of Ringkøbing before World War II was one of the least industrialized in Denmark, in 1970 it had become the relatively most industrialized. This was largely due to

its textile and clothing industry, which in Herning was responsible for 56% of the total manufacturing employment, in the County of Ringkøbing for 35%.

How could the Herning area – much against the expectations of all “experts” – first so rapidly expand and later stabilize its employment in this sector?

Undoubtedly, a combination of several factors have contributed (Illeris 1992). The spirit of entrepreneurship, innovation and openness to do new things or to do them in new ways or on new markets is important. This was connected with the structure of the sector, consisting in the Herning area of 500–1000 small, unbureaucratic firms. In 1958, the textile and clothing enterprises in Herning employed on average 14 persons, in the County of Ringkøbing 9. Only few firms have ever had more than 150 employees. Many of the firms failed, but new entrepreneurs – with few exceptions local people – always started. The competitiveness depended on making clever use of existing ideas found somewhere, rather than on inventing something really new. And the level of formal education was low, the knowledge involved was practical rather than theoretical.

Over the second half of the 20th century, products of a higher quality were gradually introduced. Most firms switched from stockings and under-garments to a variety of more sophisticated and fashionable products. Knit-ware remained a specialisation, ladies' dresses, sports-ware for both sexes and children's clothes are good examples. Several firms focussed on the growing market formed by teenage girls. Important textile products were carpets and upholstery fabrics, while spinning and weaving of intermediate products tended to be abandoned. The most skill-demanding production of men's ready-made clothes and haute couture were hardly taken up.

There was as much, perhaps even more focus on process innovation as on product innovation. While there was no production in the area of machines for the textile and clothing industry, the machine importers and the user firms were well aware of technical progress. The local textile museum exhibits machines rather than clothes!

The focus on machines may be seen in connection with the cost consciousness present in this traditionally poor area. The buildings in which the firms had started were the cheapest possible premises – often cellars, stables, garages etc, spread all over the town and villages. Only gradually, better planned factory buildings in planned industrial estates were built.

Wages were before World War II very low (but during the agricultural crisis of the 1930s, it was still possible to earn more as a textile worker than as a farmer). After World War II, wage levels approached the national level, and since housing is cheap, the wage level in real terms became higher than in Copenhagen (Kristensen 1992). Work was organized in a Taylorist way, and the repetitive and unergonomic movements were a problem for the seamstresses – at least until the 1980s when firms started to change their organisation of work, partly under pressure from a young generation of female workers.

Labour relations could be said to constitute an asset. The workers – often former farmers or having grown up on farms – were late to create unions, but after World War II unionisation became widespread (as it generally is in Denmark). However, the unions in the Herning area tended to identify more with the employers than elsewhere, strikes were rare, and the workers were generally loyal and motivated. This must be understood in connection with the fact that many workers would like to start on their own some day, and that they often knew the employers as family members, neighbours or friends. On the other hand, most employers – while

leading their firms in a patriarchal way – treated their personnel well.

While the level of formal education as mentioned was low, tacit as well as codified knowledge of textile and clothes production became widespread. Many of the local people had a job in the sector, and if not, they had at least family members, friends or neighbours who had. The local “buzz” focussed on the production of clothes, the newspaper wrote about it, etc. Besides, the employers already at the end of World War II created a school for their personnel, where further qualifications could be obtained.

Finally, the firms cooperated directly or indirectly in various ways. The most important direct cooperation between the firms was the outsourcing of sewing and knitting operations to specialized actors, who in the early days were often persons with some other job, who in their spare time worked as sub-contractors for a firm. Later, a small army of sub-contracting sewing firms came into existence, which made the production system very flexible. Operations requiring special knowledge such as dyeing, was generally sub-contracted to specialists.

Most cooperation, however, was indirect:

- supporting institutions were created by the clothes manufacturers, such as the school, already mentioned; or the organisation of textile and clothing firms (which has its head office in Herning, while all other Danish business organisations are Copenhagen-based);
- or the trade fairs, started in 1947 in cooperation with the Borough of Herning, which now has the largest fair complex in Scandinavia. (But the fashion fairs have moved to Copenhagen which is internationally more accessible). Besides, a number of service firms have been established, for instance a number of trucking and forwarding firms running regular and frequent lines to a large number of European destinations, which is crucial for the quick and reliable delivery of fashion goods. The local bank and several computer service firms are well developed for a town of Herning’s size, partly due to their textile and clothing customers.

THE CHANGES SINCE 1990

The political and economic transformation of the former command economies in Central-Eastern Europe since 1989 dramatically changed the conditions for the West European textile and clothing industry. Trade became much easier between eastern and western Europe. The EU reduced its customs duties on imports of clothes from the transition countries, and abandoned them totally in 1998.

As a result of the Uruguay round of GATT negotiations in 1995, the EU in 2005 abandoned its quantitative restrictions on imports of textiles and clothes from the poor countries, the so-called multi-fibre agreement.

Both in Central-Eastern Europe and in Asia, wage levels are much lower than in western Europe, in Poland in the 1990s for instance only about 10% of the Danish wages. Since wages constitute an important part of the costs of producing textiles and especially clothes, and even if transport and some other costs had to be added, these changes exposed the West European production to a devastating competition (Illeris 2000).

For market segments where fashions change rapidly, it is crucial that the production programme can be increased, reduced, or modified at a few days’ notice. Hence, the Central-Eastern European countries had an advantage, compared to producers in the Far East, whose

products had to spend a month on a ship before being sold in Europe. However, since the beginning of the new millennium, wage levels in Central-Eastern Europe have increased, and at the same time, air transport has become relatively cheaper. Thus, Danish imports of clothes from Poland have started to decrease, to the benefit of imports from e.g. China, Vietnam and Bangladesh (Figure 3).

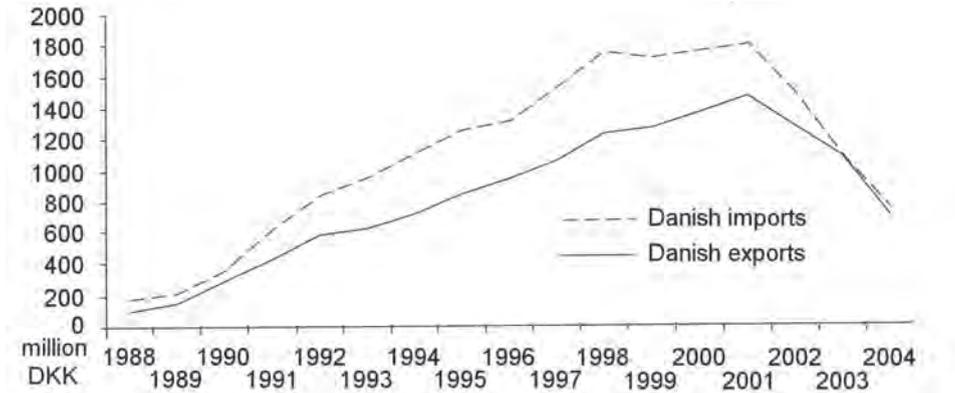


Figure 3. Danish/Polish trade in textiles and clothing, 1988-2004

From the early 1990s, prices of textiles and clothes began to decrease in the western World, and most of the production became unprofitable. More than half of the producers in the Herning area have had to close, including all the specialized sewing firms. As shown in table 1, the sector's employment has declined dramatically. First and foremost, the sewing work disappeared, and the numerous seamstresses became redundant. Some production was so highly automated that wage levels had little influence on total costs, e.g. the production of carpets.

However, in spite of the dramatic reduction of the formerly most important economic activity, the textile and clothes production, Herning has not only survived, but is performing quite well. The redundant seamstresses have found other work, and the rate of unemployment in the County of Ringkøbing is the second lowest in Denmark (2.6% in December 2006). The firms – even the surviving clothing firms – make good profits. Among the 24 Danish towns with between 20,000 and 100,000 inhabitants, Herning is no. 18 as regards educational level, but no. 12 as regards mean incomes. Let us look at the ways in which the Herning area has met the challenges of internationalisation – ways, which almost overnight have changed the character of the area fundamentally.

The most conspicuous reaction for Danish textile and clothes producers has been to off-shore the material production to low-wage countries. This could be done through acquiring firms in the low-wage countries totally or partly, or through having new factories built there (Foreign Direct Investment). Alternatively, they could make contracts with local firms – just as they formerly had sub-contracted the sewing work to firms in the Herning area. Both ways are applied. If the goods remain under Danish ownership from the start to the finished products, the Danish firm is statistically classified as a manufacturing firm, even if it does not do any manufacturing itself. If not, it is classified as a wholesaling firm. In both cases, the tasks carried out is:

- to find out the directions of the market demand;
- to design clothes accordingly and make models/prototypes;

- to arrange for the material production according to the design;
- to arrange the connected logistics;
- to market and distribute the products;
- to manage the whole process in a sufficiently flexible way.

The staff of a firm with these tasks must have higher qualifications and be paid better than the traditional workers. In the clothing subsector, in 1980 72% of the personnel had only primary school education, but in 2000 this share was reduced to 42% (Olsen, Ibsen & Westergaard-Nielsen 2004, data for Denmark as a whole).

Another organisational innovation has been to integrate the production, the wholesaling, and the retailing functions in one firm. The main advantage is that the customers' preferences – as revealed by their purchases – immediately is known by the management and inspires its planning of the future production. Thus, today's most successful firm in the area, Bestseller, has 3000 shops all over the World.

A third reaction is product innovation combined with increasing exports: Standardized clothes, based on price competition, are increasingly substituted by quality products based on design and able to penetrate widespread international markets. It is a problem to illustrate exports statistically, since some goods, produced in one foreign country and sold in another, may never enter Denmark and be registered there. As far as data exist, however, exports now represent about 80% of the total turnover (including re-export of goods produced in low-wage countries) of Danish textiles and clothes sector, and has been extended to all EU countries. As in all West European countries except Italy and Portugal, imports are bigger than exports, but with imports surpassing exports by only 15%, Denmark is no. 3 in this respect. The most sophisticated design is made in Copenhagen, but the above-mentioned Herning school has been quick to switch from teaching technical skills to teaching design, and it has a strong tradition of keeping the education closely connected with the needs of the firms.

A final reaction has been a diversification of the sectoral structure in Herning. In 1970, the textile and clothing industry was responsible for a quarter of the employment. This share started – rather unnoticed – to shrink in the following decades, and this was only partly compensated for by the re-classification of firms into wholesaling. In 2005, the textile and clothing industry is down to 4% of the non-agricultural employment. On the other hand, several sectors have expanded:

- the metals and mechanical industry,
- the wood and furniture industry,
- wholesaling,
- transport,
- computer services,
- banking.

Generally, the Herning area is still very entrepreneurial and innovative. But it is hardly possible any more for an entrepreneur to start by buying a secondhand knitting machine and putting it up in a garage. The previously negative attitudes towards theoretical knowledge have vanished, and a university-level business and engineering school was created by local initiative in 1995 (today merged with the University of Aarhus). But it is a question whether the sophisticated teachers and students now attracted will find Herning – with its tradition of work rather than pleasure – sufficiently exciting.

CONCLUSIONS WITH REGARD TO GLOBALISATION

The analysis of the Herning case since 1990 shows that it is possible for firms in western, high-wage countries to meet the challenges of globalisation – without recourse to protectionism – through openness, innovation and entrepreneurship. Leaders and workers must accept, however, that they cannot go doing the same things as they did before, they must be willing to find new productions and learn new skills, and governments must assist them in getting over these thresholds.

DISCUSSION AND CONCLUSIONS AS REGARDS CLUSTER THEORIES

Surveys of the theories, which have been suggested in recent decades to explain the fact that similar and related firms often locate in rather agglomerated ways have been made i.a. by Scott (2000), Dunford (2006) and Asheim, Cooke & Martin (2006). As mentioned in the introduction to this paper, among the “schools” which empirically and theoretically studied the phenomenon, the two most important ones were (A) a group of Italian economists (who re-discovered the writings of Marshall (1890) and took into account socio-cultural forces; and (B) the American economist Porter (1990) whose approach was more exclusively economic.

Even if their theories are not identical, both groups focus on the development of agglomerations of competitive and exporting firms which belong to the same or connected sectors and which both compete and co-operate in more or less formalized networks. Such networks may be formed for each order, which makes the production very flexible. Spin-off and imitation flourish, thanks to the short distances. Local governments, organisations, teaching systems and other institutions of the area provide services to the networks.

In order to structure the discussion, it may be useful to apply table 2, showing the main advantages – most of them recognized already by Marshall – for regional development of industrial districts/clusters, as they appear in the literature.

Table 2. Characteristics which favour regional development

Characteristics depending on geographical proximity, cluster-building:
- Economic connections and co-operation between similar and related firms
- Exchange of knowledge between similar and related firms
- Common labour-market, supply of persons with relevant knowledge
- Provision of relevant infrastructure and services
Socio-cultural characteristics, not depending on distances:
-Entrepreneurship, innovation, openness, trust, motivation, cooperativeness

As regards the characteristics which on the basis of proximity favour clusters, they are identical with the advantages or positive externalities which geographers and economists long ago have observed in large cities. A distinction has usually been made between “advantages of urbanisation” and “advantages of agglomeration” in a more narrow sense. The former are due to the size itself of the city: a large supply of manpower with many skills and of services of all

kinds, including information and knowledge services; furthermore, a high accessibility by all means of transport and telecommunications, and a reduction of transaction costs due to the short distances between partners. The narrow notion of advantages of agglomeration, on the other hand, means the advantages, which derive from proximity of similar or related firms. Because of this specialisation, small districts may offer the same advantages as those offered by large cities. In the industrial districts or clusters, firms primarily enjoy the advantages of agglomeration: a supply of specialized personnel and services, and the special contacts, which they need. It is easier to obtain the exchange and discussion of the types of knowledge, which constitute a necessary condition for the competitiveness of sophisticated and innovative firms, when there are partners near by.

These theories have brought the understanding of regional economic development forward by a large step. I think, however, that there are significant shortcomings in the theories themselves and in their practical applications. Much of my critique is parallel to what Asheim, Cooke & Martin (2006) have written.

The theories have not sufficiently studied the important question why some areas develop into industrial districts and why others do not. I shall return to this question later. The theories have nothing to say about economic development in areas with no cluster-building. Most studies have also neglected to emphasize the danger for local cultures to freeze into outdated ideas („lock-in”); after all not all densely knit milieu are innovative! Nor have they studied the dangers of too much trust in too closed local societies. In other words, these theories are not fully fledged regional development theories – nor did they originally pretend to be so. Where economic development has happened in regions with no clusters, it has often been the result of inward investment.

Another weakness is that the industrial district and cluster concepts are only vaguely defined. Ironically enough, scholars, who wish econometrically to test hypotheses about clusters rigorously, have defined them in such a way that they lose all validity (Engelstoft, Jensen-Butler, Smith & Winther 2006). In particular, Porter (1990) is very vague, and the discussion of “clusters” in a geographical sense only takes up 4 pages of 850; but he has later (1998) written more extensively on the regional aspect. To mention only one dimension: In spite of their interest in agglomeration and proximity, the scholars working in this tradition do not write much about the extent of clusters. How near is “near”? In old intra-urban clothing clusters, such as the garment district in New York and “le Sentier” in Paris, the firms were within walking distances from one another. When the Herning textile and clothing district was at the top of its importance, it reached up to 40 kilometres from Herning. Some authors call a sector in a whole country a cluster. But, clearly proximity cannot operate in the same way in these widely different situations.

A general critique is also that the literature is too speculative. Even if both the Italian economists and Porter presented their theories as derived from empirical studies, in the body of literature on clusters there is too little concrete documentation.

More specifically, the cluster literature has primarily focussed on the aspects of trade and other direct relations between firms. For instance, Oosterhaven & Broersma (2007) define cluster economies as groups of closely interacting industries. But as stressed by Storper (1997), whenever other aspects have been studied empirically, untraded interdependencies, such as shared – and often specialized – labour markets, connected with widespread knowledge about the production in the local society, usually appear to be more important than the direct rela-

tions between the firms. The development of the Herning district, as described in this paper, confirms this proposition.

Even if firms in industrial districts have local networks, they usually have a strong international orientation, an aspect which the theories have not paid much attention to. The cluster firms often export most of their products and import most of their inputs, including their information. Andersen, Boellington & Christensen (2006) convincingly argue that cluster relations increasingly are substituted by international relations, which to some degree pull the carpet from under a cluster-based regional policy.

On the whole cluster theory, tends to be static, and much of the cluster research has been slow to recognize that the increasing globalisation after 1990 changes the rules of the game. Even if it is true that tacit knowledge, networks and flexible cooperation are unique resources of clusters, which reinforce their position in the international competition, there are many other factors, which influence the outcome of the competition. For products with a low or medium degree of sophistication, globalisation has made it possible for cost differences – in particular wage levels – to come through as much more important factors than the special cluster resources. On the other hand, for highly sophisticated products quality, and innovation are decisive, and clusters do not have any monopoly of these factors.

One of the most important critiques, that has been raised against the Porter-inspired cluster research is that it virtually always ignores the socio-cultural aspects of the phenomenon. Even some works in the industrial district tradition are exclusively economic. But, networking between firms does not happen independently of the social and cultural characteristics of the local society. The story of the Herning district strongly supports this critique: The overcoming of the general West European textile and clothing decline after WWII as well as the ways to meet the challenges after 1990 primarily depended on entrepreneurship, innovation and social capital (as well as on the qualities of the local labour force).

As shown in figure 4, socio-cultural characteristics do usually not exclusively depend on close geographical proximity. The characteristics are often to be found in broader regions, such as much of the so-called Third Italy, or in western Jutland. It may, thus be argued that cluster characteristics only constitute a necessary, not a sufficient condition for an area to be a cluster. However, proximity undoubtedly creates an environment where characteristics as entrepreneurship, innovativeness, openness, trust, motivation and cooperation are better deployed than in environments where potential agents are few and separated by long distances. The characteristics require a critical mass to become activated.

On the other hand, it could be argued that not all clusters consist of related firms with much interaction. The South Swedish Smaaland area is known in Sweden because of the entrepreneurial spirit characterising the area, the “Gnosjö-spirit”, but is composed of small and medium enterprises belonging to different sectors, which seem only to have limited direct relations. The current diversification in the Herning district clearly takes it in the same direction. Some would argue that these areas are not clusters, but people living in them have a clear recognition of the cluster identity.

Returning to the important question why clusters prevail in some regions and not in others, we can only hint that the historical background seems to be very important. Clusters have developed on the bases of local initiatives and local capital, in other words they are endogenous to their areas. On the one hand, we observe that industrial districts have not emerged in the South

Italian regions with strong feudal traditions, nor in old industrial and mining regions, where social norms are against new initiatives and where labour skills are antiquated, such as the North East of England. On the other hand, in western Jutland feudalism has been weak, and in the „Third Italy” the American political scientist Putnam (1993) who studied regional differences found a political history background of bottom-up, cooperating institutions.

Other theory components, which may fruitfully be drawn into the understanding of the cluster phenomenon, may come from the research on social capital and trust. The creation and stability of co-operation depends on the trust between the partners. Hence, it is of decisive importance that the social norms and institutions of the area include a high degree of trust, and that there are social networks – for instance religious or political organisations – where the partners meet each other in other contexts than business. „Social capital” therefore accumulates.

Still other components have been fetched from the study of openness, of learning and of innovation. Bathelt, Malmberg & Maskell (2004) write that it is as if the recognition that openness, export orientation, global “pipelines of information” are decisive qualities has been forgotten in the recent cluster literature. In the earlier literature on industrial districts, it is stressed that in them, a spirit of openness towards trying something new has also meant that many actors are anxious to learn. This innovativeness is typically, not based on the R&D departments of large corporations, but rather on daily shop-floor co-operation to find solutions to small and large problems.

CONCLUSIONS AS REGARDS CLUSTERS AS A REGIONAL POLICY TOOL

Being a well-known and well-writing economist, Porter succeeded where generations of scholars studying regional development had failed, namely to penetrate the barrier between theorists and practical policy-makers. After some years, many national governments and international organisations adopted cluster-building as a miracle-solution to the difficult task of conducting regional policies.

There is a strong danger that such policies are too naive. Clusters cannot easily be created from above. As stressed in the above assessment, the industrial district theories point out that certain attitudes in the local society – entrepreneurial and innovative spirit, trust, co-operation – are crucial for the good functioning of agglomerations. These characteristics are based on historical cultural traditions. Hospers (2005) quotes a number of examples of cluster policies, which have failed because the appropriate regional culture did not exist. Such attitudes are not there for eternity, but we know little about how they may be influenced, and at best this is a long term endeavour.

One implication from the theoretical literature is that policy should promote untraded interdependencies between firms. This could be done through new business institutions, such as local business associations, which help in the creation of networks between firms and the development of clusters. The construction of effective support mechanisms, appropriate to the institutions and clusters of a particular region, implicitly assumes devolution of appropriate decision-making powers to the regional and local level. Improved cluster theory may inspire such local hands-on policy measures in a small way, while the belief that a rapid creation of clusters from above probably is doomed to fail.

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CITY SHRINKING AS A CHALLENGE FOR NEW EU MEMBER STATES – – LEARNING FROM THE EASTERN GERMAN EXPERIENCE

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Abstract. Although contemporary urban development concentrates on the idea of growth, in Eastern and Central Europe, due to accelerated declining and aging population, different principles and goals for urban planning should be adapted. The paper presents the case of Eastern Germany where dramatic decline of towns, commonly known as shrinking, is highly pronounced. It might be assumed that certain processes like intensive out-migration despite large scale of investments known from Eastern Germany will similarly take place in Poland. As a matter of the fact, there are already signs of the demographic decline of Polish towns as in case of Upper Silesian Agglomeration. Therefore, it is important to analyse the development of the Eastern Germany and draw conclusions for other post socialist countries.

Key words: birth rate, out-migration, shrinking city, land consumption, European integration, Central and Eastern Europe

INTRODUCTION

Contemporary discussion on urban development concentrates on the growth. A newly published report, prepared by United Nations entitled: “State of world population, unleashing the potential of Urban Growth”, states that in 2008 for the first time in history half of the global population will be living in cities. 21st century has been announced to be time of a rapid growth of cities and managing urban growth has become one of the most important challenges (*UN* 2007). In 2030, the number of urban dwellers might reach 5 billion, which means more than 60% of the total population. However, the growth of cities will not proceed with the same intensity all over the world. The most affected by this process areas, will be developing regions, mostly in Asia and Africa whereas Europe will face stabilization of its urban population development.

Even 60% of the growth of the number of urban dwellers is due to a birth rate and merely 40%, is made up by migratory movements and reclassification processes. However, an ongoing urbanisation process will be contributing to decrease of birth rate (UN 2007).

Although the world population is expected to reach in 2042 9 billion, (UN 2007a) its annual changes have been already decreasing since the beginning of the 1990s. Various demographic studies imply a reduction of the population growth rate or even forecast stabilization of this development by the end of the 21st century.

Europe, with its high urbanization level, is a forerunner of the ongoing demographic processes. The number of born children has dropped considerably in recent years in most of the European countries. The situation is particularly difficult in countries of a former socialistic block. These countries undergo complex changes caused by a rapidly aging population and an incomplete system transformation (World Bank 2006). It is assumed by the UN Projection (middle variant) that this region (including 8 countries: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic and Slovenia) may lose until 2050 18% of its current population (Kupiszewski et al. 2006).

This demographic development, might be exacerbated by a high out-migration, which appeared after the accession of Central European countries into the European Union. However, due to a lack of exact data on the migration scale its influence on the future demographic development cannot be proved.

The impact of the demographic development is already visible in European cities and towns. According to "State of European cities report" cities in time 1996 – 2001 were not developing in the same pace. They were classified into three groups. In a given period of time $\frac{1}{3}$ of European cities experienced a visible yet not intense population growth. The majority of these cities were located in the southern Europe, mainly Spain and Greece; some of them were identified in Ireland and Finland. $\frac{1}{3}$ of the cities had a stable number of their population and the rest of towns noticed a remarkable decline in their population. These cities are mostly to be found in Central and Eastern Europe.

Thus, process of urban depopulation is undergoing faster in the former socialistic block than in the western part of Europe, which does not need to deal with transformation processes.

Current research on urban trajectories in Eastern Europe suggests that in cities, which were not affected by such processes as Europeanization and globalisation the depopulation was less severe than in those where these processes occurred (Mykhnenko and Turok 2007). In other words, the city growth and the level of integration with the West may be negatively related.

DEFINITION OF A SHRINKING PROCESS

Shrinking does not merely mean depopulation. It rather describes a process, which is composed of several factors. These are: general decline of birth rate, out-migration, growing unemployment rate, decreasing economic potential. Therefore, a shrinking city, would be defined, as a city with a decreasing population and arousing from that decreasing economic activity (Oswalt et al. 2004).

Shrinking is a self-fuelling process. People who tend to leave a given town are mostly

young and rather well educated. The town becomes less attractive for the potential investors who choose other locations for their investments in rather “growing” areas. As a consequence the economic condition of a shrinking town worsens and more people leave it.

Some research studies are attempts to present the process as existing in history since a very long time (Oswalt et al. 2004). However, contemporary shrinking is unprecedented. Never in the past, in time of relative prosperity and peace urban areas were losing so many inhabitants. The most spectacular example of a shrinking process is the area of Eastern Germany, which lost in only 15 years 1.5 million inhabitants.

The purpose of this paper is to present a process of shrinking in Eastern Germany after 1990. The main question posed is whether, there are some analogies between the processes, which took place in a former GDR and Poland after 2004.

THE CASE OF EASTERN GERMANY

After reunification of Germany in October 1990 area of a former GDR was subject to intense investments. Large monetary transfers from the West were aimed at reduction of differences in development levels in the country. A programme “Aufbau Ost” launched in 1990 had initially (until 2004) the budget of 94.5 billion Euro. It was used to finance urban revitalization, redevelopment of hazardous waste sites and support for industrial centres. Additional funds of 64 billion Euro were provided for infrastructure development, which included construction of new roads’ and rail routes. Moreover, the eastern German communes had the opportunity to obtain a financial support from EU.

Shortly after the fall of the wall a huge wave of out-migration from eastern German states to the western part of the country took place. Only in year 1990 the former GDR was left by almost 400 000 citizens (*RK* 2000). Since then the situation seemed to stabilize and the area noticed even a slight inflow of new inhabitants from the west. However, since 1997 the out-migration has started again to prevail and has been more and more intense. This negative development took place despite a visible construction and property boom. Between 1990 and 2005 almost 1.5 million people (8%) left the area of former GDR. Those who left the eastern German States after 1997 were to great extend persons of the age 18–30 years, a majority of them being women. Their emigration had a negative impact on the demographic development. The birth rate dropped beneath the level in the western Germany and the eastern German population started to age very fast. It is estimated that until 2050, the area may lose 30% of the population number from 2002 (*BBR* 2005).

This outflow resulted in a deep crisis of eastern German cities, which have started a “struggle for survival”. There are cities, which were left in only 15 years by almost $\frac{1}{3}$ of their population. Losses of 20% are not rare. In many cases, a high decline of inhabitant number has hidden by the fact that the towns incorporated surrounding communes in the 1990s (*BVBW* 2003b). As a result, the loss of inhabitants statistically seems to be not as severe as in reality. It is worth mentioning that towns with population decrease lower than 3% are described as having a stable number of inhabitants (*MV/MVBL* 2006).

The reason for dramatically decreasing number of inhabitants has been not only an intensive migration from former GDR to the western part of Germany, but also a strong suburbanization. This process was supported by subventions of the German state

(Eigenheimzulage) for accommodation property until 2006. Only in 2004 year the German State spent 11.4 billion Euro on this purpose. Moreover, the commuting is still being supported in form of a tax exemption (Pendlerpauschale). As EEA Report points out the scale of suburbanization in the 1990s in the eastern Germany was much greater than in Poland and Czech Republic (EEA Report 2006). The city of Leipzig was left between 1993–2001 by 37 000 people who moved to the neighbouring districts (Oswalt et al. 2004). However, the mentioned state incentives for building own house were not the only reason for suburbanization process. It was also the insufficient supply of quality housing in the city centres. As a result, the rents in city centre could not compete with those in the suburbs (Oswalt et al. 2004).

The lack of decent housing in inner city was, due to the fact that, in socialism there was no efficient policy aimed to restore and maintain historic residential structures. Although after reunification high funds were spent for the inner city regeneration, renovation of the dilapidated city centres was time consuming. As a consequence in many cases these areas, with pre-war structure, were depopulating faster than the prefabricated estates (BVBW 2003b)

Nevertheless, the suburbanization has reached its peak point around a year 2000. Now the re-urbanisation starts to get stronger in the urban development of Eastern Germany (Siedentop and Wiechmann 2007; MV MVBL 2006).

Former GDR had quite a different residential situation than other post-socialist countries. There was no housing shortage. Already in 1990 there were 300 000 unoccupied flats in the eastern Germany. In time 1990–2004 1 million new flats were built, of which 400 000 family houses. Due to this high investment level in housing market and parallel intensive out-migration the number of vacant dwellings reached in 2004 1.3 million (Oswalt et al 2004).

The increasing number of vacant residential units made the problem of depopulation became visible. This is the reason why at the end of the 1990s a wide discussion about the depopulation problem arose. The phenomenon of abandoned flats fuelled a further depopulation. The settlements with many empty flats have been gaining an ill repute. This made even more people leave. The process affected not only prefabricated estates in the town periphery, but also pre-war inner city areas, which in socialism were neglected and were in a bad condition. In many cases (e.g. Wittenberge) the number of vacant dwellings in the centre is twice as much as in the prefabricated estates.

The percentage of unoccupied housing units in numerous towns is very high. Already in year 2001 in cities like Chemnitz and Magdeburg more than 20% of the housing units stood empty (BVBW 2003). In order to counteract a growing number of vacant buildings as well as to improve the image of depopulating towns the German Government launched in 2001 program “Stadtumbau Ost”. It will be held until year 2009 and it has a budget of 2.7 billion Euro. So far under the program 190 000 flats were demolished (Liebmann 2007).

SPATIAL CONSEQUENCES OF DEPOPULATION IN EASTERN GERMANY

Contrary to the expectations a shrinking town does not contract but it expands. In other words, less and less people use more and more space. Shrinking city is than quite

peculiar and misleading description, which corresponds only with a diminishing population. In spite of this fact, it has been adopted by the contemporary urban studies.

In Germany, between 1996 and 2000 the land consumption, including settlement and traffic area, grew intensively. In 2000 it accounted to 129 ha/day, in the eastern part it reached 40 ha/day (*BBR* 2005). In 2003 the land consumption decreased to 93 ha/day and it is intended to keep this tendency in order to reach the level of 30 ha/day in 2020 (Cieśla and Genske 2006). So far, this reduction has been achieved through an abruptly diminished construction in a housing sector (*BBR* 2005).

In one of the Eastern German States, Thuringia which lost between 1989–2004 328 000 (–12.2%) citizens, the amount of developed land (settlements and traffic areas) increased between 1993–2001 by 11.2% (Cieśla and Genske 2007).

Urban sprawl propelled to a great extent the increase of land consumption in the Eastern Germany. Due to relatively low land prices, the lots were greater than in the western part of the country (*BBR* 2005). Consequently, the same number of detached houses in the eastern Germany took more space than that in the west.

After the reunification the public infrastructure needed improvement. New highways and road connections took large parts of the agricultural areas. At the same time expanding settlements, though with decreasing inhabitants' number required even more traffic connections. It is interesting to point out that despite a decreasing population the number of cars is expected to rise in the next years (*BBR* 2004).

Another factor stimulating land consumption in a former GDR are the investments grounds. German Communes in the East were encouraged to settle "industrial parks" which were to attract investments. However, due to a large number of such prepared sites and insufficient number of coming investors, most of these parks stay today in a large part empty and they are ironically called "illuminated meadows" (Oswalt et al. 2004).

Parallel, there became a lot of abandoned areas as a consequence of depopulation. These were, as already mentioned, residential areas, both in socialistic settlements as well as in pre-war inner city parts. Another type of a derelict land are industrial wastelands, which were left by inefficient socialistic industry and former soviet army military bases.

As a response to the growing land use not only in the Eastern part, but in the whole Germany the Government decided to support the idea of land recycling – the reusing of once used area, or remediation of already used. Due to a lack of investors, willing to take such derelict lands the state is responsible for their remediation.

SITUATION IN POLAND

Polish population has been decreasing for the last 10 years. In this period it declined by 170 000 persons. This loss is mainly caused by a low birth rate. It reached its lowest level in 2003. Despite a slight increase since then, in 2006 it was the lowest in European Union.

The accession of Poland to the European Union and a gradual job markets opening in several western countries led to a high out – migration of mostly young and well educated people. It is estimated that between 2004–2006 almost 2 million left Poland (*GUS* 2007). According to the data presented by GUS the western voivodships: śląskie, lubuskie and opol-

skie have noticed the highest levels of out – migration.

Since the phenomenon is at an early stage, any projection of potential come back of the emigrants is not possible. It is quite likely however that the out–migration is going to affect the urban development in Poland and needs a thorough research.

The number of urban dwellers in Poland has been slightly decreasing since 1998. So far the depopulation process of Polish cities has not reached the Eastern Germany level and it is less noticeable in the space. This is caused by the fact that Poland has the lowest number of flats per 1000 inhabitants among other European countries. As a result vacant buildings can be hardly found. Additionally, there exists a high shortage on dwellings, which is roughly estimated for about 1.5 million units. Judging from an insufficient construction pace and a growing number of households this shortage will not be reduced in the near future.

The demographic development of a post–socialist town is largely shaped by de–industrialisation processes. They are highly pronounced in a Polish industrial region Upper Silesian Agglomeration, consisting of 19 towns with 2.2 million citizens in total. At the beginning of the 1990s the economic condition of the towns seemed to be hopeless. Closing down of numerous coal mines led to a high unemployment rate, which in many towns reached the level well above 20%. In time 1995–2005 the Agglomeration lost 7.3 % of their citizens. The highest losses occurred in Ruda Śląska (11.6%) and in Piekary Śląskie (10.9 %). Even Katowice, a town with a strong economy and a very low unemployment rate lost in that time almost 10% of its population.

At least in an initial phase of deindustrialisation it was the outflow of mining industry workers, which contributed greatly to the depopulation in the area. Numerous coal miners, were forced to go on an earlier retirement. They were coming back to the regions where they came from during the time of Silesia's prosperity. Nowadays, however there is observed a growing willingness to leave the region by the young. In the age group up to 29 years the percentage of those intending to leave is particularly high and amounts to 21% (BCMM 2006).

This negative development takes place despite gradually improving economic situation partly due to growing number of foreign investments. The area is being described by consultancy experts as the most attractive for the industrial investment among other Polish regions (IBnGR 2006). Taking the above into consideration the Upper Silesian Agglomeration cannot be classified as a shrinking area.

Admittedly, it is unknown whether in long term perspective the ongoing outflow of inhabitants will negatively influence the economic growth of the Agglomeration. According to the demographic projection prepared by GUS in 2004, Katowice may lose until 2030 23% of its population from 2005. There is already reported lack of skilled workers for the newly created factories, and even coal mines have difficulties with finding workers.

Parallel, similar spatial phenomena as in Eastern Germany are taking place. In spite of a decreasing population the land consumption rises. It is mainly caused by the new investments in Upper Silesia (e.g. whole Special Economic Zone) which are in majority green field type projects. Due to high costs and time demand brown fields regeneration is hardly implemented. New roads and highway connections, which are under construction, contribute to the considerable increase of the land use. Nevertheless suburbanization of the Agglomeration has relatively low intensity, and cannot be regarded as a crucial factor in land consumption process (Cieśla and Koch 2007).

CONCLUSIONS

Integration with the West has highly influenced the population distribution and space production in former GDR. In 2004, Poland entered the EU structures. To a certain extent the processes proceeding recently in Poland are similar to that which occurred in Germany. A high level of out-migration, the construction and property boom have a lot in common in both countries. Therefore, the European integration process of Eastern Germany is worth analyzing for the countries of Central Europe. Especially dramatic decline of the German magnificent towns should be treated with special attention.

It is very important for Poland and other new Member States to learn from the Eastern Germany experiences. A matter of concern in the Eastern Germany was the construction boom far beyond real needs. The economic growth was to be kept at all cost, despite known, negative demographic trends. First, after the turn of the millennium the priorities of spatial planning changed. Nowadays, it is not any more about the stimulation of the growth, but how to counteract the economic and demographic decline. Another problem was the high consumption of green field areas and neglect of the brown fields. According to the studies conducted in Eastern German States the communities have not succeeded in convincing investors to reuse the abandoned grounds (Cieśla and Genske 2007). Therefore, the land consumption rose considerably despite decreasing population.

Historically, the economic growth of cities was fundamentally linked to increasing population. Nowadays, the challenge of managing urban growth, due to expected growth of cities worldwide has received priority. However, in Central and Eastern Europe, which faces demographic decline different goals for urban planning should be adapted. New planning principles and measures should be developed in order to keep the economic growth and parallel deal with demographic matters such as intensively decreasing and aging population. In other words, they should be aimed at avoiding the shrinking phenomena.

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WARSAW, PRAGUE, BUDAPEST – METROPOLITAN FUNCTIONS COMPARISON

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Abstract. The idea of the paper refers to the comparison of functions, which determine an international position of Warsaw, Prague and Budapest. It is also an attempt to evaluate the chances of these three cities to win and develop individual metropolitan functions in the future. At the same time, this paper aims at identifying the main factors, both obscuring and supporting the development of metropolitan functions of cities under analysis. The author recognizes the following reasons of CEE metropolises development – a significant change of geopolitical position, due to socio-economic transformation, a membership of Poland, Czech Republic and Hungary in the structure of EU, globalization and civilization of information technology.

Key words: metropolises, metropolitan functions, CEE capitals

INTRODUCTION

The main idea of this paper refers to the comparison of functions, which determine an international position of Warsaw, Prague and Budapest. It is also an attempt to evaluate the chances of these three cities to win and develop individual metropolitan functions in the future. At the same time, this paper aims at identifying the main factors, both obscuring and supporting the development of metropolitan functions of Warsaw, Prague and Budapest. The author recognizes the following reasons of CEE metropolises development – a significant change of geopolitical position, due to socio-economic transformation, a membership of Poland, Czech Republic and Hungary in the structure of EU, globalization and civilization of information technology.

Within the first part of the paper Warsaw, Prague and Budapest are analyzed in relation to several theoretical approaches. The second part shows the results of author's research, based on statistical data analysis, referring to metropolitan functions of Warsaw, Prague and Budapest. Within this part of the paper, it is shown that, with regard to metropolitan functions, Warsaw, Prague and Budapest will either be able to acquire a crucial position in the European urban system or remain peripheral, at least for the next dozen years. The last part of the paper characterizes the problems in the development of cities under analysis.

THE POSITION OF WARSAW, PRAGUE AND BUDAPEST IN THE NETWORK OF EUROPEAN METROPOLISES – THE COMPARISON OF A NUMBER OF INTERNATIONAL CLASSIFICATIONS

The functions of the cities (financial services, high-technology industries), and with regard to the I–V categories, the significance of the international economical functions, formed the basis for the classification published in 1989 by R. Brunet (Table 1). Warsaw, Prague and Budapest were placed in category V of urban agglomerations, together with Vienna and Kiev (Gawryszewski et al. 1998, p. 7).

Table 1. Rank of urban agglomerations in Europe

Rank	Polish cities	European cities
I		London, Paris
II		Milan
III		Barcelona, Berlin, Brussels, Frankfurt-upon-Men, Madrid, Munich, Moscow, Rotterdam, Rome
IV		Athens, Hamburg, Copenhagen, Lyon, St. Petersburg, Stuttgart, Turin, Zurich
V	Warsaw	Antwerp, Budapest , Dortmund, Geneva, Kiev, Marseille, Naples, Prague , Tuluza, Vienna
VI	Kraków, Katowice (GOP), Gdańsk-Gdynia	Bratislava, Minsk, Leipzig, Hanover, Nuremberg
VII	Bydgoszcz-Toruń, Lublin, Łódź, Poznań, Szczecin, Wrocław	Brno, Drezno, Kaunas, Lviv, Ostrawa, Vilnius
VIII	Białystok, Kielce, Częstochowa, Radom, Rzeszów, Olsztyn	Brest, Frankfurt-upon-Oder, Kosice, Kaliningrad, Hrodna

Source: Brunet R., 1989, *Les villes "européennes"*, La Documentation Française, Paris.

In turn, the authors of the classification, prepared on the basis of *the Map of the European Network of Cities and Transport Connections* (Treuner 1994, p. 38–43), distinguished three categories of urban centres, within which the sub-types were itemized. The sub-types corresponded to the expected phases of UE extension (Table 2). Warsaw, Prague and Budapest were classified (together with Bucharest and Belgrade) as II b sub-type centres – cities which should be first to obtain the rank of European centre (Gawryszewski et al. 1998, p. 10).

Table 2. The classification on the basis of the *Map of the European Network of Cities and Transport Connections*

Categories of urban centres	Polish cities	European cities
I – URBAN CENTRES OF INTERNATIONAL SIGNIFICANCE I a – international cities I b – cities which should be first to obtain international rank I c – cities which should be second to obtain international rank I d – cities performing specialized functions on international scale		London, Paris Berlin, Madrid, Rome Istanbul, Moscow Geneva
II – URBAN CENTRES OF EUROPEAN SIGNIFICANCE II a – European cities II b – cities which should be first to obtain the rank of European centres II c – cities which should be second to obtain the rank of European centres	Warsaw	Brussels, Athens, Lyon, Milan, Barcelona, Randstad-Holland, Ruhr Conurbation, Frankfurt-upon-Men, Munich, Hamburg, Zurich, Copenhagen, Stockholm, Vienna Birmingham, Manchester, Glasgow, Lisbon, Bordeaux, Marseille, Prague , Riga, Budapest , Bucharest, Belgrade St. Petersburg, Minsk, Kiev
III – URBAN CENTRES OF NATIONAL SIGNIFICANCE III a – cities of national significance III b – cities which should be first to obtain the rank of national urban centres III c – cities which should be second to obtain the rank of national urban centres	Gdańsk, Kraków, Katowice, Poznań, Szczecin, Wrocław	Luxembourg, Basel, Stuttgart, Mannheim, Nuremberg, Hanover, Dublin, Oslo, Helsinki Dresden, Leipzig, Bremen, Strasbourg, Tuluse, Porto, Valencia, Sofia, Florence, Napoli, Tallinn, Vilnius, Lviv, Zagreb, Bratislava, Lubljana Kishinev, Odessa

Source: Treuner P., Foucher M., 1994, *Towards a New European Space*, Akademie für Raumforschung und Landesplanung, Hanover.

Considering the typology prepared under the supervision of S. Conti (Table 3), it transpires that in the 90s Budapest held the position of the leader in politic and economic transformation. The second place, considering socio-economic characteristics and the infrastructure of culture and science, was occupied by Warsaw. On the contrary, Prague was second with regard to international functions and third as far as the infrastructure of culture and science, as well as socio-economic characteristics are considered.

Table 3. Transformation of big cities in CEE countries

International functions: foreign students, foreign insurance companies, foreign banks, international trade markets, foreigners, foreign air companies, flights and passengers, international flights	Socio-economic characteristics: increase in the number of population in the period from 1980 to 1990, density of population, unemployment, underground network, taxis, total number of people professionally active, number of people professionally active in industry, services and transport	Infrastructure of culture and science: number of museums, average number of museum visitors, number of theatres, number of theatre performances, science and research workers, university students
1. Budapest 2. Prague 3. Warsaw	1. Budapest 2. Warsaw 3. Prague	1. Budapest 2. Warsaw 3. Prague

Source: Bonavero P., Conti S., 1996, *New Technological Paradigm. Urban Identity and Metropolitan Networks in Europe*, in: Pumain D., Saint-Julien T. (eds), *Urban Networks in Europe*, John Libbey, Paris, 47–65.

In the European cities typology from 1999 (Table 4), B. Jałowiecki classified the three cities under analysis to the lowest group – the group of regional metropolises with the preponderance of national functions. It should also be remarked that both Prague and Budapest were put into the group of metropolises of type D, characteristic of partially developed metropolitan services and international functions, as well as partial availability. In contrast, Warsaw was classified to the lowest group E of the cities, characteristic of poorly developed metropolitan services and international functions, as well as unsatisfactory availability. One should agree with S. Furman (2000, p. 440) that the capital of Poland was evaluated “too critically” and, in fact, all metropolitan characteristic features can be found in this agglomeration but they are indeed poorly developed.

The overview of international typologies of cities leads to the following observations.

1. The presented classifications differ in the criteria forming the basis to make a division of cities set and attribute a particular city to a given category. The definition of the co-called city profile may include: 1) type of performed functions (e.g. traditional industry or industry based on new technologies, trade, transport, distribution, financial service, business, administration, education, research and development, culture and tourism) and the scope of their impact (international, European, supranational); 2) city size; 3) geographical position (Korcelli-Olejniczak 2004, p.79).
2. The position of Warsaw, Prague and Budapest in metropolises set is characterized by means of various demographic, social and economic rates. Data comparison and lowering or raising the actual position of the cities prove to be a crucial problem. E.g. the classification from 1989 equates the significance of Warsaw, Prague and Budapest, on the one hand, with Vienna and, on the other hand, with Kiev. The typology from 1995 defines the position of these three cities as low, as compared to the range of capitals of similar size, such as Vienna. The authors of this classification equate the significance of Warsaw, Prague and Budapest with Bucharest and Belgrade. B. Jałowiecki’s classification evaluates the position of Warsaw too critically, placing it within the lowest metropolitan group.

Table 4. Metropolises classification

Hierarchical position	Structural characteristics				
	Type A: very strong concentration of decisions and international functions	Type B: diverse structure of activities, strong concentration of businessmen and international institutions of European range, very good availability	Type C: slightly marked specialization of international functions	Type D: partially developed metropolitan services and international functions, partial availability	Type E: poorly developed metropolitan services and international functions, unsatisfactory availability
World metropolises	London, Paris				
European metropolises		Amsterdam, Brussels, Düsseldorf, Frankfurt, Geneva, Hamburg, Milan, Munich, Strasburg, Vienna, Zurich			
International metropolises		Antwerp, Basel, Hanover, Köln-Bonn, Luxembourg, Lyons, Rotterdam, Stuttgart	Barcelona, Berlin, Bologna, Florence, Hague, Copenhagen, Madrid, Naples, Rome, Stockholm		
Regional metropolises with the preponderance of national functions			Edinburgh, Marseille	Athens, Budapest , Genoa, Glasgow, Helsinki, Lille, Lisbon, Prague , Turin, Venice	Belfast, Bristol, Grenoble, Manchester, Montpellier, Nancy-Metz, Nice, Salzburg, Oslo, Thessaloniki, Seville, Toulouse, Valencia, Warsaw

Source: Jałowiecki B., 1999, *Metropolie*, Wyższa Szkoła Finansów i Zarządzania, Białystok.

METROPOLITAN FUNCTIONS

Metropolitan functions should be understood as the functions of II, III and IV sectors, the range of which is no lesser than national¹ (Table 5). These functions may be more or less developed. They may co-occur with different intensity and in different time. The functions that were characteristic of industrial economy are different from the ones that are found in the period of evolution towards the economy based on knowledge, and yet another ones, characterize the economy based on knowledge. Metropolitan functions on a national, supranational, European (continental) or international scale are performed by the entire metropolitan area, not only by the main city (metropolitan centre). These functions may be located in different parts of the metropolitan area (Gawryszewski et al. 1998, p. 89).

Table 5. Metropolitan functions – spatial range and types of activity

Spatial range	Type of activity (sector)			
	I (agriculture)	II (industry)	III (services)	IV (higher-level services, eg. education)
National				
Regional (supranational)				
European (continental)				
Global				

Source: prepared by the author on the basis of the book by Korcelli-Olejniczak E., 2004, *Funkcje metropolitalne Berlina i Warszawy w latach 1990–2002. Współzależność pozycji w systemie miast Europy Środkowej*, *Prace Geograficzne IGI PAN*, 198, p. 37.

The subset of metropolitan functions is constituted by capital functions which can only be located in the capital city (Gawryszewski et al. 1998, p. 112). Such an exclusive location results from the very character of these functions. All national and administrative authorities have their offices in the capital city, as well as diplomatic representatives, management centres, branches of transnational companies. It is the nature of the capital to perform a symbolic and integrative function, to create and spread cultural patterns and to form standards, as well as a diverse potential in the scope of science and art, rich offer in the scope of culture, trade and services (Jałowicki 1989, p. 73). In other words, the catalogue of capital functions with various intensity co-occur in a group of metropolitan functions. Such an exclusive location

¹ The metropolitan influence range and the type of performed functions clearly differentiate the cities of national, regional (supranational), continental and global rank. In this hierarchized system, global metropolises perform vital function in the economy and steer the processes of globalization, regulating the global economy. Continental metropolises (eurometropolises), the international functions of which are not fully diverse, base their development on supranational connections enabling economy regulation on a continental scale. Regional (supranational) metropolises play a crucial role on the scale of neighbouring countries, they are distinguished by global speciality but are not capable of performing steering and regulatory functions on a broader scale (Jałowicki 2000, p. 23). National metropolises perform the functions which, to some extent, have international character and cross national borders (e.g. diplomatic representatives offices).

of the subset of metropolitan functions may “help” the city in the development of the group of metropolitan functions.

