ATTREG

The Attractiveness of European regions and cities for residents and visitors

Scientific Report 31.12.2011

ANNEX 4:

COMPLETE COLLECTION OF ATTREG CASE STUDY REPORTS

December 2010

The ESPON 2013 Programme

ATTREG
The Attractiveness of European regions and cities for residents and visitors

Applied Research Project 2013/1/3

Annex 4/1
ATTREG Case Studies

Algarve

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This report presents the draft final results of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

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1 Introduction

1.1 Relevance of the case study

The Algarve (NUTS 2 PT15) is a coastal region located in the extreme south of Portugal which occupies 5.000 km^2, i.e., 5.6% of the Portuguese mainland area (INE, 2010).

Figure 1: Geographical situation of the Algarve

The regional population in 2011 (INE, 2011a) is around 450,000 inhabitants (4.3% of the national total) and follows the national average breakdown by ages: children (0-14) represent 16%; young adults (15-24), 10%; adults aged 25 to 49 represent 36%; adults aged 50 to 64 and 65 and more correspond to 16% each. The Algarve achieved a great population growth between the two last censuses (2001-2011), of 14%, exceeding considerably the national growth of 1.9% (INE, 2011a).

In spite of the demographic dynamics, the Algarve's territory as a whole is still sparsely populated, with a population density of 87 inhabitants/km^2, lower than the national's (115.4) (INE, 2010). Nevertheless, there are very deep intra-regional asymmetries in this aspect: some municipalities, mainly in the interior, are almost depopulated (with only 5.3 or 16.5 inhabitants/km^2) while some others, near the sea, record a very high population concentration, exceeding 300 inhabitants/km^2 (INE, 2010).

The region records a level of economic production, measured by GDP per inhabitant, of 71% of the EU27 average (Eurostat, 2011), and is labelled as a Phasing-out region for EU funding purposes[1]. Indeed, the Algarve achieved the greater GDP growth over the last decade in

[1] For the period 2007-2013 of EU regional policy, the Algarve is included in the phasing-out system of the Convergence Objective, what means that the region currently receives a lower financial support of the EU regional policy than in the previous Community Support Frameworks.

Portugal. The regional performance, 10pp. above the national average in 2008 (Eurostat, 2011), is almost totally due to tourism, which constitutes, undoubtedly, the catalyst of the regional economic activity. It also should be noted that the geographical position of the Algarve, somewhat peripheral in the EU context, conditions the development of thriving economic activities apart from tourism.

In fact, the high levels of employment in consumption-related services (namely retail, wholesale, hospitality and transport) and the specialization in a set of activities related to tourism, both confirm the importance of the sector in the region. In fact, trade, transport, construction and accommodation and food service activities concentrated, in 2009, 50% of the regional employment, which is clearly higher than the national standards (34%) (Eurostat, 2011). These four activities correspond to around 52% of the regional businesses, whilst in the national context they account for 45% (INE, 2010). The main differences rely on construction and accommodation and food service, both intimately related to the Algarve's touristic vocation. In addition, the Algarve concentrates 23% of the hotel establishments and 41% of the lodging capacity of the Portuguese mainland, and employ 35% of national total workers in this activity (INE, 2010).

This region is, since long time ago, among the European popular tourist resorts whose natural assets, as the pleasant climate, not subject to significant variability between seasons, the considerable landscape diversity and the significant number of natural sites constitute a distinctive territorial capital and contribute to regional attractiveness for tourism. The region attracts both national and foreign tourists and was, along with Lisbon (the capital region), the only Portuguese region that managed to increase its attractiveness, measured in terms of arrivals of visitors, between the periods analysed in ATTREG project (2001-2004 and 2006-2009).

The high number of guests and nights slept in the hotel establishments of the region, only surpassed by Lisbon, also reveal the Algarve's attractiveness for tourists. In this particular, the Algarve present a distinctive trait from the rest of the country which is the relative importance of foreigners: whilst at the country level there is a balanced share of national and foreign tourists, at regional level foreign guests raise up to 65% of the total.

Besides, concerning stickiness, i.e., the capacity to attract and retain citizens, the Algarve not only presents a positive net migration rate but also benefits of the so-called "silver migration" phenomenon, i.e., the region attracts net flows of people aged 50 to 64, who constitute the pre-retirement age band that tend to value more the amenities such as climate or quietness rather than the economic performance of the territories when they decide to buy a second-home residence.

To sum up, the Algarve can be described as a sparsely populated coastal region, strongly oriented to tourism and second-home communities, which is mostly "sticky" region for all age groups considered in our analysis (15 to 64 years old) and attracts a higher movement of flows than predicted, especially over-performing in its capacity to attract foreign tourists and a particular type of migrants: retired people or older workers aged 50 to 64.

Although the Algarve attractiveness for tourists and migrants derives mainly from the intrinsic characteristics of the territory (climate, quietness and hospitality of people), it should be noted that public policies have also been contributing to foster regional attractiveness, namely by improving the various dimensions of territorial capital of the Algarve.

Hence, the aim of this case study is to investigate, with the contribution of policy makers and other regional stakeholders, the mobilisation processes and strategies that have been strengthening the Algarve's attractiveness to these two specific audiences - foreign tourists

and migrants aged 50 to 64 - as well as on which dimensions of the territorial capital do they mostly rely on.

1.2 Case study questions

This case study, enriched by 14 face-to-face interviews, should provide clear insight about the mobilisation processes that are behind the Algarve's particular propensity to attract foreign tourists and retired and old worker migrants. Thus, it was defined a set of issues of questioning addressing both audiences and another addressing specifically the regional attractiveness for the mentioned type of migrants:

Issues of questioning addressing both foreign tourists and migrants aged 50 and more:

- How do stakeholders perceive the Algarve's performance in its capacity to attract foreign tourists and migrants aged 50 and more?
- Which are the regional's distinctive traits/competitive advantages that explain the exceptional attractiveness of the Algarve for these two audiences?
- Were there any attempts to enhance the region's territorial capital? Concerning which sub-classes of endowment?
- Are there specific selective strategies (public and private) to attract foreign tourists and retired migrants or is the regional performance the result of mere casuistic actions?
- Taking into account possible political, environmental, demographic or socio-cultural changes, which are the stakeholders' expectations for the development of the regional attractiveness for these two audiences in the future?
- Which is the position of the Algarve in the cross-border context (namely in relation to Andalusia) in what concerns the capacity to attract migrants aged 50 and more and foreign tourists?

Issues of questioning specifically addressing regional attractiveness for migrants aged 50 and more:

- How do stakeholders characterize these migrants in terms of their lifestyle, professional career, academic qualifications, lodging type in the Algarve, etc.?
- Do the stakeholders distinguish intra-regional asymmetries in terms of attractiveness for this particular group? Of which kind? Between which type of territories?
- To what extent does regional institutional capital impact (namely the role of municipalities) on the Algarve's capacity to attract these migrants?

1.3 Method of research

The methodology of research consisted of a literature review of policies and of face-to-face interviews with regional stakeholders.

The interviewees included representatives of the different sectors involved in the mobilisation process of foreign tourists and retired and old worker migrants in the Algarve, comprising politicians, the public and business sectors, the knowledge institutions, other relevant entities and one individuality who, by his CV and professional experience in the Algarve has an in-depth knowledge of the regional context, performance and potential (Annex 1 lists the interviewed stakeholders).

1.4 Structure of report

This case study is structured as follows:

Section 2 provides a data analysis highlighting the regional capacity to attract foreign tourists and migrants aged 50 and more, the main problems and challenges faced in the recent years and the Algarve's spatial diversity.

Section 3 consists of a policy review concerning different issues such as the regional institutional context, the regional policies that changed the territorial ability to attract both foreign tourists and migrants aged 50 and more and the regional vision and strategy to enhance territorial attractiveness to these particular audiences.

Section 4 concludes summing up the mobilisation processes on which is based the Algarve's performance to attract foreign tourists and retired and old worker migrants.

2 Data analysis

2.1 Profile

2.1.1 Regional attractiveness for foreign tourists

The Algarve is the only tourism-oriented Portuguese region. The region has around ¼ of the lodging establishments but concentrates 41% of the mainland lodging capacity, which means that the average size of the establishments is twofold the national's. Concerning guests, the Algarve receives around ¼ of the annual guests in Portugal but records 42% of nights slept in classified establishments, what means that the average stay of tourists in the Algarve is also around the double of the national standards (Table 1).

Table 1: Key figures of the tourism sector, 2010

	Portugal	Algarve	
	No.		%
Establishments	1,741	412	24%
Lodging capacity	241,941	98,980	41%
Nights	31,362,735	13,247,450	42%
Guests	12,212,779	2,874,136	24%
Average stay on the establishment	2.6	4.6	177%
Foreign guests	49%	63%	128%

Source: INE (2010)

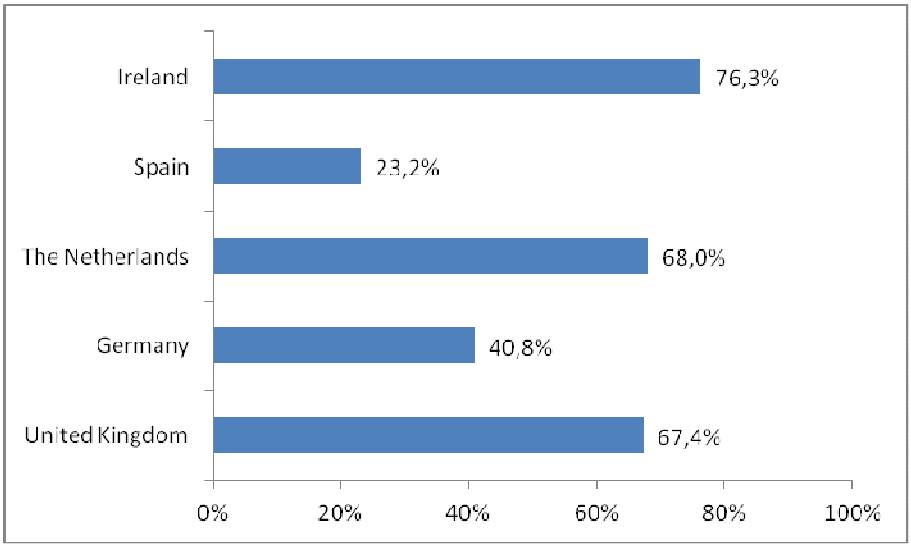
Regarding the origin of tourists, while at the national level Portuguese and foreign tourists each represent half of the total, in the Algarve there is an evident predominance of foreigners, thus confirming the particular regional's ability to attract foreign tourists, who come from five main emission markets: UK, Spain, Germany, the Netherlands and Ireland (Table 2).

Table 2: Guests by country of origin, 2010

Country of origin	Algarve		Portugal		
	No.	%	No.	%	Rank
Portugal	1,070,741	37%	6,211,495	51%	1
UK	672,601	23%	921,853	8%	3
Spain	248,901	9%	1,335,680	11%	2
Germany	226,272	8%	539,937	4%	4
The Netherlands	171,445	6%	307,093	3%	8
Ireland	111,677	4%	161,789	1%	10
France	68,394	2%	497,004	4%	5
Other countries	304,105	11%	2,237,928	18%	-
Total	2,874,136	100%	12,212,779	100%	

Source: INE (2011b)

As shown in Figure 2, the great majority of British, Dutch and Irish tourists that travel to Portugal stay in the Algarve whereas the German and the Spanish mostly prefer to stay in other regions.



Source: Own elaboration based on INE (2011b)

Figure 2: Nights slept in the Algarve (% of the total of nights in Portugal)

The particular Algarve's attractiveness for tourists and, above all, for foreign tourists, is explained, according to all stakeholders involved in this case study, by, at least, some of the following territorial assets: the climate, the landscape diversity, the safety, the hospitality of people and the proximity to an international airport (located in Faro).

The Algarve possesses exceptional climate conditions that combine the best features of the Mediterranean and Atlantic climates': the region is sunny all year, precipitation levels are low, the temperatures are mild and the humidity is at the ideal levels. Concerning landscape, it is immensely diversified, coexisting high standard resorts, densely populated areas, typical villages sparsely populated and rural sites still unexploited. Although the region is relatively small, there is a multiplicity of landscapes, cultures and traditions easy to reach in short travel distances and times. This diversity is an important asset especially in the competition of the Algarve with other "sun and beach" destinations where tourists are confined to resorts, relatively standardized, and where there is neither particular territorial identity nor any contact with local people, traditions and culture.

The hospitality of people of incoming regions is another important asset that influences the choices of tourism destinations. In the Algarve, as in Portugal, in general, people are considered nice and kind to tourists, making them feel at home, and this distinctive trait plays several times the difference towards alternative destinations, also according to stakeholders' opinions. The perception of safety is another important asset of the Algarve that still attracts many tourists and constitutes a differentiator factor in relation to other similar destinations, especially the Maghreb. Finally, the existence of an international airport in the region, with very regular and short flights to a great number of European cities, is a crucial asset to the territorial attractiveness of the Algarve. These two last aspects - safety and accessibility - are particularly important to foreign tourists and are seen as distinctive factors that several times justify their preference for the Algarve among other possible choices.

Both indigenous and foreign tourists value these regional attributes, but their motivations to come to the Algarve are different. For the Portuguese, the Algarve is, broadly speaking, the natural "sun and beach" internal destination, mainly due to the characteristics of the climate (much less windy than in the rest of the national, more Atlantic, coast) and the sea. Foreigners, in turn, tend to value much more the other regional assets, such as the regional culture (gastronomy, traditions, and so on), the landscape variety and safety rather than only "sun and beach". So, as the Portuguese usually come back for holidays in the Algarve, also do a great part of the foreign tourists. There is a general perception among the stakeholders of certain "devotion" of these tourists with the region that makes them to return sometime.

2.1.2. Regional attractiveness for migrants / second-home owners

This feeling that links much foreign tourists to the Algarve leads them, in many cases, to migrate to the Algarve or, at least, to buy there a second-home residence, especially when they become old workers and/or retired. In the Algarve, the so-called "residential tourism" is more and more becoming a consolidated market niche with significant impact in the region's economy. In fact, there is in the region a large resident community of foreign people that chose the Algarve to enjoy their retirement and also a considerable number of second-home residences of foreigners that spend there relatively long periods when compared to mere holidays.

A survey carried out to a representative sample of foreign property owners in the Algarve (Almeida, 2007) showed that around 88% of the interviewed people consider it as a second home and the remaining 12% as their first home. The length of stays as well as the number of visits to the Algarve per year varies according this classification (Table 3). According to this study, only 9.3% consider their property a mix of family house and investment, and a negligible share of 0.3% see it as pure investment. Thus, considering that only a few rent their property in order to capitalize the investment, the owners' preferences tend to be the dominant factors in the choice of the Algarve. Hence, two important drivers of the choice of the Algarve to migrate/buy a second-home residence perceived by stakeholders are the abovementioned perception of safety and the existence of an airport that allows these incomers to return to their countries of origin, if necessary, in few hours.

Table 3: Owners' profile by lodging type

	First-home	Second-home
Average age of the owners	56	54,4
Nights/visit	130	21,7
Visits/year	2,7	5,2

Source: Almeida, C. (2007)

In 2010, the main European emission markets of migrants/second-home buyers in the Algarve accounted for 20% of the foreign community in the region. The British are the second major foreign community in the Algarve, with more than 11.000 residents (Table 4)[2]. These figures are noteworthy taking into account the relative importance of other type of migrants (low-skilled labour force) that come from ancient Portuguese colonies (namely Brazil and Cape Verde) or the Eastern Europe (Ukraine, Romania, Moldova) and represent around 50% of the foreigners living in the Algarve.

Table 4: Foreign residents in the Algarve, 2010

Country of origin	Rank	Residents	
		No.	%
United Kingdom	2	11.129	15%
Germany	6	3.526	5%
The Netherlands	8	2.176	3%
Spain	15	661	1%
Ireland	20	479	1%
Total of foreign residents	-	71.818	100%

Source: Foreigners and Borders Service (2011)

Among the four main markets (British, German, Dutch and Irish), the Irish is the newest in the Algarve, and its emergence and later decrease is related with the Irish economic performance in the last decade. So, whereas the German, Dutch and British have their homes in the Algarve since the 60s and 70s, and constitute the traditional markets of the Algarve, the Irish mainly began to invest in the region after 2000 and represent, therefore, a much more recent market.

Official statistics about these specific communities are scarce, so, stakeholders' opinions are the best available source. According to their perceptions, these migrants generally belong to a medium-high economic status in their country of origin, which allows them to have a good standard of life in Portugal, even if prices are rising and exchange rate (concerning the British) is becoming less favourable. They are mainly high/medium-high skilled people already retired or pre-retired, what allows them to spend long stays (months) in the Algarve. Almeida (2007) concluded also that they are, in average, 55 years old and that 52% are still employed whereas 41% are already retired. 40% hold a degree (Table 5).

Table 5: Migrants/second-home owners' profile

	Total	British	German	Irish	Dutch
Average age (y.o.)	54,6	55,6	57,4	48,8	56,4
Instruction					
Elementary	2,7%	3,6%	0,0%	1,4%	0,0%
Secondary	52,8%	54,6%	47,2%	48,6%	52,6%
Higher Education	40,3%	36,1%	50,0%	50,0%	42,1%
Professional situation					
Unemployed	6,7%	5,6%	0,0%	12,9%	10,5%
Employed	52,4%	50,6%	40,0%	64,3%	52,6%
Student	0,3%	0,4%	0,0%	0,0%	0,0%
Retired	40,6%	43,4%	60,0%	22,9%	36,8%

Source: Almeida, C. (2007)

[2] These figures do not fully reflect the number of foreigners living in the Algarve due to the abovementioned issue of the second-home buyers who, even spending long periods in the region and coming several times a year, are not accounted for as residents in Portugal. Considering that second-homes owners are much more than the registered "migrants", these figures have to be read as illustrative of a much greater phenomenon. Also for this reason, the main nationalities to be considered in the scope of this analysis have to be the British, the German, the Dutch and the Irish, those who really are "residential tourists".

The major part of these migrants got familiar with the Algarve through relatives or friends who previously had been there or after a previous visit to the region (Almeida, 2007).

As frequently pointed out by stakeholders, these people tend to migrate to the Algarve because they feel "at home" in the region, maybe due to the combination of a set of territorial assets such as the climate, the hospitality of people, the quietness and the proximity to their own countries of origin; there is a kind of belonging feeling that attracts them and motivates them to buy a second home in the region.

The survey carried out in 2007 confirmed this perception. According to Almeida (2007), the main assets that determined their choice to buy a second-home in the Algarve were the climate (for 79%), the accessibilities to the country of origin (53%), the golf (25%), the existence of friends and relatives or a previous contact with the region (19%). Safety also appears as a determinant factor, pointed out by 9% of the enquiries, as well as the existence of low cost flights from/to their country of origin (9%). The climate constitutes for all nationalities the main reason for coming. In relation to the other factors, while the British, the German and the Irish value accessibility, the Dutch tend to value more the pre-existence of friends and relatives in the region. Once in the Algarve, foreign migrants appreciate, above all, the climate and the hospitality of people, whilst bureaucracy appears as the most negative feature of the region (pointed out by 16%) (Almeida, 2007).

Regarding the lodging type, a part of migrants prefer to live in resorts, near the coastline (mainly the British and the Dutch) whereas others, especially the German, prefer to live in isolated areas, restoring existing houses, making them self-sufficient in terms of energy and sanitation, and developing biological agriculture or handicraft. They usually choose a place where there is already a resident community from their country.