Metropolitan functions are mainly the areas of activity of inhabitants. Therefore, in order to evaluate them, it is necessary to consider the number of population and the level of urbanization of the cities under analysis (Table 6).

Table 6. Total area and population of Warsaw, Prague and Budapest in 2003

City	Total area	Population (mln)	Population per 1 km ²	Contribution of the population of the capital in total number of population (%)
Budapest	525.2 km ²	1,70	3274	16.9
Prague	496.2 km ²	1,16	2350	11.4
Warsaw	516.9 km ²	1,68	3269	4.4

Source: prepared by the author on the basis of *Rocznik Statystyczny Warszawy*, 2006, GUS, Warszawa, p. 410–411.

The three characterized cities are of a comparable size. In the case of Budapest and Warsaw, the number of population is similar and the number of people per one km² is nearly identical. The phenomenon of a great concentration of population in the capital city is found in the case of Hungary and Czech Republic: nearly 17 % of the total number of people in Hungary live in the capital and slightly below 11.4% of population of Czech Republic lives in Prague. The urbanization level in Poland is one of the lowest, as compared to other cities under analysis – only 4.4% of population of Poland lives in Warsaw.

THE BUSINESS CENTRE FUNCTION

The business centre function means the presence of the institutions representing international corporations centres, companies and transnational branches of companies, the concentration of business environment institutions: stock markets, banks, consulting, advertisement, and promotion companies, as well as insurance companies².

Warsaw, Prague and Budapest, having entered the EU structures, constitute the area of intensive “penetra-tions” of foreign companies. The proof comes from, e.g. the results of the European Cities Monitor Report³, in view of which Prague is the most attractive city among all the analyzed places, as far as business location is concerned. In 2006 it was rated 13th out of 33 centres under examination. Warsaw, becoming attractive for investors, in the general ratings was promoted to 18th place, whereas 22nd place was occupied by Budapest (Table 7).

The decisions the location of companies depend on various factors. Among the essential elements for locating business in Warsaw are as follows: cost of staff (1st place in the Report), value for money of office space (1st place in the Report), office space availability, climate created by governments, qualified staff, language spoken. In contrast, the strong points of Prague include: business climate (3rd place in the Report), cost of staff, office space value, office space availability, access to markets, lack of pollution. With regard to the investments

² Considering a limited space of this article, the author does not call any statistics comparing the number of consulting, advertisement and promotion companies, banks, etc. in Warsaw, Prague and Budapest.

³ European Cities Monitor Report is a survey which has been carried out annually since 1990 by Cushman&Wakefield Healey&Baker. The analysis is carried out on the basis of interviews with high-rank managers of nearly 500 companies from 9 countries: Belgium, France, Germany, Italy, the Netherlands, Spain, Sweden, Switzerland, United Kingdom.

Table 7. Best cities to locate a business

Rank	City						
	1990 ⁴	1998	2002	2003	2004	2005	2006
1.	London	London	London	London	London	London	London
2.	Paris	Paris	Paris	Paris	Paris	Paris	Paris
3.	Frankfurt	Frankfurt	Frankfurt	Frankfurt	Frankfurt	Frankfurt	Frankfurt
4.	Brussels	Brussels	Brussels	Brussels	Brussels	Brussels	Barcelona
5.	Amsterdam	Amsterdam	Amsterdam	Amsterdam	Amsterdam	Barcelona	Brussels
6.	Düsseldorf	Barcelona	Barcelona	Barcelona	Barcelona	Amsterdam	Amsterdam
7.	Zurich	Madrid	Madrid	Madrid	Madrid	Madrid	Madrid
8.	Geneva	Zurich	Milan	Berlin	Munich	Berlin	Berlin
9.	Milan	Dublin	Berlin	Milan	Berlin	Munich	Munich
10.	Glasgow	Milan	Zurich	Munich	Zurich	Zurich	Zurich
11.	Barcelona	Munich	Munich	Zurich	Milan	Milan	Dublin
12.	Munich	Berlin	Dublin	Dublin	Dublin	Dublin	Milan
13.	Manchester	Geneva	Düsseldorf	Manchester	Prague	Prague	Prague
14.	Hamburg	Manchester	Stockholm	Geneva	Manchester	Lisbon	Düsseldorf
15.	Berlin	Lisbon	Geneva	Lisbon	Stockholm	Manchester	Lisbon
16.	Lisbon	Düsseldorf	Prague	Düsseldorf	Lisbon	Düsseldorf	Hamburg
17.	Madrid	Hamburg	Lisbon	Prague	Geneva	Stockholm	Stockholm
18.	Lyons	Stockholm	Hamburg	Stockholm	Düsseldorf	Geneva	Warsaw
19.	Stockholm	Glasgow	Manchester	Lyons	Hamburg	Hamburg	Birmingham
20.	Vienna	Lyons	Lyons	Hamburg	Warsaw	Warsaw	Geneva
21.	Budapest	Copenhagen	Glasgow	Glasgow	Lyons	Budapest	Manchester
22.	Athens	Vienna	Rome	Warsaw	Vienna	Glasgow	Budapest
23.	Prague	Rome	Vienna	Budapest	Budapest	Vienna	Vienna
24.	Moscow	Prague	Copenhagen	Vienna	Glasgow	Lyons	Lyons
25.	Warsaw	Warsaw	Budapest	Copenhagen	Rome	Copenhagen	Glasgow
26.		Budapest	Warsaw	Rome	Copenhagen	Rome	Rome
27.		Turin	Helsinki	Oslo	Moscow	Helsinki	Copenhagen
28.		Oslo	Athens	Moscow	Helsinki	Moscow	Leeds
29.		Athens	Oslo	Helsinki	Athens	Oslo	Bucharest
30.		Moscow	Moscow	Athens	Oslo	Athens	Helsinki
31.							Moscow
32.							Athens
33.							Oslo

Source: prepared by the author on the basis of the *European Cities Monitor Report* 1990, 1998, 2002, 2003, 2004, 2005, 2006, Cush-man&Wakefield Healey&Baker, London.

⁴ In 1990 only 25 cities were included in the survey.

Table 8. Detailed ratings – European Cities Monitor Report 2006 for Warsaw, Prague, Budapest

Best cities in terms of	Warsaw	Prague	Budapest
Easy access to markets	19	18	25
Qualified staff	17	23	25
Transport links with other cities and internationally	23	23	28
Quality of telecommunications	29	26	29
Cost of staff	1	4	3
The climate governments create	4	3	2
Value for money of office space	1	4	6
Availability of office space	7	16	13
Languages spoken	18	24	24
Internal transport	28	23	26
the quality of life for employees	33	25	27
freedom from pollution	26	14	26

Source: prepared by the author on the basis of the *European Cities Monitor Report 2006*.

in Budapest, businessmen notice the following strong points: business climate (2nd place in the Report), cost of staff, office space value, office space availability (Table 8).

What are then the crucial factors (assets) that make the international capital “attracted” to Warsaw, Prague and Budapest, and which ones have a negative impact on the decision concerning company location in these cities?

Low costs of conducting economic activity and especially labour costs in Warsaw, Prague and Budapest (which are, as compared to other countries in Western Europe, even four or five time lower) constitute an important factor of investments in Warsaw, Prague and Budapest. In the European Cities Monitor Report 2006, in terms of workers’ employment, Warsaw was rated 1st, Budapest 3rd and Prague 4th (Table 8). In addition, the increase in salary rates in Poland has taken place on an insignificant scale. As a result, the salary rates in Czech Republic or Hungary are higher than in Poland (both in private and production sector) (Table 9).

Table 9. Man-hour costs (€)

Country	Private sector	Production sector
Poland	5.9	5.2
Hungary	6.7	6.1
Czech Republic	7.4	6.7
United Kingdom	26.5	26.6
Germany	28.7	32
Denmark	33.8	32.3

Source: *Eurostat 2007*.

Apart from low labour costs, the reason why a number of companies transfer their activity to Warsaw, Prague and Budapest are low maintenance costs enabling the increase in sales incomes and decrease in product prices. Living conditions in Poland e.g. are comparable with

those in United Kingdom, Germany or Austria. However, maintenance costs, which are definitely lower than those in other EU countries constitute a significant difference. The research held by the Economist Intelligence Unit has evidenced that they are equivalent to 76% of similar outcomes in Berlin, 68% in Vienna and 59% in London⁵ (Niskie... 2005).

The advantage, crucial for transnational investors, is connected with capital functions of the analysed cities and business climate created by government⁶. The capital is very often the only centre known abroad. Thus, it prevails over other cities, in terms of capital attraction. The capital city is also the place where national decision centres are located, as well as political and administrative institutions, the direct access to which facilitates conducting economic activity and brings specific "external benefits." These institutions mean thousands of highly-educated officers and experts, contributing to the intellectual potential and purchasing power of the city (Dziemianowicz 2000, p. 300).

In contrast, the factors exerting a negative influence on the decision to locate a company in Warsaw, Prague or Budapest include, first of all, traffic and communication problems. The cities under analysis, in terms of internal transport, in the European Cities Monitor Report 2006 were rated in the following way: Prague – 23rd, Budapest – 26th and Warsaw – 28th. In addition, in terms of transport connections with other cities and international connections, Prague and Warsaw were rated 23rd and Budapest 28th (Table 8).

Table 10. Most trusted countries for FDI

	Country	Confidence rate
1.	China	2.197
2.	India	1.951
3.	USA	1.420
4.	United Kingdom	1.398
5.	Poland	1.363
6.	Russia	1.341
7.	Brazil	1.336
8.	Australia	1.276
9.	Germany	1.267
10.	Hong Kong	1.208
11.	Hungary	1.157
12.	Czech Republic	1.136

Source: *FDI Confidence Index Report, 2005*, AT Kearney, Alexandria.

The three capitals are unattractive for international investors in terms of the quality of life of the employed. Prague, Budapest and Warsaw were rated accordingly 25th, 27th and 33rd in the European Cities Monitor Report 2006 (Table 8). The issue of spatial culture has become a top-priority value in the intercity competition. It is considered one of the most crucial factors influencing the decision on location. It results from the preferences of a narrow group

⁵ The rate was calculated in accordance with the prices of housekeeping products, personal hygiene products food, clothing, as well as the costs broadly-defined as services and transport.

⁶ In terms of business climate Budapest was classified at 2nd, Prague 3rd, and Warsaw 4th place in the European Cities Monitor Report 2006 (Table 8).

of specialists who, due to their high incomes, attach a great importance to the choice of place of residence and the quality of living conditions. Therefore, only the cities located in the natural environment free from pollution are taken into consideration.

The cities under analysis come out badly in terms of the quality of telecommunication services. In accordance with the results of the European Cities Monitor Report 2006, Prague has been rated 26th and both Warsaw and Budapest 29th (Table 8).

Despite the fact that businessmen have to face the aforementioned problems, international concerns plan new investments in Warsaw, Prague and Budapest. It seems that the construction of the base in CEE should be started in the region of a relatively high political and economic security and absorbent market. In the AT Kearney Report 2005 Poland, Czech Republic and Hungary are positively considered as dynamic countries, in the position of great trust, as for foreign direct investments. With respect to this classification, Poland has been rated 5th, Hungary – 11th and Czech Republic – 12th (Table 10).

FUNCTION OF SPATIAL CENTRE FOR BUSINESS

OFFICE MARKET

Warsaw, Prague and Budapest are considered as a preferable commercial office space market in the region. In the European Cities Monitor Report 2006, in terms of office space, Warsaw was rated 7th, Budapest 13th and Prague 16th. What is worth noting, in terms of office space value in relation to its standards, the capital of Poland was rated 1st, Czech Republic – 4th and Hungary – 6th (Table 8).

Initially (in the first period of transformation), it was Budapest to be in the lead in the competition for building of luxurious office complexes in this part of the continent. Owing to a relatively liberal authorities policy, prior to the systemic transformation, the infrastructure of the capital of Hungary was the closest to West-European standards (Jałowiecki 2000, p. 48–49). The Budapest's modern office stock has currently been concentrated in the following areas: the city centre, the central market, the non-central market and the peripheral market. The most representative and expensive areas are the city centre and the central market. Because of the lack of development sites in the city centre and the central market, the new development takes place mainly within the non-central markets. The major part of new space is being built over in the Vácu ut Corridor, South Pest, the outer ring and the south of the city. 2/5 of the modern office stock is located in Buda and 3/5 in Pest. In 2006, the total office stock in Budapest amounted to 1.73 million m². The prime rents for class A buildings at top locations equal € 17–19 m²/month. The rents in non-central locations equal € 13–16 m²/month (*Real...2007*).

The capital of Czech Republic has also become an attractive office space market in Europe, owing to its rich historical heritage and advantageous location. The investments in Prague were initially concentrated in the centre and included mainly the adaptation of historical objects. At present, there are no substantial possibilities of development in this region. As a result, the contribution of historical objects, from the point of view of office location, has decreased in favour of the districts outside the centre of Prague (Jałowiecki 2000, p. 49). At the end of 2006, the total office stock reached nearly 2 million m². In the city centre the level of rents equalled € 17–19 m²/month, depending on the quality of the premises. The rent levels in peripheral office locations equal € 14.5–15.5 m²/month (*Prague... 2006/2007*, p. 13).

Warsaw has the biggest office market among the cities under analysis. At the beginning of 2007 there was 2.56 million m² of office space. The prime headline rents in the case of the best, centrally-located buildings, amounted to € 23–25 m²/month, and in the case of a few top quality and prestigious buildings, it exceeded € 25. The average headline rents here equal € 17–20 m²/month. Outside the city centre the prime headline rents equal € 15–16 m²/month, in relation to an average € 13–14.5 m²/month (*Warsaw... 2007*, p. 6). Office market in Warsaw is coming closer to the West-European one. The supply significantly exceeds the demand. The boom for building of commercial offices, in which the function of office space is combined with services, trade or living space, has recently been observed. The demand for office spaces is a consequence of the real condition of economic development and results from Poland being considered the country of high rate of economic development, as well as of significant economic and demographic potential. The characteristics corresponds to the new vision of Warsaw as the city in favour of investors.

RETAIL MARKET

The three post-communist capitals constitute a considerable commercial space market in CEE. Taking into consideration the supply for commercial centre space, Warsaw is in the lead. In Prague and Budapest there is not as much space left to be used for investments as in the capital of Poland. Therefore, the supply for commercial space in these two cities combined equals to the supply in Warsaw (Figure 1).

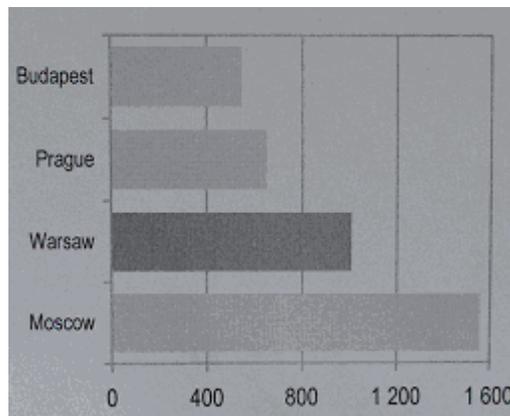


Figure 1. Shopping Centre Stock (m²)

Source: *Warsaw City Report*, 2007, Jones Lang LaSalle, Warszawa, p. 8.

The rent level for commercial spaces depends on the location of an object in the city, the location of a shop in the commercial centre, the kind of business of the tenant and the amount of the rented space. Budapest, despite having the smallest amount of commercial space among the analysed cities, is one of the most expensive locations. Rent prices in the capital of Hungary amount to € 100 m²/month. In contrast, commercial space in Warsaw can be rented for € 60-80 m²/month. Prague offers the cheapest (up to € 50 m²/month) commercial space (*Warsaw... 2007*, p. 8). Nevertheless, the costs of rent of commercial space in the cities under analysis are relatively low, as compared to those in the Elysian Fields or Oxford Street

in London, amounting to approximately € 500 m² (Jałowiecki 2000, p. 63). Not surprisingly, the post-communist capitals receive great interest from foreign networks. It can be observed that a number of large, multi-function commercial centres, such as Blue City and Arkadia in Warsaw, have been set up. In the capital of Hungary there are several commercial investments, such as Europark, Albertalva and multi-function objects.

WAREHOUSE MARKET

Warsaw has the largest warehouse market among the cities under analysis. The warehouse space offered by Prague and Budapest is slightly more limited (Figure 2).

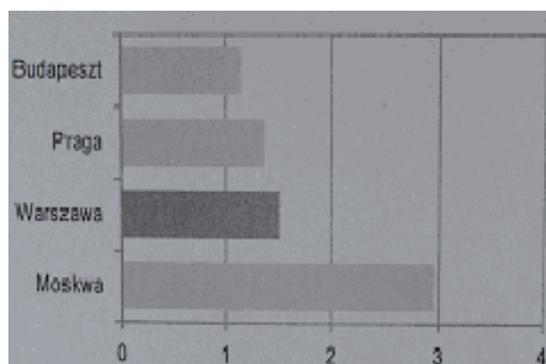


Figure 2. Warehouse stock (mln m²)

Source: *Warsaw City Report*, 2007, Jones Lang LaSalle, Warszawa, p. 11.

The highest levels of rent rates in Warsaw are found in zone I and amount to approximately € 5.25 m²/month. In other zones they equal € 2.8–3.6 m²/month (*Warsaw...* 2007). Such prices are competitive in relation to Prague and Budapest, where rent prices are higher, as a result of lower supply for plots. They equal € 5 m²/month and € 4.8 m²/month, respectively (*Rynek...* 2005).

The comparison between, on the one hand, Polish, Czech and Hungarian office, commercial and warehouse markets and, on the other hand, the markets of the fifteen EU countries, leads to the conclusion that the average annual return rates are very much in favour of Poland, Czech Republic and Hungary. In the case of these countries, we deal with the highest demand and the best capitalization rates. The average annual return rates from the invested capital in the East-European cities amount to approximately 6% for office space, 5.8% for commercial

Table 11. Real estate investment by countries in 2006

Country	Investment rates (%)
Poland	39
Czech Republic	10
Hungary	9

Source: Jones Lang LaSalle.

space and 8.2% for warehouse space. In contrast, the return rates from investments in Poland, Czech Republic and Hungary equal 7.9%, 8.1% and 10.5%, respectively (Czarnecka et al. 2005, p. 100). On the other hand, comparing the level of real estate investments, the highest

investment rate is found in Poland and it is four time higher than in Czech Republic or Hungary (Table 11).

THE FUNCTION OF EDUCATION AND KNOWLEDGE CENTRE

The function of education and knowledge centre means the presence of well-known and reputable education and research centres, specialist personnel training centres, technological parks, congress centres and universities with a significant number of foreign students. Due to the organization of a number of congresses, meetings and seminars, they constitute the ground for the knowledge and information exchange and centre of international meetings.

The international position of a given centre, in the scope of education, is established on the basis of the coefficient calculated by the Institute of Scientific Information in Philadelphia, marking the number of publications and their citations for a given educational centre. T. Zarycki (2000, p. 342–346) carried out the analysis, in which he accepted this standpoint, as well as considered the entries from the Science Citation Index presented in an article by C.W. Matthiessen and A.W. Schwarz (1999). From the point of view of the number of articles published in the period from 1994 to 1996, Warsaw was rated 32nd, Prague 33rd and Budapest 36th in Europe. Warsaw exceeded 29 West-European and two Russian centres (Moscow and St. Petersburg). The capital of Poland slightly outdistanced Prague and Budapest. The ratings of educational centres according to the number of articles noted in the Science Citation Index per one inhabitant, looks different. Namely, Prague is classified at 20th, Warsaw 33rd and Budapest at 38th place.

Matthiessen and Schwarz also classified the analyzed centres according to their research profiles. Warsaw was classified to the group of centres characteristic of a high-level of applied physics and chemistry, but poor medicine and biology. Warsaw is also characteristic of well-developed natural sciences. Budapest has a high-level of computer science, but comes out badly in terms of natural science and biology, and very badly in terms of medicine. Medical engineering and natural sciences are the strong points of Prague, whilst medicine is the weak point (Zarycki 2000, p. 346).

Comparing the number of university students, Warsaw is in the lead. In the capital of Poland in 2003 the number of students was nearly two times bigger than in Budapest and three times bigger than in Prague. Also the number of students per 1000 of inhabitants confirms the leading position of Warsaw among the cities under analysis (Table 12).

The positive tendencies in the development of higher education put Poland at the second position in Europe, in terms of the number of students in relation to the number of inhabitants (in Poland every second person in his/her twenties is a University student) (Bąk 2005, p. 40, 42). It may turn out that Polish society is one of the best educated societies in the European continent. The neighbours of Poland offer more beneficial conditions, higher allowances and better infrastructure to their investors. However, they do not provide a sufficient number of well-qualified workers, knowing modern technologies. Polish students occupy high positions in world programming competition, e.g. The University of Warsaw is regularly classified at the top of the Top Coder international programmers ratings (in 2005 it was rated 1st, exceeding the Massachusetts Institute of Technology, California Institute of Technology, Stanford University). Also, the University of Warsaw graduates achieve successes in this field (Czajka won the Top Coder competition in 2003 and 2004). Technological concerns transfer, e.g. to

Warsaw their research centres, as well as employ scientists, engineers and computer scientists. In view of the statistics called by Ł. Bąk (2005), over 20 global concerns located in Poland their research and development institutes, and financial centres, with total number of engineers, computer scientists and accountants equalling approximately 3 thousand.

Table 12. The number of university students

City	1990	2000	2002	2003	
				Total	Per 1000 population
Warsaw	68,9 thous.	239,2 thous.	262,7 thous.	269,5 thous.	159
Budapest	45,4 thous.	114,4 thous.	134,7 thous.	146,6 thous.	86
Prague	54,5 thous.	73,7 thous.	79,6 thous.	94,1 thous.	81

Source: prepared by the author on the basis of *Rocznik Statystyczny Warszawy*, 2005, GUS, Warszawa, p. 419; *Rocznik Statystyczny Warszawy*, 2006, GUS, Warszawa, p. 416.

Comparing, in turn, the number of foreign university students, Budapest is the fastest-developing centre. The proportion of foreign students in the academic year 1994/1995 in Warsaw equalled 115 people, which was more than in Prague but could not be levelled with Budapest, where the reported number of foreign students was far bigger (Jałowicki 1999, p. 127). Since then, the situation has hardly changed. In the academic year 2006/2007 over 15 thousand of students from 118 countries decided to take up studies in Hungary⁷. The vast majority, i.e. 79%, of all foreign students came from Europe (mainly from Romania, Slovakia, Germany and Ukraine), 16% came from Asia, 3% from North America and the remaining 2% from African countries (*Foreign... 2007*).

The number of foreigners studying in Czech Republic approximates the figures in Hungary. According to the data from the Institute for Information and Education, over 14.2 thousand foreigners, mainly Slovaks, Russians and Ukrainians, studied at Czech universities in the academic year 2004/2005. Most of foreigners studied in Prague at the Charles University – 5.2 thousand and at the University of Economics – 1.9 thousand (*Number...2007*).

The number of foreign students in Poland is smaller, as compared to Hungary and Czech Republic, and equals 10 thous. In terms of education, Poland is attractive for the citizens of the East-European countries, namely Ukraine, Belarus, Lithuania, Russia, as well as the countries from Middle and Southern Asia (Guza 2007). The number of foreign language students in Warsaw in the academic year 2001/2002 equalled 1.88 thousand and in 2004/2005 – 2.3 thousand, and 2005/2006 – 2.6 thousand (*Statistical Yearbook of Warsaw*, 2003, 249; 2006, p. 248). The capital of Poland becomes, thus, a more cosmopolitan centre. On the basis of the research carried out by the author⁸, it can be concluded that the trend to take up education in Warsaw concerns not only young people from Eastern Europe but also the citizens of Asian countries (e.g. Armenia, Vietnam and China), as well as Western-European countries (e.g. Germany, Holland).

⁷ As a result of the lack of current data on the number of foreign students in Budapest and Prague, the author compares the data for the entire countries. The author also assumes that the majority of foreign language students take up education in the capital.

⁸ The research concerning foreign students in Warsaw was carried out in the 1st quarter of 2005. It included 9 public and 59 non-public Universities (according to the overview of institutions of higher education available on the Internet web side of the Ministry of National Education and Sport, <http://www.men.waw.pl>, 12.12.2004).

Therefore, it can be stated that the “fashion” for CEE has not been fading. Warsaw, Prague and Budapest should actuate their development, taking advantage of their favourable location or geopolitical system after the EU extension. These cities should contest for promotion in the network of metropolises, by means of initiating new University courses in English. Making the CEE an attractive place to study for young people from other EU countries is an important educational challenge to be faced by Universities and local government authorities. The influx of foreign students means social and economic benefits, and, above all, promotion of the city abroad.

However, we should remember about essential problems in the development of the function of education and knowledge centre.

1. Polish and Hungarian budgets constitute the central financial source for scientific research (in 2002 nearly 60% of financial means came from the budget of these two countries). The country, in which private businessmen bear larger amount of costs on researches is Czech Republic – 53.7%⁹ (Table 13).

Table 13. The structure of financial means on research and development activity, according to financing sources in 2002 (%)

Country	National budget	Economic subjects
Czech Republic	42,1	53,7
Hungary	58,5	29,7
Poland	61,1	22,7

Source: Heller J., Bogdański M., 2005, *Nakłady na badania i rozwój w Polsce na tle wybranych państw europejskich*, *Studia Regionalne i Lokalne*, 4, 68–69.

2. Financial means on scientific researches are insufficient, as compared to the needs. The level of expenditure on research and development in GDP (measured per one person) in 2003 in Poland equalled 0.59%, Czech Republic 1.35% and in Hungary 0.97%. As can be seen, Czech Republic devoted the largest amount of financial means on the development of education. In contrast, the expenditure was the lowest in Poland and Hungary (Heller et al. 2005, p. 64–65).
3. In the research and development sector there exists an unfavourable domination of basic research (theoretical and experimental studies, not aimed at their practical application) over applied research (practical knowledge) and progressive research (using the acquired knowledge to introduce innovations). E.g. in 2003 in Poland 38.8% of financial expenditure was devoted to basic research, while 35.5% and 25.7% was devoted to applied and progressive research, respectively¹⁰ (Heller et al. 2005, p. 71).

THE FUNCTION OF CULTURAL CENTRE

THE PERSPECTIVE OF TRADITIONAL VISION OF CULTURE

The perspective of traditional vision of culture refers to a group of people and institutions participating in the process of creation, reproduction and popularization of pieces and phenomena of high culture (museums, theatres, operas, philharmonics, galleries). This function

⁹ E.g. in Finland the private sector in 2002 in 69.5% financed the development of education (Heller et al. 2005, 69).

¹⁰ The situation is reversed in the USA. 18% of means is devoted to basic research, whereas 61% and 21% to progressive and applied research, respectively (Olbrycht 2005).

includes regular organization of artistic events (congresses, exhibitions, festivals) of international, European and supranational rank.

The cultural space in Warsaw is filled with the units conducting regular stage activity. There are 30 theatres and music institutions, 56 museums, e.g. the National Museum, the Museum in the King's Palace of Łazienki, the Museum of Wilanów and the King's Castle. The cultural infrastructure of Warsaw consists also of more than 50 commercial rooms and 29 galleries (*Rocznik Statystyczny Warszawy*, 2006, p. 257, 265), e.g. the Modern Art Gallery "Zachęta", as well as galleries vivaciously cooperating with artists from Eastern and Western Europe – Modern Art Centre. Warsaw is also a significant music centre, famous not only in Europe, but also in Japan and USA. The highest prestige is attached to the F. Chopin International Pianist Competition. What is more, the following festivals take place each year: the Festival of Music Autumn in Warsaw, Warsaw Summer Jazz Days or Warsaw Jazz Jamboree. There is also a number of exhibitions presenting the works of contemporary sculptors, painters and graphics (e.g. The International Poster Bien-nales), organized on a regular basis.

Budapest is unequivocally the centre of cultural life. Theatres (49), museums (121), collections and tempo-rary exhibitions are concentrated in the capital. The Thalia Theatre, the Comedy Theatre, and the Opera Theatre are the pride of city. The Hungarian capital has a good position in the international cultural rank and is on its way to become once again one of the cultural capitals of Europe. Each season has its outstanding features. The season begins with the Budapest Spring Festival and ends with the Autumn Festival with a host of different cultural events in between. Its cultural events are surrounded by large nation-wide and international interest.

Prague similarly Budapest is the centre of cultural life. There are 46 museums, 29 galleries, and nearly 40 different theatres, e.g. the National Theatre, the Estate Theatre, State Opera, and National Marionette Theatre. The important cultural institutions are also the National Gallery with its extensive art collections spread throughout the city in six locations and the National Museums. City's other fine museums are the Jewish Museum with the world's largest collection of Judaic art, Rudolfinum which hosts contemporary art temporary exhibitions, and House of the Black Madonna, one of the rare cubist building in Europe itself, with exhibitions of Czech Cubism. Prague also hosts internationally festivals. The most famous one is the annual "Prague Spring" International Music Festival (*Inside... 2007*).

World or European cultural metropolises are the historical centres reflecting the past and civilization development. They are an amalgamation of pieces of art, monuments of the past, prestigious museums, theatres and operas. There are a number of international congresses, festivals and exhibitions, which are organized in these centres (Jałowicki 1990, p. 50). The capitals of Poland, Czech Republic and Hungary are capable of generating artistic events of international reputation. They should use their potential and the existing festivals as a basis for the formation of cultural centres of international reputation. Included into the EU system, they should use their geographic position and historical connections as a means of cooperation and artistic contacts. The post-communist capitals should become the place of thought and idea exchange, the international meeting places for artists and people of culture. The development of function of cultural centre could be based on the existing potential (of the institutions of culture and cultural events of continuous character and international reputation), as well as on the creation of a given speciality of cultural events. E.g. the chances of Warsaw could be

seen in the city's multicultural element, in the promotion of the initiative "at the crossroad of cultures", aimed at facing the culture of various nations that live there. However, it ought to be remembered that the increase in cultural offer stiffens the competition. Therefore, it depends upon the people of culture whether these capitals are to become the active participants of cultural life or only passive observers and customers (recipients).

The lodging basis for visitors and tourists proves to be a crucial issue. Prague appears to offer the biggest number of lodging places. The second position, in this respect, is occupied by Budapest. Whereas, Warsaw comes out rather badly having the number of lodging places over three times smaller than in Prague and two times smaller than in Budapest. A similar situation is in the case of numbers of people staying overnight. Four times more people make use of the lodging place offer in Prague than in Warsaw. Only in terms of the number of foreigners making use of the lodging basis, Warsaw looks slightly better. With this respect, two times more foreign visitors stays overnight in Prague and Budapest than in Warsaw.

Table 14. Lodging basis in 2003

City	Number of beds in the hotel facilities (thous.)	Number of beds per 1000 population	Tourists accommodated (mln)		Share of foreigners in total of tourists accommodated (%)
			Total	Of which foreigners	
Prague	69,9	60	8,4	7,5	89,6
Budapest	44,8	26,3	5,1	4,3	83,9
Warsaw	19,8	11,7	2,3	1,09	47,1

Source: *Rocznik Statystyczny Warszawy*, 2006, GUS, Warszawa, p. 418–419.

PERSPECTIVE OF THE CULTURE OF SPATIAL ORDER

Perspective of the culture of spatial order refers to the representative character of the architecture, the esthetics of the city, the prestigious expression of the infrastructure devices, the shape of the building, lighting, urban gadgets, namely all that is called "the exceptionality of the city".

The capital cities of the Czech Republic¹¹ and Hungary have urbanistic shape and their monuments are comparable to the French or Italian ones. Warsaw had no luck in shaping urban form. Several hundred years of being a capital city have not ensured an adequate quality of the urban space to the rank of a national representative. One of the reasons for such a state is the fact, which we tend to easily forget about. The fate of the city, its development or stagnation in the development, are connected with the environment and the geopolitical phenomena. That is why the historical context of development of the city should also be taken into account, while considering the culture of spatial order of Warsaw. During the war, the capital of Poland lost the buildings from the second half of the XIX century, which is what constitutes the essence of Budapest or Prague. Additionally, only a few buildings of the former Warsaw survived in their original material substance. The war led to the destruction, especially of the central quarter and its monumental buildings. In two thirds, the city was rebuilt (Bak 2004, p. 14). That is why most of the Old Town and Royal Tract buildings is a restitution. The restitution based on reliable studies, using old technologies, but still a restitution.

¹¹ Prague is valuable historical city reserve. In 1992 the historical core of the city was listed in the UNESCO World Cultural and Natural Heritage Register.

The reason for the present urban shape of Warsaw is also the lack of conception of spatial organisation after 1990. The localization of new investments is often accidental, which deepens the existing chaos. The constructions are being located due to the availability of land, mostly in the close centre. New offices are built next to the old, usually tenement houses, which have not been restored for decades, and are in bad technical condition. The houses, very often in a complicated proprietary situation (some flats are owned by the commune, some by tenants), cannot be reprivatized or sold, and neither the tenants nor the local government have money for their renovation. As a result, the multi-storey buildings of the best quality adjoin devastated tenement houses. In addition, housing estate elements can be spotted in the centre. New large-scale buildings often clash with the existing building styles, natural areas are built over, dwelling buildings displaced by commercial functions.

Obviously, Warsaw has many positive achievements, i.e. central streets: Nowy Świat, Chmielna. Moreover, the landscape of the city, especially the Skarpa Wiślana and the panorama of the Old Town of Warsaw from Praga district is assessed highly. However, the landscape values which create natural conditions for Vistula river are not adequately benefited from. Squares and churches built on the Skarpa are turned away from the river. The right bank of the river is not used as a place to admire the Old Town panorama. By contrast, in Prague or Budapest the river is included in the landscape of the city (Kurowski 1987, p. 170).

The capital city does not have to be a huge and wealthy city, but it has to be recognizable and outstanding. Prague and Budapest are characteristic. Perhaps the chaos in the urban space of Warsaw may be the evidence of its uniqueness and recognition.

THE FUNCTION OF THE TRANSPORT NODE

A metropolis ought to be connected through a system of motorways, fast railways, international airport network of quick, frequent and direct transport connections with main urban and world centres.

In the national economy, based on the knowledge of transport expenses, the availability of the town to the traffic of persons is more important. The Prague-Ruzyně Airport is the biggest airport among the discussed cities. It serves 10.8 mln passengers annually. It is used by 51 airlines in the network of 120 cities in the world. It is situated in the distance of around 10 km from the centre of Prague (*Port Lotniczy Praga...2007*). The second largest airport, in terms of the number of passengers, is the Budapest-Ferihegy Airport, located in the distance of 16 km from the city centre. It offers flights all over Europe, Asia, the Near East and North America. In 2005 it served 8.2 mln passengers (*Port Lotniczy Budapeszt... 2007*).

The international air transport node in Warsaw, the F. Chopin Airport (“Okęcie”) has nearly 60 regular network connections with the biggest airports in the world and the number of charter connections is growing. In 2006, 8 mln passengers went through the 3.5 mln passenger concourse. As a result of the Terminal 2 being put into service, the capacity of the Airport is expected to rise to 10 mln, and in practice even 14 mln travellers *per annum* (*Terminal...2005*). The airport in the capital of Poland, though located near the centre, has many provincial attributes. It is poorly connected to the system of national roads and hardly connected to the railway. That is why the necessity of complex action, with regard to the infrastructure of transport in Warsaw, is such an important issue. The modernization of the airport should be followed by other investments, directly or indirectly related thereunto (Korcelli-Olejniczak

2004, p. 129–130), so that the airport would be not only a transfer stop, but also a target stop for newcomers and tourists.

A city can play an important role in the network of metropolises only on condition that it has an advanced transport system. It is especially due to the fact that an increase in the general number of passengers has been observed recently. In consequence, it is in the best interest of Warsaw, Prague and Budapest to develop an air-transport system, so that the cities would be connected, as fast as possible, to the main decision-making centres. The existence of the functional and modern airport is one of the key conditions of the development of the already existing ones, and the acquisition of new metropolitan functions. As a result, the bigger the number and the better the quality of the flight connection of a given city with the decision-making centres of world standards, the higher the rank of the centre in the system of metropolises. The technical capabilities of the carrier and the competitive prices of services are equally important (Denieul 1996, p. 66–69). Meanwhile, the prices offered by the biggest Polish carrier PLL LOT are not among the cheapest, e.g. the price of the London-Warsaw flight by PLL LOT costs € 374, while the longer distance London-Prague by British Airways costs € 214 (Table 15).

Table 15. Exemplary ticket prices in 2003

The route of the flight and <i>name of the carrier</i>	The price of tickets (€)
Stockholm-Warsaw <i>PLL LOT</i>	264
Stockholm-Prague <i>Finair</i>	209
Madrid-Warsaw <i>PLL LOT</i>	330
Madrid-Prague <i>CSA-Czech Airlines</i>	250
London-Warsaw <i>PLL LOT</i>	374
London-Prague <i>British Airways</i>	214

Source: Maciejewicz P., 2003, Pytania o Polskę, *Gazeta Wyborcza*, 189, p. 18.

Warsaw, Prague, and Budapest are situated at an intersection of important transit roads, and their territories concentrate a large amount of functions and activities of above-national importance. In spite of advantageous geopolitical location, the quality of transport infrastructure, especially in Warsaw agglomeration remains problematic¹².

Prague and Budapest have solved their communication problems in the 1980's. Budapest took advantage of the economic prosperity of the turn of XIX and XX centuries. The underground, as well as a number of main roads, were built in those days. The underground of Budapest was the second one in the European continent. This means of transport is a solution to many problems of Hungarian communication system. It is 31.7 km long, has 3 lines and 42 stations. The underground network in Prague and Budapest links almost all districts. It is the most comfortable and the fastest means of communication within different city districts. The underground in the capital of Czech Republic is the longest among the cities under analysis. It is 54.6 km long, has 3 lines and 54 stations.

As compared to these two cities, the underground in Warsaw is of a provincial character (despite the fact that the steps have been taken in order to extend this indispensable form of transport). The underground in Warsaw is only 18.6 km long, has one line and 17 stations.

¹² The author also writes about communication problems in Warsaw, Prague and Budapest in the part of this paper: The business centre function.

Czech Republic and Hungary spent on the transport infrastructure (per one citizen) respectively 8 and 11 times more than Poland. There are not only motorways leading to Prague and Budapest but the cities also have motorways and bypasses (Kudzia et al. 2001). Prague is connected to 5 routes of the European road network, 3 of which are motorways (E 50, E 55, E 67). In total, 4 motorways and 3 trunk roads lead to Prague. Prague transport network contains 54.6 km of underground, 141 km of tram, 3.5 thousand km of road network, 76 km of other high-speed road (*Information...* 2007).

The existing road-street system in Warsaw was created as a result of a post-war planning process. The system of trunk roads is based on a radial-concentric model, gathering in the city centre. The traffic in Warsaw is introduced by 6 main roads. For many years, the attempts were made to break this radial-concentric system through the construction of ring roads. However, it turned out to be unsuccessful (only fragments of northern and western bypasses were built). Thus, as there are no bypasses or motorways, the most of the transit traffic (within the Warsaw communication joint there are international roads: E 30, E 77, E 67), is led across the centre of Warsaw. This causes an excessive overload of the relatively scarce network of streets in the city (Górnicki 1999, p. 19–24). The length of the urban road network in Warsaw is 1093 km, whereas in Budapest – 1133 km, and Prague – 877 km. The problem is that the highest number of cars is registered in the capital of Poland (697.6 thousand). What is worse, “for up to 80% of the overall traffic in Warsaw, Warsaw is the final destination” (Korcelli-Olejniczak 2004, p. 127). In spite of the higher number of residents (1.7 mln), almost 100 thousand less cars travel around Budapest (604.9 thousand). The smallest number of cars has been registered in Prague – 568.9 thousand (*Rocznik Statystyczny Warszawy*, 2006, p. 417).

The communication transport system is the basic backbone of the city, conditioning its efficient functioning and metropolitan position. That is why, in the cases of Warsaw, Prague and Budapest, it is necessary to improve transport nodes.

CONCLUSIONS

Table 16 depicts that Warsaw has strong position in terms of the function of spatial centre for business, and the function of education and knowledge centre. Among the essential functions of Prague are as follows: the business centre, the cultural centre and the communication joint. The strong points of Budapest are: the function of education and knowledge centre (in terms of the number of foreign students), and the function of cultural centre (in terms of traditional vision of culture).

For Warsaw, Prague, and Budapest the road upwards the European urban hierarchy is not a smooth one. Among essential reasons, it is necessary to indicate: the historical, legislative, political and economic problems.

The development of metropolitan functions of those three cities and their chance of emerging as European metropolises depend on the interplay of historical and geographical factors. Factors such as the original historical development of the country and its influence on attitudes should also be included. The political dimension must not be overlooked (Bourdeau-Lepage 2004, p. 13). The capital has been, is, and will long be the object of keen interest on the part of state authorities, which have tried many times and in many ways to gain influence upon its

functioning. This is in a way a “normal phenomenon” because capital cities play the role of major and active political, scientific, cultural, economic and administrative centres, and they are large agglomerations of people. That is why, e.g. Warsaw’s government-structure differs from the traditional territorial division of Poland. It is also the reason for frequent changes of the status of Poland’s capital city (since the re-establishment of local government in 1990, status of Warsaw has had 4 changes¹³). The political dimension also determines the potential for metropolization, indirectly through the stability of government, but also directly through regional and urban policies. E.g. Hungary’s economic crisis influences hindering of the development of metropolitan functions in Budapest.

Table 16. Metropolitan functions Warsaw, Prague, and Budapest – the juxtaposition

Metropolitan functions		Warsaw	Prague	Budapest
The business centre function		2	1	3
Function of spatial centre for business	Office market	1	2	3
	Retail market	1	2	3
	Warehouse market	1	2	3
The function of education and knowledge centre	The number of articles published	1	2	3
	The number of articles noted in the Science Citation Index	2	1	3
	The number of university students	1	3	2
	The number of foreign university students	3	2	1
The function of cultural centre	Perspective of traditional vision of culture	3	2	1
	Perspective of the culture of spatial order	3	1	2
The function of the transport node	Air connections	3	1	2
	Road junction	3	1	2

Source: prepared by the author.

What will be the position of Warsaw, Prague and Budapest in the hierarchy of metropolises in the future? The answer to this question needs time and further analyses. It is worthy to remember the word of S. Wyganowski (1993, p. 7), that every “city is a dynamic creation,

¹³ Warsaw instead of the association of 7 units (called district-municipalities), since 1994 was an association of 11 municipalities. One of which, Warsaw-Centrum municipality was divided into 7 districts (districts also exist in other large cities in Poland, but their status was different from those in Warsaw). Meanwhile, since 1999 Poland was divided into 16 regions, 315 provinces, 65 urban provinces (i.e. cities with province status) and 2489 municipalities. Finally, Warsaw had an unusual structure of local government. Its structure was very controversial and complicated. There were several levels of local administration, such as: 1) the province of Warsaw, 2) the Capital City of Warsaw – an association, 3) eleven Warsaw’s municipalities, 4) seven Warsaw-Centrum’s districts, 5) dozens settlements. Each of them has its own decision-making body. This situation had positive and negative effects. On the one hand, residents of peripheral settlements could decide on their milieu. On the other, in the governance there was a lack of clear-cut spheres of competence, lack of clearly defined responsibility, lack of co-ordination of activities concerning the entire city. This division brought a new set of policy and planning controversies. A subsequent reform of 2002 has consolidated the city which now constitutes one municipality divided into 18 districts. The advocates think that this solution bring uniformity in the city governance. The opponents said that this proposition goes to the centralisation of the city government (e.g. the centralisation of finance decisions and real property policy) (Kuć 2003, p.109–122; 2004, p. 63–78).

continually developing, transformable. It is an open system, never-ending". The awareness of existing and potential threats to development forces limited time to remove the most visible disproportions inhibiting functioning of the cities. The future of the changing Europe belongs to the cities. The development of metropolitan functions should be selective, prepared to realize selected directions, preferential to each city.

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INFRASTRUCTURAL DETERMINANTS OF SPATIAL STRUCTURE IN CRACOW'S SUBURBAN ZONE – A CASE STUDY OF THE MICHAŁOWICE AND ZABIERZÓW COMMUNITIES

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Abstract. Suburbanization processes are modifying the functioning of Cracow's surroundings. Migration flows are changing the demographic and social structure of formerly rural areas, this occurring in relation to infrastructural development and land-use changes. Spatial transformations from rural to urban space are among the most readily measurable ones. Analyses of land-use changes in selected areas of the two communes, directly adjacent to Cracow, provided an answer to the main research question as to whether the outfitting of suburban areas in infrastructure creates a spatial configuration of other land-use types. The selected communes (local authority areas) of Zabierzów and Michałowice represent different types of outfitting in infrastructure, acting as theoretical spatial-configuration determinants.

Key words: infrastructure, suburbanization, airport, motorway, socio-economic impact, local development, Cracow, Poland

INTRODUCTION

The immediate surroundings of Cracow are areas of unusually intensive transformations of spatial structure. The commonly-observed procedure whereby cities exert impacts on their hinterlands leads to transformation of the countryside, which at some stage loses its initial characteristics under the influence of increased urbanization. Development of the suburban area leads to both far-reaching social transformations associated with the inflow of city inhabitants and to the development of residential buildings themselves. It is subject to the impact of a wide range of factors related to both the directions and the intensities of the procedures involved.

The main aim of the article is to indicate the level at which the functioning of the trans

port infrastructure defined by the authors as of large area or large scale (motorways, express roads, city bypasses and ringroads, the airport) defines directions and intensities to the building development ongoing in association with Cracow's suburban area. The work described here, has also concerned the significance of local communication systems (servicing bus communications between locations in the suburban area and Cracow), as well as those that may be considered traditional and somewhat monopolistic for the servicing of certain directions (the voivodship road leading from Cracow to Warsaw via the commune of Michałowice, for which there is no clear alternative). The work also relates to the dissonance between evaluations of local, regional, and global impacts of large-area infrastructure. It is not by chance that the given communes are included.

In fact, the communes under analysis manifest a number of similarities, but are also seen to differ as regards the degree to which they are equipped or outfitted in the aforementioned transport infrastructure. At the same time, within just a few years from now, the situation can be expected to change. Plans for the future development of Michałowice provide for the construction of the so-called northern Cracow ringroad. It is therefore possible to assume that, much as in the case of Zabierzów, where there is already a well-developed transportation system functioning, Michałowice will also become diversified into areas gaining from the existence of such spatial solutions, and those losing importance, at least from the point of view of possibilities for the further development of residential functions.

The effects of motorways or airports are variously contemplated in Western literature (Hogan 1973; Lokshin and Chesnokova 1993; Anas 1995; Martinez and Araya 2000; Solnes and Porgeirsson 2006). However, in relation to the fact that these objects are a relatively rare occurrence in Poland, there should be studies conducted that recognize local conditions of functioning, even more so since the creation of similar solutions for other areas already urbanised or in the course of urbanisation is a necessity, and a prospect for the nearest future.

CONDITIONING OF DEVELOPMENT OF THE CRACOW SUBURBAN REGION IN A NORTH-WESTERLY DIRECTION

The main areas dealt with in the presented study are the communes (local authority areas) of Zabierzów and Michałowice, which fall within the powiat ("county") of Cracow and adjoin the city itself to the north and west. This area is among those experiencing significant development under the influence of a neighbouring large city. However, the suburban processes observed within the Cracow powiat itself are on a much greater scale than those in other areas adjacent to the city.

It should be recognized that, from the point of view of possibilities for the development of the suburban area, the value of the north-western vicinity of the city is in large part shaped by landscape assets reflecting the area's relief. This is undoubtedly one of the foundations of success for such communes as the discussed Michałowice or Zabierzów, localities in which many migrants from Cracow decide to settle. The importance of this factor is *inter alia* attested to by the fact that a large proportion of the lots that make up the area designated for development are defined as beautiful land. However, it should be noted that, in the vicinity of Cracow, the importance of relief can generally be considered additional to the residential function development area. Therefore, in the case of the northern and western directions, it is not an

exception in comparison with the southern direction, or even less the only factor responsible for the level of interest in the areas under discussion. Besides physical and geographical characteristics, it is possible to identify a range of others that mutually characterize the distinction of the discussed area, the emphasis being placed on its high potential for residential development.

One of the traits that clearly separates the area of Cracow poviat from the southern and eastern vicinity of the city is the lack of significant city centres. All communes directly adjacent to Cracow and included in Cracow poviat are rural communes. However, the south-western neighbourhood of Cracow is near (and even directly bordering with the administrative limits of) such cities attractive and significant from the point of view of business as Wieliczka, Skawina and Niepołomice. In these cases, the development of suburban regions is cumulated as a product of procedures associated with the outflow of population beyond the limits of both Cracow and the smaller cities of the area. The prevalence of rural regions in the northern and western parts of the area adjacent to Cracow is therefore an important mutual trait in the discussed area. At the same time it is an area characterised by high population density – in the case of the commune of Zabierzów even close to the densities observed in some urban communes (Central Statistical Office of Poland, 2007).

Apart from increased landscape value, the discussed area is also shown to be attractive by the very high, if very internally diversified, level of communication with the centre of the metropolitan area. Residence in the direction to the north-east of Cracow means better communication accessibility of the city centre, even if compared to more closely located communes in the southern or eastern environs. The possibility for residents of the commune of Zabierzów, amongst others, to make use of the city bypass reduces the time of travel to work in the city centre. The analysed communes vary in terms of communication connections from the centre of the metropolis. The ring road, city train, bus communication lines, city bus lines servicing the airport, as well as the suburban lines compose a long list of solutions that may be utilized by residents of Zabierzów commune. Thus, this commune is much better equipped in this area than that of Michałowice. On this basis, it is possible to declare that the residents of the latter depend more on the utilization of individual transportation sources than those of Zabierzów. While suburban communication and private buses also reach Michałowice, it is clearly a lower level of communication with Cracow than that enjoyed by Zabierzów.

The directions and intensity of the population processes associated with the effect of the city on its hinterland are factors characterizing both of the analysed communes. Above all, the process of population inflow in this area serves as an indicator of the popularity of this direction to spatial development of the suburban region. In the cases of both of the discussed communes – Zabierzów and Michałowice – there has been a steady increase in numbers of high-level residents. During the years 1995-2006, the population of Zabierzów grew by over 2000, representing 10% of the current population of the entire commune (Central Statistical Office of Poland 2007). A similar scale to population development can be observed in the case on Michałowice, in which the changes are more noticeable since this was originally (in the mid 1990s) among the weakly populated areas. The above discussed population increase procedures show strong internal variety. The population inflow, but also the outflow procedures are visibly different at the level of villages – those located closer to large area transport infrastructures, not covered with a system of protective screens, are characterized with a lack or insignificant number of new residential investments.

The Webb method (Figure1) utilized in determining the main factor responsible for shaping changes in population size points to migration as being the most significant component to observed population processes in the cases of Michałowice and Zabierzów. This is proven by association with types C or D of the real population growth (currently only in the case of

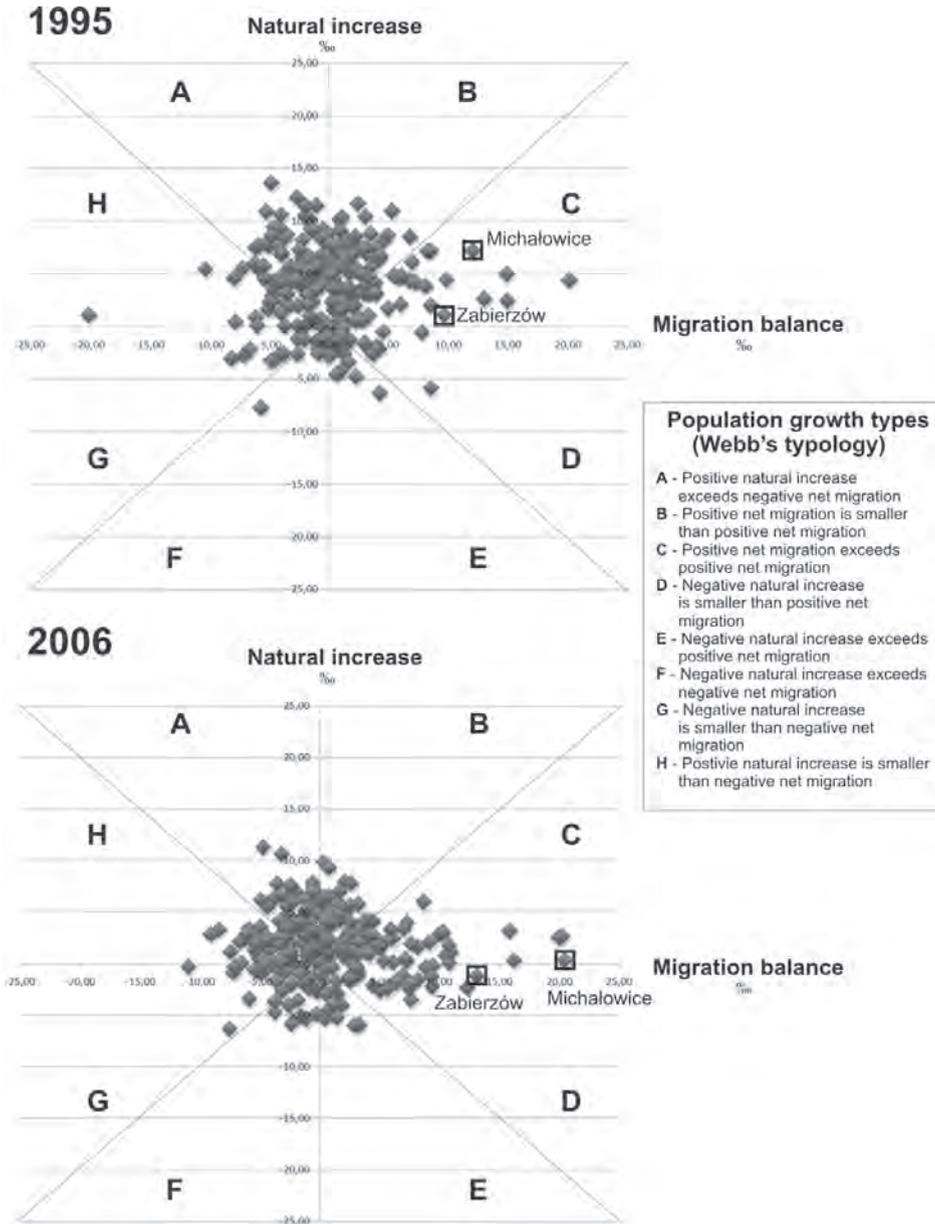


Figure 1. Population growth types in communities of Małopolskie voivodship in 1995 and 2006
Sources: author's own elaboration based on Central Statistical Office data.

Zabierzów is this type D, though in the near future it will be the case for both). However, it should be noted that the group association of communes with the highest values for migration inflow – record-setting on scale of the entire voivodship – does not mean total stability as regards the type of real growth. As mentioned previously, both communes are characterised by high positive values for the migration balance. As early as in the mid 1990s, both Zabierzów and Michałowice were already among the administrative units showing the greatest population growth in the vicinity of Cracow (Figure 2). A general trend observed within the communes of Cracow powiat is an upturn in population inflow since the mid 1990s. The analysis of real growth components points to the dominance of migration in shaping the development of population size in the discussed area. In the case of Zabierzów, the migration inflow is also starting to assume a compensatory function in relation to the natural growth. The natural growth in the case of Michałowice is significantly closer to zero, while in the case of Zabierzów a natural loss is already being observed. In this area a major factor is the age structure of the migrants flowing into Michałowice. Currently there is a large share of young married couples settling in the area, ensuring that the commune is still characterised by natural growth, rather than loss.

Among the types of residential buildings preferred by the population inflowing into the area of the studied communes, it is possible to note differences in the range of architectural forms and possession. In the case of Zabierzów, there is a much greater share of individual residential developments, while the developed residential buildings more often have villa-like characteristics, as opposed to being standard suburban single-family houses. Also, in the case of this commune, it is possible to find large, isolated residences in harder-to-reach places. In the case of the other commune, of Michałowice, the situation to be observed contrasts markedly. Building development is in large part the work of developers offering a chance for people to reside within small districts whose architecture is very similar or even identical.

The discussed communes are not just targets for migrating residents from a large city, functioning also as local business systems. In this aspect, it is possible to note marked variation between the communes analysed. Zabierzów commune trades, not only on its location, but also on the fact that it possesses an airport within its limits – this being a location factor for business activity alongside the presence of the motorway. The presence of logistic companies active within the commune attests to the above situation. This business development direction has its spatial consequences. The logistic companies need large areas if they are to function adequately, and larger business (industrial) lots. In such a system there are possibilities of conflicts arising as designations are applied to terrain that could be attractive to both developers and potential industrial investors. Another economic situation applies in the second analysed commune – of Michałowice. In this case, the local economy is in large part associated with agriculture. The environmental conditions are favourable to the development of market gardening and fruit farming. The economic space in this commune is in large part composed of storage areas, especially construction storage.

The development of this area is primarily associated with increased significance of the residential function; for the population associated with Cracow this is not the only category of observed change, since other economic aspects should also be recognized as significant impulses to changes in the utilization of the terrain. To be referred to *inter alia* here is the dynamic development of the Cracow Business Park. The name associated with Cracow relates to an area located beyond the city limits – and within the commune of Zabierzów. This is one of

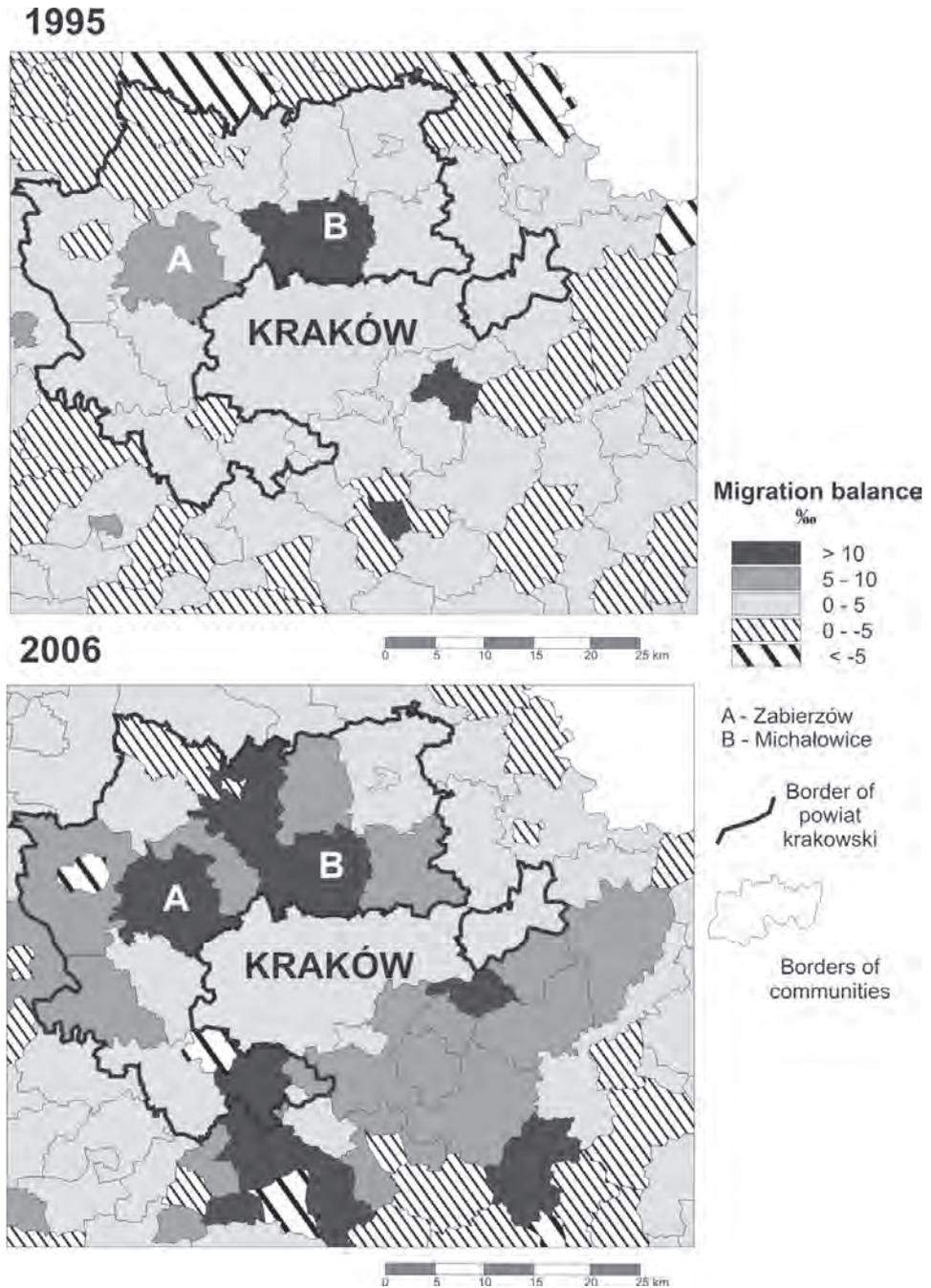


Figure 2. Migration balance in Cracow's surroundings in 1995 and 2006
Sources: authors' own elaboration based on Central Statistical Office data

the clearest signs of the business impact the city exerts on its immediate neighbourhood.

The characteristics of the analysed area of Zabierzów and Michałowice communes listed above mutual point to similarities between the two, but also to a group of traits that serve in differentiating between them. Both communes can be considered to be favourably located, with many valuable features from the point of view of the possibility of further development of both residential functions, and those relating to transportation, industry, and the services.

TRANSPORT INFRASTRUCTURE IN RELATION TO THE DEVELOPMENT OF THE CRACOW SUBURBAN REGION

The immediate vicinity of a large city comprises terrain of major significance when it comes to possibilities and needs as regards the planning infrastructure responsible for connection of the system (city) centre on a regional or global scale. It is important to recognize the multi-faceted impact of large-area transport infrastructure (Fig. 3). The negative impact of that infrastructure (e.g. through pollutant emissions) may lead to regression instead of the development with which the infrastructure is supposed to be associated. An example of the direct negative impact of infrastructure on the development of residential construction concerns the villages located directly adjacent to the airport. The noise level associated with the landing and takeoff of planes is a cause for concern among both developers and private investors, whose interest in such places is very limited. It is therefore possible to observe adjacent localities with markedly different levels of development (Aleksandrowice as a locality lacking new residential developments, and Balice or Szczyglice with intensive inflows of population and new residential construction). This aspect of the functioning of the discussed infrastructure may therefore

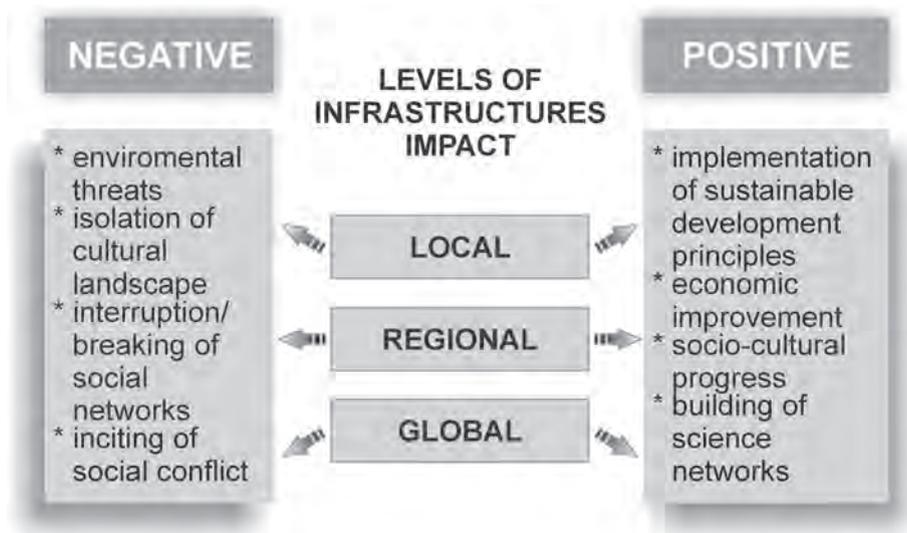


Figure 3. Local, regional and global aspects of infrastructure impact
Sources: author's own elaboration.

bring about the destruction of the traditional settlement system. On the other hand, the motorways functioning as corridors, as well as the airports, which occupy a large area, bring about the shaping of completely new settlement systems, both directly and indirectly.

Items of large spatial transport infrastructure are intended to improve communication accessibility, while relieving the main centre (i.e. the downtown area). In the case of Cracow, it is necessary to include into the above group the A4 motorway, the city ring road (also a part of the motorway), as well as the John Paul II International Airport in Cracow–Balice (Figure 4). The point and linear infrastructure shown here affects social-economic space on many scales. On each scale it is possible to find a group of both positive and negative effects of such proximity. The immediate proximity of the motorway has a negative effect on property values nearby, though the value of property associated with the location of business activity is affected positively. On a regional or global scale, an motorway is a factor in development as broadly conceived. In the case of an airport, the impact is even more complex. A factor of great importance is the precise size of the airport, defined by the number of serviced airline operations (takeoffs and landings of the airline fleet). It should be recognized that there is a specific critical size of an airport that will make development of the residential function in adjacent areas impossible. On the other hand, the development of the airport itself generates a necessity for development of the subordinate communication system to take place, this assuring adequate accessibility in terms of communication. The development of the road network or bus connection, or even the construction or reactivation of railway connections from the centre of the serviced area may in fact affect residential development by way of its being an impulse. Such a situation will be associated inter alia with greater amounts of land turnover, under the influence of transport infrastructure associated with an airport.

The completion of planned investments associated with development of the network



Figure 4. Transport infrastructure in Cracow's surroundings – existing and planned
Sources: authors' own elaboration.

of motorways and high-speed roads in south-western Poland will be of great importance to the future of the suburban area of Cracow. From the point of view of the city's functioning, a large effect will be exerted through the construction of a northern ring road, which will lighten traffic over a significant part of the city, as well as the continued construction of the A4 motorway in an eastern direction, as far as the border crossing with Ukraine. At the same time, an investment such as the ring road will be of great importance in shaping further possibilities for the northward development of the suburban region. The current accessibility of areas located within the northern part of Małopolskie voivodship was much weaker. The only communication route connecting the agricultural part of the voivodship with its capital was the very important traditional regional road leading in the direction of Warsaw (via the commune of Michałowice).

Of major significance to the airport and part of the suburban area under discussion was the activation of the city rail line connecting the airport in Balice with the centre of Cracow (main station). This solution was primarily intended to shorten the travel time to the airport, which (with congestion problems in Cracow being as they are) was of almost an hour by city transport. Such problems were impacting upon evaluations of the airport's functioning. The activation of the railway connection to the airport reduced the travel time to 18 or so minutes. During the initial stages of its operations at least, the activity of the railway itself proved a source of many spatial conflicts. Very limited use of the line was actually being made, while its sudden activation in association with many unguarded crossings en route and requirements as regards signalling proved very inconvenient to inhabitants, not only of the immediate surroundings. The at least partial solution of passing of the rail on the route improved the situation – its passing is less inconvenient to the residents. The rail itself functions as a transportation source mainly delivering passengers to the terminals of the airport. However, this is not its only function, this also being a very important source of transportation for many workers at the airport, which as a large object with service points located within its terminals creates a zone of commuting. However, the possibilities of the railway are not even exhausted when this aspect has been considered, for this is an increasingly important means of transportation for the population of the communes of Zabierzów and Liszki, and even for those living in more distant areas of the Cracow powiat, these populations in no way being associated with the airport itself. This situation should lead to the search for additional solutions that could further improve the railway's effectiveness within the discussed range. The Polish literature more often signals the need for "park and ride" terminals to be constructed (Kolos 2005). In this case also, a modern solution would mean a meeting of the expectations of the suburban-area residents as regards the further improvement of communications between this area and the centre of the metropolitan area.

AIRPORT AND MOTORWAY – IMPULSES OR BARRIERS TO DEVELOPMENT OF THE RESIDENTIAL FUNCTION

Both airport and motorway are to be listed among examples of large-area infrastructure. These are objects that exerting strong anthropopressure. Their impact on the natural environmental concerns, not merely the functioning of the objects themselves, but also the effects

of operations conducted on their account – in road and air transportation. These objects go a long way to shaping the social and economic space within an area that often goes beyond the direct, closest neighbourhood.

Other than the fact that an area is occupied, there is also significance due to the impact the aforementioned objects (both point (airport) and linear) exert on the local population (Gorka, Trzepacz 2006). The impact of these objects as barriers has its own specific characteristics. Functioning, in the case of motorways in particular, leads to interruption of local communication systems. The population that occupied the given area during the period in which its significance and utilization were at a much lower level than currently tends to speak in negative terms about the blocking of their free pedestrian traffic within the area. Equally, there are observations as regards positive aspects, such as improved accessibility to schools or workplaces.

The area of the commune of Zabierzów is characterized by a clear differential in relation to the level attained by the residential function. The large-area nature of the infrastructure itself does not have to result in a drastic decline in interest in a given area by developers. The decisive factors in this regard are solutions utilized to limit negative functioning effects of such infrastructure – primarily noise, for example. Such a solution may be a system of noise-prevention screening limiting this aspect of the motorway's effects. However, a significant problem here is the resultant compromising of a landscape's aesthetic value, which may affect property values in an area. The analysis of development offers within the commune of Zabierzów, especially in the villages through which the motorway runs, points to the major importance of its impact as a factor shaping the level of turnover of land, as well as its price. At this moment, there should be a separation of the impact of the residential function from that of an exclusively economic character. The close proximity of an motorway or an airport shapes property prices in a different way in the case of construction lots, as opposed to those foreseen for business or industry. In the first case, the location of a property in the immediate vicinity of a large item of spatial infrastructure is presented as a questionable situation that reduces value. An opposite affection vector in this regard is observed as the effect of such a factor in shaping prices of lots foreseen for the development of service or industrial activity is analysed. In this case, the closeness of communication arteries is examined in line with the impulse that shapes the level of interest in the lot. Therefore, it is possible to arrive at a conclusion that there are certain critical sizes (often literally) of both airports and other transport infrastructure elements, which will function as a motivating factor in defined spatial arrangements, while also representing a barrier to the local-scale development of the suburban area in others. The regional, and even more so the global, scale of impact of the discussed infrastructure, associated directly with the concept of development as broadly conceived, does not have to mean development on a local scale, but rather a possibility for regression and the destruction of local spatial structures to take place.

THE PROPERTY MARKET WITHIN THE SUBURBAN REGION OF CRACOW

Changes in land utilization in the studied communes, especially as regards the observed development of housing construction, are closely linked with the intensifying process of suburban-

zation in the Cracow agglomeration. Studies show that the effects of agglomeration affecting its surrounding areas and making themselves felt strongly in relation to the spatial distribution of employment, but also in e.g. financial services and industrial production, achieve similar values in agglomerations of Western European countries and the USA (Dekle, Eaton 1999; Ciccone 2002). It is possible to assume that a parallel impact will also be exerted by Polish agglomerations, including Cracow, on their surroundings. The employment increase is associated with a demand for new, attractive residences, and it is hard not to relate this to the suburbanization procedure, to which many more Polish cities are subject. This is of course more visible in suburban areas of large cities, such as Poznan, Cracow, or Wroclaw (Kochanowska, Kochanowski 1997; Liszewski 1997). The residential zone in Eastern European countries has been socially and politically transformed within the past several years, leading to significant changes, especially in metropolitan regions of large cities (Buckley and Tsenkova 2001; Pichler-Milanovich 2001; Petrovic 2001), however, the suburbanization process itself, displayed *inter alia* in the functioning of the real-estate market, is not very different from the Western model, as declared in Hungary, for example (Timar, Varadi 2001).

The real-estate market situation near large Polish cities has changed greatly within the past several years. Two basic facts have been noted: the price of land has increased many times over (in the communes surrounding Cracow, the price of lots mostly grew by 100% between 2005 and 2007), and also the land resources in the nearest vicinity of the city limits have suddenly begun to shrink. A greater choice of offers characteristic of, among other things, lower prices, is associated with more distant locations (e.g. in Cracow such areas as the surroundings of Myslenice or Alwernia, where the distance from Cracow is 30 – 40 km), although even here a greater differential associated with attractiveness of location is to be observed. The area of Pogórze Wielickie and the Cracow-Częstochowa Upland is recognized as a very attractive place for residential development, while the eastern and western directions are much less popular. Despite the difference in price, the number of lot sale offers in the communes of Michałowice and Zabierzów during the period between April and October 2007 was the highest (with the exception of Wieliczka) among all 13 communes neighbouring with Cracow. Within the communes of Cracow powiat (which includes 17 to the north and west of Cracow), the discussed communes were also distinguished by having the largest number of building lot offers. However, in both cases, these were the highest lot prices: among the communes surrounding Cracow, the average price of land in Michałowice and Zabierzów was 3-4 times as high as the lowest price in the Igołomia-Wawrzencyce commune (respectively: 344, 230 and 79 PLN/m²), while in the powiat of Cracow, this difference was even larger, since the commune of Slomniki had an average lot price per m² of 53 PLN during the analysed period. The average price per m² did not reflect the differences associated with lot type, precise lot location, level of attractiveness of surroundings, terrain enforcement elements, closeness of main roads that access Cracow, type of access road, and other factors that significantly affect the price of development land. The analysis recognized all offers associated with real estate, regardless of the lot type, i.e. its purpose according to the mandatory spatial development plan (if such exists). Nevertheless, in both Zabierzów and Michałowice communes, the offer is dominated by building development, agricultural development, and agricultural lots (with the possibility of requalification for building development existing). These respectively account for 78, 14.5, and 5% of the overall number of offers in Michałowice, and 70, 14,

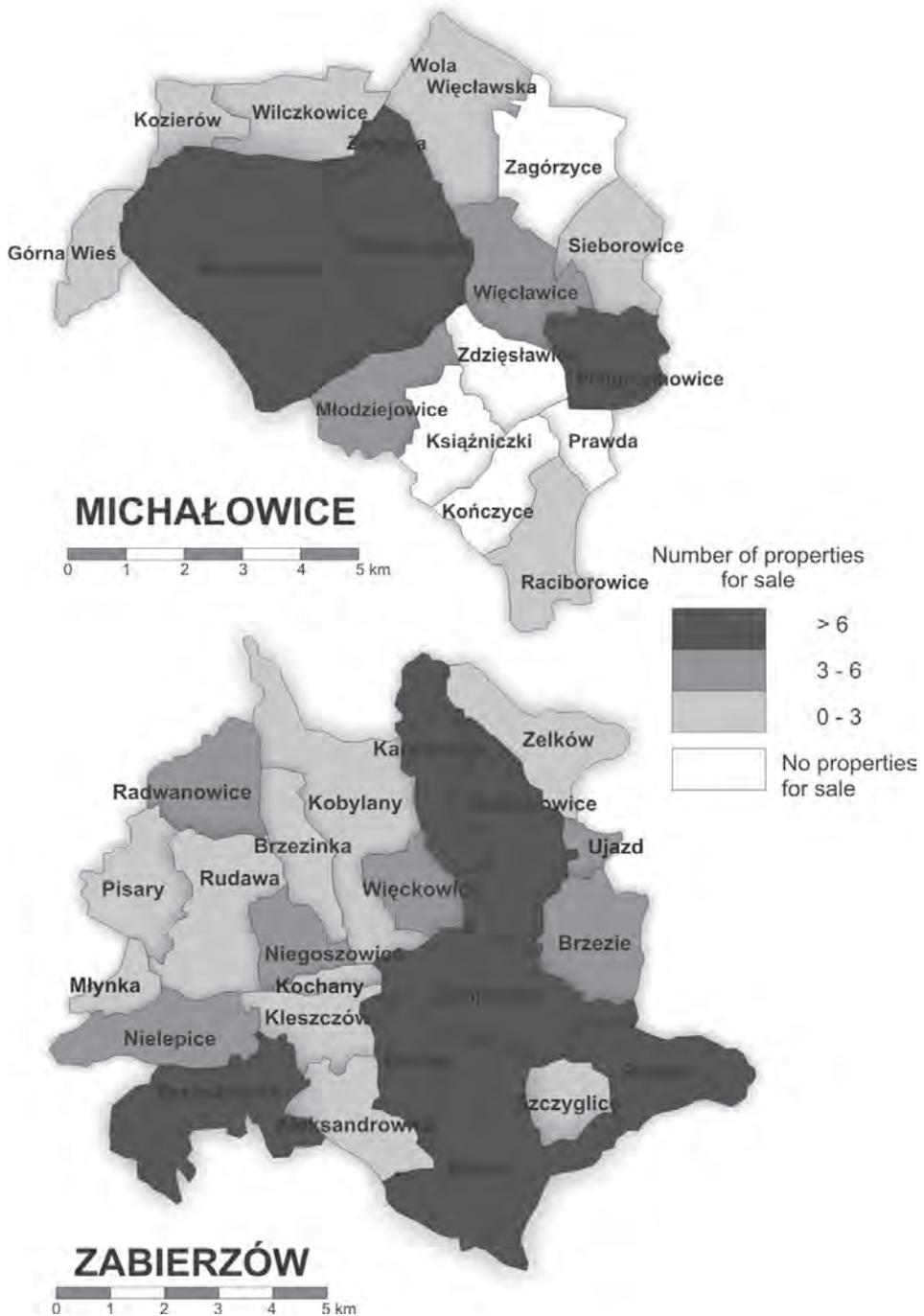


Figure 5. Number of properties for sale in the communes of Michałowice and Zabierzów
 Sources: authors' own elaboration based on "properties for sale" internet database.

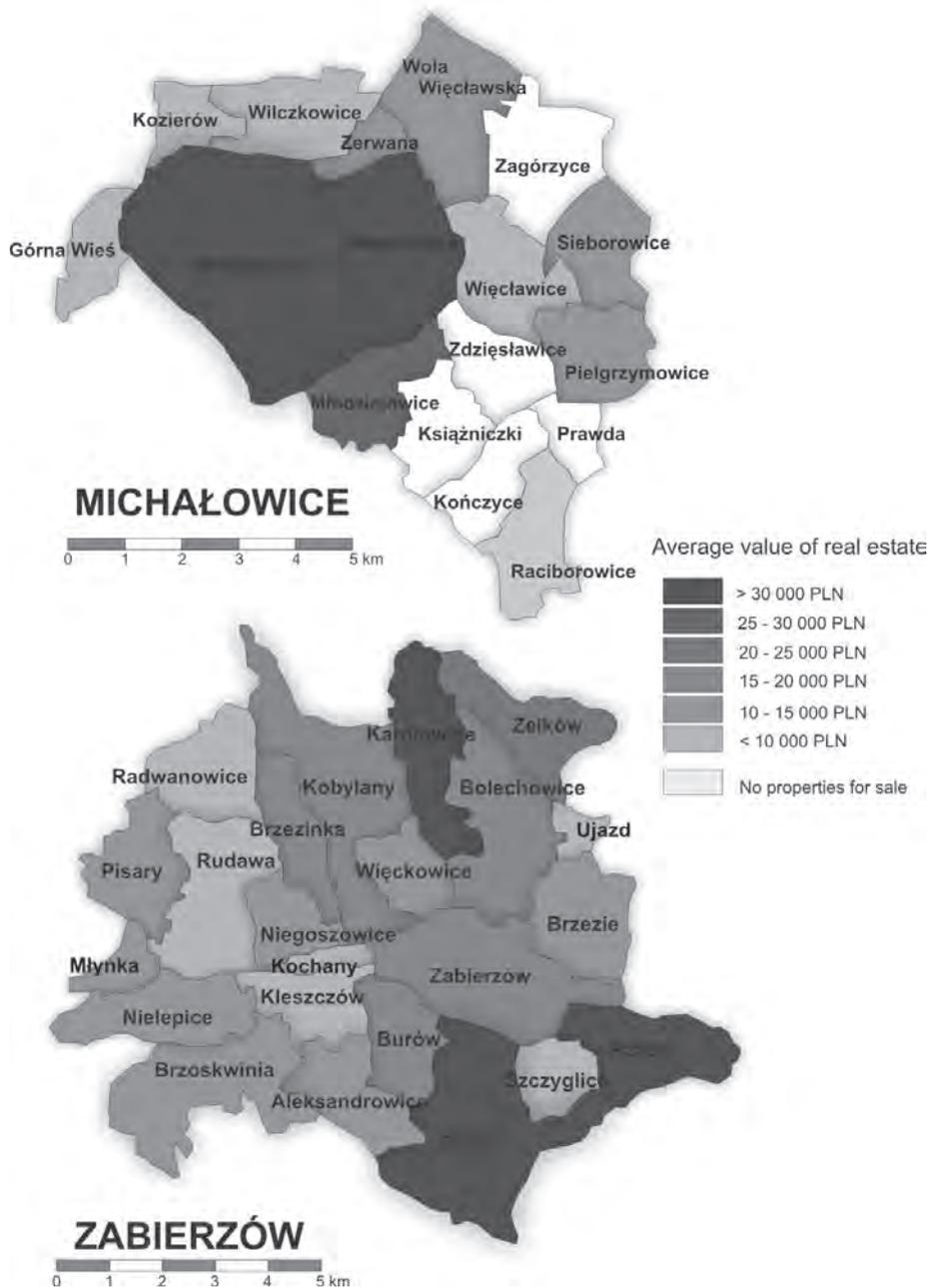


Figure 6. Average value of real estate in the communes of Michałowice and Zabierzów
Sources: authors' own elaboration based on "properties for sale" internet database.

and 11% in the case of Zabierzów, this coming together as 97.5% of the overall number of offers in the case of Michałowice, and 95% in Zabierzów.

A large differential also appears within the analysed communes (especially Michałowice) in

relation to both the number of offers and the potential costs of purchasing land (Figures 5 and 6). The commune of Zabierzów has attracted the interest of migrants from Cracow for many years now, mainly on account of the good communication with the city and other towns, the very attractive natural environment (one of the highest-rated communes as regards tourist attractions near Cracow, this resulting in the so-called values of beauty lots), and connections with the so-called prestige of the place, specifically the reputation associated with a large number of people known from broad public activity residing there. Currently, an additional factor affecting the possibilities for the intensity of land turnover – and in consequence building development – to increase is the enactment of spatial development plans. Among the 23 villages within the commune of Zabierzów, only 3 (Aleksandrowice, Burow and Kleszczow) do not possess obligatory spatial development plans. In these villages, it is possible to note the lowest share of overall real estate offers (respectively 0,6, 5 and 1.2% of the total). However, this does not explicitly translate into land prices, since the latter are respectively of 130, 167, and 73 PLN/m², with the average for the commune of Zabierzów being 230 PLN/m². Zabierzów itself is the most popular (the proportion of offers within the overall number: close to 28%, prices between 190 and 255 PLN/m²), while following it we find Balice, Rzaska and Karniowice (respectively 16, 8, and 4%; average prices between: 441 and 325 PLN/m²). The factors causing higher prices within these villages are: very good terrain enforcement, possibilities for investing in service-production activities, the proximity of a technological park, airport and motorway junction. Currently, the last two factors, especially the presence of the airport, are received rather negatively in the case of potential investors in residential development. However, it is indicated that, within a 10-15 year period, the terrain located near high speed roads will be the most sought-after and valuable land for development.

The commune of Michałowice, located to the north of Cracow, is already the traditional target of a large number of migrants from Cracow. The suburbanization process has intensified greatly here during the past several years, something that is associated with the region's expanded developmental activity, among other things. The associated increase in the level of technical investment, especially as regards land enforcement, hardening, or even asphalt paving of many access roads, also stimulates increased interest in land purchase and the construction of individual houses (however, "independent" house construction is much less expensive than purchasing a home from development companies). To be observed within the commune are strong variations in land turnover and amounts of construction traffic. This is an agricultural commune (still almost 70% occupied by arable land, including about 80% in categories I-III), but the factors making certain villages attractive to investors are the proximity of downtown Cracow – barely 15 km away, as well as easy access via the regional road. This relates to Michałowice, Masłomiaca and Zerwana, in which the greater part of the offers and prices that are among the highest are noted (respectively: 43, 28 and 7%; average price range: 150 – 120 PLN/m²; Figs. 5 and 6). The villages located further from the main communication routes are characterised by both a smaller number of lots being offered for sale and by prices, which will probably be subject to major changes within the next few years.

A significant element that affects the turnover of land and its prices, and with that utilization changes, are legal regulations, especially those that remain within the purview of the space-holder, i.e. the regional government, as well as government regulations that affect general housing policy through acts passed. In some countries, the laws regulating the method,

type, or possibilities for changes in land utilization, in relation not just to residential construction, but to all other areas of human activity, are very well-developed (Hanushek, Quinley 1990; Cheshire Sheppard 2004). In Poland, the several years since the restitution of local and regional government have not been sufficient to erase a certain deficiency in the degree of effectiveness of the legal and financial instruments local administrations use as they change the designation of terrain for various purposes. The same factor that strongly organizes land turnover and changes in the number of newly-constructed residential buildings is the "old" law of the market: the relationship between supply and demand. The lack of both legal regulations and normalized spatial development politics may ultimately lead to disruption of the balanced development of the metropolitan areas of large cities, which may impact negatively upon any further prospects for their functioning (Tosics 2004).

SUMMARY

Both the Zabierzów and Michałowice communes are places in which suburbanization procedures cross, while serving in the location and development of transport infrastructure of an importance that greatly exceeds the servicing of local residents by businesses that function in the area. The area occupied (appropriately significant for the characteristics of the object) is only one of the effects of functioning. The immediate proximity of the airport or the motorway, on account of severe (for residents in particular) functioning aspects including noise and pollution makes this a place not considered residentially attractive. However, such a location guarantees good communication accessibility of a large area associated with the servicing of the centre of a spatial arrangement (e.g. downtown Cracow). The large-area infrastructure is a factor that in large part determines spatial structures. The construction or expansion of such transport infrastructure systems leads to the destruction of traditional settlement arrangements, and has an effect in creating new ones, often in association with it. The dissonance between scales of the local, regional and global impacts due to large-area transportation investments in the context of their positive and negative effects should gain recognition in the planning documents of such areas as those discussed in the article presented. Only the planning of adequate solutions will allow (on one hand) for the population to be protected from negative aspects of functioning within a human transport infrastructure – environment system, and (on the other) for infrastructural development (of the airport) and appropriate functioning (of the motorway) to be assured.

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TOWARDS A COMMON EUROPEAN TRANSPORT SYSTEM

TOWARDS A COMMON EUROPEAN PASSENGER RAILWAY SYSTEM

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Abstract. The full liberalization of passenger railway transport is scheduled for 1st January 2010. It is expected that by this time, both the technical and legal interoperability of European railways will have been achieved. This article discusses the current legislative, infrastructural and organizational undertakings aiming at creating a competitive and modern railway transport system on a pan-continental scale, as well as gives an example of good practices in this field.

Key words: railway passenger transport, legal interoperability, technical interoperability, joint undertakings

INTRODUCTION

The full liberalization of passenger railway transport in European Union is scheduled for 1st January 2010 and it is expected that by this time both the technical and legal interoperability will have been achieved. There are a number of important factors shaping and influencing the emergence of a single European passenger railway system. This article discusses the current legislative, infrastructural and organizational undertakings aiming at creating a competitive and modern railway transport system on a pan-continental scale. Moreover, the article gives an example of authentic attempts to create a common market in the sector of passenger railways. As it will be shown on the example of Railteam - the newly created joint undertaking of European high-speed operators, cooperation and joint actions may be the keys to making railways more competitive with regards to other modes of transport, and more attractive to the passengers.

LEGISLATIVE ACTIONS

The context of a common European transport policy has largely changed with the EU's enlargement in 2004 and 2007 – an act that has substantially increased the length of the railway network, enlarged its spatial scope and added several players to the railway market, but also

largely diversified the quality of the railway network and services. EU enlargement apart, other factors influencing the evolution of common transport policy, as indicated in the mid-term review of the Community's 2001 White Paper¹, are: changes within transport industry, which is becoming more and more innovative, EU's environmental commitments and the need to rationalize energy consumption, new international context including globalization, terrorism and emerging competitive Asian markets.

The most important documents influencing European transport policy, with regards to passenger railways, are the 2001 Transport White Paper and the EU Directives concerning passenger transport, together with some Regulations and Decisions. Whilst the former document contains aims and measures for the achievement of sustainable transport system, the latter documents aim at ensuring its legal interoperability.

The 2001 Transport White Paper proposed 60 measures² for the successful transport policy. Amongst these measures there were calls for the revitalization of railways. However, most of the proposed measures dealt with freight transport and only some of them addressed passenger transport issues. As a result, "the effects of the White Paper on passenger transport are minimal"³ in comparison to the effects on freight transport. The so-far implementation of measures aiming at the revitalization of railway passenger transport (directly and indirectly) was summarized in the White Paper mid-term review⁴:

- completed implementation of the First Railway Package (Directives 2001/12/EC, 2001/13/EC and 2001/14/EC)
- ongoing implementation of the Second Railway Package (Directives 2004/49/EC, 2004/50/EC and 2004/51/EC)
- creation of European Railway Agency in 2004 by the 881/2004 EC Regulation
- revision of TEN-T (Trans-European Transport Network) projects by the Decision 884/2004/EC and Regulation 807/2004.

Unfortunately, the Third Railway Package, containing some important legal regulations concerning gradual opening-up of international passenger services is still being under discussion. Despite the foreseen adoption of the Package in the first semester of 2007, no binding decisions have been made by October 2007. Several other measures are still to be introduced, namely the issues of:

- funding of TEN-T in the 2007–2013 period
- funding of infrastructure in the New EU Member States
- proposal for a Regulation on the protection of international rail passengers (COM (2004) 143 final)
- proposal for a Regulation concerning public services of passenger transport by rail and by road (COM (2005) 319 final)

Intergovernmental Organisation for International Carriage by Rail (OTIF) is another important player on the European railway scene as far as legal matters are concerned.

¹ "Keep Europe Moving". *Sustainable mobility for our continent. Mid-term review of the European Commission's 2001 transport White Paper*, Office for Official Publications of the European Communities, Luxembourg 2006.

² *White Paper. European Transport Policy for 2010: time to decide*. Brussels, 12.9.2001 COM(2001) 370 final, p. 12.

³ *The Impact Assessment of the Communication "Keep Europe Moving". Sustainable mobility for our continent. Mid-term review of the European Commission's 2001 Transport White Paper*, Commission Staff Working Document, Brussels 2006.

⁴ *Ibidem*, pp. 47–63.

At present, OTIF has 42 member states in Europe, North East and North Africa. OTIF aims at establishing and developing a uniform system of law for carriage of passengers and goods in international rail traffic by rail between its member states. First, and foremost OTIF safeguards the enforcement of the Convention concerning International Carriage by Rail (COTIF), which in its amended version entered into force on 1 July 2006⁵. Appendix A to COTIF deals with passenger rights (CIV Uniform Rules). Unfortunately, just before signing the agreement for the accession of the European Community to COTIF in 2006, the European Commission objected to appendices E, F and G, claiming them contradictory to the EU law. This has hindered the implementation of COTIF in EU and resulted in the need to renegotiate the agreement.

INFRASTRUCTURAL UNDERTAKINGS

As far as infrastructural undertakings are concerned, the most important of these are the so-called TEN-T lines. These are the core infrastructural lines together with traffic management and navigation systems important for the cohesion of EU regions and ensuring proper flow of goods and passengers. As a result of the 2004 revision of TEN-T priority projects, 19 out of total 30 projects are thought to be relevant to the passenger railway transport. However, the budgetary means that can be spent on the realization of these projects amount only to €7.2 billion, which is significantly less than the initially proposed €20 billion⁶. In 2005, also as a result of TEN-T revision, six European coordinators were appointed to supervise five priority projects and the ERTMS (European Rail Traffic Management System) project. The projects were:

- railway axis: Berlin–Verona/Milan–Bologna–Naples–Messina–Palermo (project no 1)
- high-speed railway axis of south-west Europe (project no 3)
- railway axis Lyon–Trieste–Divaca/Koper–Divaca–Ljubljana–Budapest–Ukrainian border (project no 6)
- railway axis Paris–Strasbourg–Stuttgart–Vienna–Bratislava (project no 17)
- ‘Rail Baltica’ axis Warsaw–Kaunas–Riga–Tallinn–Helsinki (project no 27)

The axes are shown on Figure 1.

The task of coordinators was to harmonize the actions of infrastructure managers from the participating countries and to create annual reports specifying the necessary actions aiming at increasing the corridor’s competitiveness. The reports also dealt with the assessment of possible financial resources for the successful realization of the projects. Moreover, specific technological solutions have been proposed for the implementation of the ERTMS scheme. So far, each coordinator has presented the European Commission with two annual reports: the first one in July 2006, and the other one in July 2007⁷. Thanks to the efforts of the coordinators, the realization of these multinational projects runs more smoothly and there is strong probability of them being carried out in accordance with the schedule.

⁵ *CIT Annual Report 2006*, p. 17

⁶ *European Commission: Building our common future: Policy challenges and budgetary means of the Enlarged Union 2007–2013*, February 2004, COM (2004) 101 final.

⁷ The reports are available at: http://ec.europa.eu/ten/transport/coordinators/index_en.htm



Figure 1. Five TEN-T priority projects with Coordinators

Source: based on TEN-T map available at:

http://ec.europa.eu/ten/transport/priority_projects_minisite/map_en.htm

RECENT UNDERTAKINGS OF ORGANIZATIONS SUPPORTING PASSENGER RAILWAYS

There are several European-wide organizations, that are concerned with railway passenger transport and aim at improving its position on the market. Among these, Community of European Railways and Infrastructure Companies (CER), International Union of Railways (UIC) and International Rail Transport Committee (CIT) are perhaps the most influential. Their activities range from putting forward legal proposals through carrying out research projects to lobbying for the development of railways. Some of their recent successful initiatives include signing of a Charter on Rail Passenger Services and setting up of a website for passengers: www.railpassenger.info.

On 22 October 2002, CER, UIC and CIT signed a Charter on Rail Passenger Services. This common initiative, which was approved by all the undertakings operating in the EU in 2002, introduced a compensation mechanism for train delays during the day and included an obligation of railway operators to offer better passenger services. According to the CER Annual Report 2005/2006, the implementation of the Charter in EU countries was high, with 23 companies in 19 countries having either published their own commitment scheme based on the Charter, or having linked the Charter with their national terms and conditions⁸. These commitments for better quality services concern, amongst others, information on luggage and bicycles transport, information on intermodal connections, punctuality information, refunds, delay assistance and delay compensation, safety and security. It is vital to say that the Charter, or any document based on it, is a voluntary commitment, therefore it is a sign of genuine effort on railway operators' part to attract customers and guarantee the best services possible.

An internet site: *www.railpassenger.info*, which is somewhat complementary to the Passenger Charter, was set up in 2006. Its aim is to inform passengers of their rights when they travel by train across Europe and to make the journey easier. The site is available in English, French and German. Apart from useful information on passenger rights, the site contains links to particular railway operators, timetable search engine and information on compensation schemes in case of delays.

Multiple European Integrated Timetable Storage, Price and Fare Information System (MERITS-PRIFIS) is another example of a joint undertaking aiming at better railway passenger services: 32 railway companies have cooperated in the creation of the first module (MERITS)⁹. The goal of the project is to create an integrated European database containing information on price, linked with European MERITS train timetable, which has been operational since 2002¹⁰. The data in MERITS is updated on a monthly basis. Once fully operable, the system will be beneficial both for sales staff, as well as general public, providing them with instant access to uniformed, non-discriminatory information on prices and timetables.

AN EXAMPLE OF GOOD PRACTICES

In July 2007, high speed rail operators launched Railteam, a joint undertaking that will facilitate cross-border travel by high-speed train in Europe. The aim of the undertaking is to offer comfortable high-speed train journeys across Europe, without unnecessary stops and complicated booking procedures. Railteam has been formed by: SNCF (France), DB (Germany), NS Hispeed (Netherlands), Eurostar (UK, France and Belgium), ÖBB (Austria), SNCB (Belgium) and SBB (Switzerland), as well as two of their high-speed subsidiaries Thalys and LyriaGermany. The network is shown on Figure 2. It has five major hubs: Brussels, Lille, Stuttgart, Cologne and Frankfurt.

The journeys by Railteam trains between major European centres of business, culture and commerce will definitely become competitive with travel by plane and by car. Out of the wide range of services, "hop on the next train" seems quite utilitarian: in case of delays, the passen-

⁸ CER Annual Report 2005/2006, p. 19.

⁹ <http://www.uic.asso.fr/baseinfo/projet/projet.php?id=3>

¹⁰ International Union of Railways Annual Report 2006, p. 95

DIRECT INTERNATIONAL PUBLIC TRANSPORT CONNECTIONS OF REGIONAL CENTRES IN SLOVAKIA

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Abstract: Direct international transport connections are mostly established between main population centres and those of economic growth and indicate existence of various relationships (economic, political, and cultural). Numerous connections with many countries point to the strength of individual centres and to some extent, they reflect their competitive position. This article is devoted to the analysis of the position of regional centres in Slovakia (Bratislava, Košice, Prešov, Nitra, Žilina, Banská Bystrica, Trnava and Trenčín) on the basis of direct international public transport connections. Type of connections (train, bus, air and boat connections), intensity (number of connections a week) and the directions of connections (countries, cities) are analysed.