According to Almeida (2007), the majority bought a villa (65%), but particularly in the central and western areas; in the eastern zone, 38% bought an apartment. A significant part of the interviewees bought their house in the Algarve between 1997 and 2006. This period corresponded also to the boom of low cost flights to Faro's Airport, so one can conclude that this infra-structure definitely constitutes an attraction factor of the region, thus corroborating stakeholders' perception of the importance to the proximity of the countries of origin to these "residential tourists".

In average, these migrants come to the Algarve 5 times a year and stay more than 35 nights, which mean that they spend around half of the year in the region and the other half in their country of origin. They usually come, by order of preference, in June, October, May, April and September, i.e., they come when the Algarve is not overcrowded with Portuguese tourists who mainly come for summer holidays on July and August. This segment is therefore important to reduce the seasonality of tourism still faced by the region.

The main purpose of their stays in the Algarve is leisure (74%), followed by golf (9%) and business (8%). During their stay in the Algarve their main activities are walking (57%), going to the beach (55%), reading (54%), relaxing (53%), playing golf (26%) or other sport (20%) and enjoying the local gastronomy (13%) (Almeida, 2007). These results show that this particular type of tourists essentially comes to the Algarve to enjoy its quiet and relaxing ambience, and are coherent with the valuation of the regional attraction factors that lay behind their choice of the Algarve to migrate/to buy a second-home residence at a certain stage of their lives.

Still, stakeholders broadly agree that a not negligible number of retired migrants create their own businesses in the Algarve, usually in the fields of their personal preferences and are therefore seen as a mix of a job with a hobby. They usually run restaurants, gardening

businesses, real estate companies or technical services and their target audience is mainly their community living in the region.

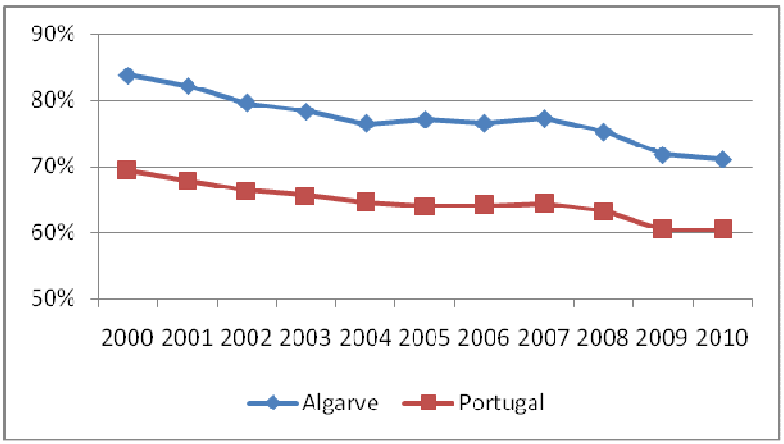
All stakeholders agree that these migrants are well integrated in the local communities; there are even initiatives, as cultural activities, where their participation exceeds the Portuguese's. The British are those who remain more closed in their own community and interact less with the indigenous; for instance, they can live in the Algarve for years and never speak Portuguese. Nevertheless, there is a mutual empathy between the locals and all these incomers, and they frequently participate in charity and volunteering actions.

In terms of competition with other destinations to buy a second-home residence, 72% of the inquiries admitted not to have considered other possibilities. Among those 28% who did it, the alternatives envisaged were Spain (53%), France (22%), Italy (6%) and the USA (6%), mainly (Almeida, 2007). Considering the importance of second-home residences in Spain, namely in the Andalusia, there is some competition between the Algarve and the South of Spain to attract this audience, although the major part of stakeholders agree that the Algarve is relatively well positioned in this competition. In this particular case, the region does not have to compete with the Mediterranean markets that threaten the Algarve's attractiveness for foreign tourists.

2.2 Trends

2.2.1 Regional trends concerning attractiveness for foreign tourists

The decade 2000-2010 was not too favourable to the tourism sector in the Algarve, given that the nights slept by tourists fell, in average, 0.9%/year. This declining trend was particularly negative concerning foreign tourists, whose nights fell 2.6% per year, whereas in Portugal they kept relatively constant (-0.3%). Despite the negative trend depicted by Figure 3, the Algarve has been preserving its particular attractiveness for foreigners when compared with the national situation, still recording 10pp. above the national average in the proportion of foreign tourists.



Source: INE

Figure 3: Nights slept by foreign tourists (% of total of tourists)

This negative tendency is above all explained by the fact that the tourism sector in the Algarve is still too much oriented to the "sun and beach" product, which results in a significant seasonality and threatens the regional position in the international ranking of tourist destinations in a context of increasing competition from other countries in the Mediterranean basin that are implementing very aggressive marketing strategies of promotion and unbeatable prices, like Turkey, Croatia or the Maghreb countries.

This is, in fact, a consensual opinion among regional stakeholders. In general, they consider that the Algarve performance to attract foreign tourists has been good, but below the regional potential especially if one consider the endogenous characteristics of the region for tourism. This perception contradicts, to a certain extent, the results of the model developed on the scope of the ATTREG project, which concludes that the Algarve is performing better in its capacity to attract people than it could be expected from the regional's endogenous characteristics. The main reasons pointed out by stakeholders for such a performance are the lack of promotion of the region in the emission markets (namely in Spain, for proximity reasons, and in the UK, the region's main market) combined with the emergence of similar destinations which constitute a feasible alternative in terms of price and, moreover, carry out strong marketing policies to attract tourists in the emitter countries. In addition, conjunctural economic problems in the main Algarve markets, as the UK, whose currency depreciated against euro, also decreased the number of tourists in the region in the recent years.

All these reasons lead stakeholders to have not very optimistic expectations for the development of regional attractiveness in the future. Although this year and perhaps in the next 2 or 3 years the Algarve

may take advantage of the political instability in its main competitors, this apparent upturn of the sector does not eliminate the need of structural changes concerning supply, new tourism products, etc. and the adaptation to new market mechanisms, emphasizing the regional presence on the internet and lessening the weight of traditional tourism operators. Indeed, the region should take advantage of the current situation to consolidate and broaden the supply and to improve quality. Still concerning the main destinations in competition with the Algarve, they face some problems related to safety, infra-structure and political stability which, at present, constitute competitive advantages for the region; however, these countries are overcoming such drawbacks and, in addition, their prices are lower, so, it is important that the Algarve does not neglect quality standards and improves on the relationship price-quality of regional touristic products; otherwise, the region can be seriously endangered by these markets.

In order to overcome the Algarve tourism sector main weaknesses – excessive seasonality and increasing competition from other "sun and beach" destinations – the Algarve policies tend now to simultaneously requalify and broaden the "sun and beach" cluster – the main and traditional product Algarve has to offer, and to diversify the supply through differentiated products to which the Algarve has an exceptional potential to become an international reference in terms of quality: "senior tourism", health tourism, nature tourism and sports tourism, mainly associated to nautical and motorized sports and to golf. This constitutes, undoubtedly, the major challenge of the Algarve tourism cluster.

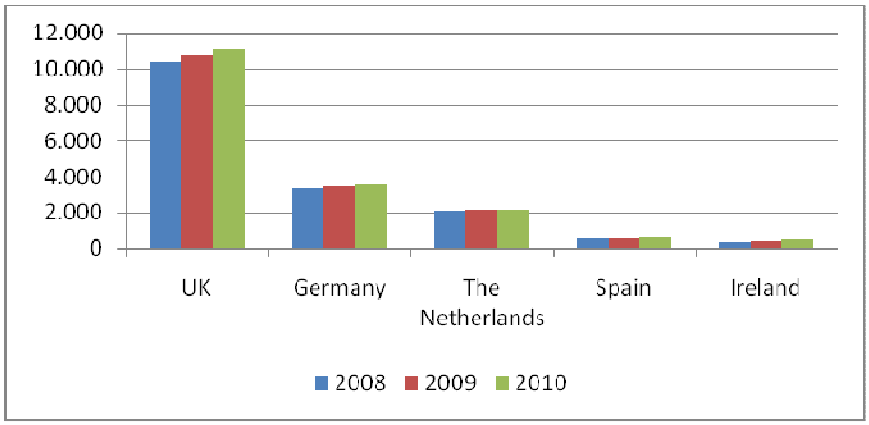
Among these alternative products, golf is the more consolidated so far. The Algarve has currently 36 golf courses (i.e., more than a half of the Portuguese total) which are increasing their international notoriety due to the high quality standards. The region is already a European reference destination for golf and attracts particularly the British and the German (25% and 23% of the golfers that come to Portugal, respectively).

Nevertheless, these alternative touristic products that are now emerging and/or consolidating are not enough, per se, to attract tourists to the region. The Algarve is mostly known by the "sun and beach" product (88% of foreigners visit the Algarve because of that), and the policies carried out for years converted certain areas of the region in mass tourism destinations with the proliferation of resorts/construction, most of the times ignoring any urban planning concerns. This continued trend is now compromising environmental and

landscape protection and may even negatively affect the attraction of new tourists to the region.

2.2.2 Regional trends concerning attractiveness for migrants/residential tourists

Concerning migrants, all the main communities have been increasing their members in the Algarve, as depicted in the Figure 4[3].



Source: Foreigners and Borders Service (2011)

Figure 4: Foreign residents in the Algarve by country of origin

All stakeholders agree that the Algarve performance to attract migrants with more than 50 years has been really good. The natural attributes such as climate, the landscape diversity, the hospitability of the local people, the quietness and the safety have been determinant to capture more and more foreign migrants to the Algarve over time. However, until not long ago, it happened very often that these migrants came back to their countries when they got older or had health problems because they did not trust in the Portuguese health care system efficiency. Nowadays, this situation has improved and there is an on-going significant investment to invert this trend. Actually, some private hospitals and senior residences with medical assistance have been built in the latest years and this improvement has strengthened the Algarve attractiveness to this public. Moreover, the accessibility also improved, as the airport of Faro has been increasing the number and destination of flights.

Although the strengthening of these particular forms of territorial capital is evident and has been producing satisfactory results, the financial crisis is having a negative impact on the so-called "touristic real-estate market" that emerged in the Algarve particularly focused on foreign markets (and in particular on the four mentioned until now). Actually, this policy has had its positive aspects, attracting an increasing number of foreigners to the region, but the crisis brought some negative consequences, which, although not so severe as in other countries, is raising some concerns due to an excessive supply in relation to present and anticipated demand for the next years, especially among the Irish and the British, the most dynamic markets at present, but whose purchase power has been decreasing.

To overcome this problem, a regional Deputy of the Algarve in the Portuguese Parliament has very recently proposed the creation of the "Statute of Retired and Resident European Citizen" possibly associated to some fiscal and other incentives in order to attract foreign investment, to generate employment and fight against the real estate touristic sector crisis. However, the evolution of this market will certainly depend on the performance of the

[3] Cf. footnote 4 for a full understanding of these figures.

external markets, so, although the attractiveness of the region for migrants is good, it is not straightforward that this market continues to grow as it grew so far.

About this subject, stakeholders' expectations are not very favourable due to two interrelated reasons that will retract the arrival of new migrants: first, Portugal is not an attractive place to invest at present; second, the main investors also face difficult economic situations in their countries.

2.3 Position

Positioning the Algarve in a larger urban system requires considering its main direct competitor, which is Costa de La Luz (Huelva and Cadiz Provinces), in Andalusia. In fact, they compete for the same public and they both have strengths and weaknesses regarding each other, but the general opinion among stakeholders is that the Algarve is far from losing this battle.

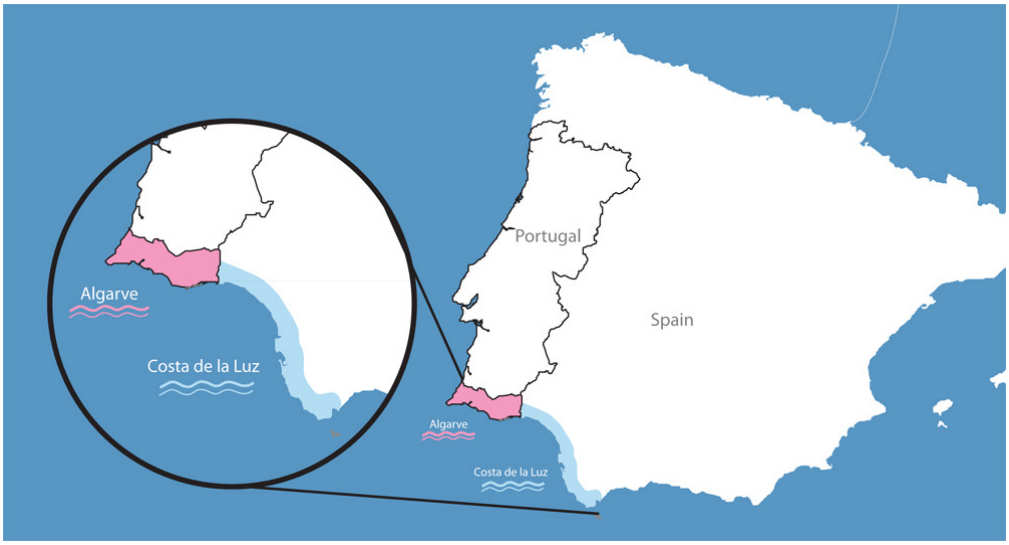


Figure 5: Algarve's position in a larger territorial system

2.3.1 Algarve's positioning for foreign tourists

Although the touristic supply in terms of "sun and beach" product is similar in the Algarve and in Costa de la Luz, this latter is cheaper and tourists broadly refer to it as more animated and with a better quality of the available activities. This particular issue was actually pointed out in the past by tourists as one of the main advantages of Costa de la Luz in relation to the Algarve.

Moreover, while in the Algarve there are several promotional sites devoted to Spain and Andalusia, the Algarve is not promoted even in Huelva province, its closest market. In this particular aspect, the Algarve position is endangered and stakeholders identify it as a major failure of the regional policies. Additionally, Huelva is often publicized among the Nordic countries as "the Spanish Algarve"; this slogan shows the Algarve's potential and notoriety among that public, but it is certainly not enough to maintain regional attractiveness and competitiveness forever.

Still according to regional stakeholders, despite the lack of promotion, which weakens the Algarve position in its competition with Costa de la Luz, tourists generally consider the Algarve more cosy, and find local people nicer and the gastronomy better; besides, English is more fluently spoken. Natural conditions are better in the Algarve due to beaches quality

and to the highest degree of urbanization of Costa de la Luz. Moreover, the Algarve has an airport whose influence area covers the Huelva province. Everybody is aware that a part of tourists that land in the Algarve go to Andalusia; nonetheless, it still means exporting a service and thus generating wealth to the region.

Finally, official statistics confirm stakeholders' perception: in fact, the Algarve not only records a higher number of annual nights slept by tourists than Costa de la Luz (in 2010, 13.2 millions in the Algarve against 10 millions in Costa de la Luz (INE, 2001; INE España, 2010)), as the proportion of foreign people more almost doubles in the Algarve: as said, the share of foreigners in the Algarve reached more than 60% while in Costa de la Luz it was 34% (INE España, 2010).

2.3.2. Algarve's positioning for migrants/residential tourists

In what concerns migrants, stakeholders point out some strengths of the Algarve in relation to Costa da Luz, but also recognize that Andalusia/Costa de la Luz has some competitive advantages towards the Algarve that cannot be neglected.

First, in Costa de la Luz prices are lower than in the Algarve. This is true for the majority of commodities, given the Spanish lower fiscal burden, but also for real estate, given the excessive supply existing in Southern Spain. Regarding purchasing power, the existing difference may constitute, many times, an attraction factor of Andalusia, especially if we consider that the income level (pensions) of these migrants, although allows them to have a good standard of life in Southern Europe, is not extremely high. In relation to the real estate sector, there are much more restrictions to the sector in Portugal than in Spain, and that asymmetry have led to a massive construction in Costa de la Luz that was not possible in the Algarve. Despite the conflicts that such different policies may generate in cross-border regions, this turned out to be advantageous to the Algarve, not only because of the financial crisis that affected particularly this sector but also in terms of sustainability and preservation of territorial natural values (namely landscape and biodiversity).

Second, to those migrants who prefer to live in resorts where the management of the buildings and common spaces is provided by third parties, Andalusia also has some advantage, despite in the Algarve this kind of resorts is also spreading.

Third, as said before, foreigners perceive medical assistance in Andalusia/Costa de la Luz to be better than in the Algarve. Considering the age band of these migrants, this is an important asset that definitely influences territorial attractiveness. Nevertheless, the Algarve authorities are aware of this issue, which had been a drawback in the past, and the situation is visibly changing: there is an important ongoing investment (both public and private) in health sector in order to overcome the existing limitations. These new facilities will also be important to promote the so-called "health tourism" which is already succeeding in Andalusia and is also part of the Algarve's strategy to diversify the touristic supply in order to enhance regional intrinsic characteristics to that niche and to mitigate the seasonality of the sector.

Yet, as said, the Algarve also possesses three main advantages towards Costa de la Luz that have been assuring the region's good performance in the attraction of "silver migrants".

First, associated to the aforementioned increased restrictions to construction, two main advantages resulted for the Algarve. Firstly, it did not allow for a degree of massification that usually worsens the quality of life in touristic destinations. Obviously, this does not mean that there are no overcrowded areas in the region, but, in general, the situation is not as suffocating as in other similar touristic places. Secondly, less construction led, in general, to higher prices, which, in turn, made the selective mechanisms of the market work and

resulted in a dominance of migrants with a certain standard of life and socio-economic characteristics. In this particular, stakeholders often highlight the better construction quality in the Algarve than in Costa de la Luz, although it is not certain that this is a decisive aspect when they decide where to migrate/buy a second-home residence.

Second, the Algarve landscape is also frequently pointed out as more attractive than the landscape of Costa de la Luz.

Finally, an issue several times mentioned by stakeholders when addressing the Algarve's attractiveness is the affinity that foreigners have with local people, which does not seem to occur in Costa de la Luz, mainly due to the intrinsic differences of character between the Portuguese and the Spanish people. This affinity, which makes them feel as if they were in their own country is something determinant in this kind of choices, and it is particularly visible among the British community, maybe because of different generations of families that have been in the Algarve and transmitted this feeling across generations. Although immaterial, this aspect reveals to be decisive to maintain the regional attractiveness for certain groups.

2.4 Spatial diversity

The Central part of the Algarve (Albufeira and Loulé municipalities) attracts the greatest share of tourists, followed by the western area (Portimão and Lagoa) and finally by the eastern zone (Vila Real de Santo António and Tavira).

The wide range of real estate prices make the Algarve an attractive destination for different socio-economic profiles: prices range from 100.000€ to millions of € which is advantageous for the region, given that the demand for second-home residences is therefore not restricted to a single segment of customers. The cheapest real estate prices are those in the eastern area and the most expensive are in the Centre of the Algarve, where there are the most of the luxurious resorts, namely Quinta do Lago, Vale de Lobo, Vilamoura and Almancil surroundings.

The majority of these migrants/residential tourists (53%) prefer coastal areas. Almost half of them (45%) live in the centre of the Algarve (Loulé and Albufeira municipalities record the major share) but the western part of the region (called "Barlavento" – Lagos, Lagoa and Portimão municipalities) also has significant demand (36%) (Almeida, 2007). Nevertheless, a new tendency to prefer the eastern part ("Sotavento" – Tavira, Olhão, Vila Real de Santo António and Castro Marim) is emerging, especially by the Dutch, and mainly due to new real estate projects that are growing in this area, relatively unexploited from this point of view until now.