Key words: public transport, direct international transport connections, train connections, bus connections, air connections, boat connections, regional centres, competitive position, Slovakia

INTRODUCTION

Research of spatial relations between various spatial units (settlements or regions) is one of the traditional fields of geographical research. It focuses on the movement of population, goods, capital, and information that takes place via transport or communication networks by various transport and communication means. The nature of spatial relationships beyond the boundaries of individual countries is special because the existence and rate of these relationships is significantly influenced by the nature of the particular boundary. In the consequence of globalization and the changing geo-political situation in Europe, the international linkages also change. After 1989, the political situation in Slovakia changed. The fact manifested in change of orientation of foreign trade, entry of foreign investments, development of tourism and increasing commuting abroad, as well as the development of transboundary cooperation in the boundary regions. New economic, social and cultural relationships between Slovakia and other countries are being formed.

International linkages can be classified into four groups according to their nature – economic, social, political, and other (Komornicki 2003), while the individual types are inter-linked. The manifestations of economic linkages are flows of goods and movement of capital, and the manifestations of social linkages are permanent or temporary migrations including tourism. Political are in form of international cooperation of local and regional self-administrations, which also include the cross-boundary cooperation. Other linkages cover the transport connections and interactions by means of information and communication technologies. Massive investments into the development of transport and communication systems support the development of international relationships and cause reduction of distances in the world where mutual dependence of individual places and regions increases.

International transport linkages can be studied from various aspects such as the trans-boundary transport infrastructure, transport of persons and goods or regular international transport connections. This study concentrates on the existing direct international public transport connections that reflect existence of international linkages of various nature. As the direct transport connections are founded as rule between the main settlement centres and those of economic growth, the direct transport connections between regional centres and foreign countries will be dealt with.

Slovakia is divided into eight administrative regions with centres in Bratislava, Košice, Prešov, Nitra, Žilina, Banská Bystrica, Trnava and Trenčín (see Figure 1). These towns are also centres of higher self-administrative units. The first seven of them are the biggest towns of Slovakia and Trenčín ranks ninth in population (following the town Martin). Regional towns are also the biggest commuting centres with at least 10 thousand commuters (Michniak 2005) and the highest number of jobs concentrates in them. Numerous public transport connection with many countries point to the strength (economic and population potential) of individual centres and to some extent they also reflect their competitive position.

The aim of this paper is to analyse the direct public transport connections of eight regional towns in Slovakia with foreign countries (type of transport connections, intensity and directions) and an attempt to identify factors determining spatial arrangement of linkages.



Figure 1. Location of individual regional centres in Slovakia

One of the premises of the research into international connections is the assumed existence of very strong transport linkages with the Czech Republic, which in turn reflect the bonds of the two countries formed before they split in 1993 (commuting to work, schools, family relationships). Intensity of these linkages is still high and so is the intensity of regular direct transport linkages.

Among those geographers who dealt with the direct transport linkages is for instance T. Komornicki (2002, 2003) who studied spatial differentiation of international socio-economic linkages in Poland. D. Seidenglanz (2005, 2006) was involved with direct international connections of Prague and Bratislava. A. Winder et al. (2001) studied transboundary public transport in urbanized areas of Europe in terms of effects of the existing barriers (natural, administrative and cultural) attributable to the frontiers. V. Székely (2004) studied direct transport connections of district towns in Slovakia. M. Halás (2005) dealt with transboundary linkages and cooperation on the example of the Slovak-Czech boundary regions.

DIRECT INTERNATIONAL PUBLIC TRANSPORT CONNECTIONS

Direct international public transport connections between Slovakia and other countries are realized by means of railway, road, air and water transport. The data used in research of direct international transport connections by public transport (number, intensity and routes) were obtained from bus and railway schedules as of April 2007 (www.cp.sk, www.zsr.sk), the sailing itinerary of companies Slovenská plavba a prístavy, a.s. and Central Danube Region Marketing & Development GmbH, the later operating the connection between Bratislava

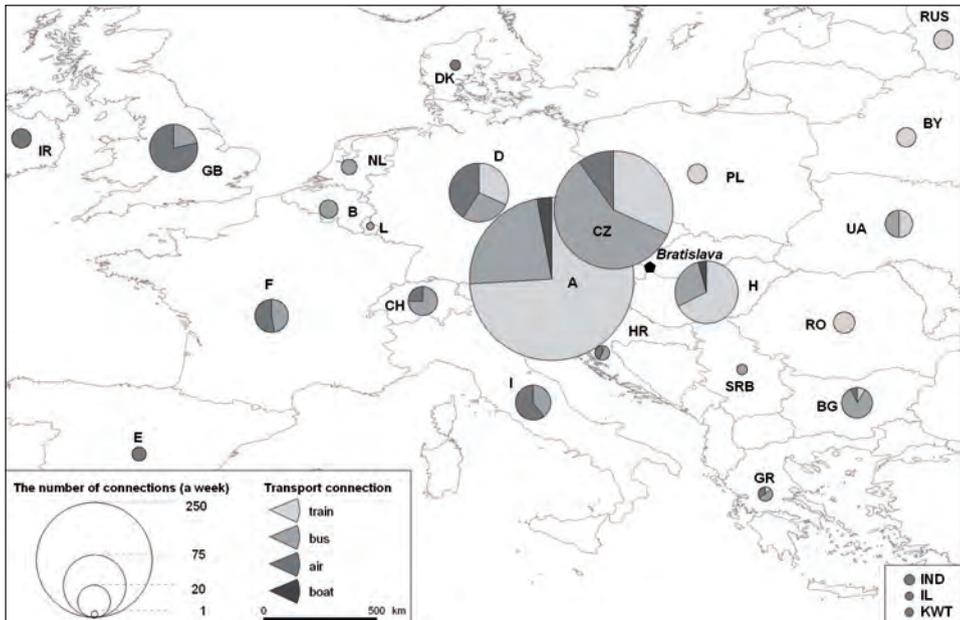


Figure 2. Direct international connections of Bratislava

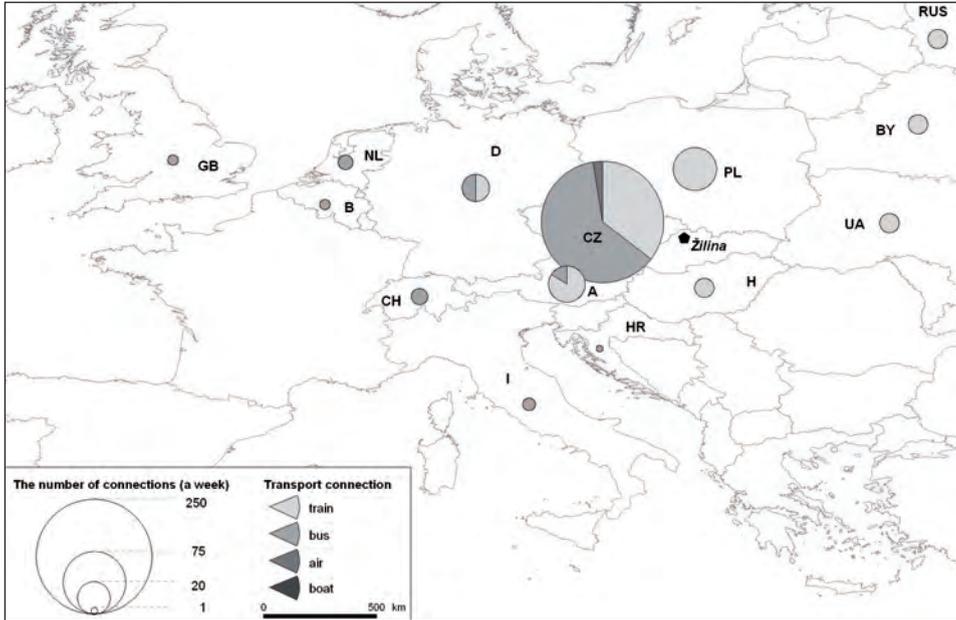


Figure 3. Direct international connections of Žilina

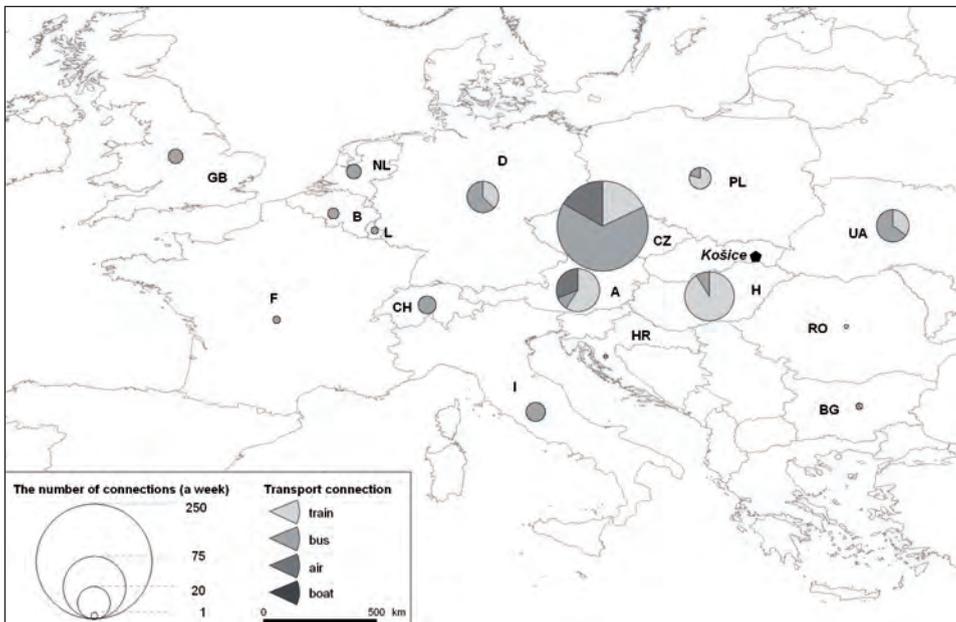


Figure 4. Direct international connections of Košice

and Vienna by boat TWIN CITY LINER, and the flight schedules of the Slovak airports for summer 2007. In case of train connections, the direct carriages to some countries were also taken into account. Two-way connections were considered only. Intensity of connections was

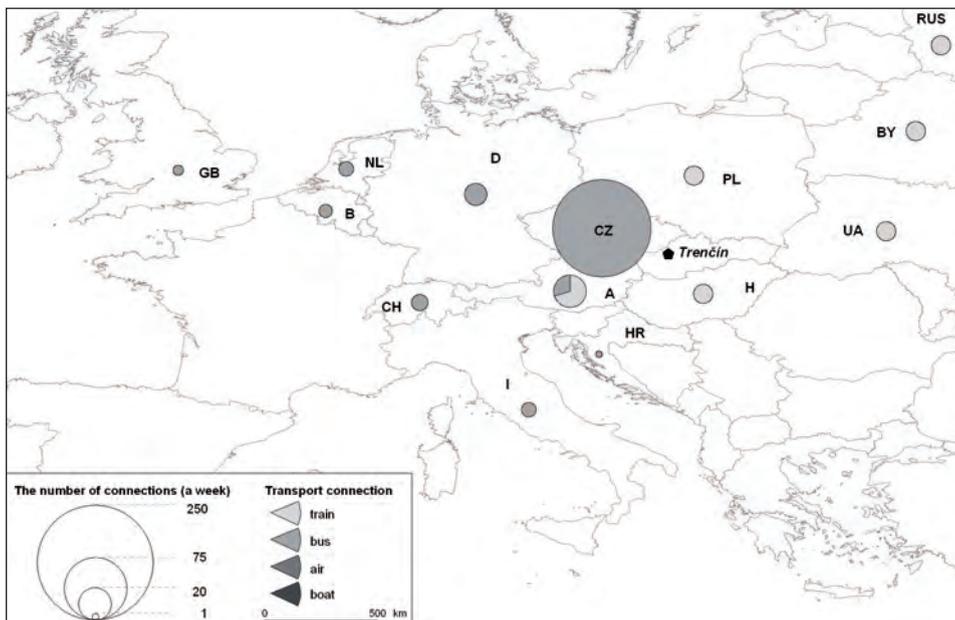


Figure 5. Direct international connections of Trenčín

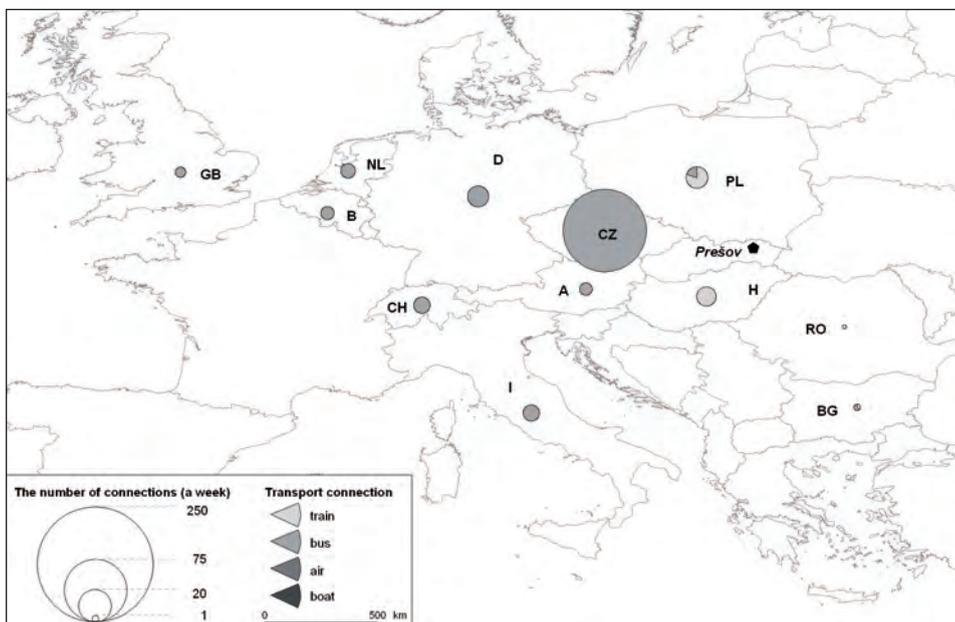


Figure 6. Direct international connections of Prešov

expressed by their number per one week. In case of seasonal connections, their number was recalculated for the period of the whole year (for instance 3 connections a week during four months = 1 connection a week during the whole year).

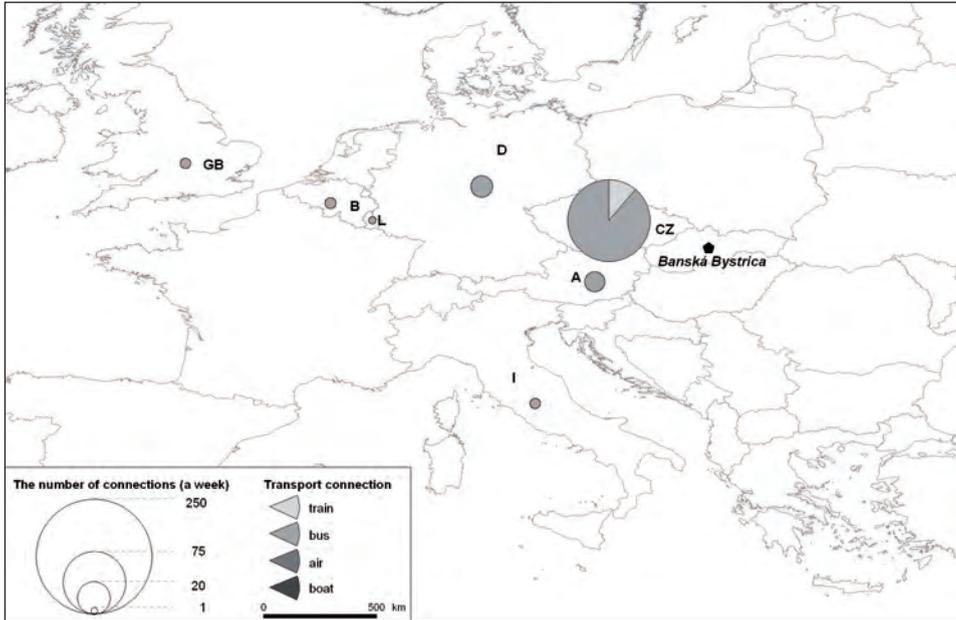


Figure 7. Direct international connections of Banská Bystrica

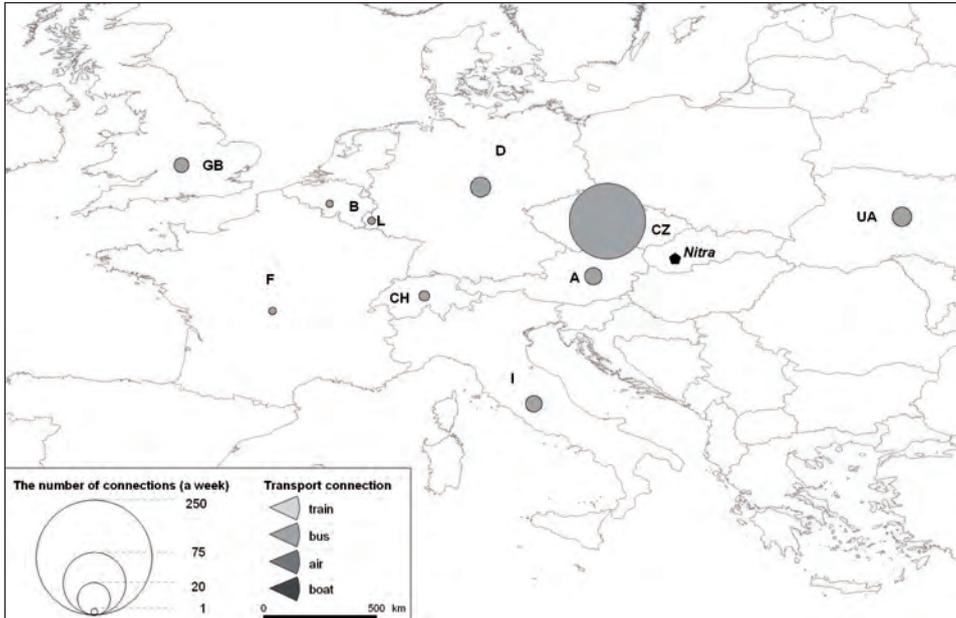


Figure 8. Direct international connections of Nitra

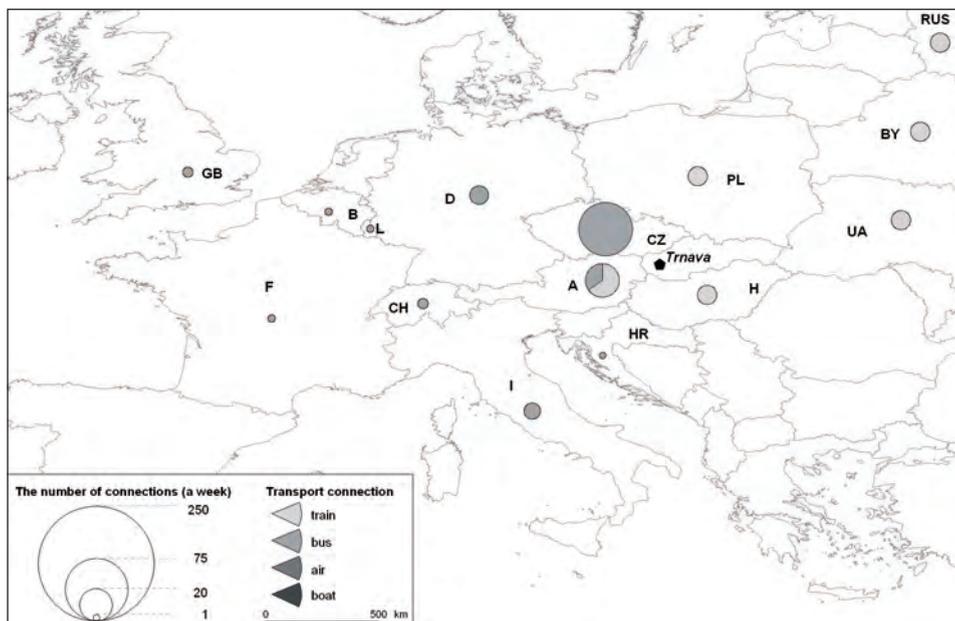


Figure 9. Direct international connections of Trnava

TRAIN CONNECTIONS

Train connections in international transport are among the most stable ones and greatly depend on the existing transport infrastructure. There are several technical differences in construction of railways of the individual countries (different type of electrification, different security and information systems or different wheel gauge), that constitute barriers in the development of international transport and their harmonization requires large investments. Disadvantage of railway transport is its price, which in many cases exceeds that of bus transport. Therefore, there is an effort to overcome this disadvantage using various discounts compared with prices of international tariff in passenger railway transport. The Slovak railway company ZSSK provides such discounts for journeys to all neighbouring countries. Advantages of railway transport lie in its comfort above all in case of long distance travel. Importance of railway in international transport increases due to the construction of high-speed routes connecting several European countries.

Slovakia is connected with 12 European countries via direct international train connections. Table 1 summarises the number of connections from individual regional administrative centres.

The strongest position in international railway transport among the regional centres has Bratislava and it is the most important railway node in Slovakia. Bratislava was also the first town in Slovakia where the railway transport was introduced. Intensity of direct international connections is high (481 connections a week to 12 countries) and this position is caused by the vicinity of Austrian Vienna as the centre of European significance and also by the fact that Bratislava is part of the Pan-European transport corridors nos. IV and V. There are 375 connections a week between Bratislava and Vienna what represents average 53 two-way connec-

Table 1. Direct international train connections of regional towns (average number of connections a week)

	Bratislava	Trnava	Trenčín	Nitra	Žilina	Banská Bystrica	Prešov	Košice
Austria	375.0	14.0	14.0	-	21.0	-	-	21.0
Bulgaria	1.5	-	-	-	-	-	0.3	0.3
Belarus	7.0	7.0	7.0	-	7.0	-	-	-
Czech Republic	84.2	-	-	-	99.0	14.0	-	28.0
Germany	21.0	-	-	-	7.0	-	-	7.0
Greece	0.5	-	-	-	-	-	-	-
Hungary	50.2	7.0	7.0	-	7.0	-	7.0	42.3
Croatia	0.2	-	-	-	-	-	-	-
Poland	7.0	7.0	7.0	-	35.0	-	7.0	7.0
Romania	8.5	-	-	-	-	-	0.3	0.3
Russia	7.0	7.0	7.0	-	7.0	-	-	-
Ukraine	7.0	7.0	7.0	-	7.0	-	-	7.0

tions a day. In the majority of cases, they are regional trains between Bratislava and Vienna via border crossings Devínska Nová Ves–Marchegg and Petržalka–Kitsee. However, apart from them there are also two trains of the InterCity category on the track Bratislava – Košice. Moreover, there is a project for connection the two neighbouring airports by high-speed railway. Its realisation will mean further increase of connections between Bratislava and Vienna.

As far as intensity of railway connections with Bratislava is concerned, those with the Czech Republic rank second (84 connections a week) on route Bratislava–Břeclav–Brno–Prague, followed by connections with Hungary on routes Bratislava–Štúrovo–Budapest and Bratislava–Rajka–Budapest (50 connections a week) and connections with Germany (21 connections a week). In average, at least one train connection a day exists between Bratislava and Poland, Ukraine, Belarus, Russia, and Romania. Connections with Bulgaria, Greece and Croatia also exist for tourists during summer period.

Apart from Vienna and the settlements on the both routes to Vienna (Marchegg 201, Bruck a. d. Leitha 169, Kittsee 167, Parndorf 153, Gattendorf, Neudorf and Pama 148 each, Gramatneusiedl 133 Schönfeld-Lasse 68, Gänserndorf 63, Siebenbrunn-Leopoldsdorf 56, Oberweiden and Weikendorf both 49 connections a week), Bratislava is well connected by railway with towns in the Czech Republic (Břeclav 84, Brno 49, Prague 42, Kolín and Pardubice 35 Česká Třebová 28, Děčín, Lanžhot and Ústí nad Labem 21 connections), Hungary (Budapest 50, Győr 22, Rajka 22, Hegyeshalom 21 connections) and Germany (Bad Schandau, Dresden both 21 connections).

The second to the most important centre of international railway transport in Slovakia is Žilina (162 international train connections a week to 8 countries) situated on the route of two Pan-European corridors nos. V and VI. Position of Žilina is important above all for railway connections with the Czech Republic (99 a week) and Poland (35 a week) i.e. more than Bratislava. Besides, it also has direct transport connections with Austria (21 a week) and

Hungary, Ukraine, Belarus, Russia and Germany (7 connections a week each). Žilina is best connected with the settlements in the Czech Republic (Hranice na Moravě 59, Horní Lideč 50, Česká Třebová, Český Těšín, Kolín, Olomouc, Ostrava, Pardubice, Prague and Trinec 49 each, Bohumín and Jablunkov – Návsí 42 each, Valašské Meziříčí and Vsetín 33 each Karviná 28, Zábřeh na Moravě 27, Střelná 22, Havířov, Přerov, Studénka and Suchdol nad Odrou 21 each), in Poland (Zwardoń 35, Bielsko-Biala, Czechowice Dziedzice and Żywiec 21 each) and Vienna (21 connections a week). Commuters to work and universities mostly use connections with the Czech Republic.

The third most important regional town in terms of direct train connections with foreign countries is Košice (105 connections a week to 8 countries), best connected with Hungary, Czech Republic and Austria. Besides, Košice is directly connected with Poland, Ukraine, and Germany and in summer with Bulgaria and Romania. Individual settlements best connected with Košice include the Hungarian settlement Hidasnémeti (49 connections a week), situated on the border with Slovakia followed by town Miskolc (35) and other settlements on the track Košice – Miskolc (Forró-Encs, Onga and Szikszó 28 each, Aszaló, Csobád, Halmaj, Hernádszurdok, Ináncs, Méra and Novajdrány 21 each) and some on the extension of the track to Budapest (Füzesabony 28, Nyékládháza, Mezökövesd and Budapest 21 each). There are more than 20 connections a week between Košice and several towns in the Czech Republic (Česká Třebová, Kolín, Olomouc, Pardubice a Prague 28 each and Hranice na Moravě 21).

Direct international railway transport in other regional towns plays only supplementing role. Position of Trenčín and Trnava is similar. Direct railway connections from these towns via 28 international connections a week are to Austria (14 a week) and to Poland, Hungary, Ukraine, Russia and Belarus (7 a week). Banská Bystrica is directly connected only with the Czech Republic (14 connections a week). Prešov is directly connected via 7 railway connections a week with Hungary and Poland (train Krakow – Budapest) and also with Bulgaria and Romania in summer. Nitra has not direct railway connections with foreign countries in the consequence of its situation in the railway network of Slovakia.

The international railway connections of Slovakia with foreign countries are most intensive between Bratislava and Vienna. The remaining railway connections are oriented to the former socialist countries, where the connection with the Czech Republic dominates. The main long-distance route is still the track that connects several capitals of these countries (Berlin – Prague – Budapest – Bucharest). There is no direct railway connection with other western European countries with the exception of Austria and Germany.

BUS CONNECTIONS

The demand for the international bus connections increased in the consequence of increased travel and tourism following the political changes in Europe in 1989. The development of bus connections is also favoured by the European motorway network, which facilitates rapid transport to a great part of the European continent. The advantage of bus transport is the fact that it can serve the greatest number of destinations compared to other transport means. Another advantage of bus transport is its lower price compared to the railway or air transport. Operators of bus lines above all the long-distance ones also try to provide a reasonable comfort (air conditioning, video, refreshments) in competition with the railway transport. Position of bus terminals in the vicinity of town centres is the additional advantage.

Direct international bus lines connect Slovakia with 17 countries of Europe. The most important node of international bus transport is Bratislava with 347 bus connections a week to 16 countries. In difference from train connections where those with Austria prevail, the highest number of Bratislava's international bus connections is with the Czech Republic, particularly to its most important centres Brno (133) and Prague (96). Almost a third of international bus connections heads from Bratislava to Austria and above all to Vienna do (115). These bus lines also provide for connection of Bratislava with Vienna's airport in Schwechat. A comparatively good connection is that of Bratislava with Hungary (Budapest, Győr, Mosonmagyaróvár 21 times a week), Germany (München and Stuttgart 10, Frankfurt am Main and Ulm 9, Augsburg 8), Bulgaria (Sofia 15) and Switzerland (St.Gallen and Zürich 12, Basel, Bern, Geneva and Lausanne 8). There is least one connection a day with Great Britain (London 9), Italy (Udine and Venezia 8), Ukraine (Uzhorod 7) and France (Lille 5, Strasbourg 4). The absenting direct bus connection of Bratislava with Poland is interesting.

Estimating by the number of international connections, the second to the most important regional town is Trenčín (204 connections to 9 countries a week), but almost 9/10 of them head to the Czech Republic (Brno 139, Prague 103). Then the connections to Germany (Frankfurt am Main and Nürnberg 5), Austria (Vienna 6), Switzerland (St.Gallen and Zürich 5), Italy, Netherlands, Belgium and Great Britain follow.

Almost identical situation is that in international bus connections of the regional town Žilina (191 connections to 9 countries a week), with the prevailing connections to the Czech Republic (Brno 108, Prague 98, and Olomouc 57) and other to Germany (Düsseldorf, Frankfurt am Main, Nürnberg 4), Switzerland (St. Gallen and Zürich 5), Austria (Vienna), Netherlands, Italy, Belgium and Great Britain.

Košice follows Žilina as far as the number of international bus connection is concerned (155 connections a week), but Košice rank second by the number of countries it is connected with (15). Approximately $\frac{2}{3}$ of all connections head to the CR (Prague 93, Brno 90), followed by Ukraine, (13 to Uzhgorod), Germany (11), Italy (7) Switzerland (6), and Hungary, Netherlands, Great Britain (4 each).

Prešov is connected with 10 countries via 151 bus connections. The best bus connection of Prešov is that with the Czech Republic (85 % of all connections) particularly with Prague (90), Brno (79), and Olomouc (38). There is also a good connection with Germany, Switzerland, Italy and Netherlands.

Nitra ranks sixth in the international bus transport (133 connections to 10 countries) while it is the only means of direct connection of the town with other countries. Like in case of other towns, connections with the CR prevail (81 % of all connections) – Brno (100) and Prague (53). There is also a good connection with Germany, Ukraine, Austria, Italy, and Great Britain.

The last by one position in terms of number of international connections corresponds to Banská Bystrica (124 connections with seven countries). Apart from obvious prevalence of connections with the CR (90%), important bus connections of Banská Bystrica are with Germany and Austria. Trnava has the least number of direct international bus connections (only 70 a week to 10 countries). Connections with the CR prevail (77%), followed by those to Austria, Germany and Italy.

Connection with the Czech Republic, particularly Brno and Prague dominates in all bus connections of regional towns with foreign countries. Slovak commuters to work in the Czech

Table 2. Direct international bus connections of regional centres (average number of connections a week)

	Bratislava	Trnava	Trenčín	Nitra	Žilina	Banská Bystrica	Prešov	Košice
Austria	116.4	7.5	6.0	5.5	4.0	7.5	3.0	3.5
Belgium	6.3	1.0	3.3	1.0	2.0	2.3	3.3	2.3
Bulgaria	15.0	-	-	-	-	-	0.5	0.5
Czech Republic	155.0	54.0	181.0	108.0	173.0	112.0	129.0	102.0
Germany	18.0	6.5	9.3	7.5	7.0	8.8	8.3	11.8
France	12.8	1.0		1.0	-	-	-	1.0
Great Britain	9.3	2.0	2.0	4.0	2.0	2.0	2.0	4.0
Greece	2.0	-	-	-	-	-	-	-
Hungary	21.0	-	-	-	-	-	-	4.2
Croatia	2.0	0.8	0.8	-	0.8	-	-	0.3
Switzerland	12.0	2.0	5.0	2.0	5.0	-	5.0	6.0
Italy	9.2	5.0	4.0	5.0	3.0	2.0	5.0	7.0
Luxembourg	1.0	1.0	-	1.0	-	1.0	-	1.0
Netherlands	4.5	-	4.0	-	4.0	-	4.0	4.0
Poland	-	-	-	-	-	-	1.8	1.8
Ukraine	7.0	-	-	7.0	-	-	-	13.0
Serbia	2.0	-	-	-	-	-	-	-

Republic, Germany and UK use bus connections above all; commuters working in Slovakia use connections with Ukraine. Apart from that they also serve to tourists travelling to Italy, Croatia, France and UK (London). Slovakia is connected via bus lines with some places with important airports in Western Europe (Frankfurt am Main, Amsterdam, Munich). In case of some bus lines (to Sofia and Budapest) Bratislava represents the transiting point because they start from Prague.

AIR CONNECTIONS

The significance of air has increased recently in terms of international passenger transport. The principal advantage of air transport is its velocity which was also corresponded by higher prices in past. But low-cost airlines entered the market a few years ago and compete with low prices above all in form of special offers. Disadvantages of the air transport include the situation of airports on peripheries of cities what requires use of other transport means to reach the city centres. Air transport is highly depending on the existing transport infrastructure – international airports number of which is small compared to bus or railway stations. Air companies, can very quickly respond to changes in demand for the services with either cancelled or newly introduced connections.

Slovakia has six international airports in Bratislava, Košice, Žilina, Poprad, Piešťany and Sliač. Only Piešťany lacks a regular international connection. Only three of regional towns

have air connections with foreign countries.

Position of Bratislava is dominant in air transport having regular air connection with 28 cities in 16 countries, and 143 regular flights a week. The most intensive air connection of Bratislava is with Great Britain with 34 flights including 25 flights to London; 26 flights to Germany (19 flights to Munich a week); 26 flights to Prague in the Czech Republic follow. As far as other countries are concerned, there is an important air connection with Italy (14 to Milan and Rome) France (11 connections to Paris), Ireland (7 connections to Dublin) and Netherlands (7 connections to Amsterdam). During the summer season there is air connection with Greece (Athens and Thesaloniki), Croatia (Dubrovnik and Split), Bulgaria (Bourgas and Varna), with additional destinations in Italy (Catania and Naples), and Spain (Malaga and more flights to Barcelona). These connections serve above all to Slovak tourists. Overseas connections only comprise Amritsar in India, Tel Aviv in Israel and Kuwait. Regular flights to Amritsar (the spiritual and cultural centre of the Sikh Religion in the Indian state Punjab) are secured by the airlines owned by the British enterpriser of Indian origin. Indians living in Western Europe make use of this link while Bratislava is the transiting point. Flights to India are harmonized with flights from the Western Europe, above all from London, Birmingham, Milan and Köln. The regular connections with Moscow and Brussels were cancelled in 2007 although their reopening is considered again.

Košice has air connection only with Prague (26) and Vienna (11) and air connection to London and Dublin will be opened soon. Žilina is only connected with Prague (7 connections).

Air connections of Slovakia with Poland, Ukraine and Hungary do not exist. Above all connections of Bratislava with Poland and Ukraine would be desirable although these countries are not as attractive for Slovaks as to use the air transport for visiting them. Air connection with these countries is available from the Vienna airport. Connection of Bratislava with this airport is provided for by regular bus links.

BOAT TRANSPORT ON THE DANUBE RIVER

Water transport plays only a supplementing role in the international personal transport in Slovakia. The regular boat transport is seasonal with its peak in summer months and tourists almost exclusively use it. The only international connection is on the river Danube (Pan-European Transport Corridor No. VII) between Bratislava and Vienna and Bratislava and Budapest. Boat connections between Bratislava and Vienna provide two companies by hydrofoil and high-speed catamaran with as many as 31 connections a week in summer. The once-in-a-day line between Bratislava and Budapest operates from mid-April to October. There use to exist a stop in Bratislava of the boat operating between Passau and Budapest but it was cancelled and so was the regular link between Bratislava and the Austrian Hainburg mainly used for advantageous duty-free shopping before accession of Slovakia to the EU. It now only operates as the line for organized groups.

CONCLUSIONS

Regional centres in Slovakia are connected with 26 countries via four types of international public transport connections (train, bus, air and boat connections). International public trans-

port connections depend to large extent on existing transport infrastructure. Except for Bratislava, where the rail connections prevail, in other regional centres bus connections prevail. Nitra is connected with other countries only by bus transport. International air connections are possible mainly from the Bratislava airport (28 destination, 16 countries) and airports in regional centres Košice and Žilina. International boat connections in Slovakia exist only between Bratislava and Vienna, and Bratislava and Budapest and their function is only complementary especially for tourists.

Bratislava with 992 connections to other countries a week has a dominant position in the international public transport in Slovakia, which is caused by its size, function and geographical location. Bratislava has the strongest connection with Austria and its capital – Vienna (in average 61 connections daily), which is located in the 60 km distance from Bratislava.

Compared to other regional towns, Bratislava is best connected with 20 countries. Only from Bratislava is a possible public transport connection to six countries. Merely in case of three countries, other regional towns are in the best position. Position of Žilina is the best in connections to the Czech Republic and Poland and Košice is best for connections to Ukraine.

According to the intensity of international direct public transport connections, Žilina (359 connections a week), Košice (297), Trenčín (232), Prešov (158), Banská Bystrica (138) and Nitra (133) follow Bratislava. On the other side, Trnava (98) has the weakest position. The remaining regional centres are best connected with the Czech Republic and its largest centres Prague and Brno. The transport links with the Czech Republic service commuters to work and universities, and people who have social contacts with inhabitants of the Czech Republic (many of them are from the period of the common state before splitting in 1993). Within the international public transport, connections to Hungary, Germany, Poland and Great Britain also play an important role. Connections to Germany and UK serve also for the purpose of work migration.

Direct international transport connections reflect the wide spectrum of mutual relationships between Slovakia and other countries (economic, political, cultural). Position of individual regional centres also depends on population size of regional centres, quality of transport infrastructure and geographical location. All mentioned factors contribute to the best position of Bratislava. Žilina with its favourable location in the north-western part of Slovakia ranks second. As the international transport (bus) connections are mostly oriented to the Czech Republic and the EU countries situated west of Slovakia, position of Bratislava Trenčín, Žilina and Nitra lying on important transport routes leading from easterly areas of Slovakia is advantageous from the point of view of international public transport connections.

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**WHOSE IS ROSPUDA?
LOCAL, REGIONAL, NATIONAL, EU AND GLOBAL PERSPECTIVES
OF A CONFLICT BETWEEN ENVIRONMENT PROTECTION
AND INFRASTRUCTURE BUILDING IN AUGUSTÓW (POLAND)**

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Abstract. The conflict about building a ring road of Augustów (north-eastern Poland), badly needed for a dramatic increase of traffic of lorries between Baltic states and the rest of the UE, through the valley of Rospuda river, protected under the *Natura 2000* EU-sponsored scheme, is an example of diverging points of view, interests and legitimacy of the parties involved:

- 1) local inhabitants and democratically elected local government firmly supporting a project of building the road through the valley (the project, prepared after several years of studies, includes some measures to reduce its impact on the natural environment) and rejecting other proposals for their requiring more time to wait,
- 2) inhabitants of Podlaskie voivodship backing in a region-wide referendum the project (participation was rather low),
- 3) the central government which in 2007 firmly backed the project,
- 4) the European Commission opposing the project for its presupposed violation of EU regulations on natural environment protection (the EC demanded to stop building),
- 5) environment protection activists as self-appointed defenders of interests of humankind opposing the project. The conflict between the Polish government and the EC should be resolved by the European Court of Justice.

Key words: Rospuda river, Augustów (north-eastern Poland), conflict between environment protection and infrastructure building

Rospuda is a geographical name – name of a small river in north-eastern Poland. It became famous in Poland in 2007 for the conflict about the project of building a ring road through Rospuda valley to bypass the town of Augustów. This conflict highlights the problem of differ-

ent perspectives and interests of various actors, or would-be "owners of Rospuda", claiming the right to decide on the issue. The aim of this paper is just to present these perspectives and interests, without going into technical and legal details.

The Rospuda problem is one of side-effects of the political, social and economic transformations in Central and Eastern Europe after 1989–91. The breakdown of the Soviet Union in 1991, emergence of independent Lithuania, Latvia and Estonia, their growing economic exchanges with Poland and countries of the European Union (especially after May 1st 2004 when they, together with Poland and some other countries, joined the EU) led to a dramatic increase in traffic on the only road connecting them with Poland and the rest of the EU. This road, once a small local road, leads through the town of Augustów in north-eastern Poland, near the Polish-Lithuanian border. In order to present the change in the role of this border and of this road it is enough to mention that until the breakdown of the USSR there were no crossing point on the Polish-Lithuanian section of the Polish-Soviet border. The whole exchange of goods and persons between Poland and the three Baltic republics, otherwise rather modest and using overwhelmingly railway transport, bypassed this section, going mostly through the territory of the Byelorussian SSR. Also the transit from those republics to the Western Europe though Poland bypassed Augustów. Opening up of crossing points on the Polish-Lithuanian border in the 1990s and problems with crossing the Byelorussian border (Byelorussia-Polish and Byelorussian-Lithuanian) for vehicles from foreign countries made that the (almost) whole road transportation between Poland and the Baltic state used these crossing points and the road leading through Augustów.

In such a way, the growing traffic going through Augustów, especially of big lorries started to seriously affect living conditions of its inhabitants, to the extent that it became dangerous for lives of pedestrians and local car-drivers (many accidents caused by the lorries). The traffic was especially dangerous for school children having to cross the road in their way to school. Noise, air pollution and ground vibrations added to the problem.

To solve the problem, the idea of building a ring road of Augustów was launched. The problem of tracing the road was not easy given that the town is surrounded by ecologically valuable areas of the Rospuda valley (forest, moors with rich flora and fauna). It took years to select a project approved by local authorities, ministries in the central government in Warsaw and by the building company which had to build the road. According to this project the road had to cross the Rospuda valley. In order to reduce the negative impact of the road, it had to "jump over" a part of the valley with a high bridge and an area had to be re-forested as a compensation for cutting down of the forest for the road. At the beginning of 2007 building works started. The crucial point is that the area to be cut through by the road was covered by the EU-wide *Natura 2000* scheme.

The beginning of the works was protested by ecologists –voluntaries (e.g. Green Peace), mostly young people from outside the area, including from abroad. They came in and personally stopped the building (by climbing the trees, etc), and, more importantly, alarmed public opinion in Poland and abroad and, first of all, the European Union. The problem got high publicity in Poland and within the ecological movement world-wide. In several cities in Poland defenders of the natural environment organized demonstrations and happenings in protest against the building of the road through the Rospuda valley. In response, inhabitants of Augustów lead by the local government organized counter-demonstrations in Augustów and in the camp

of ecologists in the Rospuda valley. (Due to the presence of police the two camps were separated and only verbal expressions of anger of the two sides took place). It should be stressed that inhabitants of Augustów and its local government as well as local branches of all parties firmly back the project of building the road across Rospuda valley. The argument repeated by them is that humans are also a part of natural environment and should be protected, not only "frogs and birds".

Ecologists, not to be blamed for ignoring needs of the local population, or simply to gain time, presented an alternative proposal of the trace of the road – so-called "Chodorki variant" (after the name of a village in which the road should cross the river). According to this proposal the road should cross the river in an ecologically less valuable area, where the valley is much narrower. This project, which otherwise was not a professional project and had not taken into consideration technical, economic and legal aspects of the problem, required removal (demolishing) of some farm buildings and cutting through several farms. Owners of those farms and buildings warned that they would not agree, and organized another "anti-ecological" demonstration. It was clear that the alternative project would require more years for fulfillment, even when the owners of the farms would change their minds and agree to sell their property (expropriation, although legally possible, would be very hard to execute). After years (about ten years) of waiting for preparations and deliberations of the officially approved project neither local authorities nor local inhabitants were inclined to start a new round of preparation and rejected the proposal.

European Commission, in defence of the *Natura 2000* scheme, ordered to stop building works and the re-forestation. In this moment building works were carried out outside the area covered by the *Natura 2000* scheme. The central government tried to persuade the Commission to change its stance using both legal and practical arguments. According to the legal argument, the decision to build the road was taken before the accession of Poland into the EU and, consequently the EU has no legal power to stop the building works. The practical argument stressed importance of the ring road for the local inhabitants and for the smooth transport between the Baltic states and the rest of the EU.

In order to strengthen its position vis-à-vis the European Commission, the Polish central government in April organized a region-wide referendum in Podlaskie voivodship (region). It had to take place together with regional by-elections. The result of the referendum would not be binding. In such a way, however, the central government suggested that inhabitants of the region had a say in the issue. Although vast majority of those who took part in the referendum supported the official project, the participation was rather low (less than 30%) and the referendum hardly strengthened the position of the government. In Augustów the participation was very high and an overwhelming majority backed the official project.

The disagreement between the Polish government and the European Commission led to an open conflict. The then government argued that the ruling of the Commission violated national sovereignty of Poland and was dangerous for the programme of modernization of Poland because it would be easy now to stop any infrastructure project for ecological reasons. This conflict has to be decided upon by the European Court of Justice. Despite its militant declarations, the government ordered to stop works until the decision of the Court. For the time being (November 2007) the Court has not expressed its opinion and the building works in the protected area are suspended.

As can be seen from the above presentation, there are several "owners" of Rospuda, with different perspectives, values, interests and legitimacy:

- Local community of Augustów and its democratically elected local government. Their immediate and urgent interest is getting rid of the traffic from the town. They would accept any project, but the time factor makes that the only project that could be fulfilled in a reasonable time is the official project, therefore they support it. They use to say that their interests should have priorities over protection of "frogs and birds" and they, as those who are directly affected, have the moral and political right to decide. Representatives of the local self-government stress their democratic legitimacy to decide, in contrast – in their opinion – to those who have not such a democratic legitimacy, e.g. the "self-appointed" defenders of natural environment who live outside the area, or "clerks in Brussels." One of results of the conflict is the negative attitude of the local inhabitants towards the European Union. Until the outbreak of the conflict this town was highly "Euroenthusiastic".
- Inhabitants of Podlaskie voivodship. Their rights as "co-owners" of Rospuda result from the referendum organized by the central government. Those who were active enough to express their opinion supported inhabitants of Augustów.
- Poland represented by the central government. During the height of the crisis the government firmly supported the official project stressing both political rights of Poland to decide on what happens on its national territory and the needs to develop infrastructure threaten by protests of ecologists. According to the government, the measures aimed to reduce the negative impact of the official project on the natural environment are sufficient to accept this project, and the project itself is legal. The "defence of national sovereignty" in the conflict with the European Commission was in line with the general rhetoric of the then "Eurosceptical" government. The change of the government after the October 21th 2007 general election may change the attitude of the government.
- European Union represented by the European Commission. The EC strongly opposes the official project for two reasons: for its would-be illegality and for its negative impact on the environment, especially because protection of the natural environment is on the top of "European values". The EC rejects legal arguments of the Polish government. Interests of the local community and principles of local democracy and subsidiarity seem to be of lesser relevance for the EC. The EC also argues that the shape of the area protected by the *Natura 2000* scheme was determined by the Polish side and therefore its protection is obligation of Poland.
- Humankind represented by defenders of natural environment living outside the area. Their interest, according to their opinion, is protection of the natural environment of Rospuda valley in the name of long-term interests of humankind. According to them the official project threatens the natural environment and the alternative project is realistic. Interests of the local community of Augustów are of secondary importance because local inhabitants don't understand the value of natural environment, the need for its protection and are narrow-minded. Defending the right cause, according to the defenders of natural environment, gives them legitimacy to do so. The viewpoint represented by ecological activists is shared by a part of public opinion in Poland and influential media, especially those in opposition to the then government. For those media, the Rospuda issue was another evidence of the lack of professionalism of the government and of its inability or unwillingness to solve problems in relations with the EU.