These results are consistent with the stakeholders' perception about the internal asymmetries of the Algarve in terms of attractiveness to these migrants. Despite they are spread by the whole region, there are some localized foreign residents communities. There is a well-known German community in the western area that mostly lives in the countryside; the Dutch appreciate the eastern part of the Algarve (there is a significant community in Tavira); the British are relatively disseminated by the whole region. Considering the north vs. south dichotomy (i.e., countryside vs. coast), there is a high number of migrants living in the so-called "barrocal", which is an intermediate zone between the coastline and the interior of the Algarve, mainly rural; there is a very well-known community in Santa Bárbara de Nexe, for example. The preference for a more rural place to live is evident among the older migrants, who appreciate the quietness of such zones. Conversely, the younger, namely the Irish families, tend to prefer the coastline and the cities, in part because they still have children and being close to the beach and facilities such as commercial and entertainment areas is an important concern.

2.5 Conclusions

The Algarve is, by definition, a touristic destination, as it concentrates 41% of the Portuguese lodging capacity and 42% of nights slept by tourists. However, the last decade was not too favourable to the sector in the region, and it was particularly negative in terms of foreign tourism. Nevertheless, despite the declining trend, the Algarve still is particularly attractive for foreign tourists, mainly for British, Spanish, German, Dutch and Irish, who represent more than 60% of the annual visitors of the region, exceeding the national average.

The regional attractiveness for foreign tourists is explained by a set of territorial assets, namely the climate, the landscape diversity, the safety, the hospitality of people and the proximity to an international airport. However, the tourism sector in the Algarve remains too much oriented to the "sun and beach" product, which results in a significant seasonality and is more and more threatened by emerging destinations with similar products and cheaper prices, like Turkey, Croatia and the Maghreb. In addition, its closest competitor, Costa de la Luz, is also cheapest and often publicized among the Nordic countries as "the Spanish Algarve", a slogan that shows the Algarve's potential and notoriety among that public, but which is not enough, per se, to foster Algarve's attractiveness especially when the region is barely promoted in the emission markets.

To overcome the Algarve problems, policies tend now to simultaneously requalify and broaden the "sun and beach" cluster and to diversify the supply, namely through differentiated products as "senior tourism", health tourism, nature tourism and sports tourism, mainly associated to nautical and motorized sports and to golf. This constitutes, undoubtedly, the major challenge of the Algarve tourism cluster.

Still, albeit the weaknesses of the tourism sector in the Algarve, the region is considered by many tourists as a place where they "feel at home", and that perception makes them either return or even buy a second-home residence in the region. The Algarve, exhibits, in fact, a really good performance to attract migrants with more than 50 years, which is being strengthened by significant efforts (public and private investments) to overcome with the main problems felt by these communities, namely the lack of satisfactory health services for their standards.

Regarding this particular public, competition relies on different factors than those which determine choices for a week or fortnight holiday period. Thus, in this case, the most evident competitor with the Algarve is Costa de la Luz. Comparing the two alternatives, both have strong and weak points regarding each other, but the Algarve succeeds in this challenge due some reasons such as being a relatively less "mass destination", having a more pleasant landscape, but, above all, due to the affinity that foreigners have with local people which makes them feel as if they were in their own country, as frequently pointed out by these residents.

Nonetheless, despite the regional assets and intrinsic performance to attract new residents, the economic and financial crisis restrained the real estate market and is raising some concerns about an excessive supply of tourism residences in relation to present and anticipated demand for the next years.

To sum up, one can say that the Algarve has, in fact, a good performance to attract both foreign tourists and old-worker/retired migrants, which is explained by territorial assets such as a unique climate, a pleasant landscape, a relaxing ambience and, first and foremost, by the hospitality of local people.Even so, these attributes do not suffice to succeed in such a competitive sector as tourism; other niches to which the region has natural competitive advantages to attract people, rather than "sun and beach", have to be promoted if the Algarve is to maintain or even improve its well-known attractiveness.

3 Policy review

3.1 Institutional context

As the Portuguese regions have no political autonomy, policies are centralized and then implemented and monitored by decentralized services of the Central Government such as the Regional Development and Coordinating Commissions, charged to execute the politics of regional development and the regional strategic planning, or the Regional Tourism Entities, in the specific case of tourism policies.

Regarding tourism, the current national policy framework is the National Strategic Plan for Tourism for the period 2007-2015 (MEI, 2006), and each of the 11 Portuguese Regional Tourism Entities may align their own Regional Plans with this national broad strategy.

Below such decentralized services of the Government, the next institutional level is the municipality, local authorities directly elected by citizens but with relatively strict competences and none in terms of tourism. All the mobilisation processes they may be able to generate refer to local initiatives to attract people to their territory, but not to the implementation the abovementioned Regional Plan.

Given this institutional context, regional policies to boost attractiveness for tourists (and particularly foreign tourists) are led by the Regional Tourism Entity of the Algarve, which is therefore the leader of the mobilisation processes. Apart from the Regional Tourism Entity, there are other entities involved in the mobilisation processes, such as the Algarve Tourism Association (a regional body aimed at promoting tourism and regional products of the Algarve abroad through the coordination between public and private regional entities) and the Association of the hotels and resorts of the Algarve, which gathers several touristic products of the Algarve (casinos, golf courses, thematic parks, sports infra-structures, etc.) in order to support the different region tourism vocations, and thus to promote the Algarve as a diversified and high quality tourism destination.

Local authorities, due to their competences, are much more oriented to their own territories and have a segmented instead of a holistic view of the region that tends to be focused on their specific problems and to promote isolated initiatives and therefore do not foster the Algarve's attractiveness as a whole.

Summing up, the institutional context behind mobilisation processes of attraction of visitors and residents to the Algarve relies on the national policy frameworks implemented at the regional scale and on the limited competences of local authorities.

3.2 Vision and strategy

The national (and therefore regional) vision for the tourism sector is threefold: to make Portugal become one of the most growing European tourism destinations, leveraged by the distinctive traits of the country; to develop the tourism sector based on the competitiveness of the supply side, leveraged by environmental excellence and good governance; and to make tourism play a growing role in the economy making it become a major driver of the economic, social and environmental development, at national and regional levels.

To achieve the aims portrayed in the vision for the tourism sector in Portugal, the National Plan defined a set of ten tourism strategic products to which Portugal has great potential to become an international reference in terms of quality and diversity: Sun and sea; Cultural and landscape touring; City break; Business tourism; Nature tourism; Nautical tourism (including cruises); Health and wellness; Golf; Integrated resorts and residential tourism; and Gastronomic and wine tourism.

As said, the Algarve strategy for tourism is an adaptation of the National strategy to the regional context and characteristics. So, among the 10 main national touristic products, the Algarve Regional Plan (Turismo do Algarve and Roland Berger, 2009) has focused on those five to which the region has particular advantages and intrinsic attractiveness, namely: Sun and sea, Golf, Nautical tourism, Residential tourism and Business tourism (Meetings, Incentives, Conventions and Exhibitions - MICE).

Concerning this subject, stakeholders' opinions are somewhat divergent. Some consider that the Algarve has a selective strategy to attract tourists, and foreign tourists in particular, while others argue that the existing policies are insufficient and too much conditioned by the national's. Among those who have a favourable opinion, there is a consensus about the role of the National body in charge of tourism policies – Tourism of Portugal, IP - and its decentralized delegation for the region – Regional Entity of Tourism of the Algarve – in capturing tourists for the region through a selective strategy outlined for the Algarve based on the national plan. Moreover, they also mention the role of the Algarve Tourism Association, which promotes the region in international fairs and events.

Those with a more sceptical position mention the following arguments. First, the regional policies/strategies are too much conditioned by the national ones. A related argument is that the national strategy promotes Portugal as a whole and some new destinations in the country are emerging and gaining notoriety as touristic places, a shift that seems to lessen emphasis in the Algarve, although the region remains as one of the major Portuguese tourism destinations. Second, the existing action is not as coordinated between entities as it should be, and the result is a certain overlap of actions and initiatives instead of the desirable team work. Third, the private sector involvement in these strategies is too weak. Fourth, municipalities do not have a very active role in these strategies because they seem to be much more oriented to voters rather than to tourists and consequently they do not make significant efforts to attract tourists to their territories beyond assuring a good quality of public infra-structure, what, despite being important also for tourists, is not specifically designed to attract them. Fifth, the region is not promoting itself in its main markets as it used to in the past: for instance, some years ago, the Algarve was promoted in London buses; nowadays, such kind of advertising simply does not exist. Finally, it is also pointed out that the current strategy is more focused on the animation of those who came to the region instead of on the promotion of the Algarve to capture new tourists.

Concerning the attraction of migrants aged 50 and more, stakeholders broadly agree that there is no specific strategy (neither public nor private) in the region. The first migrants that came to the Algarve in the early 70s belonged to a major group of old-worker/retired people from the Northern Europe that decided to move to the Mediterranean coast to enjoy its quietness, good climate and lifestyle. Since then, "mouth to mouth" has been the main responsible for the arrival of new migrants to the region.

Currently, the existing initiatives are led by the private sector, namely hotels, resorts and real estate operators that promote the Algarve in the main emission markets in order to capture new possible investors. For example, only recently it took place the first Algarve Property Show in the Algarve, organized by the private sector with the support of Regional Tourism Entity.

It should be noted, however, that, private entities that try to capture foreign buyers for their products take advantage of the action of municipalities concerning infra-structure, public services and spaces, urban regeneration, cultural activities, and so on, but stakeholders do not envisage such measures as a part of any specific strategy to attract migrants. Actually, all these concerns are in the scope of municipalities competences as local governments, so, although they also provide services for migrants/residential tourists, these are not what they

were designed for at first. Some stakeholders also highlight that the only intervention of municipalities in the attraction of migrants concerns the urban licensing for hotels and resorts, from which they benefit through municipal taxes.

Although this is the current situation, the definition of residential tourism as one of the Portuguese strategic tourism products by the National Plan for Tourism launched a new logic in the sector and the framework for the definition of specific strategies concerning residential tourism from now on. Until this priority was defined there was some competition between tourism and real estate business; currently, residential tourism is assumedly a tourism product and specific strategies in this field may arise.

3.3 Relevant policies

As said, the current structural policy for tourism in the Algarve is the Regional Tourism Plan, an adaptation of the National vision and objectives to the regional context. This regional Plan aims at defining a development strategy for tourism in the Algarve in which all concerned agents feel motivated to participate improving and upgrading the sector in order to foster the Algarve attractiveness for tourists.

Actually, the definition and implementation of such a Plan required the involvement of the different regional stakeholders in the tourism sector, as the Regional Tourism Entity, the Algarve Tourism Association, local public entities charged of local management (e.g. natural heritage), regional entities in the field of tourism, touristic operators and hotels and resorts representatives. These constitute, therefore, the mobilisation agents in the process of attracting [foreign] tourists to the region.

The relevant strategic products for regional tourism polices are, as abovementioned, Sun and sea, Golf, Nautical tourism, Residential tourism and MICE. In order to complement the "core" supply of these products and to promote the Algarve as a reference destination that distinguishes itself by the high quality standards of supply and human resources and by a preserved natural environment and landscape, the regional strategy recommends some measures/policies to strengthen the existing territorial capital (both material and immaterial) and to create new forms of such territorial attributes.

Thus, concerning Golf, the main objectives are to strengthen the promotion of the Algarve as a reference destination, to create the Algarve Golf Academy, to organize an annual cup with worldwide notoriety. Regarding nautical tourism, the regional strategy recommends to create 2 or 3 new marines (so that the Algarve reaches a better position towards Andalusia) and nautical stations in order to develop the supply of nautical products and reinforce the existing ones (e.g., windsurf, nautical charters). In relation to MICE, the goal is to strengthen the Algarve experience with this product, using more and more emblematic sites of the region for the venues.

As a complement to the main products, the regional strategy defines a set of secondary attraction factors that may be developed in attachment to the five core products of the Algarve. These secondary products are Cultural tourism, Nature tourism, Gastronomic tourism and Health and wellness tourism. This latter can become a main attraction factor in the near-term, due to the current investments that are taking place, as mentioned.

The regional strategy also defines some goals to these secondary tourism products. In what Nature tourism is concerned, the priorities are to develop this segment taking advantage of the 3 natural parks and reserves - Ria Formosa Natural Park, Natural Reserve of the Castro Marim and Vila Real de Santo António marsh and the Natural Park of the Alentejo Southwest and Vicentina Coast - and the creation of interpretation centres, the identification of routes, etc. To promote Cultural tourism, the idea is to organize and publicize supply through the

creation of circuits to promote cultural and historic heritage, to improve information and signalling, etc. Concerning Gastronomic tourism, the aim is to enrich the gastronomic supply in the region and to organize a prestigious event to promote the Algarve traditional food. Finally, as to Health and wellness tourism, the aim of the regional strategy is to create a label for this product associated to the high quality professionals and services provided in existing and forthcoming high quality infra-structures.

The regional strategy also includes a strong animation component – Allgarve programme - whose aim is to organize distinctive events out of the high season, to promote them in the interior zones of the Algarve and to harmonize the different initiatives within the region. This component addresses the recurrent limitation of the Algarve pointed out by foreign tourists when compared to Costa de la Luz and Andalusia in general which is the lack of animation.

In what concerns the allocation of financial resources, the Regional Plan privileges, on the one hand, golf, nautical tourism, MICE and residential tourism and their promotion in their main markets, and, on the other, new flights from those markets to Faro. The regional strategy recommends the promotion of the Algarve in the internet and in the international press, namely through press trips and familiarisation trips, and less emphasis to fairs.

The regional strategy for tourism has been defined so as to take advantage of existing territorial capital and investments in new assets that are being done or planned for the region. Considering, once more, the institutional context of the Algarve, some of the policies addressing territorial capital, in particular concerning human and antropic forms of capital, are undertaken under a broader national policy that, obviously, also impacts on the Algarve performance. In addition, among stakeholders the opinion is that specifically to improve attractiveness for migrants little has been done; migrants benefit from territorial capital improvements but they are not specifically behind the reasoning that dictates the strengthening of its the various forms.

Concerning environmental capital, most of the stakeholders agree that there are some efforts, at the regional scale, to protect the physical elements of landscape. These efforts are, to some extent, an attempt to amend the resultant situation of the inexistence of a territorial planning legislation until the beginning of the 90s that allowed for an excessive urbanization of the most attractive areas for tourism, near the coastline, without any environmental concerns. Nonetheless, current policies have led to some extreme situations that are as undesirable as the inexistence of a regulatory framework, i.e., it lacks some prudence that ensures the necessary environmental protection but does not compromise a "regular" functioning of the regional economy and citizens' life.

Regarding economic capital, although stakeholders consider that the region has a set of economic infra-structures (as industrial parks) that should contribute to improve the economic performance of the Algarve, they broadly consider that they do not work satisfactorily and therefore the attempts to strengthen economic capital of the region are not enough so far. In addition, they invoke the role of municipalities, which invest in infra-structures that may positively affect tourism, but do not have any impact on the economic sphere. However, the Algarve is considered to have a good potential for business, above all associated to tourism, either directly (hotels and restaurants) or indirectly (residential tourism, golf), but traditional sectors as agriculture and fisheries have been abandoned and ignored by regional policies along time.

In relation to human capital, in part due to a significant national effort to improve qualifications, the Algarve has been improving its territorial capital. Also, the existence of the University is important to increase the share of highly qualified human resources. Moreover, the activity of the University of Algarve is line with the economic structure of the region,

both in terms of the offer of tourism-related courses on the different levels of education and of research activity in the field of tourism, what has been contributing to improve the quality of tourism product in the Algarve, although much can still be done, as said. Stakeholders' opinions about the importance of human capital to the attraction of tourists are divergent: some consider that this issue is not that relevant whereas others argue that more qualified human resources improve the quality of services and therefore the regional attractiveness for tourists.

As to socio-cultural capital, the Algarve has been strengthening its social and cultural capital with the establishment of new infra-structures devoted to culture and with the regional animation programme defined within the regional plan for tourism. While in the other forms of territorial capital the action of municipalities is almost negligible, in this case, there is a significant investment of local authorities to organize cultural events in order to attract people to their territories.

With regard to antropic capital, stakeholders have the consensual opinion that much has been done in terms of urban regeneration in the Algarve in the last years, and that such investments contributed to improve regional attractiveness. A significant work has also been done concerning water and sanitation in order to adjust the infra-structural capacity to the peaks of summer season; with those efforts the Algarve solved some "classical" problems faced not very long ago and that seriously compromised regional attractiveness for tourism. Another relevant improvement of the antropic capital refers to healthcare; this aspect is one of the most important in what concerns attractiveness for migrants, due to the reasons explained before.

Finally, in what institutional capital is concerned, stakeholders' perceptions are critical as they do not identify significant improvements. They generally point out the administrative organization of the country as the main obstacle to improve governance conditions at the regional scale. Actually, as regions have no political autonomy, there are only two levels of elected bodies: the central and the local. In the past, the Regional Development and Coordinating Commissions had some competences that could, to a certain extent, match those of a regional body of government. However, such competences were extinct and some of them transferred to municipalities; hence, there is no regional entity with a strategic vision for the whole region.

Municipalities not only are focused on very specific issues related to their own territories as they do not have the necessary dimension to implement certain types of policies and strategies; indeed, they care first and foremost about their own interests and image, what often results in the duplication of investments and competition/rivalry, for example.

In addition, justice does not perform well, as it doesn't in the rest of the country. The lack of efficiency, associated to excessive bureaucracy weaknesses competitiveness and the capacity to attract investment. In a region such as the Algarve, with a significant proportion of foreigners, this issue is a major drawback especially when compared with the countries where these citizens come from. To sum up, in what concerns governance, much is still to be done in the Algarve.

3.4 Conclusions of policy review

As the Portuguese regions have no political autonomy, policies are centralized and then implemented and monitored by decentralized services of the Central Government. In the specific case of tourism, there are eleven Regional Tourism Entities charged to execute the politics of tourism, which are, at present, designed under the framework of the National Strategic Plan for Tourism for the period 2007-2015. Below such decentralized services of the Government, the next institutional level is the municipality, whose representatives are

directly elected by citizens but have no competences in terms of tourism policies. Given this institutional context, the Algarve regional policies to boost attractiveness for tourists are led by the Regional Tourism Entity, which is therefore the leader of the mobilisation process.

Thus, the Regional Tourism Entity of the Algarve designed the Regional Tourism Plan, which is an adaptation of the national vision and objectives to the regional context that aims at undertaking a strategy in which all the other mobilisation agents feel motivated to participate and to improve and upgrade the sector to foster the Algarve attractiveness for tourists. To achieve such goals, the Algarve Regional Plan has focused on five touristic products to which the region has particular advantages and intrinsic attractiveness, namely Sun and sea, Golf, Nautical tourism, Residential tourism and Business tourism. Whereas some stakeholders consider that this Plan constitutes the Algarve selective strategy to attract tourists, and foreign tourists in particular, others argue that it is insufficient and too much conditioned by national policies.

The regional strategy for tourism has been defined so as to take advantage of existing and investments in new forms of territorial capital that are being done or planned for the region. Considering the different types of territorial capital, most of the stakeholders agree that there are some efforts, at the regional scale, devoted to environmental protection, human resources, culture, urban regeneration and infra-structure. Their perception is though less favourable about economic capital and even worse regarding institutional capital. In this case, stakeholders' perceptions are critical and they generally point out the administrative organization of the country as the main obstacle to improve governance conditions at the regional scale. In addition, justice is not efficient and bureaucracy is excessive, what weaknesses competitiveness and the capacity to attract investment, especially among foreigners.

To sum up, in what concerns governance, much is still to be done in the Algarve, and therefore governance does not seem to explain the particular ability of the Algarve to attract foreign tourists and silver migrants.