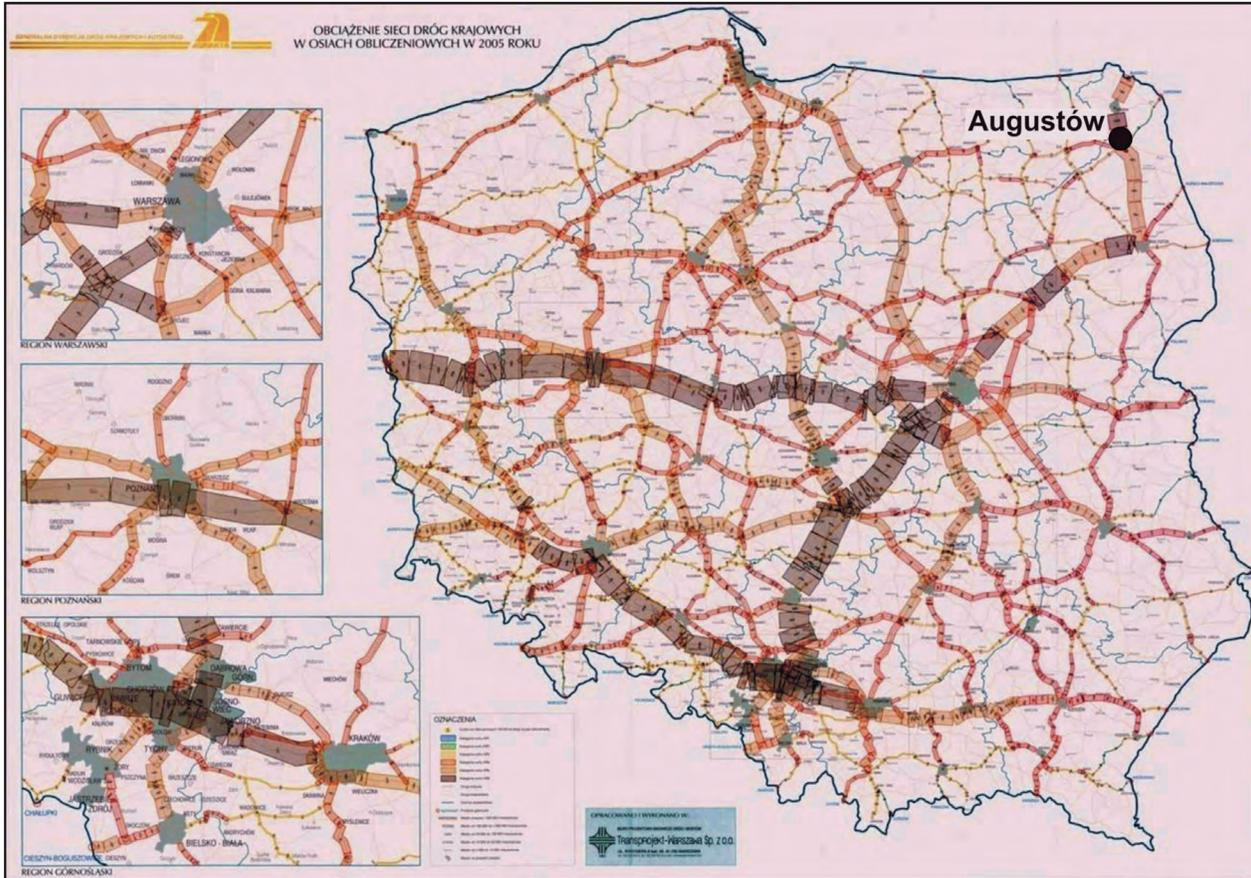


Figure 1. HGV (Heavy Good Vehicles) traffic in Poland (2005)
Source: Ruch drogowy 2005, Transprojekt-Warszawa.

As can be seen from the above discussion, the "Rospuda problem" illustrates the dilemma of to what extent a local community has the right to dispose of natural wealth that can be considered world's natural heritage, and vice versa, to what extent a larger community (as the European Union and ecological activists) may impose its values while ignoring their impact on local community and ignoring local democracy. A typical answer to such a dilemma is to try to find a compromise solution satisfying both sides, which, for instance, would imply additional costs (more expensive technologies saving natural environment) and additional time (to find a solution and to materialize it). In the case of the "Rospuda problem" the time factor is also at stake, so that it makes the problem even harder.

TOWARDS DEEPER COHESION OF BORDER AREAS

FREE ZONES ON THE EU BORDERS AS THE RESPONSE ON REDUCTION OF DAILY COMMUTING THROUGH THE SOUTHERN EU BORDER

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Abstract. We are following a short-term and long term changes of migration activities after the dissolution of Yugoslavia, from Slovenian perspectives. The current situation is marked by increasing mobility inside Enlarged Europe (EU 25) with positive net migration in Slovenia and very low population territorial mobility across the Southern border, which got the characteristics of Schengen border. The paper gives the forecast of daily commuting across the border and migrations of population on the border also after accession of Croatia to EU, and shows, how Free Zones contribute to the stable demographic development in the period between dissolution of Yugoslavia and expected Croatian accession to EU. Improved Lowry – like model with embedded parameters of waiting lines on the border crossings is used for forecasts of migrations and daily commuting.

Keywords: Labour migration, daily commuting, Global supply chain, Free Zone, Gravity model, Waiting lines, Schengen border

INTRODUCTION

One of contemporary dilemmas of spatial development in Europe is how to forecast the mobility as accurate as possible and how to find the tools, which create the intensity and structure of flows close to desired level as much as possible. The Schengen border crossings are moving from the Ex-European borders to the South-East. This changes influence the socio-economic positions of the regions along this border. For example, the contacts between Slovenian NUTS 3 regions and regions of Old EU as well as the contacts with Hungary are improved, because of the new investments in transportation networks (in Slovenia this is the case of investments in Corridor V and Corridor X) and shift of the previous state border crossings regimes to the South- East. The shift of Schengen border will additionally influence the growth of flows inside EU between member states.

New European member countries have been investing heavily in the Trans-European transportation networks (in Slovenia corridor V and X). Existing improvement and the further completion of this infrastructure will influence mobility and employment patterns in all regions involved. Some of highways, which are in reconstruction and rail connections are crossing the most distressed regions and may have a beneficial effect on the regional economies as it is forecasting in the paper.

Improved infrastructure could contribute to greater mobility and higher employment outside the region and may generate easier access for prospective employers. For example, current Slovenian co-operation with Austria, Italy and Hungary is intensified.



Figure 1. Trans-European Corridors (see: www.apiu.hr)

Vb: Rijeka-Karlovac-Zagreb-Varaždin– Budapest, Vc: Ploče–Sarajevo–Osijek–Budapest

X: Salzburg–Villach– Ljubljana–Zagreb– Belgrad–Skopje –Tessaloniki,

Xa: Graz–Maribor –Zagreb, VII Donau

The border with Croatia is becoming an outer (Schengen) border of EU. As in the regions of newly accessed European countries also on the other side of EU border the decline of traditional industries has been an important cause of socio-economic problems, which mainly cause the problems on the Southern side of this border. Many of more distressed regions have been traditionally rural and agricultural, with one or two prevailing industries as the major employer. Such a case is the Croatian region Karlovačka županija, where lot of workers lost

their jobs in Slovenia by canceling of the previous work-permit scheme that allowed semi-skilled, skilled and professional employment within Slovenia before Slovenian accession to EU. These work permits have been introduced after dissolution of SFR Yugoslavia.

One of the responses to this state of the art was in creating new jobs in the Free zones (FZ) on the south of EU border between Slovenia and Croatia. To establish a free zone the key defining issues are:

- Leveraging the location advantages of the immediate border and reconnecting the long established linkages of these municipalities with Slovenia as its physical and commercial integration within the wider European market gathers pace;
- Minimizing possible threats to the border economies by protracted EU/Croatia accession negotiations especially the tightening or in an extreme case the cancelling of the current work-permit scheme that allows semi-skilled, skilled and professional employment within Slovenia;
- Attracting environmentally-friendly, low impact industrial and service enterprises that recognize advantage in locating in a high amenity agricultural / tourist area utilizing also a mix of largely un-skilled and semi-skilled labour;
- Preparing an attractive investment environment using a mix of current and anticipated incentives including adequately zoned, and serviced industrial land, investor-friendly regulatory services especially, a well functioning customs inspectorate, as well as innovative linkages to the existing FZ concessionaire and its expansion initiatives.

Considering this “border-related” framework that will drive the economic development and local investment initiatives in border regions of Croatia on the border with Slovenia, supported by the currently well functioning public/private partnership, a possible “vision statement” for free zones there could be *“Free zones (FZ) are the centres for value-added manufacturing and services for the Free zones industrial community that enhances competitiveness of zone and non-zone tenants within an expanding supply-chain nodes of profitable SME located within the broad precision manufacturing clusters of NE Italy, Slovenia, SE Austria and NW Croatian regions”*.

The FZ on the Schengen border the “core business” is property development (real estate) that includes the current zone as well as other industrial, commercial and leisure related property investments in Croatia and beyond. The key business objective is to identify and attract long-term tenants that are integrated either, by long-term contract or equity participation within an established supply-chain of globally trading but regionally-based corporations.

The “Mission Statement” of the management of the FZs on the Schengen border of Croatia could be defined as: *“The mission of the FZ is the provision of industrial premises for rent the infrastructure in Free Zones that incorporates a services platform, which drives competitiveness of tenant operations within a defined cross border supply-chain of distributed manufacturing clusters in the Croatian Schengen border regions” (reduction of lead time in global supply chains and reduction of taxes to have the equal possibilities as they are available to activity cells inside EU)*.

The remaining objectives within this strategic plan are:

- first to define the contours and elements of the services platform of the FZs on the Schengen border, that are critical to attract and retain tenants engaged in supply-chain distributed manufacturing;
- second to identify, which services are provided directly by FZs operations, those that are

brokered for tenants in cooperation with local public / private stakeholders, and those, that are purchased by the tenants directly from private providers.

The paper gives the forecast of daily commuting across the border and migrations of population on the border also after accession of Croatia to EU and shows, how Free Zones contribute to the stable demographic development. Improved Lowry – like model with embedded parameters of waiting lines on the border is used for forecasts of migrations and daily commuting.

LABOR MIGRATIONS AND DAILY COMMUTING ACCROSS THE REGIONAL BORDERS

Labour migration is a means of achieving economic efficiency (appropriate skills) and equity (Chun 1996). Thus, migration has implications for policy makers, especially those concerned with the depressed areas. To adopt the best policy the mathematical methods supporting decisions on regional policy are useful. In developed countries, state and local governments seek to attract migration, because migrants increase employment and contribute to income equalization. Schengen border regime is reducing these possibilities for the countries outside EU. A study of migration may show us not only how these aims can be achieved, but also may highlight other policies needed for inducing growth. The enlargement of Europe can be recognized as one of the forms of transformation of approaches to globalization from multilateral collaboration to modern alliances which are present on national and regional levels and which influence increasing migrations. In this process Schengen border will be shifted several times also between Middle European and West Balkan Countries.

In 20 years, from 1991 till 2011, the regime of cross-borders between Croatia and Slovenia has been already and will be too changed several times: from (1) inner border of two republics of the same federal state SFRJ, through (2) the border between two independent states, which do not belong to EU, (3) the non Schengen border between EU member state (Slovenia) and the state, which in not EU member (Croatia), and will be (4) the Schengen border between EU member state (Slovenia) and the state which in not EU member (Croatia), from January 2008 and later (5) the Schengen border between EU member states (Slovenia) and (Croatia) and finally to (6) the Non-Schengen border between two EU member states. How these changes will influence changes in migrations and daily commuting which will influence also land use in border regions is one of concerns of Slovenian Spatial planning authorities but also the regional authorities in Croatia.

In our paper, extended Lowry-like model is presented to estimate available additional human resources due to increased daily migrations between regions in Enlarged Europe and expected new member country. The impact of Schengen border and other European regulations on interregional flows of gross migration and daily commuting could stop the flows, existing for centuries, like between Slovenian and Croatian NUTS 3 regions. This problem is considered and presented in numerical example of our paper.

The growth of regions relates closely to population growth, which is mostly a result of migration and commuting, which is becoming surrogate for migration, if the commuting is bringing higher social well-being than any migration (Anjomani 2002). It is well known, that migrations can also increase daily migrations if the worker found better spatial and social

standards far away of his existing job location. If the contacts between regions, because of improved transportation abilities and removed barriers – like the Schengen border is – are becoming less expensive and easier, the inhabitants often prefer commuting (Nijkamp 1987). Any study of migration and commuting flows makes better understanding of the growth of regions and the other factors causing this growth. To be more accurately prepared for the future growth of regions, which includes all kind of problems appearing when we have to create new opportunities for different sectors of the regional economies, the mathematical models help us to study different results applying decisions and their sequences as policies that could increase the growth. The simulation approach is especially important, because the investments in commercial buildings, residential houses and transport infrastructure (including different public utility networks) appear active with long range time delays.

Our study attempts to find the main factors of interregional migratory and commuting flows in Slovenia, especially from Croatia and to Croatian border regions. Better understanding of the pattern of migration and commuting will help to analyze the past policy and to support better decision making in the process of planning the investments in regions and in their interconnections (especially roads and border crossings). It will also help to evaluate the how the policies of free zones influences flows. However, the hypothesis have been proved in our previous papers (Bogataj M., Drobne S. 2005; Bogataj et al. 1995; Bogataj et al. 2004) that: (a) the time spending distances between regions are decreasing because of investments in transportation network; (b) daily mobility (commuting) and gross migrations on the renewed corridors are increasing and enabling better structuring of human resources according to their skills; (c) the time spending distance of cross-border flows is longer because of waiting lines on the Schengen borders when they are settled; (d) if there are no other political and legal limitations, the impact of waiting lines can be easily forecast and optimal border capacities can be predicted.

THE INTERREGIONAL GRAVITY MODEL

The main purpose of all Lowry-like models (Long 1966) is to forecast future changes in the allocation of population housing, employment and land uses in urban areas. These are basically demand-driven models in which the supply side of land is not considerably exposed to consideration. In this paper, the main question is the reallocation of human resources due to migrations and (daily) commuting under unconstrained possibilities of land use and commuting between the location of job and residential location, when taxes (free zone) are changing and accessibility is improved. The results of that kind of analysis enable us also to predict the future need for land use, which will be influenced because of enlargement of Europe and displacements of Schengen border, and to give some answer to other contemporary dilemmas of spatial development in European regions situated along the Schengen border.

In our previous investigations (Bogataj M., Drobne S. 2005; Bogataj et al. 1995; Bogataj et al. 2004), the model for study of regional interactions, especially of interregional migrations and commuting between the regions of New European Member Countries has been proposed. The use of modified Lowry-like model based on time spending distance functions with embedded waiting lines is suggested here.

THE GRAVITY MODEL OF INTERREGIONAL COMMUTING GROWTH

Slovenia has approximately $P=2MIO$ inhabitants. We denote with i the living and with j the destination (location of job) region ($i=1,2,\dots,12, j=1,2,\dots,12$). The number and structure of external commuters, persons in employment, between statistical regions were obtained from Census 2002 data. Here $\sum_i \sum_j DC_{i,j}^{REG} = DC^{REG} = 59819$ ($i \neq j$). From our previous papers (Bogataj et al. 1995; Bogataj and Drobne 2005; Bogataj et al. 2004) it follows that k_{DC}^{REG} as (daily) commuting coefficient for persons in employment (human resources) between statistical regions in Slovenia is 3% ($k_{DC}^{REG} = DC^{REG} / P = 0.030$), P_i is population in the region of origin, P_j is population in the region of destination, and P is the total population:

From the Census 2002 data we got, that commuting coefficients between settlements, municipalities and regions in Slovenia are:

$$k_{DC}^{REG} = DC^{REG} / P = 0.030 \tag{1a}$$

$$k_{DC}^{MUN} = DC^{MUN} / P = 0.140 \tag{1b}$$

$$k_{DC}^{SET} = DC^{SET} / P = 0.214 \tag{1c}$$

where $k_{DC}^{(i)}$ is commuting coefficient between statistical regions (*REG*), municipalities (*MUN*) or settlements (*SET*) in Slovenia in 2002 respectively. However, in this paper, where the inter-regional gravity model is studied, only commuting coefficient (1a) is considered.

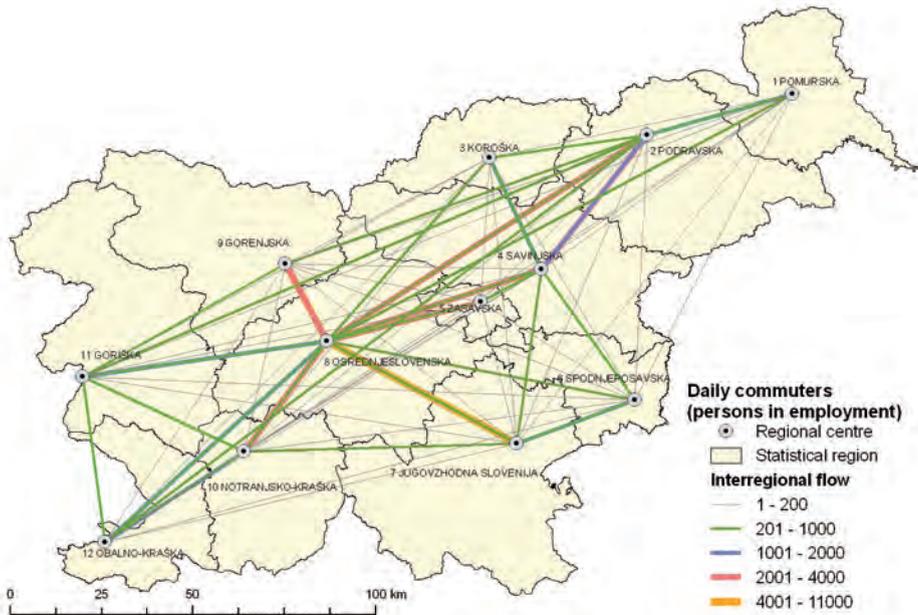


Figure 2. The intensity of daily commuting flows for the persons in employment in Slovenia in 2002 (Census 2002)

If we introduce the following coefficients:

$$K_{GDP,i} = \frac{GDP(i)}{GDP(SI)}, K_{GEAR,i} = \frac{GEAR(i)}{GEAR(SI)}, K_{EMP,i} = \frac{EMP(i)}{EMP(SI)}, K_{UEMP,i} = \frac{UEMP(i)}{UEMP(SI)}$$

where (i) denotes region of origin i or region of destination ($i=1,2,\dots,12, j=1,2,\dots,12$), GDP is Gross Domestic Product per capita in region, and in Slovenia (SI) respectively, $GEAR$

is an average gross earning per person in region, and in Slovenia (*SI*) respectively, *EMP* is the number of persons employed in region, and in Slovenia (*SI*) respectively, and *UEMP* is the level of registered unemployment in region or in the country For $d(\circ)$ as Euclidian distance (e), the shortest road distance (s), as well as for the time-spending distances (t)¹ we estimated the parameters of gravity model

In the regression analysis of interregional flows of commuters – persons in employment, who travel by car, only the time-spending distance and coefficient of average gross earning per person in region of destination, $K_{GEMR,i,j}^*$, were found that significantly influence the flows (P-values are less than 0.001). For interregional flows in Slovenia in 2002 the model is the following:

$$DC_{i,j}^* = \frac{2.13P_i^{0.95} P_j^{1.28}}{d(t)_{i,j}^{2.35}} K_{GEMR,i,j}^{5.48} \cdot 10^{-3} \quad (2)$$

We got the regression parameters for the interregional commuting flow equation, where R-square is 0.8 for 132 observations and where $d(t)$ is time-spending distance in minutes when travelling by car; see Table 1.

Table 1. Gravity model coefficients and summary output for Slovenian interregional commuting ($DC_{i,j}^*$) – persons in employment

Name of Coefficients	Value of Coefficients in (2)	t Stat	P-value	Lower 95%	Upper 95%
$Ln(a)$	-10.7571	-4.1376	0.0001	-15.9016	-5.6125
α_i	0.9536	7.6792	0.0000	0.7079	1.1993
α_j	1.2795	8.6041	0.0000	0.9852	1.5737
$-\beta$	-2.3548	-13.1222	0.0000	-2.7099	-1.9997
γ	5.4843	4.2297	0.0000	2.9185	8.0500

From Table 1 we can see that all P-values for all coefficients are very low. The regression model of interregional commuters is very stable. The other mentioned coefficients have P-value higher than 0.01.

THE GRAVITY MODEL OF INTERREGIONAL GROSS MIGRATION GROWTH

Population growth in the regions of Slovenia is mostly the result of interregional and international migrations (Bogataj and Drobne 2005). Between the two Censuses (1991 and 2002), the average yearly interregional gross migration in Slovenia was the following (Table 2). In the period of Censuses 1991 and 2002, there were 5613 gross migrations between Slovenian regions per year on average.

However, from our previous work mentioned above, we know that the expected commuting flow from region i to j $DC_{i,j}$, in respect to gross migration $GM_{i,j}$ and time-spending distance $d_{i,j}(t)$ between the origin i and destination j region, can be evaluated as follows:

$$DC_{i,j} = a + b \cdot GM_{i,j} + c \cdot d_{i,j}(t) = 249 + 7.6 \cdot GM_{i,j} - 128 \cdot d_{i,j}(t) \quad (3)$$

¹ To determine this time spending distances, before and also after investments in European corridors, OMNI-TRANS package has been used for distances evaluation between settlements, on the bases of the road network classification and GIS Slovenian road database.

Here the multiple R is 0.78 in 132 observations. A summary output of the regression statistics is given in Table 2.

Table 2. Average yearly interregional gross migrations in Slovenia between Censuses 1991–2002

	1	2	3	4	5	6	7	8	9	10	11	12
	Pomurska	Podravska	Koroška	Savinjska	Zasavska	Spodnjeposavska	JV Slovenija	Ostrednjeslovenska	Gorenjska	Notranjsko-Kraška	Goriška	Obalno-Kraška
1	Pomurska	149.25	8	20.25	1.25	2.5	6.25	87.25	11.5	6.25	6.25	11
2	Podravska	150.5	54.5	184.5	5	20	9.75	162.25	29.5	10.75	16	32.5
3	Koroška	9	66.75	64.75	1	2.75	3.5	49	9.5	3.25	1.25	6.25
4	Savinjska	24.25	182.25	66	39	53.5	14.5	190.75	25.5	7	10.5	32.25
5	Zasavska	2.25	10.5	0.5	48.25	18.25	4.25	81.75	7.5	1.5	2.75	8
6	Spodnjeposavska	3.5	16.25	2.5	55	11	73.5	78.5	8.25	4	4	7.5
7	JV Slovenija	0.75	14.75	1.5	15.5	66.75		181.25	17.75	5.75	4	13.25
8	Ostrednjeslovenska	62.25	110.25	21	139.5	72.25	240		529	156.75	70.5	152.5
9	Gorenjska	16.25	34.5	7.75	30.25	17.75	26.25	364		12.5	37.75	28
10	Notranjsko-Kraška	3	2.75	0.5	5.75	3.25	3.25	90	6.5		9.75	40.5
11	Goriška	3.25	15.25	2.25	13.5	4.5	5.5	116.75	35.5	13.25		50
12	Obalno-Kraška	10.25	22	3	18.5	10.25	10.25	119.25	21.5	33.25	41.5	

Table 3. Regression statistics of gross migration flows correlated by average yearly commuting flow and time-spending distances between Slovenian regions

Name of Coefficients	Value of Coefficients in (3)	t Stat	P-value	Lower 95%	Upper 95%
a	249	1.95	0.05	-4	501
b	7.6	11.26	6.5E-21	6.3	8.95
c	-128	-2.18	0.03	-244	-12

The gross migration $GM_{i,j}$ can also be evaluated as follows:

$$GM_{i,j} = a_1 + b_1 \cdot DC_{i,j} = 17.8 + 0.072 \cdot DC_{i,j} \quad (4)$$

Table 4. Regression statistics of daily commuting flow and average yearly gross migration flow

Name of Coefficients	Value of Coefficients in (4)	t Stat	P-value	Lower 95%	Upper 95%
a	17.8	4.09	7.39E-05	9.2	26.4
b	0.072	13.84	2.46E-27	0.061	0.082

Comparing P-values in Tables 3 and 4, we can conclude that model (4) is more stable than model (3). So, we used interregional gross migration model $GM_{i,j} = 17.8 + 0.072 \cdot DC_{i,j}$ in our applications.

INTERNATIONAL MIGRATIONS

From the results of the impact of differences in gross earnings on the international migrations, we can expect increasing flows in Slovenia after accession of less developed countries in EU. From less developed to more developed regions the flows are expected to be more intensive.

Soon after the extension of EU15 to EU25 has been anticipated and after the decision that restrictions on immigrations are going to be relaxed², the Central European and other Eastern and North - Eastern Accession Countries (Exempt Slovenia and Hungary) have got negative net migrations in 5 year period before accession. For Slovenian regions the net (international) migrations before accession have been the following, presented in Table 5 and Figure 3:

Table 5. Net migrations in Slovenian regions 1990–2004 in no. of persons

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
SLOVENIJA	2167	-3073	-387	1355	936	1415	697	286	-2105	2335	2615	2992	1865	3412	1902
Pomurska	44	66	128	51	22	76	28	-3	-22	-55	-124	-24	-31	-22	-39
Podravska	470	317	402	348	150	191	136	49	-40	158	375	618	160	217	250
Koroška	51	-93	-41	-77	-63	-21	-1	-3	-47	31	1	-36	-61	10	25
Savinjska	372	-136	-82	229	164	174	49	22	-389	249	339	301	378	500	194
Zasavska	85	-139	-30	24	5	33	10	8	-6	29	29	70	-1	42	-26
Spodnjeposavska	100	-118	50	137	70	81	32	14	20	93	210	100	152	270	77
Jugovzhodna Slovenija	113	-164	72	119	61	118	35	41	-93	113	70	42	127	196	148
Ostrednjeslovenska	0	-1729	-688	266	248	372	168	88	-759	774	1046	1281	493	1095	1020
Gorenjska	399	-311	-150	-32	-26	78	66	-10	-492	267	-32	176	27	113	-9
Notranjsko-kraška	97	-473	-76	103	80	71	53	46	-26	86	88	109	68	168	74
Goriška	93	-315	50	55	55	79	38	19	-224	306	260	30	227	329	110
Obalno-kraška	343	22	-22	132	170	163	83	15	-27	284	353	325	326	494	78

² See Sources: *Recent demographic developments in Europe 2004*; Council of Europe, Strasbourg 2004.

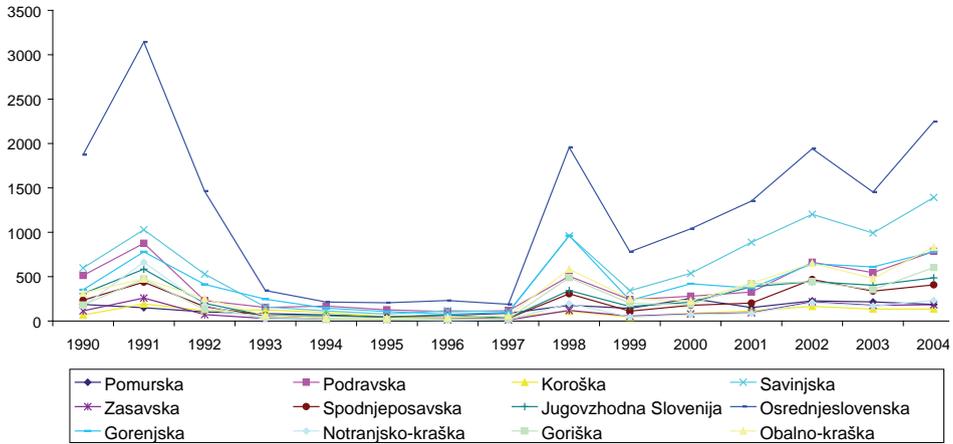


Figure 3. The yearly emigrations from Slovenian regions in the period 1990–2004 in number of persons

As we can see the number of emigrants from Slovenian regions is increasing after 1997, but number of immigrations have increased too, so that the net migration is positive like presented in Table 5. The question appears, what can we expect when there will not be the border restrictions and emigrational limitations on the Slovenian borders. Especially we would like to get the answer to the question what intensity of flows can we expect on the border between Slovenia and Croatia? The final question is how the Free zone reduction of taxes, which influence earnings compensates waiting lines on Schengen border when limitations of working permits will not be in power any more.

MODEL APPLICATION

For forecasting the daily migrations between Slovenian regions, model (2) can be extended to

$$DC_{i,j}^* = \frac{2.13 p_i^{0.95} p_j^{0.95} P_i^{1.28} P_j^{1.28}}{d^+(t)_{i,j}^{2.35}} K^{5.48}_{GEAR,i} \cdot 10^{-5} \tag{5}$$

where p_i is the ratio of the number of workers in i which have no problem to communicate with j (language understanding and similar problems) and p_j the ratio of employees who have no problem to employ the workers from i . The distance function $d(t)$ includes time distance on the road and time required on average in waiting lines on the border:

$$d^+(t)_{ij} = d(t)_{ij} + W_{ij} = d(t)_{ij} + \frac{1}{s(\mu - \lambda)} \tag{6}$$

where s, μ, λ are number of channels, frequency of services on the border and frequency of arrivals on the border between i and j respectively.

The economic indicators are derived on the bases of mean economic characteristics, which are belonging to total area in consideration and not only to Slovenia in total. In case when there are no political, language and legal limitations on the border between Slovenia and Croatia,

Table 6. Estimation of commuters from Croatian border regions to Slovenian regions (without legal restrictions and stopping on the border)

		HR-1	HR-22	HR-2	HR-4	HR-5	HR-8	HR-18	HR-20
	Together to Slovenian region								
	Together from Croatian region	5016	12 091	3427	2428	2574	5770	2676	1401
SI-1	Pomurska	54	130	58	17	193	13	7	218
SI-2	Podravska	641	1546	1253	203	968	145	72	431
SI-3	Koroška	176	60	27	9	22	14	7	12
SI-4	Savinjska	417	1006	729	139	344	148	69	167
SI-5	Zasavska	49	119	27	16	19	20	9	10
SI-6	Spodnjeposavska	823	1983	120	158	42	20	9	20
SI-7	JV Slovenija	542	1306	125	506	70	111	44	37
SI-8	Osrednjeslovenska	2164	5215	952	1215	795	4205	1563	437
SI-9	Gorenjska	172	415	81	95	70	317	128	39
SI-10	Notranjsko-Kraška	23	54	9	12	8	154	45	5
SI-11	Goriška	56	134	24	30	23	207	111	13
SI-12	Obalno-Kraška	51	122	22	27	21	415	615	12

for population on the border with similar preference on both sides of the border crossings, as they are, using model (2) and (4), estimated numbers of commuters as well as gross migrants' flows between Slovenia and Croatian border regions can be calculated. Tables 6, 7, 8 and 9 show estimated number of commuting and gross migrants' flows between studied regions.

From Tables 6, 7, 8 and 9, we can find that there are more commuters as well as gross migrants, who travel/migrate from Croatia to Slovenia than in the opposite direction in majority of the regions. But Mesto (Town) Zagreb is the unit which attracts the inhabitants of Slovenian regions the most.

The following are the Slovenian regions, where expected yearly net migration with Mesto Zagreb would be negative: Pomurska (-150), Koroška (-79), Savinjska (-117), Zasavska (-99),

Table 7. Estimation of commuters from Slovenian regions to Croatian border regions at regime 6 (without legal restrictions and stopping on the border)

			SI-1	SI-2	SI-3	SI-4	SI-5	SI-6	SI-7	SI-8	SI-9	SI-10	SI-11	SI-12
		Together to Croatian region	Pomurska	Podravska	Koroška	Savinjska	Zasavska	Spodnjeposavska	JV Slovenija	Osrednjeslovenska	Gorenjska	Notranjsko-Kraška	Notranjsko-Kraška	Primorska
	Together from Slovenian region	12 759	377	1733	173	1375	257	4249	1659	1695	512	202	212	315
HR-1	Zagrebačka	624	23	117	12	94	18	324	122	102	31	8	10	8
HR-22	Mesto Zagreb	7468	280	1399	139	1123	218	3879	1462	1216	369	99	125	101
HR-2	Krapinsko- zagorska	53	9	77	4	56	3	16	10	15	5	1	2	1
HR-4	Karlovačka	34	1	5	1	4	1	8	14	7	2	1	1	1
HR-5	Varaždinska	39	32	68	4	30	3	6	6	14	5	1	2	1
HR-8	Primorsko-goranska	596	7	34	8	43	10	10	32	256	74	73	50	90
HR-18	Istarska	276	3	14	3	17	4	4	11	80	25	18	23	112
HR-20	Međimurje	12	22	18	1	9	1	2	2	5	2	0	1	0

Table 8. Estimation of gross migrants from Croatian border regions to Slovenian regions at regime 6 (without legal restrictions and stopping on the border)

		HR-1	HR-22	HR-2	HR-4	HR-5	HR-8	HR-18	HR-20
	Together to Slovenian region	Zagrebačka	Mesto Zagreb	Krapinsko-Zagorska	Karlovacka	Varaždinska	Primorsko-goranska	Istarska	Medimurje
	Together from Croatian region	4256	1084	460	388	399	629	406	315
SI-1	Pomurska	22	27	22	19	32	19	18	34
SI-2	Podravska	64	129	108	32	87	28	23	49
SI-3	Koroška	20	22	20	18	19	19	18	19
SI-4	Savinjska	48	90	70	28	43	28	23	30
SI-5	Zasavska	21	26	20	19	19	19	18	19
SI-6	Spodnjeposavska	77	161	26	29	21	19	18	19
SI-7	JV Slovenija	57	112	27	54	23	26	21	20
SI-8	Osrednjeslovenska	174	393	86	105	75	321	130	49
SI-9	Gorenjska	30	48	24	25	23	41	27	21
SI-10	Notranjsko-Kraška	165	22	18	19	18	29	21	18
SI-11	Goriška	22	27	20	20	19	33	26	19
SI-12	Obalno-Kraška	21	27	19	20	19	48	62	19

Spodnjeposavska (-1896) JV Slovenija (-156), and Notranjsko-Kraška (-45) in case of no stops on the border. The stops on the border would reduce the flows substantially. For the Gross migrations the results are nearly proportional.

Let us suppose now that the impact of waiting lines on the border is 15-minutes delay: there are 15-minutes stopping on the border. In that case, the predicted number of commuters and gross migrants between analyzed regions is changed (see Tables 10, 11, 12 and 13).

From Tables 10, 11, 12 and 13, we can see that 15-minutes stopping on the border leads to 32% decrease of commuters' flow in direction from Croatia to Slovenia and 40% decrease in the opposite direction. Similarly, 15-minutes stopping on the border leads to 19% decrease of gross migrants from Croatia to Slovenia and 14% decrease in the opposite direction – if there are no legal restrictions about migrations.

Table 9. Estimation of gross migrants from Slovenian regions to Croatian border regions at regime 6 (without legal restrictions and stopping on the border)

			SI-1	SI-2	SI-3	SI-4	SI-5	SI-6	SI-7	SI-8	SI-9	SI-10	SI-11	SI-12
		Together to Croatian region	Pomurska	Podravska	Koroška	Savinjska	Zasavska	Spodnjeposavska	JV Slovenija	Osrednjeslovenska	Gorenjska	Notranjsko-Kraška	Notranjsko-Kraška	Primorska
	Together from Slovenian region	2627	170	267	155	241	161	448	262	264	179	157	158	165
HR-1	Zagrebačka	276	19	26	19	25	19	41	27	25	20	18	19	18
HR-22	Mesto Zagreb	963	38	119	28	99	33	297	123	105	44	25	27	25
HR-2	Krapinsko- zagorska	228	18	23	18	22	18	19	18	19	18	18	18	18
HR-4	Karlovačka	217	18	18	18	18	18	18	19	18	18	18	18	18
HR-5	Varaždinska	226	20	23	18	20	18	18	18	19	18	18	18	18
HR-8	Primorsko-goranska	263	18	20	18	21	18	19	20	36	23	23	21	24
HR-18	Istarska	236	18	19	18	19	18	18	19	24	20	19	19	26
HR-20	Međimurje	218	19	19	18	18	18	18	18	18	18	18	18	18

Table 10. Estimation of commuters from Croatian border regions to Slovenian regions at regime 5 and existing capacities on border crossings (without legal restrictions and with 15-minutes stopping on the border)

		Together to Slovenian region	Change because of stopping	HR-1 Zagrebačka	HR-22 Mesto Zagreb	HR-2 Krapinsko-Zagorska	HR-4 Karlovačka	HR-5 Varaždinska	HR-8 Primorsko-goranska	HR-18 Istarska	HR-20 Medimurje
	Together from Croatian region	23 900		3362	8104	2141	1657	1767	4000	1892	976
	Change because of stopping		-32%	-33%	-33%	-38%	-32%	-31%	-31%	-29%	-30%
SI-1	Pomurska	436	-37%	41	99	40	14	112	11	6	112
SI-2	Podravska	3390	-36%	448	1080	675	150	581	119	60	278
SI-3	Koroška	136	-23%	20	47	19	7	16	11	6	9
SI-4	Savinjska	2026	-33%	293	705	406	102	231	117	56	117
SI-5	Zasavska	193	-28%	35	83	18	12	14	16	7	8
SI-6	Spodnjeposavska	1351	-57%	333	802	66	82	29	16	7	15
SI-7	JV Slovenija	1681	-39%	330	795	86	267	53	85	35	29
SI-8	Osrednjeslovenska	12196	-26%	1625	3917	722	895	629	2891	1165	352
SI-9	Gorenjska	1008	-23%	134	322	63	72	57	230	98	32
SI-10	Notranjsko-Kraška	208	-33%	18	42	7	9	7	90	30	4
SI-11	Goriška	460	-23%	46	110	20	24	19	148	82	11
SI-12	Obalno-Kraška	816	-37%	42	101	18	22	18	266	339	10

Table 11. Estimation of commuters from Slovenian regions to Croatian border regions at regime 5 and existing capacities on border crossings (without legal restrictions and with 15-minutes stopping on the border)

				SI-1	SI-2	SI-3	SI-4	SI-5	SI-6	SI-7	SI-8	SI-9	SI-10	SI-11	SI-12
		Together to Croatian region		Pomurska	Podravska	Koroška	Savinjska	Zasavska	Spodnjeposavska	JV Slovenija	Osrednjeslovenska	Gorenjska	Notranjsko-Kraška	Notranjsko-Kraška	Primorska
	Together from Slovenian region	7671		277	1196	135	960	181	1730	1019	1257	394	141	167	213
	Change because of stopping		-40%	-27%	-31%	-22%	-30%	-29%	-59%	-39%	-26%	-23%	-30%	-21%	-32%
HR-1	Zagrebačka	340	-45%	18	82	9	66	13	131	74	76	24	6	9	7
HR-22	Mesto Zagreb	4074	-45%	213	977	109	787	153	1569	890	913	287	77	102	83
HR-2	Krapinsko-zagorska	36	-31%	6	42	3	31	2	9	7	12	4	1	1	1
HR-4	Karlovačka	20	-40%	1	3	0	3	1	4	8	5	2	0	1	0
HR-5	Varaždinska	30	-22%	19	41	3	20	2	4	5	11	4	1	1	1
HR-8	Primorsko-goranska	407	-32%	6	28	7	34	7	8	25	176	53	43	36	58
HR-18	Istarska	184	-33%	3	12	3	14	3	3	9	60	19	12	17	62
HR-20	Međimurje	10	-21%	11	12	1	6	1	1	1	4	1	0	0	0

Table 12. Estimation of gross migrants from Croatian border regions to Slovenian regions at regime 5 and existing capacities on border crossings (without legal restrictions and with 15-minutes stopping on the border)

		Together to Slovenian region	Decrease because of stopping	HR-1 Zagrebačka	HR-22 Mesto Zagreb	HR-2 Krapinsko-Zagorska	HR-4 Karlovačka	HR-5 Varaždinska	HR-8 Primorsko-Goranska	HR-18 Istarska	HR-20 Medimurje
	Together from Croatian region	3430		456	797	368	333	341	502	350	284
	Decrease because of stopping		-19%	-21%	-26%	-20%	-14%	-15%	-20%	-14%	-10%
SI-1	Pomurska	174	-10%	21	25	21	19	26	19	18	26
SI-2	Podravska	387	-26%	50	96	66	29	60	26	22	38
SI-3	Koroška	152	-2%	19	21	19	18	19	19	18	18
SI-4	Savinjska	288	-20%	39	69	47	25	34	26	22	26
SI-5	Zasavska	156	-3%	20	24	19	19	19	19	18	18
SI-6	Spodnjeposavska	240	-35%	42	76	23	24	20	19	18	19
SI-7	JV Slovenija	263	-22%	42	75	24	37	22	24	20	20
SI-8	Osrednjeslovenska	1020	-23%	135	300	70	82	63	226	102	43
SI-9	Gorenjska	215	-9%	27	41	22	23	22	34	25	20
SI-10	Notranjsko-Kraška	157	-4%	19	21	18	18	18	24	20	18
SI-11	Goriška	176	-5%	21	26	19	20	19	28	24	19
SI-12	Obalno-Kraška	201	-14%	21	25	19	19	19	37	42	19

Table 13. Estimation of gross migrants from Slovenian regions to Croatian border regions at regime 5 and existing capacities on border crossings (without legal restrictions and with 15-minutes stopping on the border)

				SI-1	SI-2	SI-3	SI-4	SI-5	SI-6	SI-7	SI-8	SI-9	SI-10	SI-11	SI-12
		Together to Croatian region		Pomurska	Podravska	Koroška	Savinjska	Zasavska	Spodnjeposavska	JV Slovenija	Osrednjeslovenska	Gorenjska	Notranjsko-Kraška	Notranjsko-Kraška	Primorska
	Together from Slovenia	2261		162	229	152	212	155	267	216	233	171	153	154	158
	Change because of stopping	-336	-14%	-4%	-14%	-2%	-12%	-3%	-40%	-18%	-12%	-5%	-3%	-2%	-4%
HR-1	Zagrebačka	251	-9%	19	24	18	23	19	27	23	23	20	18	18	18
HR-22	Mesto Zagreb	657	-32%	33	88	26	74	29	131	82	84	38	23	25	24
HR-2	Krapinsko-zagorska	222	-3%	18	21	18	20	18	18	18	19	18	18	18	18
HR-4	Karlovačka	216	-1%	18	18	18	18	18	18	18	18	18	18	18	18
HR-5	Varaždinska	222	-2%	19	21	18	19	18	18	18	19	18	18	18	18
HR-8	Primorsko-goranska	248	-6%	18	20	18	20	18	18	20	30	22	21	20	22
HR-18	Istarska	229	-3%	18	19	18	19	18	18	18	22	19	19	19	22
HR-20	Međimurje	216	-1%	19	19	18	18	18	18	18	18	18	18	18	18

In case that there is no new investments in border crossing, when there would be 15 min of expected stopping on the border, and no other restrictions for movement of human resources across the border would be valid, the flow from Slovenia to border regions of Croatia would be reduced for 14% and the flows from Croatia to Slovenia for 19% according to the case of free movement without stopping. Today, when Slovenia is member of EU and Croatia not, the other legal restrictions are reducing this movements nearly to zero. The tables above help us to prepare the suitable policies for the time when we all shall be in EU, while: for a certain time the Schengen border regime between Slovenia and Croatia will still reduce the flows and also for later when the flows between this two states will be without restrictions.

CONCLUSIONS

Slovenia has to meet the requirements for entry into the Schengen area by the end of this year. Many crossing points on the country's border with Croatia, including bridges and roads, are to be shut down till the end of this year. At the end of the campaign, conducted by Slovenia's public administration ministry, 60 crossing points will remain operational along the 670 km border between the two countries, when this new member state will start to join the Schengen open – border agreement in 2008. It is confirmed to open possibilities for more intensive movement of human resources in Europe, while across the "Schengen border" the flows between regions will still be exposed to many restrictions. The structure and number of workers of labor migration and commuting will be restricted and the procedures on border crossings will be changing according to the status of border which will create waiting lines. According to Lowry – like models with additionally embedded waiting line formulas and recent statistics the contacts between the regions inside the EU25, daily commuting and migrations will be additionally increased because of Schengen agreement, improved transportation corridors and cheap flights between distant regions.

In the member states like Slovenia is where Schengen regime will be adopted in few days on the border with Croatia, and later changed stepwise so, that in 20 years from 1991 we will have several changes of border status, the intensive daily migrations and gross migrations will be even more in decline as it was declining in last 15 years, though our parents and grand parents used to commute very intensively through this border in the last millennium, till today. In 20 years from 1991 we already had or we will have the following statuses of the Slovenian–Croatian border:

- inner border of two republics of the same federal state SFRJ, with no restrictions of migrations and daily commuting,
- the border between two independent states which do not belong to EU, with some restrictions of migrations and daily commuting,
- the non Schengen border between EU member state (Slovenia) and the state, which is not EU member (Croatia) with additional EU restrictions,
- the Schengen border between EU member state (Slovenia) and the state which in not EU member (Croatia),
- the Schengen border between two EU member states (Slovenia) and (Croatia) with no other restrictions except long waiting lines on the border,

- the border under Schengen open – border agreement with no restrictions.

According to the history and expecting successful accession of Croatia to EU we can calculate what will be the intensity of flows between border regions after Croatian accession to EU using Lowry – like model with embedded waiting line methodology. It can help us to estimate the need for land in Slovenian and Croatian settlements for migrants, the requirements for improved roads and capacity of border crossings.

In future, if the Schengen policy will be relaxed, we can expect intensive daily commuting and migration from Slovenian regions to Mesto Zagreb, while the commuting to the other Croatian border regions and migration there will be lower than inflows to Slovenia from other Croatian border regions. The improved economy in Croatia can make these flows more symmetrical. Especially tax policy in Free Zones which increase net earnings for $p\%$ of gross earnings can attract $(1+p)^{5,48}$ more commuters. The investments in more channels on the border crossings would reduce the waiting lines and therefore induce the flows across the border also after accession of Croatia to EU, if Schengen border, which causes increased service time, would not be removed at the same time, or if number of channels would not be increased on the border crossings (status 5). Using model (2)-(4), we can find the optimal investments in increased number of channels on the border crossings and using this approach we can also evaluate some projects of investments in the roads belonging to the third direction of European corridors in Slovenia, which is to be constructed in next three years.

In Free Zones the reduced taxes could compensate lead time costs in a supply chain and additionally enable to increase the gross earnings for 5–15%. According to (2) these advantages can attract daily migrations into distressed region for approximately

$$DC_{i,j}^{NEW} / DC_{i,j}^{OLD} = \frac{d^+(t)_{i,j,OLD}^{2,35}}{d^+(t)_{i,j,NEW}^{2,35}} K_{GEAR,j,NEW}^{5,48} \cdot K_{GEAR,j,OLD}^{-5,48} \quad (7)$$

It means the following: if there is no changed waiting time on the border crossing, we get in average 70% increased flow of available human resources at 10% increased earnings of workers ($1,15^{5,48}=1,7$). The influence is as strong as the influence of 15 minutes decreased waiting time on the border crossings for the commuters who after that travel 60 min from home to the Free Zone, where their job is located. On the other worlds it compensates 15 minutes of additional waiting time for such a commuters ($1,25^{2,35}=1,7$).

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THE IMPORTANCE OF THE OPERATIONAL DIMENSION IN CROSS-BORDER COOPERATION INITIATIVES: ITALY LOOKS SOUTH-EAST

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Abstract. International Cooperation represents one of the main pillar of European development policy. Neighbouring countries engaged in the development of cross-border regions undertake institutional engineering operations to set up the necessary procedures to run Cooperation Programmes. Hence, beside their spatial impact, INTERREG programmes represent institution-building workshops for the articulation of management structures compatible with the different governance arrangements of involved Member States. Building on this assumption, the paper presents an operational analysis of the INTERREG IIIA Programmes involving Italy and non-EU15 nations (Slovenia, Balkans, Albania, Malta), and sheds some light on the difficult process behind the institution of cross-border levels of governance.

Key words: INTERREG IIIA, Territorial Cooperation, European Spatial Planning, Community Initiative Programmes, Governance, Institutional Structure, Procedural Structure, Programme Management

INTRODUCTION: TERRITORIAL COOPERATION IN THE FRAMEWORK OF EUROPEAN SPATIAL DEVELOPMENT POLICY

In the ever-enlarging Europe that reached 27 members in the beginning of 2007, the importance of European Spatial Development Policy is growing proportionally to the increase of the economic, social and territorial disparities. In this sense, spatial planning at EU level is not a new subject, as since at least 20 years it has been possible to witness the development of a substantial body of European Union policy making focused on spatial objectives. The issue of spatial disparities accompanied the development of the EU throughout its history, although it has not always been expressed explicitly, or in the vocabulary of spatial policy (Williams 1996). The resurgence of interest in national and supranational spatial planning, reflected in the preparation of several spatial planning studies of Europe as a whole, can be considered partly a response to economic integration, and the single market, the growing

interest on the improvement of trans-national transport networks, and the recognition of the importance of a growing spatial coherence of different sectoral policies, as it was already recognised at the time of the Single European Act in 1987 (Scott 1993).

The publication of the Green Book on the Urban Environment (CEC 1990), and the studies Europe 2000 and Europe 2000+ (CEC 1991; CEC 1994), are only few of the several steps that indicate how European Spatial Planning has been a field in rapid evolution, and its “proudest achievement” (Faludi 2001), i.e. the redaction and publication of the European Spatial Development Perspective¹ (ESDP. CEC 1999), has been the natural follow up of the described steps. Nevertheless, no evident technically and institutionally shared definition of spatial planning at the European level exists yet, the uncertainty ruling the debate being strictly connected to the fact that the Communitarian Treaties includes no references to spatial planning, formally disempowering the European Commission to make proposals of legislation in this concern.

In the beginning of the new century, the affirmation of the territorial cohesion aim in many EU official documents (among others: CEC 2003; CEC 2004), and the inclusion of the concept in the Treaty establishing a Constitution for Europe², seemed to arrive just on time to eventually legitimate territorial actions at the European level. Whereas the Treaty has undergone through several turbulences, and its ratification eventually abandoned in June 2007, territorial cohesion continues to be a hardly disagreeable institutional reference (Janin Rivolin 2005), as proved by its final recognition as one of the three principles that guide the Structural Funds distribution for the programming period 2007–2013 (under the label Convergence).