4 Conclusions

The conceptual model in which relies ATTREG project and therefore this case study links three main components: territorial capital (potential assets), audiences (potential users) and mobilisation processes through which territorial assets may be mobilised to strengthen territorial attractiveness for specific groups (audiences). It also considers the feedbacks that mobility of different types can produce on original attraction factors.

Thus, the aim of this case study was to understand which mobilisation processes lay behind the attractiveness that territorial assets of the Algarve induce on two specific audiences: foreign tourists and migrants aged 50 and more.

4.1 The Algarve performance to attract foreign tourists and "silver migrants"

The Algarve is the only tourism-oriented Portuguese region and particularly attractive for foreign tourists, mainly from the UK, Spain, Germany, the Netherlands and Ireland. Despite the last decade was not too favourable to the tourism sector in the Algarve, and particularly concerning foreigners, the Algarve exhibits a good performance in the attraction of foreign tourists, though below the regional potential especially if one consider the endogenous characteristics – territorial assets – of the region for tourism.

This slightly negative trend is above all explained by four major factors: the excessive dependence on the "sun and beach" product, which results in a significant seasonality; the lack of promotion of the region in the emission markets; the increasing competition from other countries in the Mediterranean basin which constitute a feasible alternative in terms of price and, moreover, carry out strong marketing policies to attract tourists in the emitter countries; and, finally, the conjunctural economic problems in the main Algarve markets, as the UK, whose currency is depreciating against euro and then reducing the British purchasing power.

Concerning attractiveness for migrants aged 50 and more, the Algarve performance has been really good. This phenomenon is historic in the Algarve, especially concerning the British, who arrived in the region in the 60s and 70s. German and Dutch are also traditional migrants in the Algarve and, more recently, the Irish also gained some expression. In 2010, these main emission markets of migrants/second-home buyers in the Algarve accounted for 20% of the foreign community in the region.

In fact, there is in the region a large resident community of foreign people that chose the Algarve to enjoy their retirement and also a considerable number of second-home residences of foreigners. Their choice is motivated by the climate, the landscape diversity, the hospitability of the local people, the quietness and the safety, a set of territorial assets that have showed to be determinant to capture more and more foreign migrants to the Algarve over time. Considering, in addition, the significant investments that are being done to improve the territorial capital main weaknesses (especially healthcare), the regional ability to attract this particular audience will certainly improve.

4.2 The territorial capital that strengthens regional attractiveness

The Algarve's attractiveness for foreign tourists and migrants is explained by a set of territorial assets that result in a unique ambience and in a well-being sensation:

- the climate: the region is sunny all year, precipitation levels are low, and the temperatures are mild;
- the landscape diversity: in the Algarve the high standard resorts coexist with typical villages sparsely populated and with rural sites still unexploited;
- safety;
- the proximity to an international airport with very regular and short flights to a great number of European cities;
- the hospitality of people that makes foreigners feel as if they were at home.

The combination of these unique features results in a "devotion" of these tourists with the region that makes them to return sometime or to migrate to the Algarve or, at least, to buy there a second-home residence, especially when they become old workers and/or retired.

Indeed, the regional strategy for tourism has been defined so as to take advantage of existing territorial capital and investments in new assets are being done or planned for the region:

- *Environmental capital*: there has been some commitment, at the regional scale, to protect the physical elements of landscape. These efforts essentially aim at amending the resultant situation of the inexistence of a territorial planning legislation until the beginning of the 90s that allowed for an excessive urbanization of the most attractive areas for tourism, near the coastline, without any environmental concerns.

- *Economic capital*: although there are a set of economic infra-structures (as industrial parks) that should contribute to improve the economic dynamics of the Algarve, they do not work satisfactorily and therefore the attempts to strengthen economic capital of the region are not enough so far. In addition, the investments carried out by municipalities rely essentially on infra-structures, what may benefit tourists but do not have any impact on the economic sphere. However, the Algarve is considered to have a good potential for business, above all associated to tourism, given that the region traditional sectors, such as agriculture and fisheries, have been abandoned and ignored by regional policies along time.
- *Human capital*: the Algarve has been improving its territorial capital, in part due to a significant national effort to improve qualifications. The existence of the University is also important to increase the share of higher qualified workers, and therefore to improve the quality of services and the regional attractiveness for tourists, especially considering the importance of tourism-related courses in its educational offer.
- *Socio-cultural capital*: the Algarve has been strengthening its social and cultural capital with the establishment of new infra-structures devoted to culture and with the regional animation programme defined within the regional plan for tourism. In this particular case, municipalities have an important role as they organize several events to attract people to their territories. In this particular, the main improvements refer to the integration of migrants with local communities, even if the current degree of acquaintanceship is already satisfactory.
- *Antropic capital*: much has been done in terms of urban regeneration in the Algarve in the last years, and such investments contributed to improve the regional attractiveness. Other investments in antropic capital refer to water and sanitation. More recently, a relevant improvement on this subject refers to healthcare, which revealed to be very important in fostering the regional attractiveness for migrants.
- *Institutional capital*: in this particular form of territorial capital, there are not significant improvements. The administrative organization of the country is pointed out as the main obstacle to improve governance conditions at the regional scale, given that regions have no political autonomy and there are only two levels of elected bodies: the central and the local. Hence, there is no regional entity with a strategic vision for the whole Algarve. In addition, justice does not perform well. The lack of efficiency, associated to excessive bureaucracy weaknesses competitiveness and the capacity to attract investment. In a region as the Algarve, with a significant proportion of foreigners, this issue is a major drawback especially when compared with the context of the countries where these citizens come from. To sum up, in what concerns governance, much is still to be done in the Algarve.

4.3 Mobilisation processes to attract foreign tourists and retired migrants to the Algarve

Considering that Portuguese regions have no political autonomy and competences of policy making in areas such as tourism, the tourism policies in the Algarve are framed by the national guidelines, shaped on the National Strategic Plan for Tourism for the period 2007-2015.

The Regional Plan has focused on five of the ten national strategic products, those to which the region has particular advantages and intrinsic attractiveness. The definition and implementation of the Regional Plan required the involvement of the different regional stakeholders in the tourism sector, as the Regional Tourism Entity, the Algarve Tourism

Association, local public entities charged of local management, regional entities in the field of tourism, touristic operators and hotels and resorts representatives, who constitute, therefore, the mobilisation agents in the process of attracting [foreign] tourists and migrants to the Algarve.

Although this may be interpreted as a selective strategy for the region to attract specific audiences, some argue that these policies are insufficient and too much conditioned by the national one. Thus, mobilisation processes and governance appear to be incipient and seem not to have the desirable role in determining the attractiveness of the Algarve to tourists and migrants. Actually, there are no regional elected bodies, the Algarve seems to suffer from the lack of political support for the regional particular interests and this is a major drawback in the competition with similar tourist destinations which benefit from strong political commitment to their promotion and development.

In addition, regional institutions do not act in a coordinated way and there is a certain overlap of actions and initiatives that may hamper efficiency and effectiveness of policies. Moreover, the involvement of the private sector in these strategies is too weak. Another limitation that hampers mobilisation processes is that municipalities do not have a very active role in these strategies given that they are much more oriented to voters rather than to tourists and therefore they do not make significant efforts to attract tourists / migrants (residential tourists) to their territories. They apparently confine their concerns on this subject to the provision of a good quality public infra-structure, public services and spaces, urban regeneration, cultural activities, what, despite being important also for these audiences, is not specifically tailored to attract them.

Concerning particularly the attraction of migrants aged 50 and more, there is no specific strategy, either public or private, in the region. The first migrants that came to the Algarve in the early 70s and since then, "mouth to mouth" has been the main responsible for the arrival of new migrants to the region. Currently, the existing initiatives to foster attractiveness for new foreign residents are led by the private sector, namely by hotels, resorts and real estate operators that promote their products for "tourism" or "residential tourism" (and the Algarve) in the main emission markets. However, although this is the current situation, as "residential tourism" constitutes now one of the Portuguese and the Algarve's strategic tourism products, specific strategies to attract migrants to the region may arise.

To sum up, one can broadly say that the exceptional attractiveness of the Algarve for foreign tourists and old worker migrants results from the exploitation of a unique combination of territorial assets that has been strengthening over time and relies simultaneously on some conscious government interventions but not less on relatively unplanned market processes.

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ANNEX 6/1/1

Regional stakeholders interviewed:

- Dr. João Faria, President of the Regional Development and Coordinating Commission of the Algarve[4]
- Dr. José Leite Pereira, Director of the Regional Directorate of the Economy[5]
- Dr. Duarte Padinha, Marketing Director of the Algarve Regional Tourism Entity
- Dr. Pedro Poucochinho, Chief of Staff of the Mayor of Portimão
- Eng. José Macário Correia, President of the Intermunicipal Community of the Algarve
- Dr. José Mendes Bota, Regional Deputy in the National Parliament
- Prof. Doctor João Guerreiro, Rector of the University of the Algarve
- Dr. Elidérico Viegas, President of the Association of the hotels and resorts of the Algarve
- Dr. Vítor Neto, President of the Entrepreneurial Association of the Algarve
- Mr. Michael Reeve, CEO of the Association for Foreign Residents and Property Owners in Portugal
- Dr. Francisco Correia Mendes, Director of Faro's international airport
- Prof. Doctor Cláudia Almeida, Expert in tourism research (University of the Algarve)
- Prof. Doctor Adriano Pimpão, former Rector of the University of Algarve, ex-Secretary of State of Regional Development
- Dr. Conceição Branco, Journalist

[4] Organism of the Portuguese Ministry of Environment, Territory and Regional Development charged to execute the politics of regional development and the regional strategical planning, among others.

[5] Regional representation of the Portuguese Ministry of Economy, Innovation and Development

December 2010

The ESPON 2013 Programme

ATTREG
The Attractiveness of European regions and cities for residents and visitors

Applied Research Project 2013/1/3

Annex 4/2
ATTREG Case Studies

Bornholm

Prepared by
Anders Hedetoft, Jeppe Madsen, Irena Stefaniak
and Bjarne Madsen

EUROPEAN UNION
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INVESTING IN YOUR FUTURE

This report presents the draft final results of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

This report does not necessarily reflect the opinion of the members of the Monitoring Committee.

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The web site provides the possibility to download and examine the most recent documents produced by finalised and ongoing ESPON projects.

This basic report exists only in an electronic version.

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Figures

1 Introduction

Denmark was picked as a case study area because of the possibility of exploiting a very large and detailed database which allow research to formulate and test hypotheses regarding migration pattern and trends on a municipality level. Denmark is a representative for the "data-rich countries" and therefore the analysis will be able to go more into depth with the importance of attraction factors and audiences at a more detailed level, both in terms of geography and audiences.

In the case study focus is on migration between municipalities, and migration pattern for 25 sub-groups (education and age) is analyzed. The territorial capital and the influence of attractiveness for the different municipalities is described by use of 25 different attributes (independent variables) and a so-called negative binomial regression model is developed to explain inter-municipal migration.

In the case study we have special focus on the island of Bornholm (a sparsely populated rural municipality) and the aim is to investigate to what extent the municipality migration model can explain in- and outmigration to the island. In the policy review focus is on the "attractiveness policy" – or the regional development policy for the island of Bornholm. The policy is review in relation to policy of government and other stakeholder on different spatial levels.

Denmark is divided into five regions (NUTS-2), 11provinces[1] (NUTS-3) and 98 municipalities (LAU-3).

Bornholm (Denmark) is an island municipality located in the Baltic Sea between Sweden and Poland. The island is sparsely populated and included in the larger "Region Hovedstaden"[2] (NUTS2 region). The island is economical and geographical isolated compare to the main land. It is a typical rural area with declining and ageing population and a relatively underperforming economy, which suggests the existence of some sort of "threshold effect" to economic development.

The island covers an area of 588 km2 and have 41.800 inhabitants, or 0,8% of the total Danish population. Bornholm has also an economic- and population structure which in many ways differ from rest of the region. The private sector is dominated by occupations in agriculture, food production and tourism. In addition, the island, even by Danish standards has a large public sector and approximately 36% of the workforce is employed in the public sector.

Bornholm has a completely different migrations pattern compare to the capital region as a whole. As many other peripheral areas in Denmark a growing proportion of the young generation leaves the island after finishing school and the remaining population is ageing (Figure3).

[1] The 11 provinces is not administrative units in Denmark

[2] The Capital Region

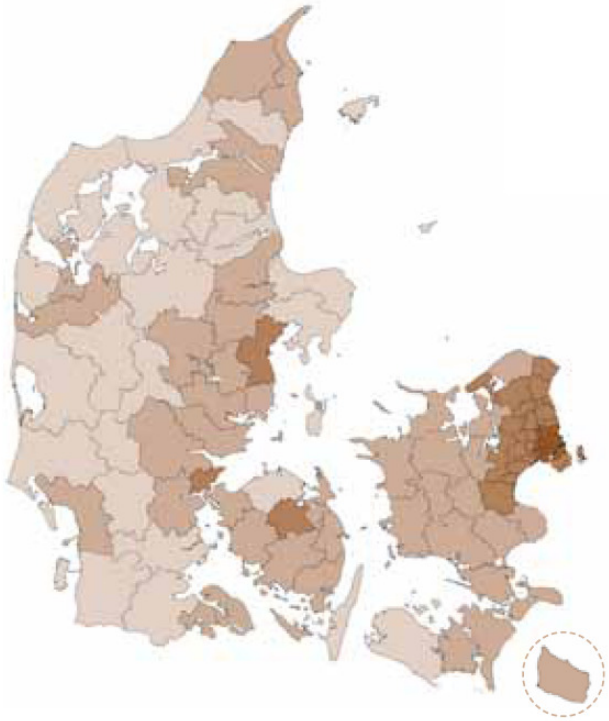


Figure 1: Danish Municipalities, population density

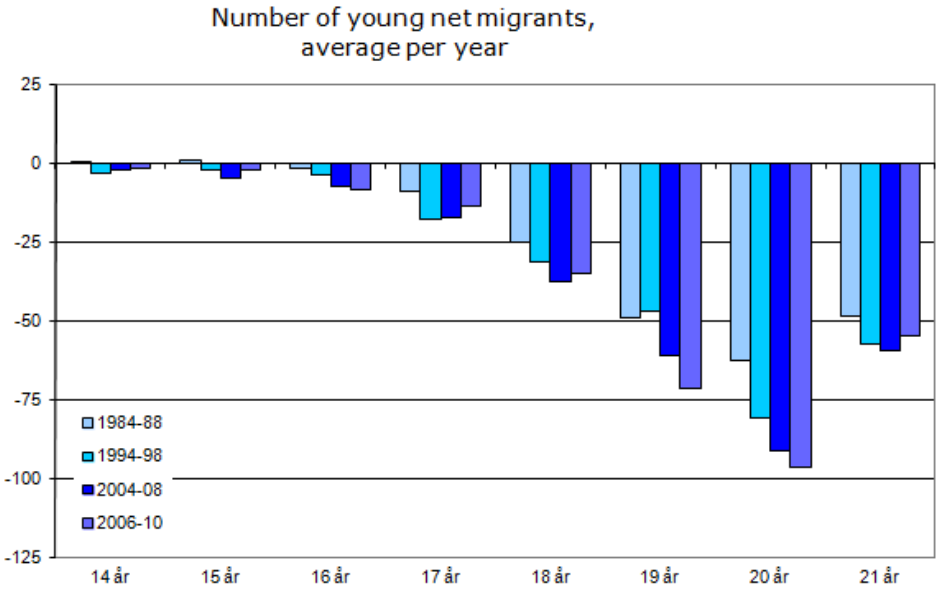
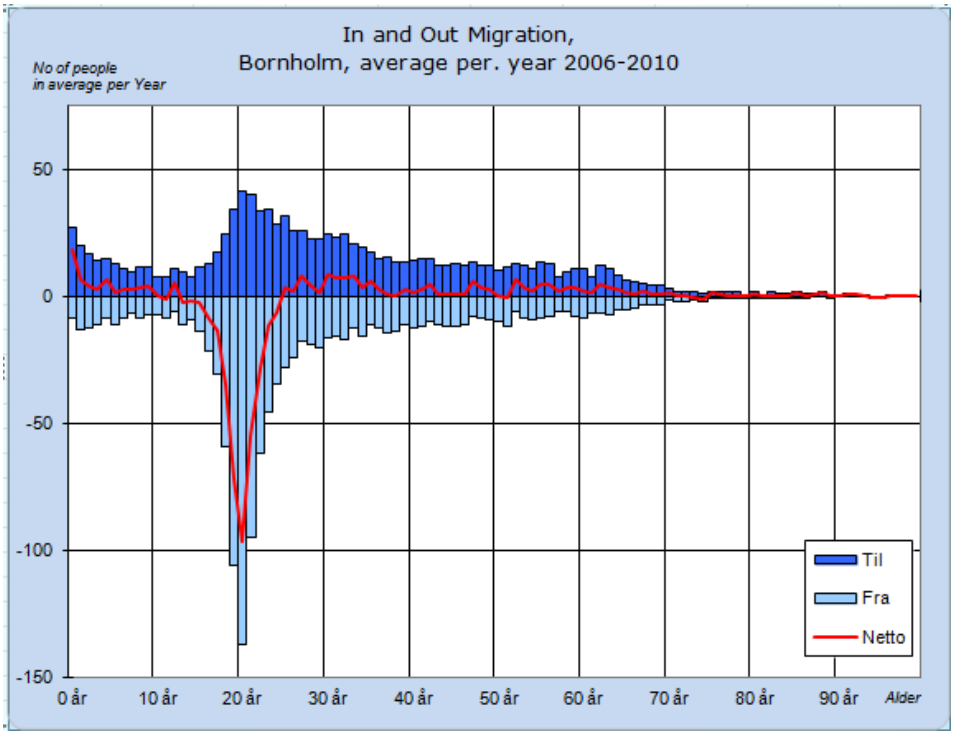


Figure 2: Trend in young (14 – 21 years old) net migrant, 1984 – 2011, Bornholm

As it can be seen from figure 3 Bornholm has a significant outmigration of young people between 18 and 22 years old. It is typical when they have finished high school and are ready for further education. For all other age groups Bornholm have a small in migration, but because of a small birth rate the population has been declining for several years (Figure 4).



Source: Bornholm Municipality (BRK)

Figure 3: Migration by age, Bornholm (2006 – 2010)

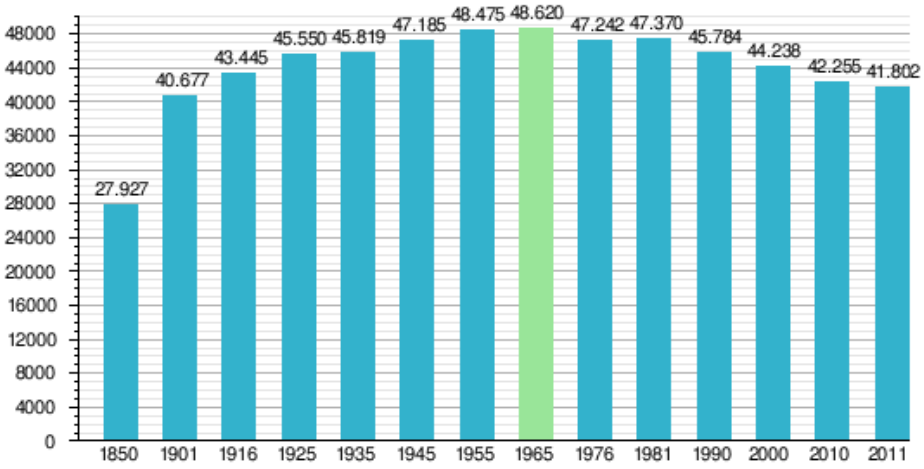


Figure 4: Inhabitants on Bornholm, 1850 - 2011

The number of people in employment, which means the number of job on the island, has for years been slowly declining. Business which employment is in decline (agriculture, fishery and food production) is relatively common on the island, whereas industries with growth in employment (the more knowledge-intensive industries) is limited represented on the island.

	2007	2008	2009	2010	2011
Inhabitants 1. January					
Bornholm	43.040	42.817	42.563	42.154	41.802
Region Hovedstaden	1.847.642	1.857.263	1.875.179	1.894.521	1.914.865
Denmark	5.446.989	5.475.695	5.511.355	5.534.637	5.560.534
Population decity (inhabitants/km2)					
Bornholm	73	73	72	72	71
Region Hovedstaden	610	613	619	625	630
Denmark	126	127	128	128	129
Average income for taxation					
Bornholm	118.359	120.765	124.768	129.609	135.853
Region Hovedstaden	167.820	171.907	172.805	177.803	182.821
Denmark	143.955	148.599	149.723	155.225	160.075
Share of population between 17-64 year					
Bornholm	61	60,7	60,4	59,9	59,2
Region Hovedstaden	65,2	65	64,8	64,5	64,3
Denmark	63,6	63,5	63,3	63	62,7
Share of population > 65 year					
Bornholm	19,8	20,4	20,9	21,8	22,8
Region Hovedstaden	14,4	14,6	14,9	15,2	15,6
Denmark	15,3	15,6	15,9	16,3	16,8
Share of population tetween 25-64 year without education					
Bornholm	31,3	30,3	29,3	28,6	M
Region Hovedstaden	19,8	19,2	19,1	18,5	M
Denmark	24	23,2	22,8	22,2	M
Share of population tetween 25-64 year with a university degree					
Bornholm	16,5	16,8	17,4	17,6	M
Region Hovedstaden	30,5	31,1	31,9	32,6	M
Denmark	24,1	24,6	25,2	25,8	M
Unemployed pr. 100 between 17-64 year					
Bornholm	5,9	5,3	6,4	M	M
Region Hovedstaden	2,6	2,5	4,2	M	M
Denmark	2,4	2,4	4,5	M	M

- The total Gross Value Added of Bornholm in 2008 amounted to 8.1 billion. DKK (1,2 billion €) equivalent to a productivity (value added per. fulltime employee) at 401,000 DKK (54.000 €)
- The primary industries, manufacturing industries, as well as accommodation and restaurants is considered generally the most export-oriented industries and value added in these industries is about. 17% of the total value of the island. Each of these business groups account for 3 to 4% of the Gross Value Added.
- The export-oriented business groups have since 2004 had a downward impact on Gross Value Added on the island.

- As with other peripheral regions have the Bornholm Gross Value Added not kept pace with economic development in the country as a whole.
- Looking at the overall period 1996 to 2008, Bornholm had a value creation 20 percentage points less than the national average. The difference between economic development on the island and the rest of the country is intensified even more during the period.
- The Bornholm work force is around 20,000 persons and over the period 2003 to 2008, Bornholm has had a rise in employment. In the period 2009 to 2011, however - as the rest of the country –Bornholm has been marked by rising unemployment and declining work force.
- Over the long term, especially the primary sector and the sector of food production has lost employment significance and it is especially accommodation, catering and construction, which has had rising employment significance.
- The number of commuters[3] has increased by 50% from 1998 to 2008 and in 2008 was just under 1200 people were commuting. Commuters are typically younger men with higher education and with incomes that are 30 to 40% above the average income of those working and living on Bornholm.

1.1 Case study questions, model analysis

The main purpose for the Bornholm case study is to develop and test a migration model for Danish municipalities, which is more detailed than the general ATTREG model. Result from the Danish municipality model is used as framework for the interview in the policy review.

In Russo et al. (2011) results of an analysis of territorial attractiveness and mobility flows across Europe is presented. On the basis of the concept of territorial capital it was found that flows of people, such as migration flows at the NUTS2-regions by three age cohorts, tourist divided into domestic and international visitors and incoming ERASMUS students react to differences in attractions. In the analysis, 5 types of territorial capital was identified – economic and human capital, antropic capital, socio-cultural capital, institutional capital and environmental capital – and it was found that mobility flows for the NUTS-2 region reacts to differences in territorial assets with different emphasis to the different types of territorial capital for different audiences.

In this case study, results of an analysis of domestic migration flows in Denmark at the municipality level are presented.

The analysis follows the theoretical approach by Russo (2011), but is different in the following respects:

1. Migrations flows between municipality of origin and destination are considered, opposite to Russo et al. (2011), who analyzes aggregate net in-migration to NUTS-2-regions. As a consequence a gravity or macro-economic model based upon population masses by origin and by destination together with an inverse relation to transportation cost is included in the migration model for Denmark.
2. Migration flows has been aggregated from micro data into 5 age groups and 5 education groups, in total 25 “audiences” opposite to Russo et al. (2011), who looked at 3 age cohorts, tourism as well as ERASMUS-students flows.
3. Migration flows, which are analyzed at the local administrative level 1, represent a mix in geographical scope, such as examining migration between labor market areas (moving from one labor market area motivated by job-opportunities, better income,

[3] People living on the island and a primary workplace outside the island.

attractions etc.) and migration within labor market areas (motivated by family life events such as marriage, birth, death, by differences in local tax rates, public service, population structure etc., by more convenient houses within the same labor market area). This is opposite to Russo et al. (2011), who mainly includes migration between labor market areas.

4. In the Danish case migration flows and partly variables for territorial capital are added up from micro data from 1996 to 2008 showing change in residential municipality opposite Russo et al. (2011) who analyze migration flows as change in the average population between 2001-3 and 2004-6 with a correction for death rates.
5. The model is divided into a steady state part and change part compared with Russo et al. (2011), who implicitly assumes, that migration flows reflects a steady state /equilibrium situation
6. The econometric analysis is based upon a Negative Binomial Regression, whereas Russo et al. (2011) uses a linear regression model.

More specifically, the aim of the case study is to examine migration flows within Denmarki , including the identification of outliers from the model. To what extent does observed flows follow predicted flows? And what can explains differences between the two? Explanatory factors for domestic flows might be factors, which are

- included in the European analysis (Russo et al. 2011)
- not included in the European analysis due to lack of data, but are available for Danish municipalities – and vice versa
- included due to the new model set-up in the Danish study (both push and pull variables for a given factor)
- specific for migration flows and population development in Denmark

As mentioned the analysis distinguished between migration in equilibrium and migration in a situation of change. To get results of impacts from changes, the steady state factors are examined. In the introduction below, steady state factors of special interest and importance to understand the structure of Danish migration are examined.

1.2 Case study questions, policy review

This case study is enriched by 7 interviews with the aim of:

1. Providing a clear insight about the national and regional "attraction policy" (regional development policy) in Denmark.
2. Investigate model outliers in relation to Bornholm. What is the reason for under- and over performance?
3. Do model results have any implication for the local rural policy – efforts to increase the regional attractiveness?

Do stakeholders at municipality level find the identified variable practical useful? To what extent is it possible to split variables into structural and political manageable variable? Do stakeholders see other variables of importance for regional attractiveness than identified in the model?

- To what extent the typologies identified for Bornholm make sense for regional stakeholders and practitioners? Do they consider that Bornholm is especially under-performing in its capacity to attract migrants
- Which is the position of Bornholm in the national contexts in what concerns the regional capacity to attract residents? How do stakeholders perceive it?
- Do the objective indicators reflect the subjective perception of stakeholders about the regional attractiveness? Are there any relevant differences between the two?
- Taking into account possible political, environmental, demographic or socio-cultural changes, which are the stakeholders' expectations for the development of the regional attractiveness in the future?
- To what extent does regional institutional capital impact on Bornholms capacity to attract people (focusing residents and companies)?
- Does Bornholm have a mobilization strategy? And is it successful? Which are the main characteristics of the strategy?
- Were there any attempts to enhance the region's territorial capital? Concerning which sub-classes of endowment?
- What do stakeholders think about the institutional structures proficiency in conducting the mobilization process?

1.3 Method of research

The unit of analysis is the attractiveness of Bornholm for residents and migrants

The methodology of research will consist of:

- a literature review of regional development policies and migration models
- development of a general municipal attraction model for Denmark
- A policy review with focus on regional development policy for the island of Bornholm. Are the typologies and relations identified in the model recognized by polity makers and other stakeholders or is other forms of territorial capital of greater importance to regional development policy?

Development of a municipality migration model:

In this section a model explaining migration at between and within labor market areas is presented.

The most simple way to examine population changes – including migration, death and birth – is to assume that "everything is unchanged": In simple population forecast models, such as Statistics Denmark (2011), Demifer (2011) the population in region r in year t can be determined as

$$population_t^R = population_{t-1}^R + new\,born_t^R + inmigration_t^R - death_t^R - outmigration_t^R$$

In the model, the fertility rates are often assumed to be equal to the rates of last year, death rates as well as out-migration rates which are assumed to be unchanged. Using these rates in forecasting and assuming that in-migration is constant, population in next period follows by definition. Although the simple population forecast model seems simplistic, especially if the model is used to evaluate attraction or demographic policy changes, the classical demographic model is an efficient tool in basic evaluation of population development and as a bench marking tool to evaluate what happens if everything else is unchanged.

Before examining factors behind migration, some general references to determinants of the migration flows are presented: In general Everett (1966) identifies four general factors which would influence an individual's decision to migrate:

- Factors associated with area of origin
- Factors associated with the area of destination
- Intervening obstacles
- Personal factors

Most studies of migration flows only refer to factors associated with area of destination – or attractions. The point in this analysis is, that the migration should be seen as both push and pull problem, which also from a policy point the migration problem is two-folded: How to attract population to and how to retain the population in a region.

Adding to this, the distinction between equilibrium or steady state migration flows and changes in equilibrium or steady state migration flows is also important. For factors explaining migration it is important to distinguish between permanent and temporary factors, which have very different impacts on migration flows, For example an improvement in traffic infrastructure will generate a temporary change in migration flows, which in turn generate a redistribution of the population. When the new equilibrium is obtained, migration flows will be back to the starting point (eventually corrected for permanent changes in gross migration flows). Opposite, if a university is opened, which every year attracts young from other regions, a permanent change in migration flows will occur.

However, more complex models are needed if factor behind migration flows and consequences of population or migration/attraction policies should be understood. A very first step is to follow the basic market economic model for migration flows: In this model migration is explained by the advantages, which can be obtained if a family or an individual decide to move from one region to another. In principle all municipalities should be compared – within the framework of economic evaluation of migration decisions – to pick the municipality which maximises the outcome of location and where migrations cost is lower than the advantages of migration. As a consequence in a migration model, where basic economic and labour market factors are included, in-migration is explained by economic variables, such as differences in income, in commodity prices, especially prices on real estate, and as well as differences in employment options. In this type of models income, consumer / real estate prices, employment, unemployment typically are included. In line with these factors, also various transaction costs are involved in the process of migration: High costs in buying and selling houses are examples on factors reducing migration flows.

Policy Review:

In principle, one can define all politics as an attraction policy, in the sense that policy generally aims to provide citizens the best possible living conditions and development conditions. Seen this way, all policy initiatives, whether they are deleted from the EU or from national, regional or local political units, will to some extent affect the local attractiveness.

In this case study "attraction policy" will, however, be defined somewhat more narrowly, namely as what can be done and gets done to increase the attractiveness of peripheral areas. This means that the focus will be on regional development in the broadest sense. What is being done to increase the admission, or at least to limit emigration to and from peripheral areas? This includes traditional industrial policy, focusing on business development in the periphery, but will also include policy initiatives designed to ensure acceptable living conditions for the population who have chosen to settle in remote areas. This concerns a wide range of policy areas within, for example transport,

telecommunications, education, research and social policy initiatives. Finally, fiscal policy instruments (eg in the form of various regional offsets) have a substantial influence on the overall living conditions in the country's remote areas and thus the area of "attractiveness".

Even with the narrowing of policy analysis which consists in focusing exclusively on attraction policy in relation to development of peripheral areas, there is still a very wide range of policy areas that influence the attractiveness of regions. Policy review in this case study will therefore focus on *coordination* of regional development efforts, as there often will be involvement of many stakeholders in the respective international, national, regional and local (municipal) level, and without effective coordination among units, the attraction policy will be less effective.
The discussion partners include in the policy review will represent different sectors on different administrative levels, comprising politicians, the public and business sectors, other relevant entities and national experts who have in-depth knowledge of the regional context, performance and potential.

The interviewees are from the following entities:

- The municipality of Bornholm
- The regional “Growth Forum” (public private coordination unit)
- Business Center Bornholm
- National Directorate of Economy[4]
- Danish Ministry of Interior[5]
- The Danish AgriFish Agency[6]
- REGLAB[7]

1.4 Structure of report

This case study is structured as follows:

Section 2 provides a data analysis highlighting the regional capacity to attract migrants from other regions.

Section 3 consists of a policy review concerning different issues such as the national and regional institutional context, the national and regional policies that changed the territorial attractiveness and regional ability to attract migrants, and the regional vision and strategy to enhance territorial attractiveness to particular audiences.

Section 4 concludes summing up the mobilisation processes on which is based Bornholm performance to attract migrants and retain local inhabitants.

2 Data analysis

This section provides a presentation of the data used in the analysis of migration flows. In general, it is important to notice that data is not available for all variables presented in the

[4] Responsible for Danish business development programs and overall responsible for implementation of EU’s Regional Funds.

[5] Responsible for the national Danish regional and rural development policy

[6] Department of Danish Ministry of Food Proction, overall responsible for implementation of EU’s Reural Development Program.

[7] A Danish national Think Thank for regional Development

model. However, compared with the analysis of European migration flows the present analysis is extended in terms detail and with respect to availability of explanatory variables.

2.1 Description of the Dependent Variable

The dependent variable in the model is migration flows by place of origin and by place of destination. The data has been divided into migrations by 5 age and by 5 education groups giving 25 tables on migration flows. The migration data is aggregated from micro data from the national Danish register data from Statistics Denmark. Finally, the two sets of tables forming 25 (98 by 98) matrices, have been established

2.2 Description of the In-dependent Variables

The independent variables in the model have different forms: The first type of independent variables have values for all combination of origin and destination municipalities, which is the case for the (change in) transportation cost between region of origin and region of destination. The second type of variables is the difference between the values of the variable for the municipality of destination minus the values for the municipality of origin. This type of variable show the change – positive or negative – in the independent variable when a person from an age and education group moves from municipality of origin to municipality of destination. A third type of variable is place of origin or repel variables, which has the same value for all municipalities of destination and place of destination or attraction variables, which are identical for all municipalities of origin.

The in-dependent variables describes different aspects of the territorial capital at municipality level and the 19 *endowment indicators*, covering five "territorial capital" classes or place-based characteristics:

- *environmental capital* (including geographic characteristics, forest areas, coastline);
- *antropic capital* (man-made features of the territory like cultural heritage, population density, having a large metro area within, accessibility, bridge);
- *socio-cultural capital* (population age and education, social satisfaction);
- *economic and human capital* (wealth and labor market characteristics);
- *institutional capital* (level of public services, etc.).

2.3 The Econometric Model

Linear regression was initially selected for estimating the relation between the number of migrations and the explanatory variables described in the previous section. Insofar as some values of the dependent variables are concerned, the model could expect a negative number of migrations and not be stated as integer numbers. A regression model that takes account of the dependent variable not being negative and which is stated in integer numbers is a Poisson Regression, which was naturally the next choice. However, a Poisson Regression is somewhat restricted by the fact, that the conditional mean and the variance must be the same.

A model which adjusts the variance so it can vary from the mean is the so-called Negative Binomial Regression (Verbeek 2008). Generally, the variance will be greater than the mean ("overdispersion"), and for this reason it was obviously necessary to test whether this was also true in our model. In brief, a likelihood ratio test was performed between the log-likelihood value in the Poisson Regression and the log-likelihood value from the Negative Binomial Regression. As a result, in a chi-square distribution with one degree of freedom,

the test appears to be significant at a level of less than 1% in the 25 models estimated, thereby rejecting the hypothesis that the variance and the mean are equal. For this reason, we finally decided on the Negative Binomial Regression.

A set of macro-, micro- and meso-economic data was used in the empirical analysis. Accordingly, certain correlations are impossible to capture and study. For instance, as described by Deding and Filges (2010), the decision to migrate is made by a family. In this context, it would be more appropriate to study the family's utility maximization, involving a consideration of both the male and the female's expected level of income, consumption patterns, and other preferences. Moreover, evidence also points out certain problems involving the empirical analysis where the sum of the residuals for the target municipality is depicted geographically in terms of the LHE segment. In particular, this shows that the model underestimates the migration flows in large parts of North Zealand. This suggests that the previously mentioned "ghettorization" phenomenon, in which highly-educated people wish to live near other highly-educated people, is not sufficiently examined. In this respect, the percentage of the population with LHE as the explanatory variable would presumably provide a more reliable picture.

2.4 Territorial assets

The demographic macro-economic model is significant with positive signs for population by municipality of origin as well as municipality of destination: The higher the population at both place of origin and place of destination the higher migration flows in a steady state regional economy. For transport cost, the sign ceteris paribus is negative because migration flows are smaller the higher the distance between two municipalities. However, also internal geographical barriers such as the Great Belt barrier is significantly increasing migration flows in west Denmark, although also the opening of the fixed Great Belt link contribute to an increase in the east west migration flows.

As an empirical corollary the island dummy shows, that migration flows for different age groups are positive, reflecting that the young population leave the municipality of origin at a higher rate, but also, that the population also return to the islands at a higher rate compared to other municipalities. Especially for islands with no bridge, this "over-performance" is very marked. More specific, the dummy variables, which reflect islands with no bridge connection to rest of Denmark is significant, both from a push ("from") and pull ("to") point of view: Migration flows away from islands and back to the islands is significant and positive meaning that gross migration flows is at a higher level than gross migration flows between municipalities in rest of Denmark. Another question is however, whether net flows, aggregating over age groups still will give a net out flow from islands (with no bridge connections). A similar trend that population move towards urban areas and away from rural/peripheral areas may also be derived from parameters estimated in the model.

For economic and human capital factors results are very ambiguous giving both positive and negative effects of average income in municipality of destination compared with municipality of origin, %- changes in basic jobs compared with national average in municipality of destination compared with municipality of origin and unemployment rates in municipality of destination compared with municipality of origin.

Examining results for factors related to the antropic capital, the population density gives positive effects on migration flows for young, but negative for the elder population. In general there seems to be very ambiguous results from "improving" the share of your own age and education groups, which means that population move towards municipalities with the same age and education groups. Foreign tourism activities seem in general to have a positive impact on migration of young and negative for older groups. For domestic tourism

the impact is opposite showing a positive correlation between domestic tourism and migration patterns of the elder population, which suggest that there is a strong correlation between attraction for tourism as well as migrants.

Examining institutional capital, young population are attracted by education activities, where as culture and entertainment activities (antropic capital) have ambiguous or even negative impacts on migration flows.

Nature attractions (environmental capital) have positive impacts on share of area of forest and negative impacts from coast line on migration flows especially for young age and education groups.

Looking at demographic events, there seems to be positive effects on migration from share new born, from share of divorces for especially the young and mid age groups.

Looking at changes in the antropic capital (such as improved accessibility through new infrastructure) there are positive impacts on migration flows from the opening of the Great Belt link in 1997/98. The impacts on migration flows for almost all age and education groups were significantly positive, generating temporal migration flows relocating the population within Denmark.

2. 5 The importance of territorial assets for various sub groups

This section outlines the main issues of significance to the extent of migrations to or between Danish municipalities with a breakdown by age (5 groups) and education (5 groups).