Within the framework of a European Spatial Development Policy focused to achieve territorial cohesion, the new programming period introduces the objective of European Territorial Cooperation that, although being a relatively new term, to the experts may appear as a new title for a well-known tale. For some fifteen years, consensus have been growing around Territorial Cooperation among Member States (Graute 2006), so much that it became one of the main pillar of European regional development policies. Indeed, what is included in the Objective 3 of the current Structural Funds expenditure policy is very close to what has gone until 2006 under the Community Initiative Programme (CIP) INTERREG (introduced as soon as 1990, right after the 1988 Structural Funds reform). Hence, although a complex political debate eventually led to substantial cuts in the related budget, the importance of International Cooperation in the EU scenario is undeniable.

International cooperation is based on specific institutional/operational arrangements that have to be compatible with the different layers of governance involved in the management of the programmes in the different Member States. The present contribu-

¹ Check Faludi and Waterout (2002) for a detailed description of the complex technical and political process that started in 1989 in Nantes and continued step-by-step until the approval of the final version of the document in Potsdam in 1999.

² Signed by the 25 EU Heads of State and Government in Rome on 29 October 2004, the Constitution states that the Union “shall promote economic, social and territorial cohesion, and solidarity among Member States” (Art. I-3). Furthermore, economic, social and territorial cohesion figures in Art. I-14, defining the shared competences between the Union and the Member States.

tion starts from the assumption that the “operational quest” behind the assemblage of efficient management and procedural apparatuses, far from being a marginal issue, constitutes an important precondition for the effective territorial impact of the programmes, and represents a source of operational innovation in the EU framework of multilevel governance.

Furthermore, whereas Territorial Cooperation inside the EU15 counts on longer tradition and easier conditions in terms of uniformity of rules and procedures, Cross-border Initiatives involving New Member States and/or Third Countries are often characterized by several structural and operational threats. Believing that the exploration of the Territorial Cooperation Programmes involving New Member States and Third Countries constitutes a further step towards integration and mutual learning in the ever-enlarging European scenario, the paper presents a comparative analysis of the INTERREG IIIA Programmes that involved Italian regions and nations not belonging to the EU15, focusing on their different operational frameworks.

After a brief overview of the evolution of Territorial Cooperation in Europe and a description of the challenges characterising its operational dimension, the second part of the text focuses on the peculiar management and procedural arrangements of four INTERREG III A Programmes (Italy-Slovenia, Italy-Adriatic, Italy-Albania, Italia-Malta). The conclusive section explores lights and shadows of Italian South-Eastern cooperation, shedding some light on the difficulties standing behind the institution and the functioning of cross-border levels of governance.

A BRIEF HISTORY OF EUROPEAN TERRITORIAL COOPERATION

Cross-border co-operation has a long tradition in Europe. Back in the Sixties, border regions were already bringing their specific problems to the attention of European and national governments and searching together for solutions. These regions were facing fundamental disadvantages caused by their peripheral location and by administrative, legal, linguistic and infrastructural barriers. Parallel to these initiatives, the efforts to achieve the open internal market, concretized in the Treaty of Maastricht (1992), formally dismantled internal administrative borders within the EU, theoretically allowing the free movement of goods, people services and capital.

As a concrete contribution to such a process, in 1990 the European Commission launched the INTERREG Initiative, for the first time introducing a cross-border dimension to the Structural Funds as a tangible expression of the objective of European integration. The initiative was both expanded and diversified for the 1994–99 period, embracing three different types of multinational programmes: Strand A focused on cross-border cooperation and extended the activities of INTERREG I, Strand B involved the completion of existing energy networks and Strand C (introduced in 1996) addressed cooperation in regional and spatial planning, building on the increased interest in this field in the context of the ESDP. The introduction of Phare Cross-border Cooperation (CBC) in 1994 and Tacis CBC in 1996 also offered scope for external integration efforts, with INTERREG IIA and Tacis or Phare CBC programmes attempting to mirror each other

across the two sides of relevant borders³.

Table 1. Scope and numbers of INTERREG I, II and III programmes

Theme	INTERREG I 1990–1993	INTERREG II 1994–1999	INTERREG III 2000–2006
Total	31 Programs	79 Programs	72 Programs
Cross border cooperation	INTERREG I 31 Programs (4 maritime)	INTERREG IIA 59 programs (16 maritime – 31 internal border, 28 external border)	INTERREG IIIA 53 Programs (14 maritime – 24 internal border, 29 external border)
Transnational cooperation	n/a	INTERREG IIC 13 programs focused on regional and spatial planning	INTERREG IIIB 13 cooperation areas
Interregional cooperation	n/a	n/a	INTERREG IIIC 4 PanEuropean Programmes
Completion of Energy network	n/a	INTERREG IIB 3 Programs Continuation of the Regen Community Initiative	n/a

Source: own elaboration.

On 28 April 2000, the Commission Guidelines for the INTERREG III Programme 2000–06 were approved. The principal aim of the new Programme was “to encourage harmonious and balanced development of the European territory” (CEC 2000), overcoming internal borders and barriers between member states and reducing the isolation of peripheral regions. This was to be achieved through the promotion of cooperation projects between EU countries, Accession countries, Mediterranean countries of North Africa involved in the programme MEDA⁴, and other non-EU countries. In its third phase, INTERREG embraced many themes of the past programming period (see table1) and continued to be the largest Community Initiative, but received significantly more resources⁵ divided into three strands⁶:

³ In 1994 the European Commission approved a new regulation concerning the implementation of cooperation programmes between Central and Eastern European Countries (CEECs) and Member States. The main goal was to facilitate the EU accession of CEECs to promote cooperation. In this framework, Phare CBC was introduced in 1994 to mirror INTERREG in the border regions of Phare beneficiary Countries with the EU Member States. In 1998 it was extended to border regions between candidate countries. With a similar process, specific regulation were prepared in order to make INTERREG programmes compatible also with Tacis (1996), MEDA and Cards programmes.

⁴ Mediterranean Development Agreement to promote Euro-Mediterranean partnership and to create a free trade area, based on the results of a Conference held in Barcelona in 1995.

⁵ The INTERREG III budget amounts to EUR 4,875 million; compared to the previous INTERREG II programme for 1994–1999, for which the budget was 3,519 million Ecu, an increase of 28%.

⁶ Two additional related programmes were operated under Article 53 of the INTERREG guidelines:

- European Spatial Planning Observation Network (ESPON), financed jointly by the European Union and the fifteen Member States, as well as other neighbouring states, a cooperation network involving national spatial planning institutes and focusing on the analysis of territorial and regional development trends in Europe.
- INTERACT, launched in 2002 aiming to improve the effectiveness of implementation of INTERREG III during the current programming period by enabling exchanges of experience, networking and information dissemination about INTERREG programming.

- A. Cross-border cooperation (67% of the total budget). As under INTERREG II A, this strand promoted cooperation between adjacent regions, with the aim of developing social and economic cross-border integration through common development strategies.
- B. Transnational cooperation (27% of the total budget). Building on INTERREG IIC, this strand aimed to promote better integration within the EU through the formation of large groups of European regions whose integration is strengthened through strategic and conceptual initiatives.
- C. Interregional cooperation (6% of the total budget). This strand, focusing on mutual learning rather than policy delivering, aimed to improve the effectiveness of regional development policies and instruments through large-scale information exchange and sharing of experience.

There have been 81 INTERREG III programmes. The majority (64) belonged to INTERREG IIIA, and were largely influenced by the geopolitical context of the involved borders:

- Internal EU15 border programmes. The 24 programmes along internal borders enjoyed the best prospects for successful integrated cross-border activities. Many, especially on the northwest European mainland, have been the subject of an active process of integration over many years supported both within and parallel to INTERREG. Prospects along some other internal borders were more challenging, e.g. where there existed physical barriers impeding interaction (such as sea borders, high mountains or infrastructural deficits) and/or political and cultural tensions⁷.
- External border programmes with ‘neighbouring’ countries. This group of six programmes involved non-EU partners with high levels of resources and organisational capacity (Switzerland, Norway, Liechtenstein), therefore able to cooperate effectively with EU countries. These programmes combined EU and neighbouring country resources and are comparable with internal EU15 border programmes in terms of their capacity to undertake effective coordination.
- External border programmes with New Member States (NMS). Until the end of 2003, these 12 programmes applied only to the EU15 half of the border areas, and were ‘border oriented’ rather than fully cross-border. They operated on one side of a border, while a parallel Phare CBC programme operated on the other. After EU enlargement, these programmes evolved into full cross-border programmes, embracing relevant areas of new Member States where Phare no longer operated, and became joint programmes steered by stakeholders from both sides of the border.
- External border programmes with third countries. These 11 programmes involved regions on the external borders of the EU. As with the new Member State programmes, they only operated on the EU side of the border, and coordinated their activities with parallel instruments (Phare, Tacis, MEDA, CARDS or EDF). These programmes were the most severely challenged in terms of their ability to undertake efficient and meaningful activities, mainly due to structural incompatibilities existing between INTERREG and parallel instruments.

⁷ It should also be noted that some internal borders have not had this status for long: Finland, Sweden and Austria only acceded to the EU in 1995.

Two key changes took place in 2004. With EU enlargement changed the status of the new Member State programmes, progressively transforming them into “internal border” programmes. At the same time, EU enlargement increased the number of INTERREG IIIA programmes through the creation of new internal INTERREG IIIA programmes targeting new internal borders of the EU25 and the creation of new external border programmes. The second change, was the introduction of the ‘Neighbourhood Instruments’ in new and continuing external border areas, a mechanism designed to address the difficulties associated with parallel incompatible instruments on either side of borders.

While INTERREG III programmes are still open to financing until the end of 2009, for the Programming period 2007–13, International Cooperation lose its dimension of Community Initiative Programme, and became “mainstream” objective under the label “European Territorial Cooperation”.

THE OPERATIONAL DIMENSION OF INTERREG

The EU constitutes a highly interesting and ever-evolving institutional project (Sbragia 2002). Although being no state with one nation, one government and a common territory, the Union developed an institutional setting in many respect similar to the one of a state (Graute 2006). But while the Member States own legitimate rights to promote spatial development initiatives, due to the described lack of competences European Spatial Planning constitutes a conflicting policy field.

Nevertheless the full acknowledgement of such “competence conflict”, the ESDP provides general operational guidelines for spatial actions (among which “Integrated Spatial Development”, “new ways of cooperation’ and ‘the principle of subsidiarity’), synthesising that “co-operation is the key to an integrated development policy” (CEC 1999, p. 35). Moreover, the document highlights that integrated cooperation in spatial planning implies that “national borders and other administrative hurdles no longer represent barriers to development” (CEC 1999, p. 35). Member States apply such guidelines on a voluntary basis, through the application of the subsidiarity principle between the authorities responsible for sectoral policies and those having overall responsibility at different levels, in a new perspective of horizontal–vertical integrated cooperation that involves the EU, the Member States, the regions and several other bodies.

In this context, the CIPINTERREG constituted a tailor-made instruments to promote the ESDP aims (Pedrazzini 2005)⁸, retroactive in a certain sense (as its origins are to be found in 1990, when the ESDP process had just started), but developed on parallel tracks. This is confirmed by the ESDP Tampere Action Programme that, among the 11 actions identified, stress the prominent role of INTERREG III in the translation of the ESDP policy aims for into examples of good practices at various territorial levels through transnational projects (Tampere Ministerial 1999).

⁸ As stated in chapter four of the document (CEC 1999), INTERREG Programmes allow to realize in a concrete and effective way the integrated approach (vertical and horizontal cooperation) to spatial development envisaged by the EU.

Therefore, whereas International Cooperation is a high-impact tool to fight the marginality of many border regions, the programmes undertaken by neighbouring countries for the development of Cross-border regions are also crucial instruments to implement the operational aims of the Commission. The different aspects emerging in the cooperation (in terms of reactivation of contacts, shared identities, empowerment of local actors, etc.) often favour complex institutional engineering operations aiming to set up the necessary conditions to run the programmes themselves. Hence, beside their strong spatial impact⁹, international cooperation programmes constitutes an innovative workshop focused on the articulation of new management and procedural structures for cross-border initiatives.

One of the strongest assets (and, at the same time, the most delicate obstacle) of International Cooperation Initiatives is therefore the involvement of different public actors with direct competence in territorial planning in different national context through the elaboration and the implementation of joint operational programmes. In this respect, it is important to keep in mind that preliminary experiences in the field of cross-border cooperation, promoted under the CIP INTERREG I and II were launched “in recognition of the need for the Member States to get involved in a more operational way in cooperation on regional and spatial planning” (CEC 2002). In this preliminary experiences many contradictions emerged, the difficulty to interface different institutional, management and procedural frameworks being the harshest challenge. Cooperation between actors presenting diverse legal and cultural orientations (as well as different experience in spatial planning) led to vague projects asking for further investigation, and to results reflecting the strong need to improve mutual understanding and to create a common language so as to communicate.

Furthermore, it is interesting to notice how the new way of cooperation promoted by INTERREG has not been common in all the European countries. Particularly evident is the difference between regions and states where the spatial planning tradition is more mature (e.g. France and Germany), and those that do not have a consolidated tradition (Pedrazzini 2005). Countries belonging to the former group were more able to “digest” the general aims and procedures expressed by the Commission in the programmes, thus managing to put on transnational cooperation agenda proposals responding to their own political objectives. On the contrary, such a new integrated approach to joint territorial development was relatively new for southern and eastern countries, traditionally characterized by legalistic planning regulation or still dealing with the legacy of hierarchical soviet-inspired systems.

Besides such a broad grouping in terms of performance, there exists many elements that may affect the successful implementation of Cross-border cooperation, in primis the relation between the geopolitical condition of the border and the difficulties likely faced by the programmes, already introduced in the previous paragraph. Another important feature is the degree of “physical isolation” along borders, deriving from the economic disparities across borders, the cross-border infrastructure endowment, and their land or maritime condition. In addition, the programmes’ financial size and the financing instruments involved constitute important variable influencing effective

⁹ This issue has been analysed in several scientific contributions. Among others: Graute 1998, 2006.

implementation, and also the number of countries involved in a programme influences its performance.

For what concern the operational dimension of the Programmes it is important to underline how the characteristics of the management structure (i.e. the institution of special cross-border agencies, the location of the managing bodies, and other specific arrangements) highly influence programmes' performance. In terms of procedures adopted it is then possible to distinguish between those finalized to the dissemination of information and the procedures related to projects preparation and evaluation. In both cases such procedures can be characterised by greater bottom up or top-down flavour, i.e. based on open call for proposals accessible to a great variety of actors in the framework of the priorities and the measures defined in the programme, or presenting interventions directly promoted by responsible regional authorities, leaving to private actors only in the implementation phase¹⁰.

Focusing on this and other aspects, in the following paragraph the paper builds on the achievements of a research produced in the INTERACT framework¹¹, presenting information obtained from both Official INTERREG documents and interviews with different contact persons.

ITALY LOOKS SOUTH-EAST: FOUR DIFFERENT INTERREG IIIA PROGRAMMES

Italy participated to INTERREG since 1990, and took part to the third programming period with nine programmes. Five of them concerned internal borders (Italy–Austria, Italy–France “ALCOTRA”; Italy–France “Islands”, Italy–Greece, Italy–Switzerland), and the other four involved Italy and New Member States (Italy–Slovenia, Italy–Malta) or Third Countries (Italy–Albania, Adriatic Cross-border).

Whereas Territorial Cooperation inside the EU15 has been favoured by easier conditions in terms of uniformity of rules and procedures, INTERREG III cooperation involving one or more New Member States and Third Countries have been characterized by several structural and operational threats. Assuming that an exploration of the latter constitutes a further step towards integration in the ever-enlarging European scenario, the paper analyses the different operational frameworks of the four INTERREG IIIA Programmes that involved Italian regions and countries not belonging to the EU15.

PROGRAMME INTERREG IIIA ITALY–SLOVENIA

The cooperation programme INTERREG IIIA–Phare CBC Italy–Slovenia concerned an area of 11.400 km² and an overall population of 1.943.000 inhabitants. The eligible area included, on the Italian side, the provinces of Udine, Gorizia and Trieste (Friuli–Venezia Giulia region), and the province of Venice, (Veneto region); moreover, the provinces of Pordenone and Rovigo constituted exceptionally eligible areas. As for Slovenia, the eligible areas were the two statistical regions Obalno–Kraška and Goriška and the municipality of Kranjska Gora (Figure 1).

¹⁰ This is mainly the case of high impact projects focused, for example, on infrastructural goals.

¹¹ see note n°6.



Figure 1. The eligible regions of the programme INTERREG IIIA Italy–Slovenia
Source: figures 1–4 Interact

The 200 km long Italian–Slovenian border shows a moderate degree of physical isolation (the situation is fast improving after Slovenia EU accession) and significant geographic variety. The area concerned by the programme presented the typical problems of border areas, showing development delays, while some areas are characterised by de-industrialisation phenomena.

Among other cross-border and bilateral national initiatives, Italy and Slovenia participated in the INTERREG IIA–Phare CBC Programme 1995–99, that contributed to improve and intensify cross-border co-operation in the border area. The programme period 2000–2006 became even more challenging in the light of enlargement of the EU, as it was crucial to focus funds' impact on the prospect of the integration of Slovenia in the EU. The programming document INTERREG IIIA–Phare CBC Italy–Slovenia 2000–2006 was prepared and approved in 2001, and its management and implementation rules and procedures were still based on two regulations (INTERREG and Phare). With the EU accession of Slovenia in 2004, after a reformulation of the programme both countries started to operate within the framework of the joint CIP INTERREG IIIA Italy–Slovenia.

The programme presented a high volume of resources before (EUR 101,010,372, supported by both INTERREG and Phare CBC funds before May 2004, and by INTERREG funds after that date). The responsible implementing bodies were regio-

nal structures, and no cross-border structures were legally established. Italy (namely the Autonomous Region of Friuli Venezia Giulia) has been in charge of the programme for the whole period. As regards to the management structure, there was a “Central” Managing Authority (MA) (Autonomous Region of Friuli Venezia Giulia) with overall responsibility, and three Intermediate Bodies (IBs) (the Directorate for International Relations and Local Autonomies for Friuli Venezia Giulia, the Directorate for Community programmes–INTERREG Service for Veneto Region, and the National Agency for Regional Development for the Republic of Slovenia), which worked together in the implementation the programme.

The overall organisational framework and the appointment of individual responsibilities was complex but clear, and favoured transparency and formal and functional independence between the various management and process structures. Despite the large number of structures involved, management appeared to be well coordinated, and the overall management structure developed as a highly integrated network. Nevertheless, during the start-up phase of the activities of the regional administrative structure, certain obstacles and delays occurred, the main problem being related to the lack of regional staff dedicated to the programme. Moreover, the reorganisation of the Programme occurred in 2004 generated further delays.

For what concerns the information procedures, several “bottlenecks” undermined the information dissemination channels in the beginning of the programme, and a scarce knowledge about the programme was highlighted at regional and local levels, especially among economic and social subjects. The official Internet website, operational since the beginning of 2005, and an editorial cross-border initiative called “Euro-Regio Magazine”, partially contributed to invert such trend. Nevertheless, the communication process continued to be mainly top-down oriented.

In terms of project preparation and evaluation instead, the programme mainly focused on call for proposal concerning the different measures, that contributed to provide the programme with a high bottom-up flavour in terms of implemented interventions due to growing consultation in the calls launched after 2004. The “regional direction” procedure, i.e. the promotion of interventions directly elaborated within the Managing Authority, has also been a means of application, mainly applied before the reformulation of the programme.

The problems identified were mainly connected to the absence of proper cross-border bodies within the framework of the regional authorities concerned. In Friuli region, researches are currently underway concerning the creation of a Euro-region as well as a Regional Agency for cross-border development. Indeed, also the changes in the call for projects procedures and the withdrawal of so-called “mirror” and “cooperative” projects in 2004 led to further delays, but contributed to improve the cross-border quality of projects, due to the simultaneous publishing of the calls in Italy and Slovenia.

PROGRAMME INTERREG IIIA CROSS-BORDER ADRIATIC

At the beginning of 2000, in order to improve the coherence of the available instruments insisting on the area, the European Commission accepted the Italian request to prepare

border Programme to a new legal and operational framework, eventually producing the Adriatic New Neighbourhood Programme¹³.

The main impact of the programme reorganization was the increased participation of Adriatic Eastern Countries to the planning and decision making processes. Besides, having anticipated the new orientation of the Commission on neighbourhood policy, the new programme became one of the main instruments to be taken into consideration for the definition of the new EU external border policies for the 2007–13 period.

Until 2004, the overall public financial endowment for INTERREG IIIA Adriatic Cross-border Programme (2002–2006) was amounting to EUR 101,015,000. On the Italian side, 50% of the resources came from INTERREG and the remaining 50% from the national resources. Since 2004, the new financial plan of the Adriatic New Neighbourhood Programme was composed of the residual INTERREG IIIA resources, and CARDS resources, allocated for the period 2004–2006.

Members of Eastern Adriatic Countries were fully represented in the management structures, and closely cooperated in Transnational Working Tables. The structures responsible for the management of the program were divided in three groups: Internal, External and Joint Management Structures. The competencies of the Internal Management Structures for the management of the Programme were various. The Managing Authority (located in the Abruzzo region) guaranteed the efficacy of the implementation of the programme and in the management of the funds that targeted EU Member States. The Regional Units, together with the MA, guaranteed the Programme management, carrying out dissemination activities in the respective areas and encouraging project proposals.

Among the External Management Structures (additional management bodies located in the third countries involved), the Programme Coordination Units, located in different Ministerial Authorities of the East Adriatic Countries, guaranteed (together with the Managing Authority) the management of the CARDS part of the programme, carrying out information activities and stimulating the submission of project proposals.

Among the Joint Management Structures, it is interesting to underline the role of the Joint Monitoring Committee (JMC), composed of representatives of the Internal and External Countries and responsible to supervise the implementation of the programme. It approved all the changes occurred in the programme and examined the results of the programme in relation with the objectives manifested in each of its measures. The Joint Selection Committee (JSC) was responsible for the selection of the project proposals. It applied previously agreed selection criteria, coordinated the supervision of the implementation, and approved the calls for proposals, as well as the project applications.

¹³ In particular, during the year 2004, due to the general rearrangement, the Programme Complement was modified in four different occasions, in order to keep in consideration the necessary adjustments as a consequence of the programme implementation and the new orientations of European Commission on neighbourhood policies. (1) the first modification (February 2004) concerned the criteria of projects selection. (2) In relation with administrative problems of some Regions that participate in Programme, the Programme Complement was again modified in May 2004, as far as it concerns the financial procedures of Programme. (3) Following the presentation of “regional direction” projects, ulterior changes have been made necessary to make the programme more coherent with the new financial framework in relation to each Measure, per Measure (December 2004). (4) The Programme documents where eventually redefined following the Commission guidelines for New Neighbouring Programme, and eventually, on the 22 December 2005, the Adriatic New Neighbourhood Programme was formally approved by the European Commission.

In order to guarantee the high diffusion of programme-related information, different social and economic actors and Non Governmental Organization were involved in a highly bottom-up communication process through several meetings and seminars illustrating the programme and its objectives. Regional Authorities performed a further relevant role in the information process, through a deep dialogue with private and public actors. In some regions, such process has been subsequently institutionalized in domestic policies thanks to specific legislative instruments. Furthermore, a well defined Internet website (translated in 7 languages) contributed to the visibility of the programme providing information on its advancements. The website presented also information on events, seminars and meetings and included a database of all the projects.

As far as concerns the process of elaboration and evaluation of the projects, the Steering Committee (labelled Joint Selection Committee, according to the new EU indications) was responsible for the selection of projects financed with both INTERREG and CARDS fund. Projects followed the Call for proposal procedure in the majority of the cases, with three possible format of call: the joint proposals, that consisted in new projects to be financed jointly by INTERREG and CARDS budget; the Mirror or Extension proposals, intended to extend projects that were already approved, either through additional INTERREG funds for the inclusion of new partners from Italian regions, or through CARDS funds for the financial support to Eastern Adriatic partners; and simple projects, i.e. new projects to be financed either by INTERREG or CARDS budget only, with the participation of at least a partner from each of the two Adriatic shores.

The procedure “regional direction”, was instead used exclusively for the actions demanding the presence of a strongly coordinated unitary management within different institutions. After the adaptation of the programme structure to the new indications of the Commission, the “regional direction” procedure played a residual role in the Adriatic New Neighbourhood Programme, if compared to the call for proposal procedures.

PROGRAMME INTERREG IIIA ITALY–ALBANIA

The CIP INTERREG IIIA Italy–Albania was approved on 20 June 2002. The programme targeted an area composed by the provinces of Bari, Brindisi and Lecce (for the Italian side) and the whole Albania territory, and Italy (namely the Puglia region) was in charge of it (see Figure 3).

The border between Italy and Albania present a high degree of physical isolation, not only due to its maritime condition, but also because of the difference in terms of economic development, as well as for the strong tensions generated by illegal migration and goods’ transport. The more problematic aspects are constituted by the lack of interconnective infrastructure (also due to the geopolitical complexity of the border itself), and by the scarce reciprocal knowledge and mutual understanding of the highly heterogeneous cultures, histories, traditions characterising the two sides of the borders.

Italy and Albania already participated together in the INTERREG IIA initiative, with a programme affected by several implementation delays, that can be reconducted to the insufficient institutional partnership between the two countries in the definition of



Figure 3. The eligible regions of the programme INTERREG IIIA Italy–Albania

the implementation procedures¹⁴. Nevertheless, the program produced several positive experiences in terms of cooperation and served as an important instrument for mutual learning, as regions, local associations, research institutes, and other subjects from both sides were involved and had the occasion to understand advantages of cross-border cooperation in the system of relations between the two countries.

Building on the previous experience, to the new programme 2000–2006 were devoted EUR 72,807,973, of which EUR 33,228,000 coming from the ERDF. As the programme task was to promote project actuation on both the Italian and the Albanian territory (and being Albania not eligible for INTERREG funds) the operations to be realized on Albanian territory were realized with funds coming from the Italian central administration and from the CARDS Programme.

For what concerns the management structure, the Puglia Region served as Managing Authority, and the Monitoring Committee included members from the Albanian government and from the three Italian regions involved in the programme, plus one representative of CARDS programme (in order to improve the coordination between CARDS and INTERREG).

The most peculiar feature in terms of management structure was the existence of a “Responsible of Measure” responsible for each measure of the programme, with a total

¹⁴ The difficult geopolitical situation that characterised the Albanian territory in 1996–1997 comported further delays in the implementation.

of twelve (belonging to different Assessorships of the Puglia region). The Responsibles of Measure were effectively in charge of the implementation of the programme, preparing and launching the call for proposals and all the connected information, performing the projects inquiry (together with the Assessorship relative to the measure), and periodically controlling the status of the implementation of the different measures. It is interesting to notice how the organization of such a complex structure led to several malfunctioning and organization problems inside the Administrative structure of the Puglia Region. In the last months of 2002 the Managing Authority of the programme (until then settled in the “Settore di Programmazione della Regione”) was eventually moved to the Cabinet of the President of the Giunta Regionale. Such a restructuring process produced several delays, and no call for proposals were held during 2002 and 2003 (only 4 regional “direction” projects were approved) leading to a reformulation of the budget in relation to the different priorities at the end of 2004.

The most interesting feature of the programme concerns its communication and information plan, based on an integrated network of “Contact Points” located in the different provinces¹⁵. The Contact Point System was organized on 2 different levels, with a primary node located in the Puglia Region, and four secondary nodes, dealing with the dissemination of information on their respective territory, located in the provinces of Bari, Brindisi and Lecce, and in Tirana, for the Albania territory.

The role played by the Tirana Contact Point has been particularly important for the realization of the programme. Inaugurated in July 2003, following an agreement between the Italian and the Albanian governments, the Tirana Contact Point promoted networking between Italian subjects operating in Albania for what concerned cross-border partnership, and provided institutional support to the Albanian public administrations, in order to cooperate with their Italian counterparts¹⁶. Beside the Contact Points System, the information procedures included periodical newsletters, informative pamphlets, and a well defined and easy-to-use website in both Italian and Albanian languages.

The project presentation and evaluation procedure has been based on calls for proposal prepared and published by the Responsibles of Measure. Before the publication of each call for proposals, the Responsible of Measure determined the amount of financial resources to be used for procedures “regional direction”. Out of the total amount of projects developed under the INTERREG Programme Italy–Albania, those promoted following a “regional direction” procedure constituted a majority. The adoption of such procedure to implement projects with a strong impact over cooperation strategies and socio-economic development, guaranteed easier implementation and higher coherence in terms of respect of the programme priorities, but characterised the programme with a strong top-down flavour.

¹⁵ The delays in the programme implementation didn't involve the communication plan. Thematic Priority 5, for technical assistance is the only one that doesn't show any delay in the implementation.

¹⁶ The Contact Point had the function to ensure to Puglia Region a leading role in partnerships started by the Region itself on the Albanian territory in the ambit of decentred Italian cooperation system, and served to establish close relations between 180 enterprises from Puglia and operating in Albania, as well as with more than 600 Italian enterprises in business relation with Albania. The Tirana Contact point is forecasted to become, in the perspective of another future enlargement of the EU interesting the Balkan Area, the operative base of all the Italian enterprises and investors interested on operating on South-East Europe.

PROGRAMME INTERREG IIIA ITALY–MALTA

Work on the Italia–Malta Programme began during Autumn 2003, and the launch of the Programme took place in December 2004. As such, Malta has no physical borders however the European Commission officially recognised the maritime border between Malta and Italy (Sicily) as being eligible for the purpose of cross-border co-operation, as Malta and Sicily share a number of interests as well as several common problems. Based on an analysis of these common issues, a programming document was drafted to provide the basis for cross-border co-operation between Malta and certain areas of Sicily.

The INTERREG IIIA Italy–Malta programme (see Figure 4) involved the whole state of Malta (Isles of Malta, Gozo, Comino) and the provinces of the south-east coast of Sicily (Agrigento, Caltanissetta, Ragusa, Syracuse, and Trapani). The provinces of Palermo and Catania also participated to the programme, although their contribution couldn't account for more than 20% of the total cost of the programme. The area involved is 11,667 km² wide, and is inhabited by 2,200,000 residents.



Figure 4. The eligible regions of the programme INTERREG IIIA Italy–Malta

The border between Italy and Malta present an average degree of physical isolation, mainly due to its maritime condition, and the situation improved much after Malta's EU accession. Italy–Malta cross-border cooperation aimed to persecute joint strategies of sustainable territorial development, to deeply influence cooperation processes, in order to favour the progressive socio-economical integration of the area, especially for what

concern the South-East border of Sicily and Malta, to improve the value of the social, cultural and economical resources of the cross-border area, in the framework of sustainable development.

The choice of the intervention sectors and of the specific goals that generated priorities and measures of the programme derive from a comparison between the indications found out during a joint SWOT analysis and the priorities of the use of structural funds, taking into consideration also internal coherence of actions and convergence and synergies between them.

The programme had a budget of EUR 6,832,847 for the 2004–2008 period, with the participation of ERDF funds (EUR 5.124.654). The Italy–Malta programme was completely co-financed by the EU through INTERREG Funds (being Malta a Full Member State at the time when the programme was approved). The responsible authority for the implementation of the programme were, for the Sicilia region the “Presidenza della Regione Siciliana Dipartimento della Programmazione, Servizio Sviluppo Locale”, and for Malta the “Planning & Priorities Co-ordination Directorate”.

A number of structures were set up for the proper co-ordination of the Italia–Malta Programme. The Managing Authority was based at the Dipartimento di Programmazione, Presidenza della Regione di Sicilia, and it was also be supported by an Auxiliary Managing Authority (the Planning & Priorities Co-ordination Directorate at the Office of the Prime Minister, Malta). The Managing Authority was supported by a Joint Technical Secretariat in the day-to-day management of the Programme, that had an auxiliary JTS in Malta. A Monitoring Committee was established to monitor progress of the Programme, approve the selection criteria, take decisions regarding calls for proposals, etc., and a Steering Committee carried out project evaluation and Project Selection. The Committees were made up of Maltese and Sicilian representatives, and alternatively met in Italy and Malta.

The Operative Programme of INTERREG IIIA Italy–Malta promoted a well detailed communication and information plan, based on several thematic workshops organized (in form of technical meeting between potential beneficiaries and JTS), in Sicily and in Malta, and many other informative tools were elaborated.

For what concern the project formulation and evaluation procedures, the programme introduced an interesting innovative element, the Form for the presentation of project ideas. It consisted of a document that led potential participants to propose potential project ideas to be published on the internet website, in an open forum, in order to help potential partners to get in contact with each other. Furthermore, the programme’s authorities provided all the documents that concerned the procedures of application to call for proposals (including forms to be filled, explanations of how to fill documents, rules about roles and responsibilities) in a “kit for presentation of the propositions”, that proved to be of great help for the participants.

The eligibility and assessment of the project followed the Call for proposals procedure as well as the procedure of “Regional direction” (but only for a minor share of the promoted projects, also due to the scarcity of funds).

CONCLUSIONS: (FEW) LIGHTS AND (MANY) SHADOWS OF THE ITALIAN SOUTH-EASTERN COOPERATION

It is possible to present the four CIP INTERREG analysed in the paper under a comparative perspective, insisting on the different variable characterizing their operational dimension (see Table 2).

Table 2. Operational Comparison of the four INTERREG IIIA programmes between Italy and South-Eastern European countries.

		Italy–Slovenia	ANNP	Italy–Albania	Italy–Malta
PROGRAMME FEATURES	Borders	Accession Countryà Internal Land	Third Countries Maritime	Third country Maritime	Internal Maritime
	Physical Isolation	Moderate	High	High	Moderate
	Countries Involved	2 (Italy, Slovenia)	5 (Italy, Slovenia, Albania, Serbia– Montenegro, Bosnia, Croatia)	2 (Italy, Albania)	2 (Italy, Malta)
	Financial Size (EUR)	High (101,010,372)	High (101,015,000)	High (72,807,973)	Low (6,832,847)
	Funds Involved	INTERREG+ Phare à INTERREG	INTERREG + CARDS	INTERREG + CARDS	INTERREG
	Reformulation in itinere	Yes (2004)	Yes (4 times during 2004)	Yes (2005)	No
OPERATIONAL FEATURES	Programme Management	Complex: Managing Authority + 3 Intermediate Bodies	Complex: Int. Structures Ext. Structures Joint Structures	Complex: 12 Measures’ Directors	Linear: Main Structures + Auxiliary Struct.
	Information Procedures	Top-down; Scarce info in the first phase. Seminars, Website.	Bottom-up; High involvement of stakeholders, Workshops Website/forum in 7 languages.	Bottom-Up; Tirana Contact point / Contact points structure; Seminars, Web-forum	Bottom-Up; Workshops, Web-Forum, Call for ideas
	Project Presentation/ Evaluation Procedures	Bottom-Up; Mostly call for Projects – “Regional direction” projects just in the first phase	Top-Down / Bottom Up; Call for Projects and “regional direction” procedure;	Top-Down Mostly “Regional Directions” projects, few Call for Projects	Bottom Up; Call for Projects

Source: own elaboration.

As far as concerns the “quality” of the border targeted by the programmes, it is interesting to notice how those insisting on Internal borders (Italy–Malta) enjoyed

a higher degree of successful integrated cross-border activities, while programmes involving new member states (Italy–Slovenia) and third countries (Cross-border Adriatic and Italy Albania) were severely challenged in terms of their ability to undertake efficient and meaningful activities mainly due to organisational challenges (connected with the reorganization of the programme due to the achievement of EU member condition or with the incompatibility of the different funding programme involved). Moreover, concerning the degree of “physical isolation” of the borders external borders generally faced higher levels of isolation (greater in case of maritime borders), which constituted further obstacles.

The presence of different funding sources represented another negative element, the more funding instruments involved meaning the lower performance of the programme in terms of implementation (due to incompatibility of different rules of eligibility, delivery, and expenditures). Furthermore, different funding sources were mainly used to promote “mirror” projects (e.g. in the Italy Slovenia and Cross-border Adriatic situations before 2004) that did not present strong cross-border impact. The examination of the economic size of the project do not lead to a straightforward interpretation, as budgetary comparisons need to be made with care, as figures need to be related to factors such as the length and nature of borders. Furthermore, some programmes placed strong emphasis on high-cost measures that may not have been bigger in terms of numbers of projects, but were easier to implement due to “regional direction” procedure if compared with some of the financially smaller programmes.

For what concern the operational dimension of the programmes, it is important to underline how a reformulation in itinere always produced delays in terms of implementation. The degree of complexity of the management structures further influenced the correct functioning of the programmes, and linear structures seemed to be more effective (as in the Italy–Malta case) while growing complication led to higher risks of malfunctioning (e.g. in the case of Italy–Albania programme).

In terms dissemination and information procedures, they can be characterised by bottom-up or top-down flavour, i.e. based on active involvement of the different stakeholders in the definition of the different priorities or just focused on the provision of programme information. A bottom up approach characterised the programmes Adriatic Cross-border, Italy–Albania, Italy–Malta, and in the Malta case, also the procedures of project preparation and presentation, mainly based on open call for proposals. On the contrary, the Balkan programme and, to a higher extent the Albanian case, presented top-down implementation procedures due to the usage of the “regional direction” procedure. In this concern, also the implementation of the programme Italy–Slovenia was carried out under a bottom up approach, especially after 2004, but together with a highly top down communication system that led to scarce knowledge about the programme among the different stakeholders in its first phase.

Of the four examples, Italy Malta incurred in less delays in terms of implementation. Started after the EU accession of the Maltese nation, this programme could benefit from a single source of funding, on a linear management structure and on strong bottom-up procedures. The relatively low financial size of the programme surely contributed to favour its correct implementation, meaning, on the other hand a lower impact of

the promoted interventions. For what concern the Italy–Slovenia programme, difficulties have been mainly related to the reorganization of the programme, and the 2007–2013 cross-border cooperation is expected to encounter less operational troubles. Different is the case of the cooperation Italy–Albania that, in spite of the experience matured under the previous period, didn't achieve sufficient results in terms of implementation, mainly due to internal malfunctioning. Last but not least, the procedures that regulated the Adriatic New Neighbourhood Programme, with their high degree of complexity and the many effort to promote integration among different funding sources, will be used as a reference for the 2007–2013 phase, providing an adequate support to the Commission in the implementation of other forms of cross-border cooperation and proximity programme.

Although the importance of the operational dimension in International cooperation initiatives appears clearly from the above description, it is difficult to say much about the concrete effects obtained by INTERREG III in terms of institutional, managerial and operational integration. From the perspective of the European Commission, INTERREG III have been a resounding success (Pedrazzini 2005), as Member States and regions recognized the Union a role and a 'competence' on spatial policy that does not figure in any of the European treaties¹⁷. From the point of view of local actors, the bottom up preparation of INTERREG Programmes, strongly involving European Commission, Member States, regional and local representatives constituted an important platform for mutual institutional learning.

Whether the complicated procedures to carry out the management and mutual control of programmes and projects in many cases slowed down the cooperative process, many evidences confirm the interest in future collaboration projects, that will surely contribute to a better integration of cross-border regions also based on growing mutual understanding and on learning-by-doing processes of institutional and procedural engineering. Indeed, INTERREG IIIA programmes, aiming to reach common spatial objectives, had also in some way an influence on the institutional and operational arrangement of territorial planning in the different contexts. The disappearance of traditional political and administrative borders between European states and regions, the promotion of new instrumental alliances between regions and the large impact of Community policies means, amongst others, a sort of internationalization of planning practices. In this context, Territorial cooperation initiatives represent a huge effort to face these challenges (Faludi and Waterhout 2002; Pedrazzini 2000).

It is possible to affirm that INTERREG contributed (and will contribute) to influence the different operational approaches to planning. Just the few examples presented serve to remind us that there is still much to do in the promotion of shared "Euro-framework for spatial action". Cooperation in spatial planning just concluded its first concrete programming period focused on the diffusion of means of transnational projects and the harmonization of languages and styles of communication. Sharing management and procedural good practices for spatial development, is a preliminary condition to be satisfied, at least as important as the elaboration and diffusion of shared spatial development concepts.

¹⁷ Moreover, they accepted to achieve jointly established objectives and to act following certain given protocols, i.e. to have the commission to interfere in their own territorial agendas and operational structures.

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NEW VERSUS OLD CROSS-BORDER COOPERATION PROGRAMMES IN THE EXAMPLE OF POLISH – CZECH AND POLISH – GERMAN BORDER AREAS

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Abstract. The aim of this paper is to assess the Polish–Czech border cooperation and to compare it to the Polish–German border. The studies have been based on the analysis of the projects qualified for implementation under the INTERREG III A programmes. Particular emphasis was put on the relationships between spatial distribution of these projects and the level of economic development of the given areas. The generic characteristic of the projects and institutional structure of beneficiaries was also examined.

On the basis of the obtained results it was verified how the scale of cooperation and the amount of financial outlays incurred to date affect its quality.

Key words: cross-border cooperation, border regions, INTERREG III A Programmes, cooperation quality

INTRODUCTION

Institutional forms of cross-border co-operation in Poland after 1989 varied in character across borders. It was determined by formal, organizational, historical and other factors. One of the most important incentives for co-operation development, were the funds allocated to its implementation.

The Polish-German border area has the richest history of such co-operation in Poland. On this border Phare CBC programme was realized for the first time – already in 1994. The Czech border region has been included in the programme since 1995 as part of a trilateral programme Poland–Czech Republic–Germany but as part of bilateral programme only since 1999.

In consequence, the connection network that was created in the Polish-German border region was much more complex than that existing in other border regions. The main elements of these structures were Euroregions. Strength and durability of these relationships made for

the fact that Polish-German co-operation was treated as a model solution and adapted to the realities of other border regions in Poland.

The EU financial involvement in cross-border programmes in the pre-accession period was most intensive on the western border. This resulted from the fact that this border constituted the external border of the EU at the time and one of the main objectives of the Phare programme was supporting sustainable development of the EU border regions. In the case of the Polish-German border region, the total sum allocated for the realization of co-operation programmes was over 450 million EUR. In the Polish-Czech border region the sum was nearly 20 times smaller and amounted to 23 million EUR. Disproportions in the duration and scale of co-operation could be the reason for the emergence of significant differences in institutional forms of co-operation, its intensity as well as effectiveness.

The basic objective of this paper was to assess cross-border co-operation realization under INTERREG III A Poland–Czech Republic programme and its comparison with Polish-German programmes. Special attention was paid to the generic characterization of the projects and institutional structure of beneficiaries. Another important objective was to analyse the relationships between spatial distribution of the realized projects and the level of economic development of particular regions. Moreover, the hypothesis assuming that the duration of co-operation and the sums allocated in the pre-accession period affect the realization of co-operation programmes after accession was verified.

This study assumes that the realized projects reflect the reality of institutional co-operation in the Polish-Czech border region. The authors are fully aware that the projects do not cover the full spectrum of this co-operation. Nevertheless, they constitute its substantial element and reflect the real shape of cross-border co-operation and not declarative co-operation existing only “on paper”. The analysis does not cover informal co-operation, which may have significant influence on formal aspects of co-operation.

The research comprises the data concerning all the projects realized under INTERREG III A Programme, obtained from the Ministry of Regional Development. The projects of Technical Assistance have been omitted since they are not directly connected with cross-border co-operation. Selected public data statistics at the LAU 2 level (communes) were also used in the research. In order to examine the main determinants of the spatial distribution of the realized ventures a comparison of the mean for the population of the communes participating and the communes not participating in the projects were conducted in relation to the chosen socio-economic indicators. To this end, Leven’s method of means comparison has been applied (Nawojczyk 2002).

DETERMINED OR FREE CO-OPERATION. CO-OPERATION DETERMINANTS

The INTERREG III A programme was a component of one of the four Community Initiatives. Its objective was to finance cross-border co-operation. The Polish southern and western border region have been supported since the moment of Poland’s accession to the EU in 2004 (Figure 1).

INTERREG III A Poland–Czech Republic Community Initiative Programme as well as other programmes on the western border (INTERREG III A Poland (Dolnośląskie Voivodship)–Saxony, INTERREG III A Poland (Lubuskie Voivodship)–Brandenburg, INTERREG III A Poland



Figure 1. Spatial scope of the programmes carried out in Poland between 2004–2006, within the framework of Community Initiatives INTERREG III A

Source: figures 1–5 own study.

(Zachodniopomorskie Voivodship)–Mecklenburg-Vorpommern/Brandenburg) were co-financed from the European Regional Development Fund. Between 2004–2006 the total sum allocated for the Polish side from the Polish-Czech border funds totalled 18 million EUR. The sum allocated for the Polish-German border at the time amounted to 86,6 million EUR. Thus, the disproportion between the distribution of funds was smaller in the pre-accession period, but still noticeable.

When analysing co-operation one should take into consideration its complex character. It is determined not only by institutional, financial and other factors but also by factors specific to particular regions. Among the most important ones are disparities in the level of socio-economic development on both sides of the border. It seems that the high level of disproportions is an important factor hindering co-operation. It results, among other things, from different expectations concerning potential co-operation. In this respect, the Polish-Czech border area is an example of a region with relatively low level of disparities. In contrast, the Polish-German border is believed to be one of the internal EU borders characterized by the highest level of economic disparities (see ESPON in progress 2004).

Similarity of problems and objectives regarding socio-economic development is a crucial determinant shaping co-operation. Also in this respect a striking similarity with the Polish-Czech border region can be observed in relation to the encountered problems (e.g. occurrence of problem areas, joint mountain region, reorganization of traditional branches of industry) as well as objectives (e.g. integration with the EU, economic development, search for activation incentives). In the case of Germany, greater emphasis was placed on the achievement of inner coherence, especially in the economic aspect.

Moreover, it needs to be stressed that the cultural barrier was smaller on the southern border than that on the western border (the persistence of stereotypes, attitude towards neighbouring nations, historical experiences, etc.). In both cases the border was established on the basis of environmental features. The southern border, running mainly across mountainous region turned out to be less of a barrier than Polish-German river border. In the latter case it constitutes a significant impediment affecting free movement of people and goods. Overcoming this barrier requires considerable financial outlays (e.g. bridge building). It restricts the freedom of border crossing (Więckowski 2004) – the total number of border crossings is 40 (including 3 only for small border traffic) compared to about 113 border crossings to the Czech Republic (23 only for small border traffic and 42 on the tourist trails). Such a structure of border crossings greatly facilitates local traffic on the southern border.

The character of co-operation in the Polish-Czech border region is determined to a great extent by environmental determinants and is highly affected by the borders' location in touristy areas (mountain tourism, sentimental tourism, winter sports, a great number of historical buildings) as well as great natural value of the region (numerous national and landscape parks). It not only facilitates but also 'determines' potential directions of co-operation, in accordance with the unique character of the area. The Polish-German border region is characterized by the lack of one, clear co-operation objective. Consequently, there is greater potential for integration in the Polish-Czech border region than that in the Polish-German border region. At the same time, it may be connected with the creation and consolidation of 'co-operation monoculture' dominated by tourist-oriented activities. However, the occurrence of a clear integrating factor in the border region may create favourable conditions for the creation of a truly trans-border region.

Institutional system connected with co-operation existing on the southern border in the pre-accession period was less developed than that on the western border. This was the result of the fact that Euroregions which played the most important role in the shaping of cross-border co-operation had fewer opportunities for obtaining funds. Poland's accession to the EU and the inclusion of the country in the INTERREG III A programme brought about the formation of a new institutional structure dedicated to cross-border co-operation. In consequence, the role of Euroregions in the shaping of co-operation was limited, compared to that in the pre-accession period. It was also accompanied by the appearance of a number of new institutions managing the implementation of co-operation programmes (e.g. Ministry of Regional Development, Governor's Office, Marshal Office). The necessity for the realized projects to comply with EU requirements and national legislation brought about significant changes in the rules concerning the running of programmes compared to the Phare programme. As a result, potential beneficiaries had to learn again how to function in a new formal institutional system.

The development of Polish-Czech cross-border co-operation has been relatively widely presented in literature. For the most part, however, it contains works dedicated to particular areas (Euroregions, voivodships, communes) or thematic areas (e.g. trans-border trade) (e.g. Pokluda 2005; Zapletalova 2005). Relatively few of the works are dedicated to a complex assessment of the effects of co-operation realization in the Polish-Czech cross-border region. The Polish-German border region is more thoroughly analysed (Gorzelać et al. 2004).

PROJECT ANALYSIS

In the period under examination, 108 projects were realized under INTERREG III A Poland-Czech Republic Programme (excluding Technical Assistance). The total sum allocated from ERDF was almost 17 million EUR (excluding Technical Assistance). The projects under research covered about 14.9 million EUR, which was 88 % of the funds planned for the programme. It means that the research covered the majority of the projects and its results may be considered reliable for the whole programme. On the Polish-German border the realization of the programme was even slightly faster.