Variables with significant importance for migration (for all age groups):

- Distance between municipalities (negative significance). The larger the distance the fewer movements
- Population Number of out-migration municipality (positive significance). The larger the population the more movements.
- Population Number of municipality to (positive significance). The larger the population the more moving.
- If there is an island municipality which no permanent bridge there will be both an increased emigration and increased immigration. In other words, an increased transfer activity to such areas. This may be explained by young people who want an education often have to vacate the island (it is not practicable to commute). For all age groups appear to island municipalities to hold an attraction in itself. Whether there is increased migration from people who previously lived on the islands (people who have been "forced" away from the islands because of education), the data is not possible to determine

Variables of importance to migrates for adolescents (20 to 29 years)

This age group is dominated by people who are in the process of creating their own lives. A large part of this group will be in training and a great deal has not yet established family. There are many job and residential changes in this age group and are generally aged more mobile than other age groups.

- For all young people regardless of education there is significant preference for municipalities with high population density. For young it has a special value to move to urban municipalities and/or cities.

- For all education groups (excluding students) there is a significant preference for municipalities where there has been an expansion of the number of jobs in basic industries (ie a preference for municipalities with better employment opportunities)
- For all education groups there is a significant preference for municipalities where migrants achieved a reduction in unemployment risk. This shows that young people are ready to move to areas where there are better employment opportunities (lower unemployment).
- All young people (regardless of educational level) respond to the proportion of newborns (in proportion to the total population) in the home municipality. A high proposition of newborns will increase the propensity to migrate. This effect can be interpreted in that way, that young people often change residence because of family reasons.
- People in the lowest education group (unskilled workers and students) are ready to move to municipalities where they are paid a higher salary. In this age group we have seen a large influx from rest of the country to study cities. The wage level for unskilled workers and students is higher in cities, so there is strong positive significance between immigration and wages. But this does not mean that young people move simply because of the higher wages in cities. The young people moving to cities for many different reasons. This is where they have study possibilities, the number of work opportunities is greater, this is where they can meet other young people (high population density and many of the same age) and final, the total supply of culture and entertainment is significantly greater in these areas. Finally the wages of unskilled workers and students are higher in cities.
- For young people who have received education, wage of lesser importance. At least young are not necessarily moving to areas where average wages are higher. For young people who have received an education, it is apparent that other factors (than wage) matter more. For example, one could imagine that the movements more closely related to where people in practice are offered a start job, or a more interesting job than the present. Furthermore change in family status does also have a major impact on the decision to migrate in that age group.
- The opportunity to study is in the model operationalized by employment within respectively (1) universities and (2) other educational institutions. It is assumed that a high employment in these areas is also an indication of many student places. The model shows an increased propensity to move to university municipalities for young people with no education (students) and young people with a long or a medium education. This means that, as expected, adolescents who study is attracted to these municipalities. For young people with a vocational training or a short-cycle is (again as expected), more study opportunities at other educational institutions affecting the number of migrations
- Among youth with medium and long training there is a tendency to prefer the municipalities with a high share in the same education group.
- Among young people with tertiary education has municipality spending on childcare, schools and libraries a significant positive impact on the extent of relocations. High cost of these areas means more newcomers from the mentioned educational groups.
- For everyone in this age group (except for young people with a vocational education) there is a significant trend to move to municipalities with many social problems. A possible interpretation could be that young people (for economic reasons) choose to live in cheap housing areas where there are simultaneously multiple social problems.

- Young people moving to areas with many cultural offerings (operationalized by many government staff employed in the arts and culture). Possible interpretation: Young migrate from many different reasons to the largest cities, and cities have (considered average) a larger cultural supply compare to rural municipalities.

Variables of importance to migrate for people from 30 to 39 years

This age group is dominated by people who are in the process of setting up family. The group is still relatively mobile, but far less mobile than the very young. The ability to build a career, getting a job, to ensure an income is important for this age group.

- Loss of employment opportunities in home municipality (operationalized by the decline in the proportion of jobs in export-oriented industries) means an increased emigration from these municipalities. Similarly, increased employment in a target municipality, within these industries, increased migration to this municipality.
- The 30 to 39 year old with a medium of higher education responds positively to the prospect of lower unemployment, understood in this way that this group is ready to move to municipalities with a lower unemployment rate within the same education group. On the other hand, all other education groups apparently do not move because of the prospect of a lower probability of unemployment.
- This age group will ***not*** migrate to other municipalities where there are a large percentage of people with the same age. It is quite the opposite of a "gettofizing". This can be interpreted in the way, that young people (between 20 and 29 years) is moving to cities to have an education where we have a large percentage of people with the same age, but in the age of 30 to 39 years of age many will have settle a family and they are moving away from cities to regions with a more varied population composition.
- For this age group it is clear that those with the best economic prospects (people with intermediate and higher education) deselect areas with many social problems.
- This age group shows a negative correlation between local spending on childcare and extent of relocations. This means that there is a migration to municipalities that use a small amount of childcare compare to the home municipality. This is partly a surprising result which shows that other factors than the municipal service (spending) is of greater importance to the decision of migration.
- Among the factors that have positive significantly affect the migration volume is "nature and amenity value " (operationalized by kilometre coastline and forest land share).
- For people with long education (LVU) the model shows that people migrate to regions with ***high*** housing prices. Probably this cannot be interpreted in that way that the group actually is attracted by high housing prices, but there are so many other benefits of these regions that people in spite of the high cost of housing prefer these areas.

Variables of importance to move the scale from 40 to 49 year old.

This age group represents “the stable core” of the society. In this age group incomes peaks, while mobility is also down. Money must be earned to keep the family running.

- The low mobility is shown by the fact that factors such as better employment opportunities, higher income or lower risk of unemployment has no significant impact on the choice of migration destination.

- For all education groups (except unskilled workers) there is negative correlation between house prices and migration in the sense that the admission is made to municipalities with higher house prices compare to the out-migration municipality.
- With regard to the municipal service costs there are, for people with medium and long term higher education, positive correlation between municipal spending on schools and migration. People move to those municipalities who allocate more money for this part of the municipal service.
- The extent of child births in the home municipality has a positive influence on the number of people moving away. Changes in family size still generate "a reason to go"
- Change in family status occurs also in divorce and there is a positive correlation between number of divorces in the home municipality and the amount of people moving away. Or rather, this is seen, respectively for unskilled and skilled workers. For people with higher education there is no correlation. One possible interpretation of this might be that people with a further education have a better economy and thus better possibilities to stay in the house after a divorce or they have an economy that allows them to resettle in the vicinity of the children (often within the same municipality).

Variables of importance to move the scale from 50 to 59 year old.

In this age group, earnings decreased slightly, the proportion of the group who are on public pensions is increasing and children have left home. The group is more mobile compare to younger agegroups

- For this group nature, amenity and peace and quietness means a lot. There is a positive correlation between the extent of tourist activities (in particular the domestic holiday tourism) and migration volume. This age group is in other words especially attracted to the same regions as the domestic tourism (typical summer cottage municipalities).
- The scale of nature, in the form of shoreline and proportion of forest) has also influence at the migration decision for some of the educational groups, but the effect is not as clear as the effect of tourism activities in the target municipality. For the lowest education groups, the extent of divorces in the home municipality will still explain a significant part of the outmigration.

Variables of importance to move the scale from 60 to 69 year olds.

It is in this age group, people start to leave labour market. Since 1979 and until 2011 it has been possible to make use of an early retirement scheme whereas the actual retirement took place in 65 to 67 years of age. The effective retirement age varies from one industry to another, but the average retirement age has for years been at 61 to 62 years.

- The agegroup is about to leave labour market. Social and economic factors have no (or negative) influence on the migration decision. Earning possibilities (in the same education group) has a significant ***negative*** impact on the extent of migrations, which means that people move to the municipalities where the earnings of their training group is inferior in moving municipality. Similarly, employment opportunities (better employment opportunities in the export-oriented industries) a negative influence on moving the scale, which just shows that this age group also is ready to move to municipalities where employment prospects are worse.
- The age group is prepared to move to municipalities with a higher risk of unemployment, which is yet another confirmation that labour market conditions is not of great importance.

- Th age group attracted to the typical as-summer cottage area (operationalized with a variable for domestic tourism expenditure).

3 Policy Review

This section consists of a policy review concerning different issues such as the regional institutional context, the regional "attractiveness policies" and strategies to attract different groups of residents.

3.1 Levels of governance

Overall, the Danish rural development is an obvious example that policy in Denmark today at all levels greatly is both formulated, decided and implemented in the network structures based on collaboration between public, private, professional and voluntary organizations. Although designated a key public player, and in Denmark it is the Ministry of Interior who have been assigned to the overall responsible for the rural development policy in Denmark, then a long series of decisions and initiatives are implemented at both national, regional and local level and the ministry has only a very indirect influence on those decisions.

The full view (and control) of the Danish rural policy is not in the hand of a single actor. Therefore, a study of the Danish rural work also a study in the meta-governance, defined as the indirect regulation of self-control. This meta-governance is in practice organized in different "programs" defined as common strategic framework under which activities and projects are carried out by common goals and visions. These programs mark the goal and the focus for local development - i.e. a "top-down" approach to ensure focused and efficient resource utilization. The attempts in several program applications are to secure so much space and flexibility for the underlying operators, that there is room for local solutions - that is a "bottom up" approach.

In relation to rural development, there is especially three "programs" that sets the overall framework for the desired policy development:

1. **Rural Development Programme**, which primarily focuses on the development of agriculture and food industry and the enhancement of natural and environmental initiatives. In addition, there is in a lesser extent and primarily through local action groups focus on diversification and "quality of life." Meta Governor of this program is the Ministry of Food (partly on behalf of the EU – The rural development program).
2. **Regional Development Program**, which is not really one program but several Ministries' and agencies efforts to strengthen regional / national growth and focus is on four so called "growth factors"; innovation, use of new technology, improvement of human resources and entrepreneurship. The primary meta-governors in this area are The Ministry of Business and Economy as well as the five Danish Regions[8] and so called regional growth Forums[9].
3. **Local (municipality) development activities.** Obviously these activities can not be construed as an actual "program" but nonetheless has the 98 municipalities allocating funds for development of their municipality in order to make their region more attractive to residents, migrants and the business sector. Municipality efforts are an important part of the total Danish rural development effort.

[8] Regions primary responsibility is to run public hospitals but they are also responsible for formulation of regional development strategies.

[9] Private public coordination units and responsible (at local level) for implementation of EU's structural Found programs

Administrative (or rather in relation to access to national and international funding) Danish municipalities is divided into four types (figure 1);

1. Peripheral municipalities (“Yderkommuner”)
2. Rural municipalities (“Landkommuner”)
3. “Intermedium” municipalities (“Mellemkommuner”)
4. City municipalities (“Bykommuner”)

Peripheral municipalities have the best access to national and international funding of development projects and “Intermedium” municipalities has only access to development funds by a substantial local co-financing.

Overall it is must be concluded that the meta-governance works - at least in the area of rural development. Municipalities are very aware of the announcements coming from the different ministries, and when they through the various programs is "rewarded" to move in the special direction, the local rural efforts will contain those elements that the national government and EU believes an effective effort should contain. By respecting the municipal autonomy you get, in popular terms, the advantage of local solutions to global problems.

The government emphasizes a balanced development in Denmark. The goal is that all areas of the country must be attractive for development and settlement, and therefore, development in rural areas should due to development in towns. To ensure this development, various policy initiatives in many areas and levels of society are carried out. There are quite many state-, regional- and municipal institutions and organizations involved in the formulation and implementation of rural development work, and it is certainly not straightforward to coordinate efforts.

The reform of the Danish municipality system[10] has resulted in a radical breaking down of the local political landscape, and new and stronger municipalities have a central and coordinating role in relation to the Danish rural policy.

Municipalities play in many cases an active role in the implementation of various national rural policies, and in addition must municipalities also try to customize their own rural development to the various national initiatives. In addition, municipalities must coordinate their rural development efforts in relation to various national interest groups and finally it required coordination between the municipality and various communities within the municipality and between the various local governments / companies who are each responsible for the formulation and implementation of various parts of the municipal rural development All in all a quite complicated coordination task. Coordination can take every form, from a close and integrated collaboration to a simple agreement on mutual information exchange.

[10] In 2007Danmark merged 271 municipalities to 98 municipalities with in average 56.000 inhabitants and the new municipalities have greater responsibilities in several areas.

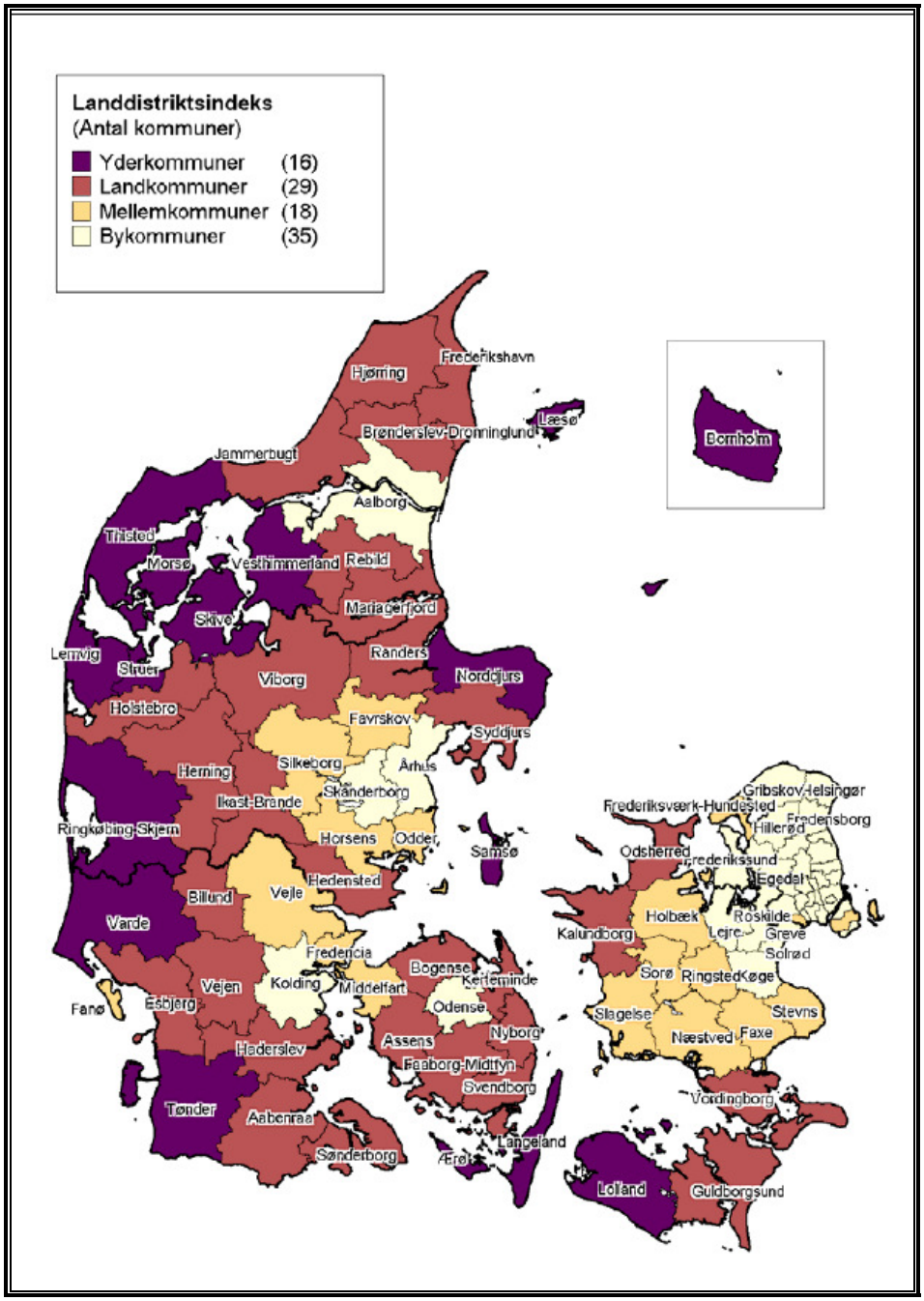


Figure 5: Typology for municipalities in Denmark

In the big picture municipalities is using three different organizational models in relation to rural development efforts:

1. **Integration model**. Rural development efforts does not act as an independent action but is integrated into other municipal service concepts. Immediately the rural development activities seem to be downsized, but it do not means to be the case. The rationale is "professionalism", it is believed that the task is best handled by the sector / government responsible for the discipline.

2. **Decentralization model**. Here is the responsibility for rural development to a great extent delegated to local actors outside the municipal sector. Business associations,

Civic Associations, village councils and similar organizations are given a significant influence on formulation and execution of rural development activities. The rationale is "participatory democracy". The connection between rural development activities and other sectoral policies can appear less developed in this organizational model.

3. **Coordination model**. This form of organization appears as an intermediate form of the first two organizational models. The municipality treats rural development as a specific task. Often a special political committee will be established with responsibility for rural development and besides the municipality will often have established a rural development secretariat (or at least one rural district secretary) is appointed. It is particularly in relation to the civil servant efforts this model differs from decentralization model.

In recent years it has become far more common that municipalities have developed a written policy on rural development or even an attraction or migration strategy, but the perception of what a rural development policy should cover and how rural development should be defined, varies considerably from municipality to municipality. There for it is virtually impossible to assess local rural development efforts solely based on whether they have formulated a rural development policy or not.

Rural development policy is largely incorporated in the formal municipal planning system and it would to an even larger extent be the case in the coming Danish planning period. It is primarily through the planning system there is coordination between the local and national rural policy. However the planning system is primarily focus on physical planning, which means that efforts within business development and migration policy are not always coordinated, equally well with the local rural development policy. The physical planning system has a built in “public consulting period” and procedures to ensure that citizens and businesses in rural areas to some extent are involved in the formulation and implementation of the municipal rural development. The majority of municipalities have also established various forms of local councils to ensure that individuals also regularly involved in the evaluation and implementation of rural policy.

Several Regions[11] have a very active role in relation to coordination of rural development efforts within their region and in generally the rural municipalities responsible (typical one or more employed at the municipality) is satisfied with the proactive efforts of regions. In general, coordination between municipalities and the region in relation to rural development is still somewhat deficient, but the regions are also a relatively new administrative unit I Denmark (from 2007), and there should probably be some years before municipalities and regions have delineated their respective roles.

EU Rural Development Program has meant that there is a new type of players on the pitch in relation to local rural development - they so-called Local Action Groups (LAGs). These groups have been established in almost all peripheral municipalities in Denmark. Members of these groups consist of a combination of politicians, citizens and businesses. The municipalities have been assigned a formal objection to the local development strategies which provides an overall framework for local action, but local authorities have in practice been quite reluctant to make use of this object. Coordination between the municipality and the LAGs takes place in a continuous dialogue - most LAGs have at least one representative from the municipality in their board. The main impression is that there is established a fruitful cooperation between municipality and LAG in most cases, a collaboration where LAG ' same members also believe they have a direct impact on the local rural development efforts.

[11] The Danish administrative unites called ”Regions”.

3.2 Coordination of mobilization strategies on different levels of governance

Those responsible for the local rural development work, whether it's on political or administrative also needs to turn itself to other government initiatives in the rural area. The question is how well the rural responsible within municipalities experience to briefed on the initiatives and policies from the state and region?

Coordination between municipal and state

As regards cooperation with the state, several municipalities call for a better coordination between the ministries with responsibilities in relation to rural areas (primarily the Ministry of Interior, The Ministry of Food, The ministry of Commerce and finally the Ministry of the Environment). Although the Ministry of interior formally is responsible for the Danish rural development policy, many important political decisions is still made in other ministries and other forums. Many municipalities are calling for a better general overall coordination, for example via a public committee with responsibility for rural development[12].

As far as communication and cooperation between municipalities and state, then several municipalities mentioned that they find it very difficult to grasp the many pools and initiatives from various ministries. Only about half of people responsible for rural development find that they are sufficiently well informed about government initiatives in the area (Hedetoft, 2008). A comprehensive review, possibly in the form of a joint ministerial website with links to relevant notifications, guidance and support is called by several municipalities. Rural development officers in municipalities is to great extent satisfied with the various electronic newsletters from a number of ministries. In relation to the municipality reform in Denmark there has been a stream of new laws, decrees, notifications and guidance, and has a consequence, the municipal officials were a little sensitive on this issue. A number of the municipality officials (responsible for rural development) was frustrated that circulars, notices, etc. is far too late in relation to the effective date and therefore they often have difficulty in complying the built-in deadlines.

Coordination between the municipality and region / Growth Forum

As mentioned earlier, most regions and the main organization "Danish Regions"[13] has selected a relatively active role in relation to rural development, and during the last three years it has become clear that rural development is included as a regional priority area under the regional development. Some years ago, in 2007, nearly 64% of rural officers in the municipalities indicated that they either was not aware of the regional guidelines on rural development or that the regions simply did not have guidelines in this field (Hedetoft, 2008). Today the regional development policy would probably be better known.

In contrast to the organization “Danish Regions”, which has a relatively sharp profile on the rural area, the National Association for municipalities has a far more reticent attitude to rural development. A large number of rural coordinators suggest the municipalities own national association (KL) to take a more active role, for example by having rural development as a priority field in line with e.g. business development, child and youth policy. KL could possibly establish a network between rural development officials or they could help to develop various tools to be used by the Rural Officer.

[12] Latest: In October 2011 Denmark got a new government and this government has established a Ministry with primarily responsibility for development of rural districts. It has the potential to be the coordination unit called by municipalities

[13] An overall organisation for the five Danish administrative regions.

The regional Growth Forums role in relation to regional development efforts vary from area to area. In some regions, The Growth Forum has a very sharp and independent profile, whereas in other regions it are more difficult to distinguish between the region and growth forum, and where you have to belong to the "inner circle" to become aware of the difference between region and growth forum. The regional growth is in line with the regions, a new administrative unit and many municipal representatives are uncertain of the role of growth forums

Several of the responsible for rural development said that cooperation between regions and municipalities primarily worked at the political level. At the administrative level the rural official often have relative limited knowledge of the regional development plans (RDPs). Many of the municipal official has the impression that the process has been a bit "backwards" as the municipalities have been considerably more advanced in the formulation of their local rural development effort - an effort that, in principle, should have been coordinated with the overall regional development plan. It must be conceded that there are differences in responses from the individual municipalities. Some municipal officials have apparently had a key role and had been placed in working groups with direct influence on the formulation of the RDP. Region Zealand and Region South-Denmark have taken initiative to establish networks between local rural development officials and the municipal representatives seem to be satisfied with the coordination function of the regions.

All together, municipalities have been satisfied with the cooperation with the regions. Several officials warns against that cooperation only is going to focus on strategies and visions and urges to collaborate also on specific development projects. The direct and personal contact between officials from the municipalities and regions are described by many as the greatest and most effective form of communication between the two levels of administration.

At the administrative level there were only very limited contact between municipalities and the Regional Growth Forums. The rural development official in the municipality very often had virtually no knowledge of the contents of the regional business development strategies, and they had therefore only limited opportunity to consider whether the strategies included a rural perspective. In cases where there have been administrative contacts between municipality and Growth Forum in connection with the preparation of the regional development strategy, several municipalities mentioned that lack of resources in many cases limited an effective cooperation between the two administrative units.

Municipalities are, so to speak, in front line of public contact with citizens and businesses. In most cases it is primarily the municipality as citizens and businesses will be dealing with. This applies in connection with the exercise of authority and in relation to various public services. Rural development officials in the municipalities have to a very great extent the position that the municipal action must be closely coordinated with national and regional announcements in the field. It is by no means an obvious position that municipal representatives to high degree perceive co-ordination with other political organizations as both a positive and necessary, and it must be taken to reflect a very wide acceptance of meta-governance as a form of management. Formally speaking, there is municipal autonomy in the area, but as it can be seen local representatives are also very responsive to statements coming from the regions, Growth Forums and various ministries.

The rural development officers in municipalities both see advantages and disadvantages of the pervasiveness of "meta-governance". It is seen as an advantage to provide consistency throughout the system from top to bottom, and they believe that there are plenty of challenges to incorporate local conditions and opportunities in the implementation of overall plans and strategies. Seen from the municipality’s point of view the task is to achieve

the overall goals, and at the same time provide scope for local initiatives and enthusiasts, which obviously is a difficult balancing act.

The various regional, national and EU policies in rural development is often implemented by access to different support schemes. Both municipalities, businesses and citizens is in this way ensured access to external financing sources, and when municipalities have a positive attitude to coordination it is obvious that they through coordination will be able to match municipal funds with external funding sources. This form of co-financing is often required to initiate desired projects in rural area, because of lack of local funding possibilities.

On the whole rural development officers see more advantages than disadvantages in the comprehensive coordination system. To the extent were they see disadvantages of a co-ordination is it connected to the planning system that is operated with superiors, subordinates and sub-sub-subsidiary plans. Often there will politically be a certain nervousness that the overall plans are too restrictive in relation to sub-plans, and this may lead to formulation of the overall plans on a very high level of abstraction, often on a so high level of abstraction that they in reality becomes meaningless. The more complex the overall planning system becomes, the more difficult it will also be for the municipalities "to let the patience to go up. Formally speaking it should be the Regional Development Plan (RDPs) (made by Regions) and the municipal plan that should constitute the planning framework for the local rural development efforts, but in reality, many municipalities have had to formulate their rural development policy long before the master plans were in place. The requirement for coordination could in some case lead to the overall process drags on.

The need for coordination is not only vertically (community, municipality, region, state, EU), but also horizontally (e.g. between communities within the municipality or between municipalities). Several municipalities emphasize coordination with neighboring municipalities in relation to, for example tourism development and infrastructure as examples of horizontally coordination tasks related to rural development.

However one thing is a positive attitude to coordination, something else is if rural development officer feel sufficiently informed about various regional and national framework conditions and initiatives. An investigation from 2007 (Hedetoft, 2008) shows that about half of the rural development officers do not find themselves sufficiently well informed, and they want to improve coordination between different political unites and levels.

3.3 Mobilization strategy, case of Bornholm

Bornholm regional municipality (BRK) has a special status among Danish municipalities. Until municipal reform in 2007, Bornholm was a county (second administrative level) and this county was then divided into 5 municipalities. Within the reform from 2007, 275 municipalities were merged to form 98 municipalities, and the 13 counties were merged into 5 regions. The 5 municipalities of Bornholm were merged into one, and the island became subject to the Capital Region. However, because of the isolated location of Bornholm, a special scheme was made for Bornholm which meant that some of the tasks and competencies in other municipalities transferred to the new regions on the island has been delegated to the municipality.

Seen in relation to regional development efforts, this means that Bornholm has the authority to develop its own regional development plan. This is a unique situation compared to other municipalities in the country where an average of 20 municipalities must adapt their local plans (mostly plans for the physical development of cities, roads etc) and business strategies for an overall regional development plan. Of course this provides an increased autonomy for the island of Bornholm. It is possible to choose its own path of development,

but it also implies the risk that the island - unintentionally - are disconnected from the joint development effort in the rest of the Capital Region.

The ministry of Interior has the national responsibility of the municipalities in Denmark; including the supervision of municipality's fulfillment of committed budgets. In Denmark, a so-called "municipal equalization" is an economic system that will ensure all municipalities' financial sustainability for the execution of their tasks. The rules for compensatory changes frequently (but aims to provide financial support to municipalities whose tax base is low, or if required cost is high) but differences between municipalities are only partially compensated. Local expenditure needs are calculated partly from the municipality's demographics, particularly from the share of spending groups such as children and the elderly, partly from local "social pressures". The clearing is financed with contributions from the wealthier municipalities, so that the state is economically neutral.

For a number of the country's particularly disadvantaged municipalities (including Bornholm), the municipal equalization is not sufficient to ensure a satisfactory local economy, because of particularly high support costs and particularly low incomes in these municipalities. Therefore specific development agreements are made between the Ministry of Interior and e.g. Bornholm municipality, which ensure the supply of extra 20 million DKK per year (approximately 480 € / inhabitant).

The ministry of Business Affairs (now named The Ministry of Growth) has overall responsibility for the Danish business development efforts. In addition, the Ministry has the overall responsibility for EU structural funds initiatives. It is the so-called "Regional Growth Forums" that sets projects for approval under the Structural Funds, but it is the ministry of Business Affairs who sets the overall framework for action. The Ministry make an annual development contracts with the Regional Growth Forum", thus ensuring the ministry a very significant influence on development efforts on regional level.

The Ministry of Food has overall responsibility for implementation of EU rural development program on national level. Funds from this program are matched with national and regional funds. The part of the Rural Development Program relating to the development of business and living conditions in rural areas are designated for the so-called "Local Action Groups" (LAGs) consisting of a number of organizations and associations outside the municipal political system. The municipality has a representative on the Board of LAGs, and in addition funding of very large projects requires simultaneous approval of the Growth Forum. But it is also the only way in which the municipality has the ability to manage and control the use of the rural development program at municipality level.

A wide variety of governmental decisions and actions have obviously influence on regional growth conditions and thus on the regional attractiveness. Decisions on e.g. centralization within the teaching and research sector, decision on the location of various governmental institutions (including e.g. barracks and state agencies), investment in and support for various forms of transport, decisions on the tax system devices (including the scope of tax deduction for transportation) is an example of governmental decisions with significant impact on the regions (including local attraction).

The municipality has in the Regional Development Plan (RDP) the following vision for the development of Bornholm in the period 2011 to 2014:

1. The possibility of a good and active life for all
2. Second Bornholm as a knowledge society
3. Bornholm as green sustainable island
4. Bornholm and economically sustainable island

To meet these objectives, the municipality will focus on developing the following initiatives:

- Human Settlement
- Business
- Tourism and
- Marketing

Demographic trends, with population decline and a very skewed age composition of the population is seen as a major contributor to the economic downturn on the island and therefore settlement and "newcomer effort" has (according to formal plans) a high priority. Nevertheless the municipality's development agreement (with the Ministry of Business Affairs) is quite vague in terms of possible initiatives in settling the area, apart from a notion of possible housing in attractive ports. Because of the financial crisis the Danish housing market is however largely in the doldrums at the moment and no housing at the Bornholm ports has been completed in recent years. In the RDP mentioned include: *"A clear settlement profile is essential for to permit an active marketing of the Bornholm settlement options with emphasis on Bornholm's unique urban and landscape environments".*

The people who work with local newcomer effort at Bornholm do not think a "settlement profile" of the island has been developed in practice, and therefore a profile is not include in any type of settlement strategy in the municipal newcomer effort.

The Regional Development Plan also provides for ".... *Visualises Bornholm as a place for experimental environmentally friendly building in harmony with Bornholm's vision of energy self-sufficiency*" (s25) and later (S26): "*Promote opportunities for establishing alternative forms of housing and to build low energy buildings*". Specifically, this effort in environmentally friendly construction is supported by a number of specific projects under the Regional Growth Forum. The projects are primarily aimed at increasing local craftsmen skills in the field and to network among companies active in the field of the area.

The business development efforts must, according to the municipality, be concentrated to ensure industry "the best possible framework conditions". This will, according to the municipality say good transport conditions (capacity, frequency, regularity and price), as well as good IT infrastructure (high-speed connections to several areas of the island). In addition a skilled and competent workforce is highly prioritized. This considers the municipality to promote a co-location of the island's education in a so-called "Campus Bornholm". So far there is only a collection of the island's secondary educations (gymnasiums or high schools), but the overall goal is to collect all educational and research activities in one unit and the aims is also to draw more relocated educations and training modules to the island. But so far Campus Bornholm is only an organizational merge on different educations already located at the island.

Tourism is highlighted as a specific development field, but development plans (RDPs), municipal plan and development agreement is remarkably vague with respect to specific development initiatives. Bornholm's Growth Forum (see below) has also tourism / adventure sector as a priority and here we find a little more concrete initiatives.

The Regional Growth Forum of Bornholm do not dispose over their own funds for business development but solely have the task of *recommending* projects for funding from EU structural funds and from the regional (municipal) development funds. On the other hand municipality or the Ministry of Business Affairs is not able to support projects not recommended by the regional Growth Forum. The forum consists of representatives from

municipal, business and academia. Growth Forum has for the period 2011 - 2014 selected the following four focus areas:

1. Bornholm as a Commerce island
2. Bornholm as an Education island
3. Bornholm as a Green test Island
4. Bornholm as an Experience island

The Growth Forum operates with an overall vision for Bornholm summarized in the sentence ”Birght green island of Bornholm." The vision is to make Bornholm as a green growth island. The declared vision is to support growth with a minimal consumption of the world's scarce resources. This should be reflected in all four areas, prioritizing “green” and “sustainable”. In addition, the regional Growth Forum focus on providing the general framework conditions for growth, in particular "traffic accessibility" and access to high speed broadband. Annually the regional Growth Forum recommends a number of projects for approval within the four focus areas and within an overall economic framework of DKK xxxxxxxxxxxx

In addition to specific project support the Regional Growth Forum use a portion of its funds for general branding of the island and to monitor the growth and business conditions at the island. Branding efforts are directed against potential entrants and migrants and the strategy seeks to highlight the qualities one from the official side believes should characterize Bornholm and which should be used as a criterion for allocation of project funds.

Municipality of Bornholm and the Regional Growth Forum has a common vision to attract more knowledge-intensive jobs to the island to replace jobs currently being lost in traditional manufacturing industries. Apart from the focus on green jobs the action plans are not concrete in terms of how to attract new knowledge-intensive jobs to the island.

In the education sector, the main focus to bring together the island's secondary schools and higher education in a single organization. The goal is to increase strength by exploiting economies of scale. However, the effect of regulatory constraints and lack of national support for the project means it is difficult to realize the plans.

Finally, a part of the Bornholm "attraction policy" is target development of the island's rural areas (the Rural Development Strategy). This strategy focuses on a "balanced development" and increased citizen involvement in the development and implementation of regional initiatives. The Bornholm rural effort leans clearly to the EU rural development program in which the overall goal is improvement life quality and equal conditions for all. The formal goal is to divide the benefits of economic growth throughout the island, or at least to ensure equal development conditions all over the island, but in practice very fem economic resources are targeted this efforts.

As with the overall Danish regional development efforts, so it also applies to the case of Bornholm. The biggest challenge seems to be the overall management and coordination of efforts within different levels end entities of governance. Also at the island the responsibility for different parts of “the attraction policy” is spread out a large variety of actors, and each one do not have the power to assume the coordinator role.

3.4 Model analyses in relation to rural development on Bornholm

The ATTREG municipality model is developed to explain emigration between Danish municipalities, using the same variables in all 98 Danish municipalities. Of course the situation varies from one municipality to another, and a general migration model will make wrong estimations to a greater or lesser extent. The following focuses on the model's ability

to explain migration towards the island of Bornholm. Does the model give a "true picture" of the migration to Bornholm and do the rural development officers find the model results useful? And can plausible explanations for these discrepancies be found?

Focus will be on the models capability to explain in migration in different age- and educational groups:

All age and education groups: Immigration to Bornholm from Copenhagen is larger than expected. Although all the circumstances described by the variables have been taken into account, including e.g. population size, physical distance between municipalities and that people are more willing to move from and to island municipalities, then the influx, especially from Copenhagen (and partial the municipality of Frederiksberg[14]) is much larger than expected. In total the immigration from Copenhagen is underestimated with approx. 630 persons.

Age group 40-49: For all education groups as a whole influx from Copenhagen are 150 persons higher than expected.

Age group 50-59: For all education groups as a whole influx of Copenhagen approximately 115 persons higher than expected. Among other municipalities where there is only a slight underestimation of the number of immigrants.

Across age and education groups there is a higher migration to Bornholm from Copenhagen than the model predicted. For the period from 1996 to 2003, all together 630 people more than expected has moved to Bornholm. Bornholm has a special connection to Copenhagen is not fully explained by the developed economic migration model. In this study, there has not been focus on the extent of re-migration, but a large part of the migrants from the Copenhagen area can probably be explained by the natives who "returns to the island " in a later stage of life. In any case, Bornholm has also an "above normal" emigration of young people to the Copenhagen area – an emigration not explained by the migration model and which lies beyond the effect of Bornholm as an outer municipality that only offered a small number of training and employment opportunities. Young people are, so to speak, "pushed away" from Bornholm and therefore it is logical to assume that a proportion of those people will return to the island when there is an opportunity.

Finally, the migration model has a tendency to overestimates the immigration of people with a long education (high level). This may be due to the fact that this education group do not find Bornholm attractive, but a more likely explanation is probably, that there is an insufficient supply of jobs for this education group.

It is described to what extent the model can predict the actual relocation and focus has been on those areas where the model has a lack of capability to predict. By use of all the independent variables in the model, and taking into account economic structure, population structure, etc. at Bornholm, it was expected that Bornholm could attract a little more people with a long education (high level) than there actually has migrated Bornholm. This is not the same as the Bornholm newcomers are not better educated than migrants compare to other peripheral areas. A study from 2011 (Manniche) showed that the Bornholm settlers within the creative industries, had a longer education than newcomers in for example Lolland, Aero and Samsoe.

Possible policy implications of the study:

1. Bornholm has a special relation to the Copenhagen, and future "newcomer campaigns" can be targeted this area.

[14] On of the municipalities in the Copenhagen area.

2. Bornholm has a special "island status" and this makes the municipality (and other island municipalities) particularly interesting.

3. A steadily increasing proportion of young people will leave the island to get an education. It is not possible to keep these young people at the island. After graduation, or after a family establishment, many of these young people will be interested in returning to the island. A special newcomer effort could be to care for this group, from leaving the island and to (some of them) returned "back home" to the island.

4. Some migrants leave the island because of loss of their job, but another group immigrants never "fits in". This group could, probably with a rather limited effort, be maintained at the island.

5. The previous "newcomer attraction strategy" have been targeted well-educated families, but the study shows that the group from 50 + often puts more emphasis on factors Bornholm has to offer, nature, environment, peace and tranquility, and tourist qualities. Besides, employment opportunities, risk of unemployment and wages level mean less for this age group than for younger. This "Silver migrant group" could be an interesting target group for future campaigns.

6. According to model results, low house prices do not attract newcomers. Low house prices are inversely an indicator of "less attractiveness" in other areas.

7. The municipal service (municipal costs for different service areas) is in most cases not a reason for migration. Other factors have a far greater importance to decision. The younger, lower educated and those between 40 to 49 year olds is apparently affected by the levels ov municipality service of some importance, but for other reasons this two groups is less relevant to migration towards the island.

4 Challenges for the future

Possible political implication of the ATTREG study has been discussed with stakeholders on Bornholm and more broad with stakeholders involved in development of the Danish Regional Development system. Focus has been on overall goals for the efforts and governance implication for different level in the administrative system.

The results from the municipality migration model indicate that "job creation" or rather differences in the number of jobs within different municipalities only have a minor effect at the flow of migrant. But people who are responsible for regional development efforts at both national and local level simply do not believe in this result. Job creation is regarded as the most important factor to maintain a population in rural areas or at least to reduce the flow of migrants to urban areas.