Taking into consideration the long preparation process by the managing authority as well as the European Commission approval process, we can assess the use of the funds as substantial. Thus, the dangers raised by a number of authors suggesting a limited ability to absorb means from structural funds did not occur. This was the result of a keen interest on the part of potential beneficiaries as well as the efficiency of administrative structures.

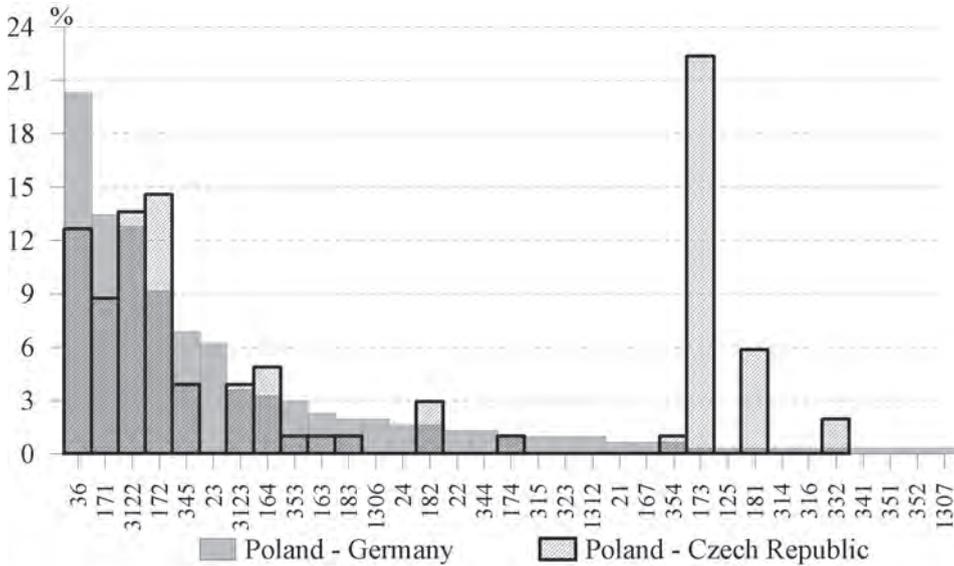
On the southern border the volume structure was greatly dominated by very small and small projects, the ones with subsidy volume of less than 100,000 EUR. The structure showed a pronounced lack of large projects with subsidy value exceeding 1 million EUR. In this respect the southern border area differed significantly from the Polish-German border region. This was the result of a different generic structure of the realized projects.

When analysing projects in the respect of subsidy volume it appears that the smallest projects were realized by higher education institutions and associations while the largest ones were realized by regional self-government and central administration. It confirms the existence of a financial barrier, especially in relation to non-profit organizations.

Due to variances in nomenclature and factual contents of programme priorities and measures the generic analysis was based on intervention categories used by the European Commission in monitoring and reporting. The generic structure was dominated by tourist projects, mainly non-material in character – about 37% and together with property investments – as much as 46% (Figure 2). An important role was also played by basic infrastructure - road investments, social infrastructure, sewage system, bicycle lanes (about 36%). It needs to be stressed that there is a pronounced lack of projects dedicated to human resources. The most important features distinguishing the structures on the southern and western borders were related to the following factors:

- lesser diversity of projects on the southern border,
- substantial prevalence of tourist projects, including joint services for tourism industry,
- clearly higher share of scientifically advanced research projects conducted by universities and research institutes as well as transfer of technology and innovation,
- higher share of projects in the field of renewable sources of energy and joint services for entrepreneurs,
- smaller share of basic infrastructure projects, including social infrastructure, healthcare and sewage systems,
- lack of human resources projects.

Such project structure clearly confirms the influence of the previously described integrating factor (environmental features). It directed the programme clearly towards trans-border tourism. It remains an open question to what extent it is the reflection of strong needs on



Areas of Intervention (OJ L 063, 03/03/2001): 1306 Renovation and development of villages, 1307 Diversification of agricultural activities, 1312 Protection of the environment, 163 Business advisory services, 164 Shared business services, 171 Tourism, physical investment, 172 Tourism, non-physical investment, 173 Shared services for the tourism industry, 181 Research projects based in universities and research institutes, 182 Innovation and technology transfers, 183 RTDI Infrastructure, 21 Labour market policy, 23 Developing educational and vocational training, 24 Workforce flexibility, 3122 Regional/local roads, 3123 Cycle tracks, 314 Airports, 315 Ports, 319 Intelligent transport systems, 323 Services and applications for the citizen, 324 Services and applications for SMEs, 343 Urban and industrial waste, 344 Drinking water, 345 Sewerage and purification, 351 Upgrading and rehabilitation of industrial and military sites, 352 Rehabilitation of urban areas, 353 Protection, improvement and regeneration of the natural environment, 354 Maintenance and restoration of the cultural heritage, 36 Social and public health infrastructure

Figure 2. The number of projects qualified for realization in the Polish part of the Polish-German and Polish-Czech border area according to intervention category

the part of potential beneficiaries and to what extent it is the consequence of a lack of alternatives for socio-economic development. The development of such specificity in the programme realization despite its uniform rules and implementation structures nationwide seems positive as it combines the general objective of the INTERREG III A programme of co-operation development with existing, real opportunities for local development (e.g. tourism).

Significance of infrastructural undertakings suggests that cross-border co-operation was still connected with the creation of physical aspects of co-operation. On the one hand, it resulted from the existing, immense investment needs reported by local and regional self-governments, especially in the field of road and environment infrastructure (sewage system). On the other hand, relatively simple (and very imprecise) formal requirements concerning cross-border impact triggered the submittance of infrastructural applications, which were in fact converted Structural Funds regional programme projects (Integrated Programme of Regional Development). This was basically caused by excessive focus on infrastructural investments on the part of local and regional self-governments and their tendency to treat

the programme as an additional source of financing for the current investment needs of the communes.

It seems that the enterprises realized in the Polish-Czech border region were characterized by a more favourable generic structure. There were decidedly fewer infrastructural projects and they usually had low cross-border impact. A relatively more important role was played by 'soft' projects which were more trans-border in character (e.g. integrated tourist information and promotion system, creation of an integrated network of tourist trails, cycling lanes and pistes, promoting 'neighbourly' patterns and cultural traditions). High share of scientific-research projects is also worth noting (e.g. co-operation of higher education institutions in the field of research into energy utilization, the formation of logistic infrastructure in the border regions, studies of tolerance in local communities of the Polish-Czech border region). Increased activity of this type of units (mainly from Opole) was probably the result of the fact that international co-operation of research institutions from Poland and the Czech Republic was easier to implement than that on the Polish-German border. It might have been caused by fewer disproportions in the level of technological advancement, technical equipment and the functioning of higher education sector. An important factor was also great readiness to co-operate on the part of scientific-research units from Opole, which was the result of intentional regional policy. Co-operation with the German side was impeded by low attractiveness of Polish scientific-research institutions, especially as far as co-operation opportunities with technologically advanced units from Western Germany and Western Europe is concerned.

In the structure of beneficiaries measured by the number of projects the most prevalent were units of territorial self-government, among which communes accounted for over 55% (Figure 3). About 15% were associations and about 12% – higher education projects. Beneficiaries' structure as regards quota, was similar. An exception to this rule were central administration projects, mainly the state fire service and the national forest projects which were financially significant and mostly connected with property investments. Beneficiaries' structure was similar to that on the western border. Pronounced differences were connected with greater participation of higher education institutions and lower share of regional self-government.

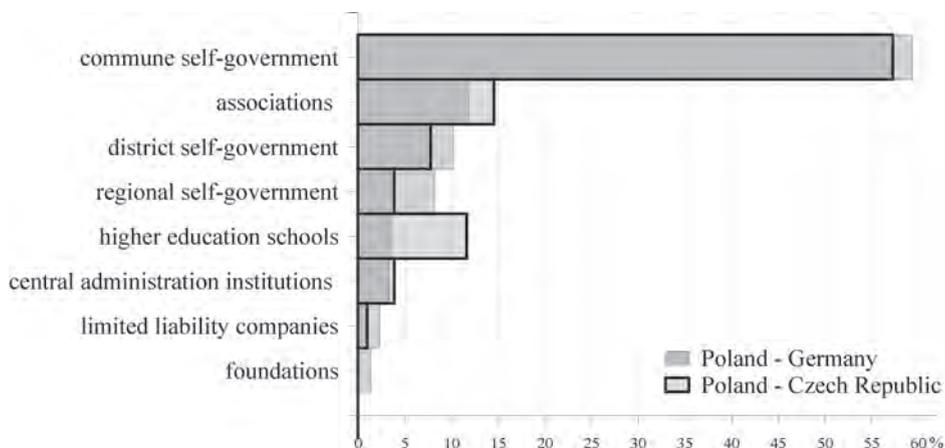


Figure 3. The beneficiaries' structure in the Polish part of the Polish-German and Polish-Czech border area within the framework of INTERREG III A programmes

It needs to be stressed that the share of grass-roots, non-administrative initiatives represented by associations and social organizations was low – barely around 15%. It seems that from the point of view of cross-border co-operation their role should be much more significant. This is indicative of non-government sector weakness, difficulties in obtaining necessary funds, which, in turn, is caused by a relatively low level of social capital in Poland (Janc 2006).

Despite a very similar structure of beneficiaries in Polish-German and Polish-Czech programmes, co-operation directions were different (Figure 4). Although types of beneficiaries were generally connected with types of projects, they were not the only determining factors. Territorial self-government units', preferences towards basic infrastructure projects was noticed by the authors in the earlier projects concerning the Polish eastern and western border regions. In the Polish-Czech programme we can notice only a slight change of this preference. It is indicative of the fact that the occurrence of a strong integrating factor may affect co-operation directions even when the structure of entities implementing this co-operation does not change. However, the character of co-operation between associations, social organizations and higher education institutions remained unchanged. However, they were not analysed thoroughly due to a very small number of SMEs participating in the programme and significant influence of incidental changes on the structure of the realized projects.

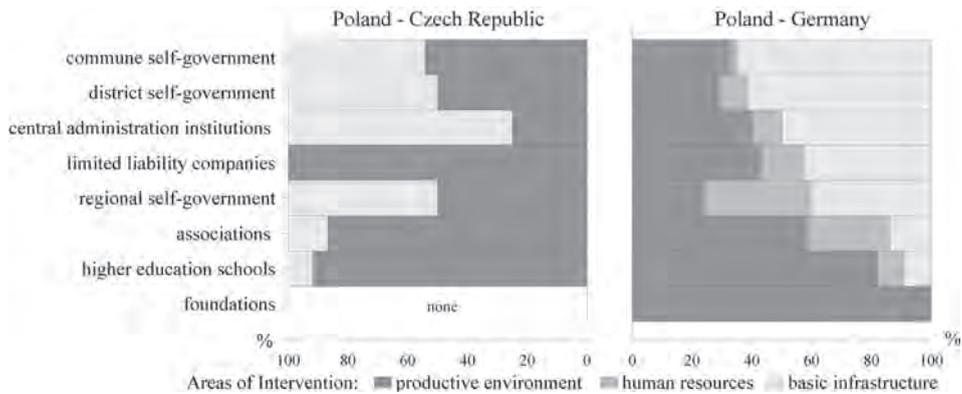


Figure 4. Distribution of projects realized in the Polish part of the Polish-German and Polish-Czech border area within the beneficiaries'

The main factors shaping spatial distribution of the realized projects in the Polish-Czech border region was the factor of border proximity (Figure 5). In contrast to the western border, no spatial concentration was observed there. An important role in spatial distribution was played by tourist attractiveness of particular regions as well as the existence of spa and tourism resorts (the Stołowe Mountains, the Karkonosze Mountains, the Silesian Beskid Mountains). Significant activity of beneficiaries from Opole also needs to be emphasized. It was probably the result of intentional and active policy of local self-governments and higher education institutions. Interestingly, Jelenia Góra, Wałbrzych and Bielsko-Białą played a relatively small role in the shaping of this co-operation despite their location which should encourage high activity.

Taking into consideration the location of the projects, a clear prevalence of urban communes (about 42%) in the project shaping was observed. This might have been caused largely

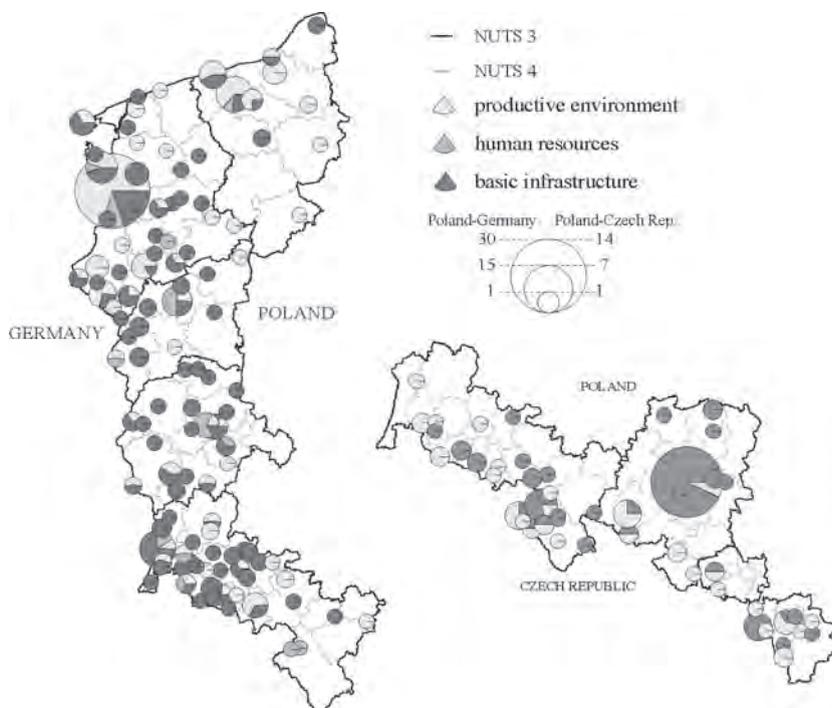


Figure 5. Distribution of projects realized in the Polish part of the Polish–German and Polish–Czech border area within the framework of INTERREG III A

by well developed settlement network and one of the highest levels of urbanization across the country. While administrative status of particular regions played a significant role in the spatial distribution of the projects, the size of administrative units didn't play a major role.

The analysed projects were realized in about 21% of communes. Their relatively low participation can be explained by the small allocation amount in relation to the volume of the supported area. As a result, support was only available to the best projects which were also able to complete project documentation in short time.

In order to examine the main factors conditioning spatial distribution of the realized undertakings, a comparison of the mean for the population of the communes participating and the communes not participating in the project were conducted in relation to the chosen socio-economic indicators (Table 1). The study showed that the greatest, statistically significant differences between the two populations were observed in relation to indicators connected with the level of economic development (communes' revenues from PIT, entrepreneurship indicators, the level of development of the business environment sector, labour market indicators). A significant role was also played by the quality of human capital. Considering the dominance of local self-governments in the group of programme beneficiaries the quality of local authorities was also significant (the indicator of educational level of councillors). It shows that units from the regions which were highly economically active and had significant human capital had the greatest chances of obtaining EU funds. Surprisingly, the analysis showed a lack of substantial correlation between spatial distribution of the projects and the level of affluence

of local self-governments and social capital. The studies conducted by the authors in other Polish border regions confirmed that the pivotal role in the creation of co-operation is played by human capital. This factor was statistically significant in all of the analysed programmes (Poland-Mecklenburg Programme, Poland-Brandenburg Programme, Poland-Saxony Programme, Poland-Ukraine-Belarus Programme). The majority of them were also greatly affected by economic and social capital factors.

It should be considered that the results obtained may be the consequence of the project location, i.e. the prevalence of urban communes. In order to verify these conditions concerning spatial distribution the analysis was conducted separately for the sub-population of communes: urban, rural and urban-rural ones. In the population of urban communes the results of the analysis confirmed previously obtained results. The study of rural communes confirmed the significance of only a few economic factors (entrepreneurship and the development of business environment sector). In the case of urban-rural communes no significant influence of spatial distribution was observed. In the latter case it might have been caused by specificity of these units connected with their internal dichotomy.

CONCLUSIONS

On the basis of the conducted analysis it can be stated that cross-border co-operation in the Polish-Czech border region was shaped differently from the other borders. It was mainly caused by the existence of a strong integrating factor connected with the development of tourism in the joint mountainous region.

Apart from the dominance of the projects concerning tourism an important role in the structure of intervention categories was played by basic infrastructure projects. Although the stage of shaping physical aspects of co-operation was significant, gradual evolution of intervention seems necessary. Above all, particular emphasis should be placed on promoting projects from the field of human resources, economic co-operation, technological development and spatial planning.

The demonstrated relationship between programme beneficiary structure and the generic structure of the projects indicates that the achievement of this objective requires a change in the structure of beneficiaries. Therefore, it would be desirable to increase the significance of associations, social organizations and scientific centres in shaping cross-border co-operation as the conducted analysis indicates their preference of advanced co-operation projects.

Changes in the mentality and attitude of the inhabitants should play an important role in stimulating social activity and shaping bottom-up initiatives. One of the most significant challenges will be in the thinking of inhabitants, i.e. the consolidation of awareness of a joint cross-border region, the shaping of which should be considered a partnership.

The study also revealed that the programmes realization is dependent on the level of human capital as well as economic development of particular regions. In a limited sense, it may also cause further polarization within the border region, and above all between urban and rural regions.

Spatial distribution shows a clear prevalence of the projects realized in the close proximity of the border. Compared to the Polish-German border area the proximity factor played

Table 1. Selected social-economic indicators for which the difference between the mean values within the population of communes realizing and not realizing INTERREG III A projects are statistically significant (Levene's test)

Specification	The mean value for the communes in which		Differences in medium-sized (c-b)/b*100 (in %)
	INTERREG III A projects are not realized	INTERREG III A projects are realized	
a	b	c	d
Total cross-border area			
Number of entities	186	49	-
Commercial companies for every 10 000 adults	27	39	43
Joint venture companies for every 10 000 adults	9	12	42
Natural persons' business entities for every 1000 adults	56	72	29
Communes' income from PIT per inhabitant	233	274	17
Contribution of business entities from the business environment	15	18	27
Unemployment per 100 inhabitants (%)	8	9	15
Employees per 100 inhabitants (%)	12	17	43
Contribution of councilors with higher education	32	43	36
Contribution of inhabitants with higher education	4	6	38
Contribution of inhabitants with primary and vocational education	57	53	93
Urban community			
Number of entities	27	29	-
Natural persons' business entities for every 1000 adults	85.9	99.0	15
Contribution of councilors with higher education	54.1	60.0	11
Contribution of inhabitants with higher education	7.4	8.3	11
Contribution of inhabitants with primary and vocational education	47.9	45.8	96
Rural community			
Number of entities	141	30	-
Natural persons' business entities for every 1000 adults	55.2	70.1	27
Number of business environment entities per 1000 inhabitants	8.8	10.0	113
Urban-rural community			
Number of entities	83	56	-

Source: own study.

a definitely greater role. Very high level of permeability of the Polish-Czech border and the fact that it does not constitute a significant barrier affected spatial aspect of co-operation (i.e. concentration of the projects along the border).

The conducted research did not confirm the hypothesis that there was a connection between the duration and the scale of the realized cross-border co-operation programmes in the pre-accession period and the quality of co-operation after the accession. One of the most important reasons for this was the lack of institutional continuity and new rules governing the realization of co-operation programmes. It meant the creation of the institutional co-operation structure from scratch. Probably much more intensive informal connections in the Polish-German border region did not yet translate into real co-operation under INTERREG III A programmes.

The fact that this connection was not reflected in the study may indicate high susceptibility of cross-border institutional co-operation to changes in the instruments shaping it (structures, formal-legal arrangements, financing etc.) It also suggests a lost opportunity for creating higher quality projects in the western border region, which could be used thanks to the continuity of formal and informal connections.

The existence of the integrating factor, may significantly dynamize co-operation and determine its character, like in the case of Polish-Czech border region. It concerns institutional co-operation which was the subject of the analysis. It also seems to apply to informal co-operation. However, the confirmation of such hypothesis needs to be proved by an independent study.

Experiences to date, as well as a substantial increase in formal requirements in the next programme period 2007–2013, should result in evolution (modification) of the current co-operation model in the Polish-Czech border regions. There is a serious threat of transposing the current directions (the dominance of basic infrastructure) and beneficiaries' structure (the dominance of local self-governments) to the next programme period. It requires the creation of a coherent, long-term policy in the scope of formal and informal cross-border co-operation. Such policy should focus on the formation of conditions for workable trans-border co-operation, the creation of players for this co-operation (especially in the non-governmental sector) as well as integration of the border region.

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**RURAL AREAS ALONG THE EASTERN BORDER OF THE EUROPEAN UNION –
– PROBLEMS AND PERSPECTIVES OF DEVELOPMENT WITH SPECIAL
CONSIDERATION OF TOURISM
(ON THE EXAMPLE OF THREE POLISH MUNICIPALITIES)**

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Abstract. Local development of rural areas situated at the eastern EU border constitutes the main problem that the paper focuses on. The study area consists of three primarily agricultural communes. The socio-economic condition of the area is weak (like the condition of the other eastern-border areas) but there is a potential for the agro-tourist development (based on traditional rural and semi-natural landscape, as well as the natural valley of the border river Bug). The paper presents natural conditions, socio-economic situation and the problem of the natural and political border. The documents issued by the communal authorities concerning the ways of development (strategies of local development), as well as current activities of local authorities toward tourism development are examined in the paper. Findings from the interviews with farmers providing agro-tourist services are presented. On the basis of all the research findings the author tries to evaluate the perspectives of development of the study area, especially in terms of tourism and the border-adjacent location.

Key words: rural tourism, border-adjacent location, Dubienka, Horodło, Hrubieszów

INTRODUCTION

The study area is constituted by three communes in Poland, located in the province of Lublin, at the border with Ukraine (Figure 1). The province of Lublin (a NUTS 2 region) is a typically agricultural area, characterized by a low level of socio-economic development. Before the accession of Romania and Bulgaria to the European Union this was the least developed region of the EU, with the GDP value per capita in 2004 at 35% of the average for the NUTS 2 regions (Growing regions... 2007). The municipalities investigated are typical examples of the peripheral areas of this region.

The study area has the surface of not quite 500 sq. km. The eastern boundary of each of the three communes is constituted by the river Bug, being at the same time the state boundary and the boundary of the European Union, and, since December 2007, also the boundary of the Schengen zone. The study area is characterized by low population density and domination of farming in the structure of the economy, while their natural and landscape qualities are potentially a good basis for the development of agro-tourism.

The purpose of this paper is to provide a diagnosis of the socio-economic problems of the study area, with special consideration of the role of closeness to the border and the problem of tourism-related development, as well as an attempt of assessing the development perspectives in the light of the existing internal and external conditioning.



Figure 1. Location of the study area

THE SOCIO-ECONOMIC SITUATION OF THE COMMUNES STUDIED AGAINST THE BACKGROUND OF THEORETICAL QUESTIONS AND BORDERLAND PROBLEMS ON THE REGIONAL SCALE

Location at the state border is associated with specific conditions of economic development. Boundary is often analyzed by scholars in terms of a spatial barrier, that is – an obstacle for

the connections, translocations and interactions in physical space (Rykiel 1991); a spatial barrier can be characterized by different degrees of permeability (Rykiel 1985), depending upon numerous natural and man-made factors. One of the first theories concerning the economic aspects of the border-adjacent location was described by W. Christaller and A. Lösch, who maintained that functioning of the market areas located close to the border is subject to a significant limitation on the reach of the zone of influence in comparison with the areas located deeper in the country, and so the development opportunities of the borderlands are smaller. State boundaries cut across the natural networks of market areas and unilaterally “close out” the border areas (Falkowski 2006). Studies, conducted for the border areas in Poland in the years 1998-2003 show that all these areas developed much more slowly than the rest of the country and that the process of marginalization was progressing there (Mierosławska 2005). Yet, even before the accession of Poland to the European Union the areas of the Polish western and south-western borderlands developed much better, at least in the context of the transboundary connections, than those of the eastern borderland. This observation is confirmed by the data concerning the exports from individual counties and the cross-border traffic taking place along the main transport corridors in Poland in 2000. Both the values of exports and the intensity of the cross-border traffic were much higher within the western and south-western borderlands. After Poland had joined the European Union, the values of both of the indicators mentioned generally increased, with the eastern borderland remaining in a clearly worse situation than the western and the south-western ones. The share of the counties located along the eastern border in foreign trade is marginal, except for the counties, in which the cargo border crossings are located (Komornicki 2007).

The areas of eastern borderland are characterized, when seen against the background of the rest of the country, by a lower level of education of the population, higher share of population employed in agriculture, lower share of urban population and lower number of businesses (Mierosławska 2005). These areas are not attractive for external investors (Komornicki 2007). Besides, the demographic structure is particularly disadvantageous. The majority of areas, situated along the eastern border, are considered problem areas in terms of the demographic situation, with high shares of population in post-productive age, low natural increase indicators, low migration balance, and a shortage of females in the age of 20–29 years (Frenkel 2000).

The possibilities of development on the basis of transboundary collaboration of the areas situated along the eastern boundary are significantly weakened by, first of all, the lengthy border crossing procedures and the customs and visa formalities, but also by the very low number of border crossing points. In the case of the border with Ukraine, whose length is 535 km, there are only six road border crossings, meaning that there is, on the average, one road border crossing per 90 km of the boundary (for comparison, on the Polish-German border there is one road border crossing per 18 km). Simultaneously, the indicator of density of roads crossing Polish-Ukrainian border is the worst in relation to the remaining Polish borders (Fedan, Makiela 2006). It was shown by the studies, concerning the Polish-Ukrainian borderland, that the transboundary collaboration is there in the initial phase of development, as demonstrated by the lack of significant, deeply rooted joint economic or infrastructural undertakings (Fedoniuk et al. 2005).

The municipalities under study are a good example of appearance of the problems here mentioned on a local scale. The border-adjacent, peripheral location with respect to large

urban centres, domination of traditional farming in the structure of economy, and lack of manufacturing form the conditions for the low level of socio-economic development of these areas. Population numbers in all the three communes systematically, even though slowly, decrease, while the share of population in post-productive age increases, amounting in the communes investigated to between 18 and 22%, which is well above the average for Poland (15.7%). Young people tend to leave these areas and move to town in search for jobs. Peripheral location and other factors make the municipalities under study little attractive for settling, as demonstrated, for instance, by the fact that on the entire area, inhabited altogether by some twenty thousand persons, only 13 new housing buildings were put to use in 2006 (*BDR* 2006).

Border adjacency does not constitute a development factor for these areas. Over the border segment of 91 km there is only one border crossing (road crossing for persons in vehicles), of local significance, in Zosin. This is, at the same time, the location of the sole road bridge on Bug river over the entire border segment considered. There are no road cargo or walker crossings. It should also be added that along the borders of the three consecutive communes to the South (roughly 70 km in total) there is no border crossing at all. One can hardly speak, therefore, of the development of business links and the collaboration between the neighboring areas, situated on both sides of the border. It is worthwhile to quote here the results of the survey study, performed on the area in question, among the business owners. They declared that, despite being located in the border zone, they did not export to Ukraine and did not plan to start such activity (*Strategia rozwoju gminy Hrubieszów* 1998).

It turns out that even in the nearest neighbourhood of the sole border crossing on the area of the three communes investigated services develop to a very limited extent – there are just two little bars and two groceries. Demand for service would have been certainly much higher, were the cargo traffic passing through the area (in such a case, though, one should not forget about the negative effects, which would have accompanied the cargo traffic, like, for instance, worsened life quality of the inhabitants and lowering of the tourist attractiveness).

Even though a railway border crossing is situated on the territory of one of the municipalities considered, it functions solely for the Wide-Gauge Metalworking Railway Line, connecting Silesia in Poland with Ukraine, and has no economic significance for the area analyzed.

Farming structure on the area analyzed is fragmented, with domination of small farms – the shares of the farms having less than 7 hectares range in the communes considered between 65 and 78%. Besides, there are numerous farms managed by the retired and the pensioners. In two out of the three communes considered more than half of farms produce solely or mostly for own use (subsistence farming). This is a very high share and is an evidence for a low economic activity of the farmers. Let us add yet that in only approximately 7% of farms some non-agricultural activity is also conducted.

The areas here considered struggle with serious problems in the domain of basic technical infrastructure (Figure 2). This even concerns the equipment with basic sanitary installations. Thus, in the communes studied, according to the data as of 2002, between 40 and 60% of houses were not equipped with a bathroom or a flush toilet. These are, again, very high rates. Lack of these installations applies primarily to old houses, not repaired for a long time, inhabited by the retired and the pensioners. This is also linked with a relatively low percentage share of the population, using water supply and sewage systems. There are few businesses – their number per 1,000 inhabitants is at 30 to 35, which is decidedly below the average for the rural communes

in Poland (57). The revenues of the municipal budgets are low – per capita they are at some 80% of the average revenues, per capita, for the rural municipalities in Poland (BDR 2006).

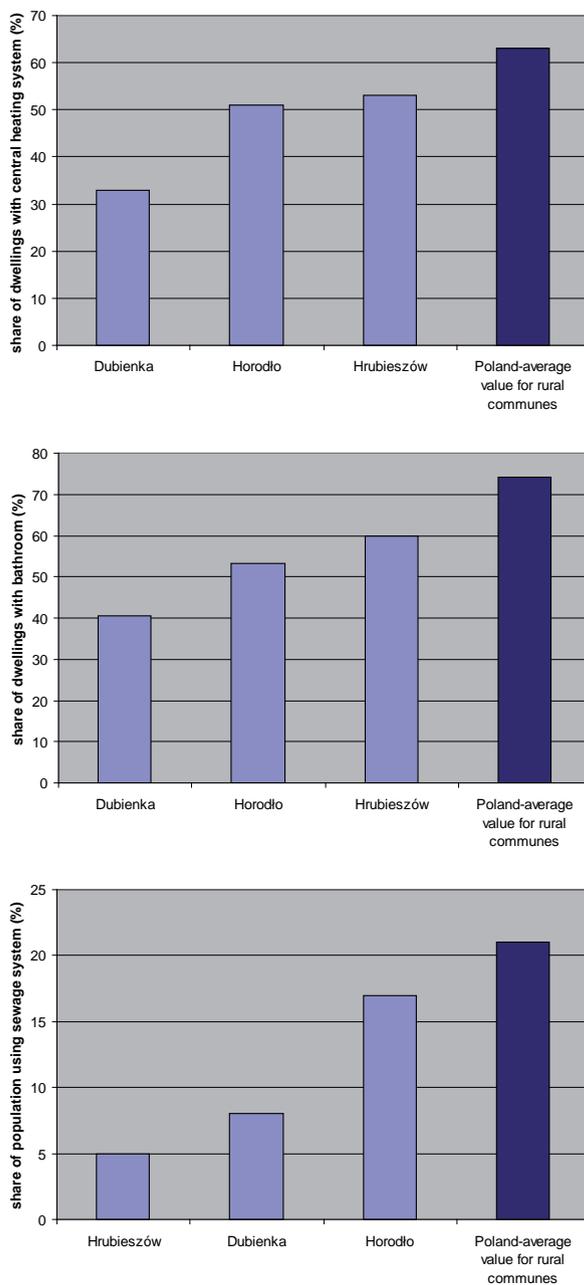


Figure 2. Selected indicators concerning the development of infrastructure of the communes studied against the background of rural communes in Poland

PERSPECTIVES OF DEVELOPMENT OF THE COMMUNES IN THE LIGHT OF STRATEGIC DOCUMENTS. NATURAL CONDITIONS FOR THE DEVELOPMENT OF TOURISM

In order to confront the situation here presented with the approach of the local self-governmental authorities to the problems of development of the communes, it is worth having an insight in this place into the directions of development, adopted by the authorities of these communes in the strategic documents during the recent years. The strategies of development of two out of the three communes contain the formulations constituting the evidence, that high hopes are placed in the opportunities for the economic development by taking advantage of the border-adjacent location. Among the strong points of the communes the border-adjacent location is mentioned, which is supposed to be the basis for economic activation, including development of cross-border trade. Close cooperation with Ukraine, according to one of the visions of development of the communes, shall bring about the development and the strengthening of the enterprises, providing jobs for the population, who would abandon the direct engagement in farming. This shall also contribute to the development of tourism (*Strategia rozwoju gminy Horodlo* 1999). In the case of the third of the municipalities considered there are no formulations whatsoever in the strategic documents, concerning the role of the state border in the economic development. And this appears to be a more realistic perspective.

Besides, each of the communes saw the chances of bettering their economic situation in the changes in the farm structure, the development of commercial farming, as well as, on the other hand, in the development of the non-agricultural functions, and especially tourism. It is worth noting here that favouring of the tourism-oriented direction of development is a frequent phenomenon in the policy of the local self-governmental authorities, even on the areas, where tourism has not been developing to date. One can notice in Poland a kind of "fashion" of activating the traditionally agricultural areas through the development of tourism, including, in many instances, quite unjustified treatment of tourism as the means for solving the economic problems of the countryside.

In view of the difficult socio-economic situation of the communes in question, their authorities also put emphasis on the important role of development of tourism. The basis for such an approach is constituted by the attractive natural and cultural assets of these areas. Almost half of the total area of the three communes is covered by the landscape park and the so-called areas of protected landscape. These forms of protection are created so as to preserve the special natural, cultural and historical values and the features of landscape. Among the most important parts of the heritage there are: an extensive forest (about 8,220 hectares) of natural character, fertile habitats, multi-level ecological structure with a great number of plant species, and non-intensively used meadows and pastures. The valley of the border river Bug is also of high natural importance. The valley of the meandering river is wide and natural, covered by riverine floodplain forests, meadows, and xerothermic grasslands, with oxbow lakes. The river is a migration corridor and habitat area for many birds, e.g. predatory birds (Rąkowski 2002). Due to the natural values of this region, four NATURA 2000 areas were created here. A significant part of the area considered is characterized by a rolling terrain relief, with attractiveness of the landscape enhanced by small valleys and in-field groves. Farming land, and especially cultivated fields, constitutes a typical element of this landscape. Low population density

(41 persons per sq. km) is conducive to the strengthening of the natural qualities. The settlement structure is formed by smallish villages (the biggest of them of around 1,500 inhabitants), with a high share of the old, wooden structures. According to the *BDR* (Bank of Regional Data) data of 2002, the share of houses from before 1945 in the commune of Dubienka was at close to 37%, though in the communes of Horodło and Hrubieszów these shares were lower (at, respectively, 19 and 10%). Farms are usually small, around six hectares on the average. The area analyzed is characterized, therefore, by a typical rural landscape, well fit for the agro-tourist use. Of importance for the development of tourism may also be the historical-cultural assets of the area. There are villages with multi-religious traditions, featuring historical religious architecture, places of historical events, as well as numerous valuable archeological sites, including, for instance, the settlements and the burying grounds of Goths from the 2nd-4th centuries AD (*Plan rozwoju lokalnego gminy Hrubieszów 2004*).

In the development strategies of the communes considered, elaborated since 1998, numerous detailed objectives were formulated in connection with the potential development of tourism. Among these detailed objectives one finds the following ones: infrastructural development of the recreational and leisure areas (Hrubieszów), modernization of infrastructure associated with servicing of the population – trade, catering and accommodation infrastructure, entertainment (Horodło), reclamation of the abandoned buildings for purposes of tourism and recreation services (Horodło), activation of the local society through trainings (Horodło, Hrubieszów), increase of the incomes of the population through development of agro-tourism (Dubienka), and the like. The here quoted strategy formulations demonstrate that the self-governmental authorities do actually attach high importance to the development of the tourist function. It remains, however, still to be answered, to what extent the objectives concerning the development of tourism, formulated a couple of years ago by the local authorities, are realistic. In order to verify the state of realization of the respective postulates field study was performed, meant to identify the state of tourism development and tourist traffic; interviews were carried out with the owners of the existing accommodation facilities, the questionnaires were also sent to the communal self-governmental offices, so as to acquire information on the subject of their activity in the domain of development of tourism.

ACTIVITIES OF THE LOCAL SELF-GOVERNMENTAL BODIES MEANT FOR THE DEVELOPMENT OF TOURISM

The mailed questionnaires, addressed at the communal offices, contained questions concerning the activity of the local administration and authorities in the domain of support for tourism. The results of the questionnaires indicate that involvement of the self-governmental bodies in this domain is insufficient. It turns out that only one of the municipalities organized (or co-organized) training in agro-tourism. Collaboration with various bodies, meant to support the development of tourism, is poor (Table 1). It is particularly surprising that collaboration with the local associations of the hospitality operators, functioning in the communes studied, was not declared. This is a confirmation of the information, obtained during the interviews with the owners of the agro-tourist farms from the communes of Dubienka and Horodło, who indicated insufficient support from the side of the self-governmental bodies.

Table 1. Self-governments' collaboration with various bodies for the development of tourism

Self-government of the commune:	Collaboration for the development of tourism with:				
	forest service / management of protected area	supra-local tourist organisation	local hospitality operators	other communes	abroad
Dubienka	YES	NO	NO	NO	NO
Horodło	NO	NO	NO	YES	NO
Hrubieszów	NO	YES	NO	YES	YES

There were also questions concerning the investment projects, associated with the extension of the tourist and para-tourist infrastructure (tourist routes and paths, sports, accommodation and cultural facilities), development of villages and their historical heritage (renovation of historical monuments, formation of the village centres), as well as additions to the technical infrastructure, that have been realized in the years 2004–2006. In all the three communes primarily the necessary technical infrastructure was being developed – water supply, sewage and roads. Projects linked with tourism have been, on the other hand, realized only sporadically, with the commune of Hrubieszów standing out in a positive manner through establishment of a tourist route, a bicycle renting facility and a museum. The commune of Hrubieszów is also an exception in terms of the diversity of the promotion materials published, undertakings aiming at activation of the local community, as well as in terms of the number and variety of the concrete plans and ideas connected with the development of tourism, which were declared in the self-governmental municipality office.

It is hardly surprising that in the domain of activity of the communal self-governmental bodies, aimed at the development of tourism, no plans or actions are envisaged concerning the use of the border-adjacent location. There is very little that can be done at the municipality level in the face of the tightening of the Polish-Ukrainian border and the shortage of border crossings. Yet, even if the regulations associated with the functioning of the state boundary and the European Union did not constitute a barrier, the river Bug would still form a natural barrier. The potential construction of bridges would be a difficult, serious and costly task, not only for the economic and political reasons, but also for the environmental ones (such projects could have a significant impact on the NATURA 2000 areas). Plans of bridge construction would require, first of all, joint initiatives and actions of the state institutions on both sides of the border. Then, in turn, the existing shortage of bridges makes undertaking of coordinated investment projects difficult (Kałuski 1992).

LEVEL OF DEVELOPMENT OF TOURISM

The state of development of tourist infrastructure on the study area is relatively poor. In the three communes considered only 23 accommodation facilities function (21 agro-tourist farms, one guest-room facility, and one youth hostel). In 2007 interviews were carried out in 15 accommodation facilities, functioning on the study area. Information obtained from

the hospitality operators allowed for the assessment of the state and the development perspectives of tourism on the study area.

Almost all the facilities considered were agro-tourist farms. Majority of the service-providers offer their guests various kinds of service and attractions: full board, based on products from own farm, including specialties of home cuisine, playground for children, bicycles and other sports equipment, possibility of taking advantage of the garden. The hosts usually provide a separate kitchen, or a kitchen annex, for the guests, and the TV sets in the rooms. Tourists may read on place information materials, booklets on the area, may put up tents and make bonfires on the property of the hosts. In every second farm the hosts declared that old household appliances are collected. This is, indeed, a positive phenomenon, the operators are aware of the importance of the cultural and economic heritage of the land. One third of the operators declared owning horses or ponies, and organized horse riding and sleigh cavalades. Some of the agro-tourist farms offered yet other, quite specific attractions, like organization of the traditional Christmas Eve dinners for foreign guests, New Year's Eve festivities, mushroom and berry picking outings, fishing events, guiding service, or bonfires with the hunters. On the other hand, in only two cases of the agro-tourist facilities the guests were offered rooms with bathrooms.

Despite the ample offer, hospitality and engagement of the hosts, as well as the attractive area, in recreational and sightseeing terms, the use of the accommodation facilities considered was very low. There were, on the average, 18 nights spent per year per bed, which is equivalent to 5% of use. If we take, in addition, into account the fact that there were very few beds in each of the facilities analyzed (in only four of them there were more than ten beds), we should conclude that tourist service does not constitute an essential source of income for the operators considered. Moreover, in roughly half of the facilities considered no upward tendency was noted during the last three years in terms of the number of nights spent at the facilities by the guests. In the remaining cases the increase of this number was mainly not associated with the visits of tourists, but of the guest workers.

The study conducted allowed for the identification of an interesting phenomenon, concerning accommodation service within the study area. It turned out, namely, that in nine out of fifteen facilities considered, the services were provided to workers and high school students. Thus, the agro-tourist farms functioned largely as temporary lodging for persons employed on various projects within the area and as lodgings for pupils and students (the latter concerns, in particular, Dubienka, where a high school is located, educating border guards staff). Some operators declared outright that typical tourists, who come for leisure, are a decisive minority among their customers. Besides, the customers crossing the state border, even in the case of facilities situated in the vicinity of the border crossings, played a marginal role. In the opinion of the operators real income comes only from renting of the rooms to the employees and students. The information, obtained from the operators implies that tourist service brings them on the average 21% of the total income in the household.

Development of tourism is not facilitated by the legal regulations, linked with the existence of the state boundary on the river Bug. Thus, according to the valid legal regulations (decree of the Minister of Home Affairs and Administration, *Dziennik Ustaw*, 94, 2006) the intention of undertaking on the border waters of such activities as tourism, sports, fishing and hunting, should be declared to the Border Guards at least 24 hours before undertaking

such activities. This concerns, therefore, for instance, canoeing or even bathing in the river. This principle may turn out to be an important limitation on the development of the recreational function of the river Bug valley. Holidaymakers often spontaneously choose the way of spending their leisure time. The legal requirements like the one mentioned, linked with the conditions on the recreational and tourist use of the river may discourage potential visitors.

An additional serious barrier to the development of tourism is constituted by the difficulties associated with crossing of the state border. As mentioned, the sole border crossing for persons, functioning on the study area, is a road traffic crossing. Hence, tourists not using cars, like cyclists or walkers, cannot use this crossing. Such a situation is characteristic for the entire eastern border. According to the agreements on the border traffic between Poland and her eastern neighbours, no foot walking traffic is allowed on the road border crossings. In this connection there exist, as of now, no perspectives for opening tourist border crossings on the areas in question. Tourists in cars, however, encounter problems as well – the waiting time for the border guard and customs clearance at the sole border crossing in the communes analyzed, in Zosin, is always very long, as it can be concluded from own observation and the opinions of the local population. This problem is, again, characteristic for the entire area adjacent to the border with Ukraine.

Since the very inception of the Euroregion Bug, encompassing also the region here considered, too small number of border crossings and their inadequate throughput capacity have been indicated, as making out of the border a hard-to-cross barrier for the tourist traffic (Janicki 1997). In order to enable the development of the cross-border tourism a postulate has been since a long time ago forwarded of the necessity of opening the tourist border crossings, in the form, for instance, of foot-bridges over the river and the adaptation of the existing crossings to the pedestrian traffic (Rąkowski 1997). Yet, until today no tourist border crossing has been opened along the border with Ukraine.

One can hardly speak of the real economic significance of tourism on the area considered. There are few agro-tourist farms, incoming tourist traffic is marginal. It also turns out that the owners of the existing facilities treat this kind of activity more like a hobby than a true-to-life business activity. Only one third of the respondents indicated that financial reasons had been one of the factors of starting the agro-tourist activity. The actual reasons indicated included, in particular, curiosity, passion for tourism, wish of getting in touch with people, persuasion from the friends. In terms of the advantages, which the operators declared as accruing from the conduct of tourist service, first of all the non-material ones were quoted, as well: contacting interesting people, entertainment, way of spending time in a nice manner, etc. Only 1/5 of the respondents declare that tourist services shall continue to be provided by their children. These responses imply the pessimistic forecasts as to the development of agro-tourism on the study area. Such forecasts are confirmed by the following information, acquired from the respondents: in the initial phase of development of agro-tourism there were relatively many persons willing to conduct such an activity and their number gradually decreased, when it turned out that the revenues from this activity are small; and: local inhabitants do not have sufficient willingness nor ideas for conducting tourist services. Besides, young, active people leave the area and move to towns in search for jobs (such comments are a confirmation of the statistical data, showing population decrease in the study area). For many of those, who remain, an additional source of upkeep is constituted by petty trade, especially in alcohol and cigarettes, brought in from Ukraine.

The respondents pointed out an important role of the farmer support service centres, which were active several years ago in supporting agro-tourism. Employees of the support service centres were contacting farmers and encouraged them to take up agro-tourist activities. This action was supposed to be at the origin of the development of local agro-tourism. It turned out, though, that when the intensity of this action decreased, further development of agro-tourism has not followed. Hence, it can be concluded that there has been insufficient internal social capital in the communes analyzed for the realization of this direction of business activity, despite the solid bases and the stimuli, provided by the farmer support centres.

The respondents indicated, as the main barriers to the development of tourism, lack of promotion and shortage of tourist attractions (half of the respondents pointed out these reasons), as well as low interest from the side of the local community and the local self-governmental bodies in the development of tourism (five indications each). Thus, it can be concluded that the respondents do not perceive the barrier, which is constituted by the conditions associated with the functioning of the state boundary on the river Bug.

SUMMARY

Information acquired allows for drawing of little optimistic conclusions concerning the perspectives of the socio-economic development of the study area. It can be expected that the processes of its depopulation and ageing shall continue, since there are no prerequisites indicating the possibility of improvement of the socio-economic attractiveness of these areas. Currently, however, the municipalities considered struggle to overcome the problems of the long-term negligence in the domain of basic technical infrastructure.

The border-adjacent location is in the case of the area studied a barrier to development in three aspects:

- it is a peripheral location on the scale of the country, far from the urban centres, which contributes to deepening of the weak economic position,
- state boundary, being at the same time the boundary of the European Union, constitutes a barrier to cooperation and business, social and cultural links, especially in the context of the complex and lengthy procedures of crossing the border; an important role is also played by the shortage of border crossings and the visa regulations, which have to be followed by the citizens of Ukraine; tightening of the border in connection with the accession of Poland to the Schengen zone does not provide perspectives for economic activation of the areas of Polish-Ukrainian borderland; on the other hand, though, one should not overestimate the significance of the political events for the intensity of the cross-border traffic, they exert a stronger influence on the structure of this traffic – the increase of the share of Poles, crossing the border (Komornicki 2004),
- a natural boundary is, additionally, constituted by the river Bug, which remains a physical barrier irrespective of the political conditions.

Low level of economic development is conducive to the strengthening of the natural values, and so – also of the tourist qualities of the study area. Yet, one should not expect on this area a more pronounced development of tourism, in the sense of appearance of a generally accessible tourist infrastructure, despite the hopes of the local self-governmental bodies placed in

the tourist direction of development. A small number of accommodation facilities shall most probably continue to function, but tourism shall remain a phenomenon of a marginal significance on the scale of the analyzed communes, especially as regards the economic role of tourism. It is, on the other hand, possible that in view of the low prices of land on this area, the second homes, constructed by the inhabitants of towns, shall appear here. Such processes start to take place on other agricultural areas of the province of Lublin.

As mentioned before, the lengthy procedures of border crossing, shortage of border crossings and lack of the ones meant for tourists, constitute the barriers to the development of cross-border tourism. It can be assumed that once these limiting factors are eliminated, excursions to the Ukrainian side could be an interesting addition to the offer for tourists, staying on the area of the communes considered.

An important barrier to the development of tourism is constituted by the legal norms, linked with the use of the border river Bug, including the use for sports and tourism. The valley of Bug is, on the one hand, the fundamental tourist asset of this area, a valuable natural corridor of European significance, and on the other hand – its use for recreational purposes is limited in connection with the functioning of the regulations concerning state boundaries.

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THE REBIRTH OF SOVEREIGN STATES AND FIRST CHALLENGE TO NATIONAL INTERESTS OF REPUBLICS OF SOVIET UNION (1989)

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Abstract. Under the Soviet imperial regime 15 Soviet Socialist Republics, were “blessed” with formal democracy, sovereignty and self-determination. However, after introduced glasnost and perestroika policies by Mikhail Gorbachev, reformative atmosphere gradually extended to freedom, democratic or ethnic movements all over the Soviet Union. The larger scale of democratic and ethnic movements developed, the more radical conflict happened among ethnic groups and Union Republics. Dearing with case of researching commission of 1939 Soviet-German Nonaggression Pact, this paper verifies what kind of national interests the Union Republics tried to keep, and what a cause of conflict among them was.

Key words: Soviet-German Nonaggression Pact, Secret Protocol, 23 August 1989, belonging of Vilnius, transdnier, sovereignty

INTRODUCTION

The researching aim of this paper is to verify how to generate collisions of national interests among Union Republics on the process of that it had put Secret Protocol within 1939 German-Soviet Nonaggression Pact¹ on view to general public, at the end of Soviet era.

Secret Protocol, which German and USSR clandestinely concluded in 1939 decisively changed balance of power in the East European territory. From 1939 till 1940 as a final phase of succeeding events after concluded Secret Protocol, independent Baltic states were annexed as a part of USSR, the east land of Poland was ceded to Belarus, Ukraine and Lithuania and the east land of Finland (Karelia) to Russia. Romania was divided into two parts; one of them was annexed into USSR as “the Soviet State of Ethnic Moldovan” (Figure 1). This one-sided Soviet policy deprived these territories of independent (sovereignty) and created Lithuanian SSR, Estonian SSR, Latvian SSR Moldovan SSR as a result of “free-will and choice” of inhabitants.

¹ The Pact is widely known by a number of different titles as Molotov-Ribbentrop Pact, Nazi-Soviet Pact and Hitler-Stalin Pact.

In the middle of 1987, after introduced Gorbachev's perestroika and glasnost, Baltic intellectuals began to organize private researching groups for reconsidering and modifying Baltic history during the Soviet period. In 23 August 1988, it held mass meeting in Vilnius for reconsidering Secret Protocol, which decided Lithuanian doom. Under the pressure from Baltic nations on 8 June 1989 it was organized the Commission of Congress of People's Deputies USSR for politically and legally valuing of the 1939 Soviet-German Nonaggression Pact (Komissiya Syezda Narodnykh Dyeputatov SSSR po Politichyeskoy i Pravovoy Otsyenkye Sovyetsko-Gyermanskogo Dogovora o Nyenapadyenii ot 1939)². To recognize the existence of Secret Protocol, which Soviet authority officially argued non-existence until December 1989 meant that the East European independent countries were "illegally" annexed to USSR, and might bring a chance to correct current political status including in border. The delegations of 1939 Pact researching commission from Baltic states, were representatives of the Popular Front's forces and tried to make Moscow authority recognize the existence of Secret Protocol.

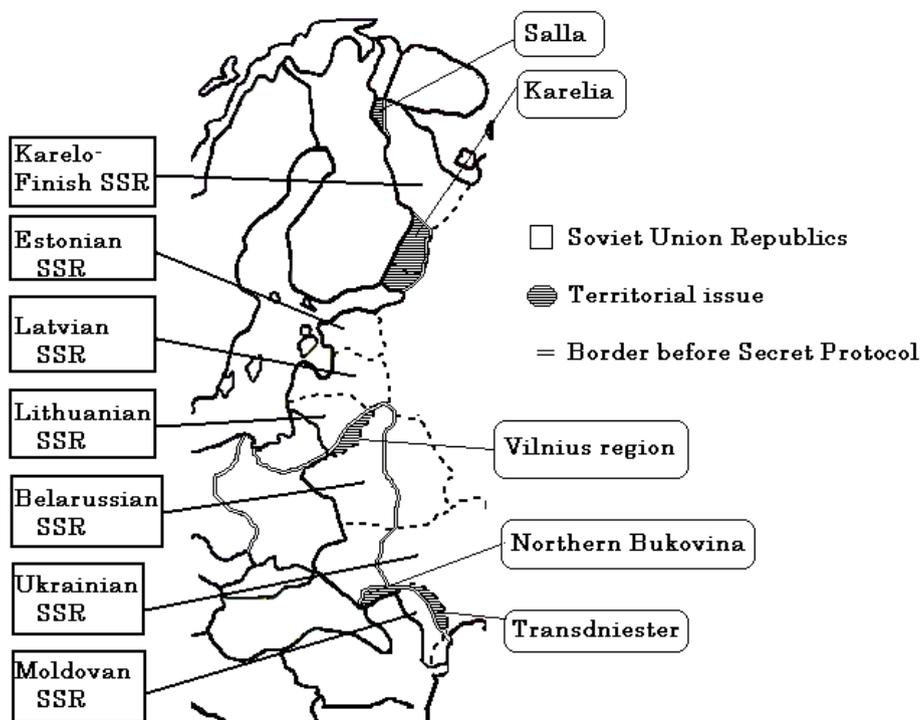


Figure 1. Actual territorial changes, 1939-1940

This paper would mainly verify the following discussing points; to recognize existence of Secret Protocol did not bring about simple alternative choice whether Union Republics would have a right to secede from Soviet Union. Members had various opinion how it should be denied Secret Protocol by consulting own "national interests". For instance, Estonian delegations tried to open Secret Protocol to public from outside pressure especially gathering attention from German and Finland. Lithuanian tried to deny Secret Protocol at the USSR

² In this paper this commission's name is abbreviated "1939 Pact researching commission".

domestic level without asking to foreign countries, which Poland had a possibility to involve in. Ukrainian delegation was basically passive to annul Secret Protocol which was a main cause of Ukrainian territorial expansion. This paper would take a case of 1939 Pact researching commission and verifies what kind of national interests the Union Republics tried to prevent.

THE PROCESS OF DISCUSSION – WHAT WAS A MAIN CAUSE OF CONFLICTS AMONG REPUBLICS?

Baltic states, already in 23 August 1988, had an experience of large scale demonstrations toward 49th anniversary of Soviet-German Nonaggression Pact, in 1989 they could not impede larger mass movement for recognizing existence of Secret Protocol and invalid it. On the wave of Baltic movement, Landsbergis requested to form 1939 Pact researching commission in the First Congress of People's Deputies in May 1989. Accepted request, it organized commission, whose the chairman was A. Yakovlev and whose member consisted of 26 people's deputies USSR (Table 1). There were 5 meetings in Kremlin; the first meeting of 1939 Pact researching commission held in 8 June 1989, the second in 5 July, the third in 12 July, the fourth in 19 July and fifth in 4 November. Let us check process of discussion.

The notable point in the first meeting is that Baltic delegations, Savisaar and Landsbergis, requested to conclude a final result of commission till the 23rd August 1989 when it would be 50th anniversary of the Soviet-German Nonaggression Pact³. Landsbergis revealed that 250 thousand Lithuanians attended to the last demonstration at the 49th anniversary in 1988 and alarmed members that it would bring bad affect on the Baltic society without final conclusion toward Secret Protocol. Meanwhile Yakovlev faltered their request, M. Bulifson from Latvian Art Academy continued to alarm that some others, on behalf of them, would organize researching groups and publish the conclusion about Soviet-German Nonaggression Pact and Secret Protocol if their 1939 Pact researching commission would not⁴.

The second meeting was held one month later in 5 July 1989. In this meeting different thinking way among members became clearer. At the beginning of session, G. Arbatov insisted that he would boycott latter session if legal and political evaluation to German-Soviet Nonaggression Pact would connect with seceding problem of Baltic countries and Bessarabia from Soviet Union⁵. Although Savisaar who became vice-president in reality⁶ agreed not to discuss seceding problem, commission members could not impede to touch this taboo. Motieka described that Lithuania as a historical truth lost independence by Secret Protocol⁷ and then it occurred heated dispute again.

The third meeting touched off from an episode that the movements against Secret Protocol were intensified in the Baltic countries. Z. Šiličītė, Lithuanian advocate, explained her surroundings that Lithuanian delegations and authority faced hard condition that the meeting-participants heckled "the commission did not do anything"⁸. Furthermore I. Kezbers, Latvian

³ GARF (Gosudarstvennyy Arkhiv Rossiyskoy Fyedyeratsii), f. 9654, op. 2, d. 123, l. 37ob.

⁴ GARF, f. 9654, op. 2, d. 123, l. 38–39ob.

⁵ GARF, f. 9654, op. 2, d. 124, l. 199; 201ob.

⁶ Official vice-presidents were Yu. Afanashev and V. Falin.

⁷ GARF, f. 9654, op. 2, d. 124, l. 201ob.

⁸ GARF, f. 9654, op. 2, d. 126, l. 17ob.

communist leader, told that general public well noticed that the commission did not yet bring any result during 2 month and alarmed that society would be critical condition without making final result till 5 August 1989⁹. Another problem in the third meeting was that it came out seceding question again as well as in the second meeting. Motieka insisted that Lithuania might never become a member of Soviet Union without Secret Protocol. Yakovlev strongly criticized him to connect Secret Protocol with current political status of Union Republics. Toward his criticizing, I. Griazin, Estonian scientist, described that the present political status of Estonian SSR was legally groundless although current Estonia was located in USSR.

In the forth meeting discussion stagnated because Kraveth, Ukrainian diplomat, was against denial of Secret Protocol while Baltic delegations tried to conclude the concrete date when it would be invalid. Kraveth did not accept all demands and suggestions from Baltic delegations and there was originally a wide gulf among Baltic and him. Finally Baltic delegations could not reach at final common conclusion till 23 August 1989 and must conclude opinion as $\frac{3}{4}$ of members because Kraveth denied idea, which invalidated the Soviet-German Nonaggression Pact.

It should be noticed important event after the fourth meeting of 1939 Pact researching commission till 23 August 1989. The commission could not show common view but in 18 August Yakovlev expressed his personal opinion in answering interview as Pravda. He described that the current political status of Lithuanian SSR, Latvian SSR and Estonian SSR did not have any relation with Secret Protocol and Soviet-German Nonaggression Pact¹⁰. Naturally enough, it occurred movements against his statements in Baltic states. In 22 August Lithuanian Supreme Soviet concluded invalid of Secret Protocol and annexation into Soviet Union. The fifth meeting after Baltic Ways in 23 August became simple adjustment meeting for completing result.

It should be picked up several important points through whole meetings. The one thing is that it had long interval between the first meeting and the second, the fourth and the fifth. It could be found drastic changing behaviour, opinion and subject of members because during these intervals it occurred thousands meetings and demonstrations in the Baltic countries. In the second meeting, the Baltic delegations started to be hurry to make a final result, which the Baltic mass tremendously expected, while in the fifth meeting members simple adjusted conclusion, because the Baltic mass did not already have a hope that commission would bring expected result for Baltic inhabitants.

The second point is that 1939 Pact researching commission did not take up Polish subject from initial stage of meetings. Poland was the most damaged by Soviet-German Nonaggression Pact and Secret Protocol. The delegations from Estonia who understood limitation to resolve sovereignty issue as a USSR domestic level suggested gathering international attention. In the second meeting Aleksandrov, the secretary of Yakovlev, mentioned that it should be contemplated link with past Polish territory if discussion would touch relation with foreign countries. One Lithuanian delegation reacted his comment at once and expressed wish not to develop their discussion to territorial issue although he mentioned not to be afraid it. Finally, Savaisar agreed that commission would never discuss subject as territorial issue. In reality, territorial

⁹ *ibid.*, I. 18ob.

¹⁰ Haruki Wada, *Baltic States pricked imperial regime*, in: Haruki Wada., Nobuo Shimotomai and Yuri Afanashov (eds), *NHK Special: Tragedy of Baltic States and collapse of one-party dictatorship*, NHK Publisher, Tokyo, 1990 [Japanese version], p. 95.

issue did not bring any good affect on each actor because most of power actors Lithuania, Ukraine, Belarus and Soviet Union received territory from Poland by Secret Protocol.

Table 1. Members of 1939 Pact researching commission (1989)

Chairman

A. Yakovlev	Secretary, Central Committee USSR
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Vice-chairman

Iu. Afanashev	Rector, Moscow State Institute of Historical Archives
V. Falin	Head, International section of Central Committee USSR

Member

Ch. Aitomatov	Writer (Kyrgyz), President, Writer's Union Kyrgyz SSR
G. Arbatov	Director, Institute of USA and Canada AS USSR
L. Artiunian	Head of department, Elean State University
V. Buikov	Writer (Belarus), Secretary of Writer's Union USSR
M. Bulifson	High-ranked teacher, Latvian Art Academy
I. Griazin	Director, Social and Philosophical Institute Estonian SSR
I. Druthe	Writer (Moldova)
G. Ereimei	President, Labor Union Moldovan SSR
A. Kazannik	Assistant professor, Omsk State University
I, Kezbers	Secretary, Central Committee Latvian SSR
V. Korotich	Redactor, Aganiok
V. Kraveth	Foreign Minister, Ukrainian SSR
S. Lavrov	Head of department, Leningrad State University
V. Landsbergis	Professor, State Musicological Institute Lithuanian SSR
M. Lauristin	Head of department, Tartu State University
E. Lippmaa	Director, Institute of biology chemistry and physic AS Estonian SSR
J. Martinkiaivicus	Writer (Lithuania)
K. Motieka	Advocate (Lithuania)
N. Neiland	Vice Foreign Minister, Latvian SSR
A. Ridiger	Archbishop, Leningrad and Novgorod
E. Savisaar	Vice Director, Constructing section Ministry of Light Industry Estonian SSR
V. Shinkaruk	Director, Philosophical Institute AS Ukrainian SSR
Z. Shilichite	Advocate (Lithuania)

STANDPOINTS OF EACH UNION REPUBLICS TOWARD SECRET PROTOCOL – DOES SOVEREIGNTY CONNECT WITH TERRITORY?

Baltic countries seemed to successfully form united front toward issue of sovereignty and Secret Protocol. In 13 and 14 May 1989 it organized Baltic council in Tallinn. Savisaar, the representative of Estonian Popular Front, Ivans from Latvian Popular Front and Landsbergis from Sajūdis attended and signed the statement that it did not have any legal ground of annexation of Baltic countries into USSR as a result of conducting Secret Protocol¹¹. In 18 May, just before First Congress of People's Deputies USSR, Estonian and Lithuanian Supreme Soviet demanded this First Congress to recognize illegal and invalid of Secret Protocol¹². However, each Baltic states had different standpoint on the way how to annul Secret Protocol. Main cause of differences was territorial issue. Among Union republics, especially, Lithuania sensitively reacted to territorial issue. This section would verify standpoints towards territorial issue and sovereignty of each actors; Lithuania, Moldova, Ukraine, Estonia and Russia. This paper would not touch Latvia and Belarus because Latvian and Belarusian delegations did not show clear standpoint in the session¹³.

LITHUANIAN STANDPOINT – VILNIUS SYNDROME

Lithuanian delegations were most active and at the same time most careful to go forward on discussion. Specialists represented that Lithuania “recovered” Vilnius region on behalf of accepting the Soviet control as a result of Secret Protocol¹⁴ and some of them even mentioned that annul of Secret Protocol would “logically” mean territorial restitution to Poland¹⁵.

Lithuania, it can be proved, had legal-ground of belonging of Vilnius. Lithuanian government tied 2 main treaties with Soviet authority; the one is the Soviet Russian-Lithuanian Peace Treaty in 12 July 1920 and the other is Soviet-Lithuanian Nonaggression Treaty in 28 September 1926. Both recognized sovereignty as independent countries each other and mutual non-intervention into territory¹⁶. In 1939 Pact researching commission Motieka insisted recognition of Lithuanian sovereignty by 1920 Peace Treaty¹⁷. The reason why Lithuanian delegations and intellectuals emphasized 1920 Pearce Treaty is not only what USSR recognized the Lithuanian independence, but also what he accepted the Lithuanian expended territory including in Vilnius and Grodno regions¹⁸. However this treaty gave negative impression to France and U.K., which were friendly nations to Poland because Lithuania and Soviet Union conducted one-sided division of Polish territory. Therefore it was not profitable to

¹¹ *ibid.* pp. 92–94.

¹² *ibid.*, p. 94.

¹³ If we would research issue of Soviet-German Nonaggression Pact by wide range, it should be noticed standpoints of German, Finland, Romanian and Poland. However these actors did not have chance to interfere into 1939 Pact researching commission because of closed meeting. Therefore, this paper would focus on standpoints of only Union Republics.

¹⁴ Alfred Erich Senn (1995) *Gorbachev's Failure in Lithuania*, St. Martin's Press, New York, p. 32; Anatol Lieven (1993) *The Baltic Revolution: Estonia, Latvia, Lithuania and the Path to Independence*, Yale University Press, New Haven and London, p. 79; Vytautas Žalys (1998) *The Return of Lithuania to the European Stage*, in: Alfonsas Eidintas, Vytautas Žalys (eds), *Lithuania in European Politics: The Years of the First Republic 1918-1940*, Vaga, Vilnius, pp. 69–70.

¹⁵ *ibid.*, p. 167.

¹⁶ Alfonsas Eydintas, Rudis Gyadiminas (1991) *Novyy vzglyad na istoriyu Litvy*, Kaunas; Gyeorgiy Yefryemov (1990) *My lyudi drug drugu – Litva: Budni Svobody 1988–1989*, Moskva.

¹⁷ *GARF*, f. 9654, op. 2, d. 126, l. 25ob.

¹⁸ Žalys Vytautas, *The Return of Lithuania*, pp. 69–70.

emphasize 1920 Peace Treaty for Lithuania which needed international support on own democratic movement.

Under such political and historical condition, Lithuania faced difficulty to achieve sovereignty (independence) without touching territorial issue. At the Soviet domestic level, 1920 Peace Treaty and 1926 Non-aggression Pact were still legal ground on the point of recovering sovereignty. The commissions of 1939 Soviet-German Pact, it could be said, that republic branch of 1939 Pact researching commissions USSR, were formed in Estonia, Lithuania, Latvia and Moldova and in 18 August 1989 Lithuanian commission concluded as follows:

1. Secret Protocol violated international law and was invalid since when it signed by Molotov and Ribbentrop,
2. Soviet-German Nonaggression Pact with Secret Protocol deprived Lithuanian sovereignty and independence and forced him to annex into Soviet Union,
3. These deeds were against 1920 Peace Treaty and 1926 Nonaggression Pact¹⁹.

Lithuania contained another unstable factor. Polish-Lithuanians which live in Vilnius and Šalčininkai regions²⁰ reacted decision of Lithuanian authority that annulled Soviet-German Nonaggression Pact. Some of autonomous activists among Polish-Lithuanians insisted that territorial incorporation Vilnius and Šalčininkai regions into Lithuania also should be invalid considering Secret Protocol would be invalid. Their autonomous movement in Šalčininkai and Vilnius region made Lithuanian government bothering in the process of independence²¹.

MOLDOVAN STANDPOINT – A PART OF ROMANIA OR INDEPENDENT STATE?

Moldovan Popular Front appealed revival of ethnic culture and history into Moldovan SSR Supreme Soviet, but these appeals were similar products to previous one handed by Baltic Popular Frontists²². The considerable point is that the Moldovan Popular Front strongly insisted to recover lost territory; Northern Bukovina, Akkerman, Kiriya, where were “illegally” ceded to Ukraine SSR by Secret Protocol. According to it, these regions belong to Moldova as a peculiar territory from historical and ethnic viewpoints²³. Moldovan case contained the more complicated condition that it occurred territorial problem not with foreign countries, but with same member of Union Republics.

Lari, N. Davija and M. Cimpoi who were Moldovan deputies of Congress of People’s Deputies USSR and members of Moldovan Popular Front were main debaters about Secret Protocol, but they were not chosen as members of 1939 Pact researching commission. The Moldovan delegations were I. Druthe and G. Eremei. Eremei’s autobiography told that he generally did not give almost any comment in the session and Druthe did not act to research²⁴. Stenograph also proves that Eremei could not catch up discussion led by Baltic delegations. Through session it can be found a few comments that everything is new for him and he could not judge because of lack of information²⁵. Eremei told concrete reason of “passiveness” in the commis-

¹⁹ LVNA (Lietuvos Valstybės Naujasis archyvas), f. 32, op. 1, d. 81.

²⁰ Either region is located in the south-east Lithuania.

²¹ Keiji Sato (2007) The Analysis of the “Matrioshka” Structure of Ethnic Problems during the Decline of the Soviet Era: The Case Study of the Problem of Polish-Lithuanians, *Slavic Studies*, 54, pp. 101–130.

²² LVNA, f. 32, op. 1, d. 101.

²³ Michael Bruchis (1996) *The Republic of Moldavia: From the Collapse of the Soviet Empire to the Restoration of the Russian Empire*, Columbia University Press, New York, p. 116.

²⁴ Yeryemyey Grigorye (2005) *Nyewidimoye litso vlasti*, Chişinău, p. 371.

²⁵ GARF, f. 9654, op. 2, d. 126, l. 114ob.

sion. Basically he criticized Molotov's and Stalin's deeds but he thought that territorial issues derived from under War period did not have direct connection with Secret Protocol. Eremei did not get involved into the discussion about national interest unlike Baltic delegations. He mentioned that he was not interested in discussion of national interest, but of historical truth of Bessarabia occurred in 1939 and 1940²⁶.

Not only at the Eremei's personal level, but at the governmental level Moldova had difficulty to avoid Secret Protocol. Compared with independent Baltic states before Secret Protocol, Moldova was one district of Romanian Kingdom. Considered annul of Secret Protocol, Moldova would logically join into Romania as one district. However it is quite doubtful that Moldovan Nomenclature who gained profits under the Soviet rule could abandon vested properties and accept positions as simple regional politician and administrator under Romania. Furthermore annul of Secret Protocol might have a possibility to annul of Transdnister region as a Moldovan territory where incorporated into Moldovan SSR from Ukraine in 1940. Transdnister region at that time had advanced industry and large scale electric power plants, and it was indispensable to keep it for national interests. Invalid of Secret Protocol might occur the territorial issue with Ukraine, the loss of Transdnister and the loss of vested profits as Moldovan Nation.

UKRAINIAN STANDPOINT – SHOULD UNITED TERRITORY BE KEPT FOR NATIONAL INTEREST?

Ukraine virtually got most profit by Secret Protocol. In 1939 Pact researching commission V. Kraveth praised Soviet-German Nonaggression Pact as a triumph of Soviet diplomatic for impeding War for one and half year²⁷ and furthermore, as a result of Pact, Ukraine recovered "peculiar" Ukrainian territory and achieved unification under single Ukrainian government²⁸. Yakovlev understood Kraveth's position²⁹ and contained the Baltic delegations that Ukrainian nations would oppose to lose the territorial unification. These opinions did not fit with Baltic's absolutely. Even Afanashev directly criticized his uncompromised behaviour³⁰. The important point is that it was less difficult to resist for him because Moldovan could not cooperate with Baltic delegations. It is not easy to define whether Kraveth was Soviet representative or Ukrainian if look at his typical Soviet style rethoric in 1939 Pact researching commission³¹. It is also possible to define that Kraveth took either position because to keep Ukrainian territorial unification and to deny annul of Soviet-German Nonaggression Pact with Secret Protocol were not against old-style Soviet interest.

ESTONIAN STANDPOINT – DID MINORITY ISSUE AFFECT ON ACTIVITY OF ESTONIAN?

Estonian delegations, Savisaar E. Lippmaa, Lauristin and Griazin, discussed concrete points from legal viewpoints what date it should be non-effective of Soviet-German Nonaggression Pact and annul of Secret Protocol, which was not ratified by Supreme Soviet or Parliament. Estonia who did not have "direct" territorial issue unlike other Union Republics might have

²⁶ Yeryemyey Grigorye (2005) *Nyewidimoye litso wlasti*, Chişinău, p. 356.

²⁷ *GARF*, f. 9654, op. 2, d. 126, l. 93ob.

²⁸ *ibid.*, l. 94ob.

²⁹ *ibid.*, l. 138ob.

³⁰ *GARF*, f. 9654, op. 2, d. 127, l. 158; 198ob.

³¹ *ibid.*, l. 179ob.

a possibility to take a hard line for achieving sovereignty. However, the Estonian delegations did not take such role. The clear reason why Estonia could not do was the Russian minority issue in Narva and Sillamae regions. At the end of 1988 it already became big trouble in the Estonian society and Russian-speakers in Estonia appealed in the First Congress of People's Deputies to protect the human right of ethnic minorities from Estonian government³². Therefore, Estonian delegations should be more careful to touch minority issue than Moldova and Lithuania, which come out as problem later than middle of 1989.

RUSSIAN AND SOVIET STANDPOINTS – WAS RUSSIA GOVERNOR OF SOVIET UNION?

In the third meeting of 1939, Pact researching commission it was discussed subject that Russia should be defined as a same entity of USSR³³. Iu. Afanashev, director of institute from Russia, insisted that Russia lost Republic ethnic history under the Soviet rule for the reason that Russia was equated with Soviet Union. Afanashev is a heroic existence for Baltic nations because in the Tallinn meeting in 23 August 1988 he described personal opinion that Secret Protocol was a decisive factor of Estonian annexation into USSR³⁴. It should be defined that he had a more priority to reconsider and judge Stalinism and Stalin's deeds than to assist Baltic democratic movements. It can be proved by his notice that text book of Soviet history for ninth 9th grade school-student did include "untruth" in each page and school-teachers unfortunately must use it³⁵. His reconsider attitude toward Soviet history seemed like "for-disintegration" of USSR and "pro-separatism" of Baltic states. 1939 Pact researching commission alarmed that mass media and "conservatives" developed personal remarks to commission members, especially Afanashev and Šiličiče³⁶.

V. Falin, communist from Russia, was located in opposite position from Afanashev. According to his opinion before 1939 Pact researching commission, he thought Secret Protocol, which Western researchers indicated the division of Soviet-German sphere was missing or originally did not exist³⁷. According as interview with Motieka, he could not sympathize because Falin had an intention to use the negotiation card of Vilnius issue for pressing Lithuanian democratic and sovereignty ("separatism from USSR") movement³⁸. Falin also admitted that he could never share common opinion with Baltic delegations³⁹.

G. Arbatov, another delegation from Russia, also carefully paid attention to Baltic democratic movements⁴⁰. At the beginning of the second meeting he alarmed to boycott if the subject would touch to seceding issue of Bessarabia and Baltic from Soviet Union⁴¹. In the fourth meeting, meanwhile Baltic delegations and Afanashev handed in decision of 3/4 member's opinion, Arbatov made different report that the existence of Secret Protocol were non-doubtful but this contain mentioned only division of German-Soviet sphere and did not touch current political

³² LVNA, f. 43, op. 1, d. 63.

³³ GARF, f. 9654, op. 2, d. 126, l. 55ob.

³⁴ Wada, *Baltic States pricked*, p. 89.

³⁵ Yu. Afanashev (1989) *Idea of Perestroika*, Gunzou-sya, Tokyo, p. 290.

³⁶ GARF, f. 9654, op. 2, d. 127, l. 201–202ob.

³⁷ Izidors Vizulis (1990) *The Molotov-Ribbentrop Pact f 1939: The Baltic Case* (Westport, New York, Praeger, London, p. 121.

³⁸ Interview with Motieka, Vilnius, 22 Jun 2007.

³⁹ Valentin Falin (1999) *Byez skidok na obstoyatelstva*, Moskva, p. 403.

⁴⁰ GARF, f. 9654, op. 2, d. 124, l. 201ob.

⁴¹ *ibid.*, l. 199ob.

status of Baltic states⁴². In short, he refused a possibility to become more sovereignty status or independent states of Baltic countries. Kraveth supported his plan⁴³ and Falin and Yakovlev, although they did not say direct backing words in the session, also had common opinion with Arbatov according to other materials⁴⁴.

CONCLUSION

As demonstrated above “said and did” by commission members reflected on faced conditions of their countries quite well. In this point Moldova, which could not represent clear opinion in 1939 Pact researching commission, can be found fatal mistake for future political handling as an independent state. Moldova finally did not want to and could not integrate into Romania and rely on Russia and this ambiguous position is still going till now. On the contrary Ukraine and Baltic states had clear difference from Moldova in the point of insists of national interest. Kraveth did not accept invalid of Secret Protocol checking national interest and Baltic delegations, who faced strong pressure from Baltic general public, tried annul of it as a same reason as Kraveth. After all, these actors could not compromise till the end of 1939 Pact researching commission. The significant point is that they already started to consider what national interest meant in reality.

⁴² *LVNA*, f. 32, op. 1, d. 81.

⁴³ *GARF*, f. 9654, op. 2, d. 127, l. 200ob.

⁴⁴ *GARF*, f. 9654, op. 2, d. 126, l. 28ob; Valentin Falin (1999) *Byez skidok*...p. 404.

ETHNIC DIVERSITY OF SLOVAKIA

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Abstract. It is no doubt that ethnic structure of Slovakia is very heterogeneous and in the past was very dynamic also. Especially, between years 1880 – 1930 the Slovak population had undergone its most dynamic era in history. Many of these changes were conditioned by social, cultural and political factors in Hungarian Empire, as well as founding of Czechoslovak republic. Significant changes of ethnic structure had occurred during, and after the end of WW II as well. The aim of this paper is to show the changes of diversity of ethnic structure in Slovakia with the appropriate censal data. The changes in ethnic structure are compared against the census in 2001, and spatial changes of ethnic structure are evaluated by indices of ethnic diversity of Slovak regions

Key words: ethnicity, ethnic diversity, ethnic diversity measurement, Slovakia, history

INTRODUCTION

The region of Central Europe is one of the most dynamic region considering more cultural aspects. For example, this region is crossed by boundary between Eastern and Western Christianity. Western Christianity is here represented not only by Roman-Catholic Church, but also by strong historical Protestant denominations. Unique denominations in this region are Uniate churches, creating cultural bridge between Eastern and Western Christianity and culture. Central Europe had also been influenced by Islam between 16th and 18th century, and there were numerous Jewish minorities all over this region.

This region was diversified from the point of view of ethnicity. In the Carpathian Basin there were many ethnic groups living together ever since. These ethnic groups belonged to various language families (Slavic, Finno-Ugric, Italic). Therefore, in the region of Slovakia had always been inhabited by Slovaks, Hungarians, Germans, and Ruthenians mainly. This mosaic was completed Croats, Serbians, Jews, Romanians, Gypsies, Poles, and many others.

Such ethnic diversity is past nowadays. Except Slovaks, Hungarians, Ruthenians and Romas, there are unfortunately no larger ethnic groups living in Slovakia. The process of assimilation is slower in these ethnic groups, but the ethnic structure is now much less diverse. Rural settlements had sustained its ethnic diversity more intensively than cities, although some homogenization processes are evident here too. The aim of this paper is to convey snapshot of today's ethnic diversification of Slovakia in comparison to year 1880.

Ethnic diversity is structured phenomenon encompassing various processes. Also, methods of measurement of such type of diversity vary. There are qualitative or quantitative methods of diversity measurement. We have adopted measurement of ethnic diversity according to the ethnic fragmentation index (Greenberg index of ethnic diversity) used in paper from Yeoh (Yeoh 2003)

$$F = 1 - \sum_{i=1}^n \left(\frac{n_i}{N} \right) \left(\frac{n_i - 1}{N - 1} \right)$$

n_i represents number of members of i -ethnic group, and N total population of a statistical unit. This formula is defined as probability of membership of two randomly selected persons in different ethnic group. This index varies from 0-1, and the value 0 represents completely homogeneous unit, and 1 completely heterogeneous unit. (Yeoh 2003).

Key data for ethnic diversity measurement come from Census 2001. We have analyzed data of ethnic structure (Slovak statistics prefers term nationality) of communes. Membership in nationality group was freely declared in census. According to official definition from census, *nationality is referred to as the person's affiliation to the nation or ethnic minority. Mother tongue is not the decisive factor when determining nationality, nor the tongue mostly used or better spoken by the citizen, it is rather his/her own decision on the affiliation to the nation or ethnic minority. The nationality of children aged under 15 was indicated according to the nationality of their parents. If parents stated different nationalities, the nationality declared by one of them was indicated (upon mutual agreement of parents).* (according to <http://portal.statistics.sk/showdoc.do?docid=4486>). Salient information is that ethnic membership does not depend on the use of ethnic minority language, but on free declaration of membership. That is why ethnic diversity does not mean the same as linguistic diversity.

Another data source from census 1880 had totally different philosophy. There are data according to mother tongue available only (*népesség anyanyelv szerint*). Therefore, these data are not completely comparable to the data from 2001, but there are no other ethnicity data from this period available. Statistical system of ethnic affiliation record started to fully develop after 1918 only.

ETHNIC DIVERSITY OF POPULATION OF SLOVAKIA IN 1880

There were 44 settlements having the status of town in 1880. These were free royal towns, or towns with established municipal authority. Slovaks were mostly largest ethnic group inhabiting towns at the end of 19th century. Another important ethnic group shaping urban space of northern Hungarian towns were Germans, followed by Magyars, and another minor ethnic groups. There was very little share of Ruthenians in urban settlements then. According to

the Table 1, the most ethnically diverse town was Nitra composed of Slovaks, Magyars, and Germans. There was only slight dominance of Slovak population in Nitra. The share of Slovaks and Magyars was almost equal in the second most heterogeneous town – Košice

Table 1. Ethnic diversity index of towns in Slovakia in 1880

	town	index value	major ethnic groups
1	Nitra	0.674	Slovaks, Magyars, Germans
2	Košice	0.667	Slovaks, Magyars, Germans
3	Levoča	0.619	Slovaks, Germans, Magyars
4	Prešov	0.610	Slovaks, Magyars, Germans
5	Trenčín	0.604	Slovaks, Germans, Magyars
6	Trnava	0.600	Slovaks, Germans, Magyars
7	Pezinok	0.579	Slovaks, Germans, others
8	Svätý Jur	0.574	Slovaks, Germans, others
9	Spišská Nová Ves	0.570	Slovaks, Germans, Magyars
10	Spišské Vlachy	0.568	Slovaks, Germans, Magyars

Source: *Population and Housing Census, 2001.*

Interesting fact is that the total urban settlements heterogeneity index value was higher – 0.684. This value was mainly composed by three most numerous ethnic groups then – Slovaks, Germans, and Magyars in various combinations and share. As already mentioned, the major ethnic group in the top heterogeneous town rank was Slovaks. There were only two towns with non-Slovak majority – Komárno and Rimavská Sobota. These towns were mainly inhabited by Hungarians. Ethnic diversity in Slovak towns is proved by fact, that there were only 4 towns with the share of one ethnic group (Slovaks) over 90 % – Ľubietová, Nová Baňa, Pukanec

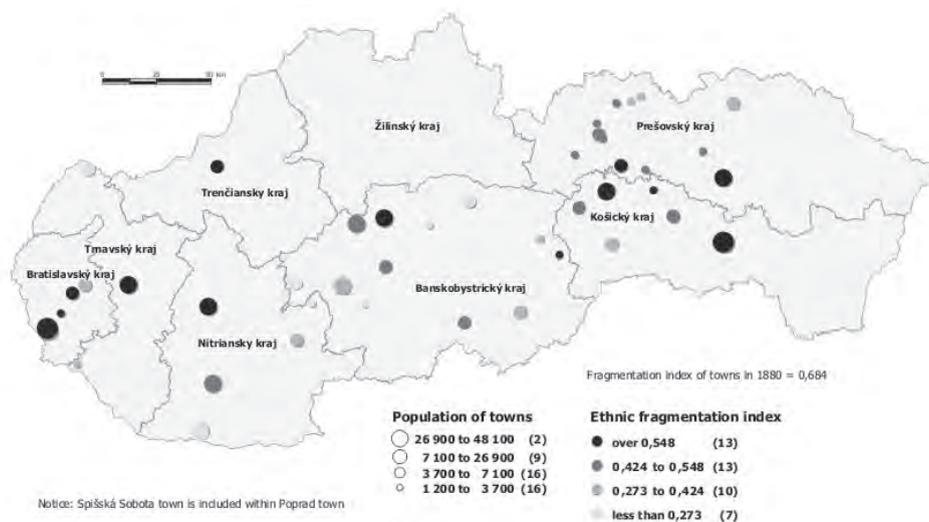


Figure 1. Ethnic diversity of towns in Slovaia in 1880

a Krupina. Ľubietová and Pukanec towns were not considered urban settlements in the following censuses (such as 1910 census). Although these towns were former mining towns, and the population was not much lower than other towns, it seems that their structure resembled rural settlements rather than urban settlements at that time. Ethnic homogeneity of towns in 1880 presents Figure 1.

Rural settlements had lower diversity index than urban settlements – 0.538. It is not much lower value comparing to the urban settlements value. So, it means, that rural settlements were almost equally heterogeneous, or homogeneous, as towns. The most heterogeneous villages were located in the eastern part of Slovakia. Rural settlements in this part of Slovakia were mostly heterogeneous thank to Ruthenian population. There is a spatial exception to this rule, when one of the more heterogeneous villages is located in the western part. Leopoldov municipality is mostly composed by Slovaks and Magyars as well as by other, not specified ethnic groups.

Ethnic diversity of Slovak population is proved by fact, that in 1880 there were only 12 ethnically homogeneous communities. Most of them were rather small in population, and were mostly located in eastern parts of Slovakia.

ETHNIC DIVERSITY OF SLOVAKIA IN 2001

In comparison with year 2001 there were some really remarkable changes in processes of ethnic homogenization of population of Slovakia. The most numerous ethnic groups besides Slovaks were also Magyars, Ruthenians, and Romas. Spatial distribution of Magyars and Ruthenians copies state boundaries with adjacent states, while the distribution of Romas is focused in central and eastern parts of Slovakia, in so called regions of Gemer and Spiš.

Diversification of ethnic structure of Slovakia in 2001 was based again on comparison between rural and urban population. The processes of ethnic changes influenced also the values of ethnic diversification index, which dropped to quite low values. Urban ethnic structure was diversified at the value of 0.21, and, surprisingly, rural population was diversified at the level 0.3. These differences are not significant, but presents that urban population is today more homogeneous than rural. In comparison to year 1880, these values are lower, and the rural settlements were more ethnically diverse in 2001 than towns. We would expect that towns and cities, as sites of high population concentration, would have higher values of ethnic diversity index than rural municipalities. There might be present more complexed and rather latent processes of ethnic identity change in new environment, and more intense level of social interaction in urban space. The idea of towns being something like „melting pot” for minor ethnicities, emerges from these speculations. Evident manifestation of own ethnic identity of new immigrants might make social integration more difficult. This is not universal rule in this area, but there might be some impacts of urban areas on ethnic identity stability.

Table 2 as well as Figure 2 show, that towns with higher value of ethnic diversification are located in central and eastern parts of Slovakia. Ethnic groups composing ethnic diversification are generally common, and another sign is that values are lower than in 1880. First two mentioned ethnic group in table are dominant, third is rather complementary making ethnic appearance of town more diverse. Index values around 0.5 might show, that in most towns

Table 2. Ethnic diversity of towns in Slovakia in 2001

	town	index value	major ethnic groups
1	Medzilaborce	0.561	Slovaks, Ruthenians, Ukrainians
2	Moldava nad Bodvou	0.549	Slovaks, Magyars, Romas
3	Veľké Kapušany	0.544	Magyars, Slovaks, Romas
4	Hurbanovo	0.540	Magyars, Slovaks, Romas
5	Čierna nad Tisou	0.524	Magyars, Slovaks, Romas
6	Rimavská Sobotka	0.523	Slovaks, Magyars, others
7	Tornaľa	0.521	Magyars, Slovaks, Romas
8	Komárno	0.518	Magyars, Slovaks, others
9	Želiezovce	0.515	Magyars, Slovaks, Romas
10	Galanta	0.500	Slovaks, Magyars, Romas

Source: *Population and Housing Census, 2001.*

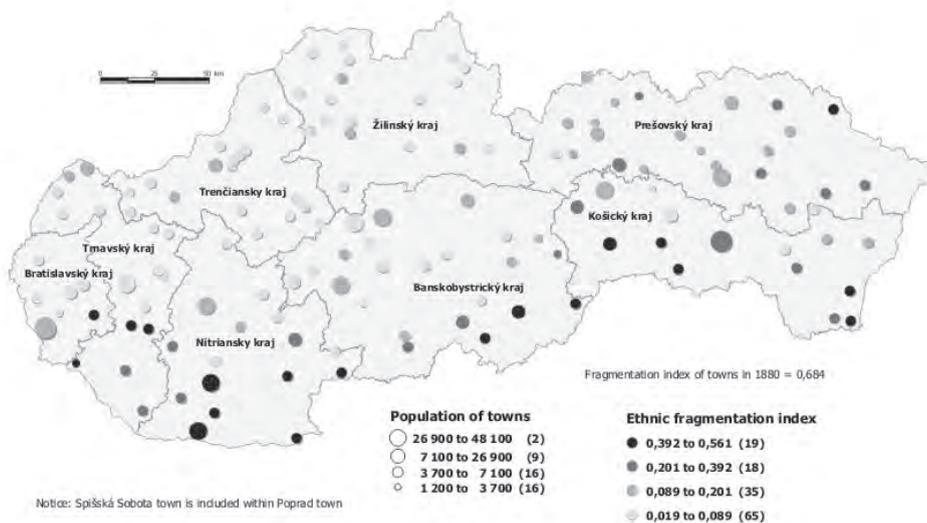


Figure 2. Ethnic diversity of towns in Slovaia in 2001

there are mostly only two ethnic groups forming ethnic circumstances in Slovak towns. Census 2001 is missing important urban element from 1880 – Germans, that is now replaced by new urban ethnic group - Romas.

Homogeneity of towns in Slovakia is proved by fact, that 100 towns from 138 have share of one ethnic group above 90 %. In all cases this majority group represents Slovaks. This is salient change in 130 year history of Slovakia. Most of them lie in the ethnically most stable north-western region of Slovakia.

Higher rate of heterogeneity is evident at the rural settlements. Ethnic diversity index reached level of 0.303. Tendency of heterogeneity index growth from north towards south and from east to west is common for towns as well as for rural settlements. The most heterogeneous communes can be found at the contact zone between Slovak, Ruthenian, and Ukrainian

majority. This structure becomes more colorful due to Roma population and are rather small in population

Small population is common sign for ethnically homogeneous rural communities. These communities are small, mostly depopulating settlements with population varying from 7 to 950 inhabitants. Their common sign is Slovak population exclusively and their concentration to the areas of central and eastern Slovakia. Higher concentration is evident around the town Prešov (see Figure. 3).

Table 3. The most ethnically homogeneous towns in Slovakia in 2001

town	index value	share of Slovaks
Tvrdošín	0.019	99.03 %
Rajec	0.023	98.86 %
Trstená	0.023	98.82 %
Vrbové	0.025	98.75 %
Námestovo	0.027	98.65 %
Hriňová	0.028	98.56 %
Rajecké Teplice	0.029	98.54 %
Leopoldov	0.030	98.50 %
Krásno nad Kysucou	0.032	98.39 %
Bytča	0.034	98.27 %

Source: *Population and Housing Census, 2001.*

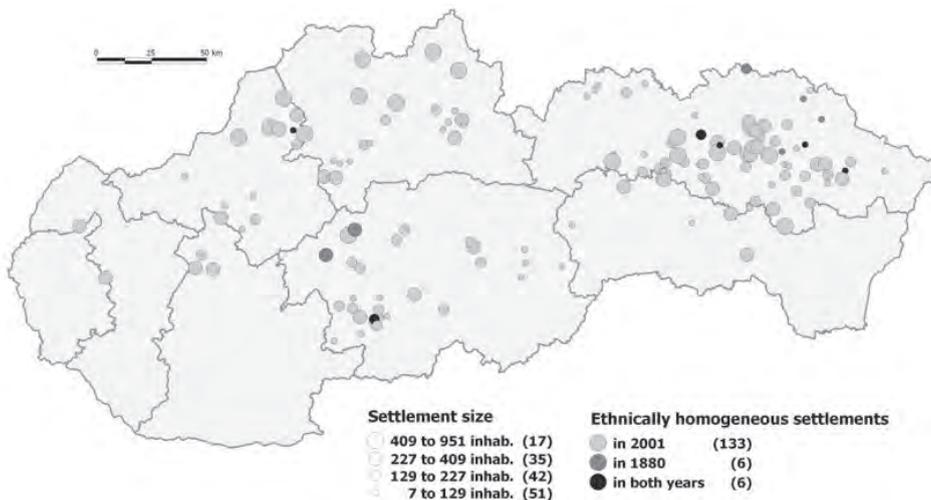


Figure 3. Ethnically homogeneous settlements in 1880 and 2001

CONCLUSION

Presented analytical data indicates great dynamics that ethnic structure has undergone in 1880-1930 in heterogeneous cultural region of Central Europe and Slovakia. At first,

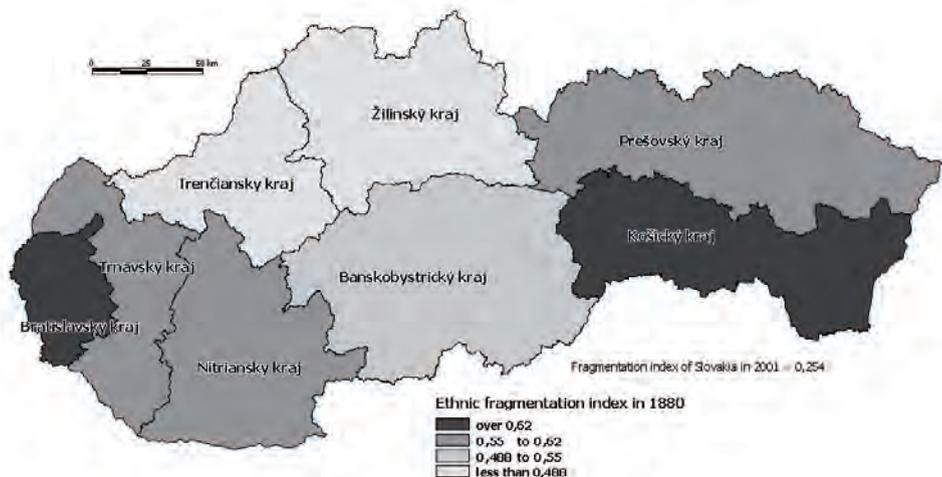


Figure 4. Ethnic diversity of regions of Slovaia in 1880

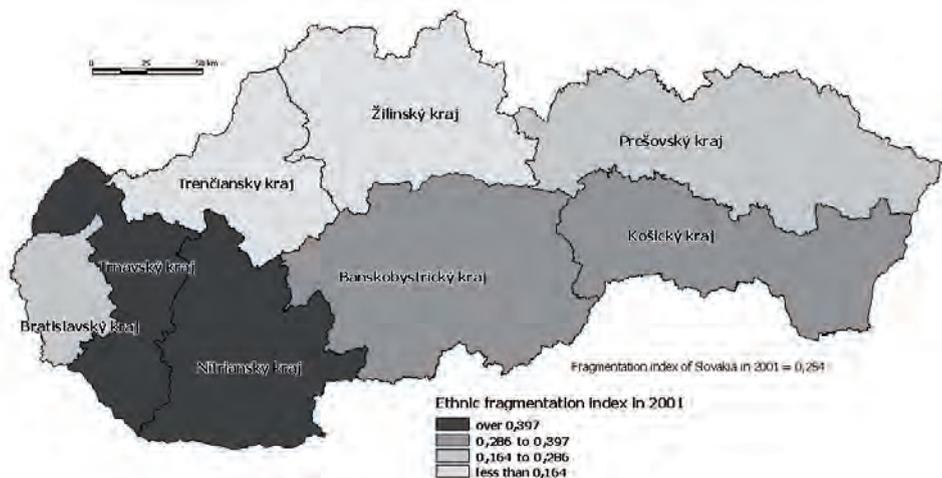


Figure 5. Ethnic diversity of regions of Slovaia in 2001

the dynamics of ethnic processes springs from rather unstable political circumstances in the first half of the 20th century, that influenced willingness of not declaring own ethnic affiliation, and secondly, there were evident processes coming from inside of ethnic groups as a response to impetus coming from outside of ethnic groups. Towns in 1880 were centers of diverse ethnic structure of population, while rural settlements were more stable due to social and cultural patterns and low ethnic heterogamy. If there were more ethnic groups present in one community in history, the interaction was usually only official with low rate of intermarriage. Ethnic intermarriage was usually not fully accepted by local community at that time.

This period was the time of fast growing of Hungarian population not only from natural increase, but rather from different ethnic identity between the generation of parents and children. In 1910, more than $\frac{1}{3}$ of the population in the area of today's Slovakia was Hungarian. The last period started in 1918, and reflected in census 1930. The new geopolitical situation

in Carpathian Basin had certainly impact on new ethnic processes. Share of non-Slovaks (or Czechoslovaks) started to decrease. Though, thirties were not the period of the most evident ethnic minorities decrease. Such period emerged after 1945, mostly due to postwar conferences resolution including German and Hungarian ethnic groups in Czechoslovakia.

Research of ethnic processes and their spatial impact would be another interesting topic. The era of Socialism in Slovakia had activated fast growth of towns, industrialization and new and numerous migration flows. The set of such extensive changes in society influenced the traditional cultural patterns, including growth of ethnic heterogamy, and rather descending rates of most of the ethnic groups living in Slovakia. The problem is in data arrangement. As far as we know, the data from Census 1950 were not so far processed, so we miss the most important and the most valuable data presenting impacts of postwar political processes.

The Census data 2001 were here presented only for the purpose of comparison between the era 1880-1930 and what „had been preserved” today.

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