Another finding from the model is that price level at the housing market has only a minor effect on the migration pattern. The most attractive (urban) area has an increasing demand for housing and thereby increasing prices, and in less attractive rural areas even low prices on the housing market seem to be an attractive parameter. Nevertheless official responsible for regional development strategy and for the efforts to attract newcomers looks upon the low prices at the housing market at one of the key element in attraction of newcomers and maintain people already living on the island. Therefore this condition is one of the key elements in the branding strategy for the island.

Finally, the officials responsible for the regional development strategy is skeptical in relation to the suggested target group of 50 +. Until now the island have (both in the general branding strategy and in the effort targeted newcomer) chosen to focus on families with young children, age group 30 +, from the Copenhagen area. This target group is perhaps the

most difficult to move because of the importance of employment and income, but conversely it is a group which in many ways is very important to different aspects of life on the island (child care, schools, tax payments and so on) if the municipality succeeds in motivating them to move them to the island. Therefore there are no immediate plans to change its target for the newcomer effort.

The most critical factor for future development of the island is seen as the ongoing depopulation. It results in a decrease in tax income for the municipality and a derived reduced public service level. This will cause a further depopulation.

Job creation is seen as the best strategy to maintain a population in a peripheral area as Bornholm, but political stakeholders are aware of a limited success of previous initiatives. For years Bornholm have tried to attract knowledge intensive jobs, tourism jobs and commuters within a wide range of industries. The number of jobs within these fields has been increased but I haven't compensated for the lost jobs in agriculture, fishery and manufactory. The total employment (number of jobs) has been decreasing for several years, and are also expected to decline for the coming year as well.

A number of the interviewed officials are calling for greater political courage. A recognition of the fact, that the peripheral areas in the coming years will face a shrinking economy with e.g. depopulation. For instance, when the number of births over a small number of years has dropped from 600 to around 200 on Bornholm, yes, then this development will have implications for both day-care centers and schools. Rather than simply implementing a tinkering with a closure of one school after another, then the official proposed a clear political statement or strategy. Where do we have the future schools? And what can be done to improve the quality of these schools? People can adapt to a situation with a shrinking economy, but it requires knowledge on the political reality.

5 Concluding remarks

In this case study domestic migration in Denmark is examined. A model including both steady state long run-factors explaining migration pattern and short run factors changing migration flows have been examined.

In general, the level of migration is driven by the population in municipality of origin and destination, whereas the distance between the two reduces migration flows. The gross migration flows to and from island is at a higher level, with out-migration of young and in-migration of older people leading to a reduction in population on islands.

The steady state mechanism has been included in the model to separate out the development in migration patterns, which can be derived from the general regional development, such as the trend towards concentration of population and economic activities in urban and metropolitan areas: The steady state development include migration driven by population densities (denoted the antropic capital), where young move towards urban area and older moves towards low density areas. Location of state service (institutional capital) such as intensity of education facilities in urban areas explains some of the drift in net population towards urban and metropolitan areas.

For people older than 50 years job possibilities and the likelihood of increasing income do not have the same importance for migration compare to younger age groups.

People in the age group 50+ seem to be attracted to rural tourist oriented municipalities. It could be an indication of importance of the specific attractive capital (natural beauty, amenity and peacefulness) in these areas.

Regarding policy implications the typical network- and project oriented approach to regional development is recognized as a problem (or at least a mayor challenge) in relation to governance. There is a lack of continuity and institutionalization. Efforts are fragmented and initiatives often "run into nothing" when projects are completed. Officials responsible for regional development efforts is in practice only responsible for a small corner of the overall development strategy. They ask for a more comprehensive and coordinated effort across the various ministries resort areas. A pragmatic proposal from one stakeholder was to select one or two test sites/municipalities in the country where it is possible to experiment with a more comprehensive and coordinated "attractiveness policy".

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December 2010

The ESPON 2013 Programme

ATTREG
The Attractiveness of European regions and cities for residents and visitors

Applied Research Project 2013/1/3

Annex 4/3
ATTREG Case Studies

Cornwall and the Isles of Scilly

Prepared by
Ian Smith and Rob Atkinson

EUROPEAN UNION
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INVESTING IN YOUR FUTURE

This report presents the draft final results of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

This report does not necessarily reflect the opinion of the members of the Monitoring Committee.

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This basic report exists only in an electronic version.

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1 Introduction

1.1 Relevance of case study

NUTS0	**UK**	**United Kingdom**
NUTS1	**UKK**	**South West of England**
NUTS2	**UKK3**	**Cornwall and the Isles of Scilly**

Cornwall and the Isles of Scilly are located at the end of the South West peninsula of England and are part of the South West region of England (see Figure 1). The County of Cornwall (accounting for 99% of the population in this NUTS2 region) has a population of 500,000 of which some 92% of the population lives in an area classified as rural by the Department of Environment, Food and Rural Affairs (DEFRA). This rural population can be further subdivided into 277,900 inhabitants living in large market and small rural towns with the remaining 182,000 inhabitants living in the very rural areas (based on 2001 Census of Population). With a population of just over 2000 inhabitants and their location 45 km off the coast of Cornwall, the territorial development issues for the Isles of Scilly are very particular. For this report, we have concentrated on the mobility issues as they relate to the County of Cornwall rather than these very particular characteristics of territorial development within the Isles of Scilly.

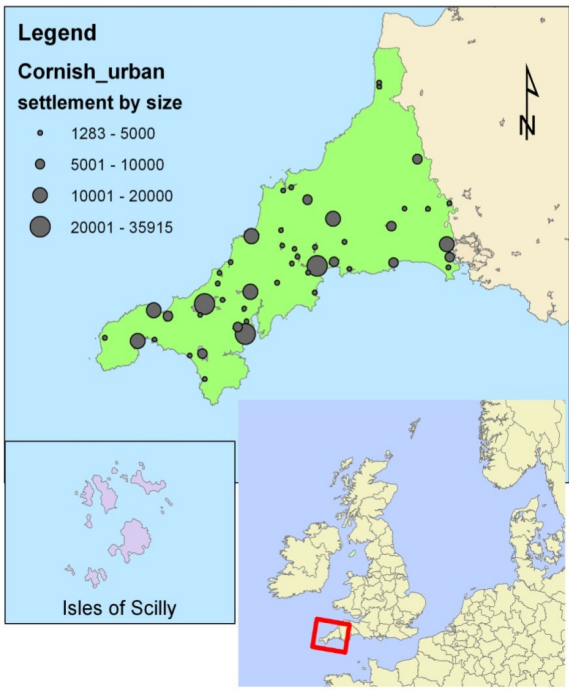


Figure 1: Map of Cornwall and the Isles of Scilly

An area classification developed by the National Statistics Agency for England (the Office for National Statistics) based on data from the 2001 Census of Population labels Cornwall as a 'coastal and countryside' area marked by:

- Relatively high levels of male part time work and working at home (precarious labour market conditions).

- High levels of employment in agriculture and fisheries, mining and quarrying and in the tourism industry (with the importance of tourism increasing as one heads west).
- An aging population where there is a higher than average proportion of single persons pensioner households.

Combined these characteristics mean that economically Cornwall records a level of economic production (as measured by GDP) below 75% of the European Union average and up to 2013 has been able to get access to Structure Funding (both convergence and competitiveness funding). It is the only area of the United Kingdom that meets this criterion (and hence the area qualifies for convergence funding). Generally the area has a low wage economy that combines with housing pressures from the purchase of second homes to mean that it is difficult for young people in Cornwall to find housing. It suffers from its peripherally (5 hours drive from London) and has a history of de-industrialisation (largely from mining and quarrying). Combined this makes the sub-region a peripheral rural area that has a complicated relationship with its attractiveness.

The case study report will do two things: firstly it will consider to what degree the statistical analysis carried out in RA3 reflects the reality in this NUTS2 sub-region; and secondly to what degree have local policy makers working in networks concerned with the spatial development of Cornwall been able to influence or shape the territorial attractiveness of Cornwall and the Isles of Scilly.

The principal themes of questioning would focus on:

- What issues do policy makers perceive as the main ones to be addressed?
- What are the key drivers of change they have identified as the object of policy and what changes do they hope to bring about?
- To what degree has sub-regional policy in Cornwall attempted to manipulate the attractiveness of the (sub)region?
- How have the specific issues of housing affordability and labour market opportunity for younger people been addressed?
- What specific ways have policy makers tried to deal with the impacts of tourism (good and bad) in the county?
- How will the county be attempting to manage the tourism-migration relationship over the next structural funding period (2013-2020)?

The case study we report in this document is intended to add extra detail and depth to the overall research carried out by ATTREG by utilising additional data, that could not be used in the wider European analysis (for data comparability reasons), to cast light on how a particular region has attempted to improve its attractiveness. It discusses outlines the 'diagnosis' of the problems and how the region has attempted to address those problems in the context of a strategy to move towards a knowledge based economy. In particular we focus on the role of the Combined Universities of Cornwall (CUC), a key element in the wider strategy, designed to address the specific issue of the 'brain drain' and support the development of a knowledge based economy in the region. Following the logic of ATTREG project we have therefore concentrated on a specific aspect of the mobilisation process as represented by CUC.

1.2 Method of research

This is a RA5 case study and so the case study research will be carried out in three parts:

- Revisiting the evidence of mobility and attraction in Cornwall/South West England through bringing in additional data (available in England/UK and available locally for example through visitor surveys)
- Analysing policy documents relevant to the spatial development of Cornwall and the Isles and Scilly?

1.3 Structure of report

The case study report will develop the argument about attractiveness and attraction in Cornwall and the Isles of Scilly in five sections:

- Section 2 explores the sub-region in terms of the indicators of attraction used in the ATTREG statistical analysis and in terms of the indicators of attractiveness used in the ATTREG model;
- Section 3 outlines the spatial development context for Cornwall and the Isles of Scilly by outlining the institutional context for the governance of spatial development and indicates some of the potential policy levers that might be expected to either shape the attractiveness of the county or shape the consequences of being attractive;
- Section 4 sets out how the particular policy measure of developing higher education provision (a university consortium) within the county in order to build the attractiveness of the county;
- Section 5 brings the analysis of the policy intervention (building university provision) in relation to patterns of attraction into the county.
- Section 6 draws out the key findings from our consideration of spatial development in Cornwall.

2 The issue of 'attractiveness' and mobility in Cornwall and the Isles of Scilly

This section outlines the nature of the attractiveness and attraction issues faced by Cornwall and the Isles of Scilly based on the analysis conducted through the ATTREG statistical analysis. The data gathered as part of the ATTREG statistical analysis is included in the case study appendix. The section will outline attractiveness and mobility in and out of Cornwall in three sections:

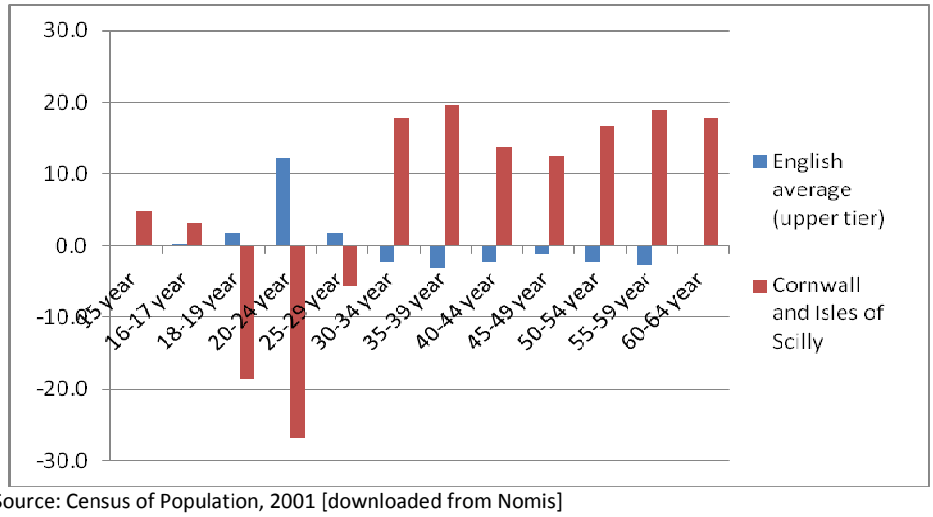
- An outline of the patterns of mobility mainly relating to migration and to visiting in and out of the county (sub-region) in Section 2.1
- In Section 2.2 there is a description of the county in relation to the 19 attractiveness indicators used within the ATTREG statistical analysis
- Section 2.3 will consider any differences in the levels of mobility predicted by the ATTREG statistical analysis and the observed levels of mobility (based on statistics from National sources of data).

2.1 Mobility in and out of Cornwall 1998-2010

In this analysis Cornwall is seen as a territory that is experiencing net in-migration of around 13 net in-migrants per 1000 inhabitants over the period 2001-06. In terms of the age profile of the in-migrants the ATTREG data suggests that there has been net out-migration of younger adults (aged 15 to 24 years) whilst there has been net in-migration by older working age adults (aged between 25 and 64 years). On all these measures of in-migration, the County experiences higher net rates of migration in general in comparison to the average of in-migration to NUTS2 regions across the United Kingdom with the exception of migration rates for younger adults.

Figure 2 sets out net migration rates by age groups comparing Cornwall to the average net migration rates by age band for the South West region of England as a whole. This picks out the particular high out-flow rates for younger adults aged between 18 and 24 years (continuing into the 25-29 year old age group). However the net migration rates for older adults are nearly twice those of the average for local authority areas across South West England. Based on the analysis of the 2001 Census it is also clear that about 10% of the in-migrant flow is made up of migrants from outside of the UK which is lower than both the local authority average for the South West and for England as a whole. Over half of the in-migrants from England in 2007/08 came from the rest of the South West region in comparison with flows from all other regions added together. Flows from the second most significant region (the South East) accounted for about a quarter of the flows from the rest of the South West. This was a change from 2002/03 when flows from the South East were equivalent to a half to a third of the flows from the rest of the South West.

Figure 3 shows net migration flows into Cornwall from the rest of the UK over the period 2003-2010 for four age groups: younger adults aged 16-24 years old, working age adults aged 25 to 44 years old; older working age adults aged 45 to 64 years old and the age group from 65 years old. Over this period the net migration rates (within the UK) for the older age groups have fallen. However and by contrast the net migration flows for the younger adults underwent an apparent step-change in the period 2006-08 moving from one of net out-migration in the early 2000s to one of no net migration in the later 2000s. Thus overall the trajectory for attractiveness in Cornwall has been one of becoming less attractive over this period for most age groups apart from the young. Figure 4 explores these changes in terms of distinguishing in and out flows from the county. These suggest that the county became less attractive over the period 2002-10 in its capacity to attract in-flows of migrants from all age groups with the exception of 16-24 year olds. In terms of the county's power to retain its residents the picture of the 2000s is one of retaining the power to retain all age groups with the exception of those in the 25-49 year old group where out-migration rates increased over the period. Thus the dynamic of the period for the younger adults has been an increased power to attract whilst maintaining the power to retain. In contrast for the 25-49 year group the period saw Cornwall lose some of its power to both attract and retain residents in this age group.



Source: Census of Population, 2001 [downloaded from Nomis]

Figure 2: Net migration rate by age group: Cornwall and the English average, 2001

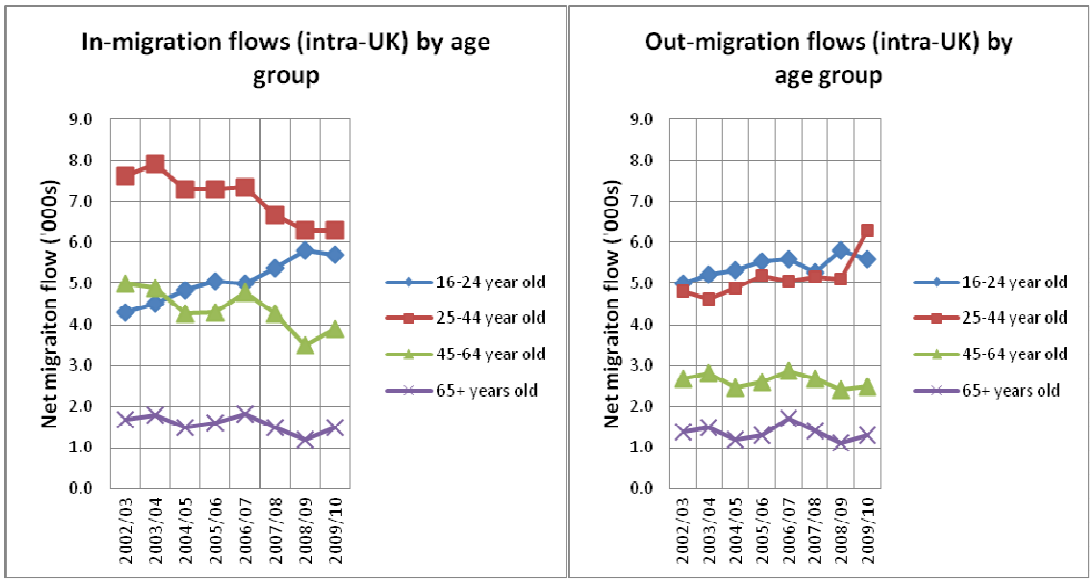
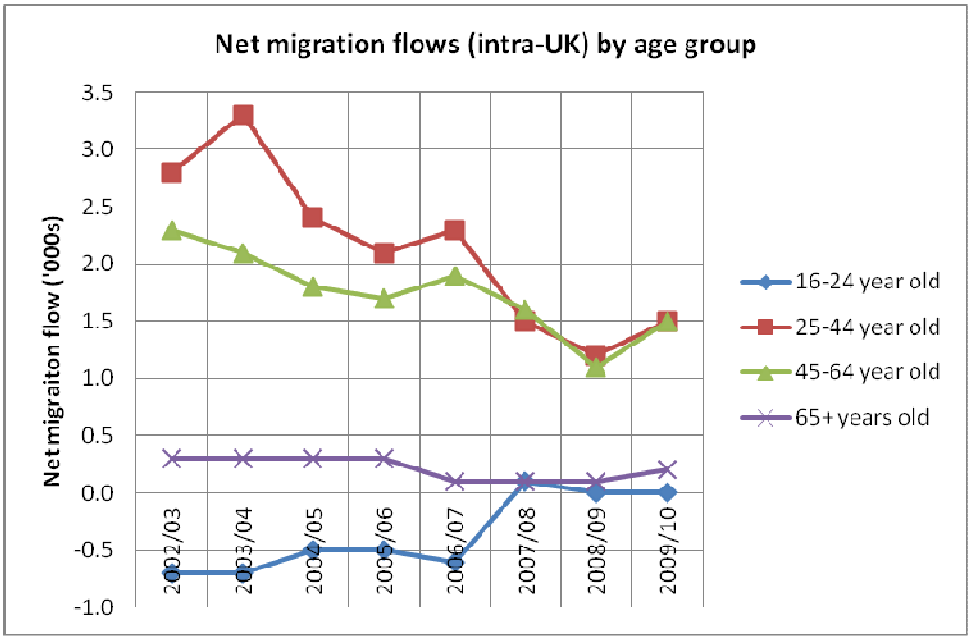


Figure 3: Intra-UK net migration rate by broad age group 2002-10 for Cornwall



Source: Office for National Statistics [downloaded from ONS statistics hub]

Figure 4: Intra-UK in and out-migration flows for Cornwall 2002-2010

Cornwall also experiences a strong attraction in relation to visitor staying in tourism accommodation with nearly 7 visitors per head of population – most of which appear to come from within the UK. The sub-region is an important tourism destination. Figure 5 sets out the EUROSTAT measure of 'arrivals in collective tourist establishments' for the period 1999-2008 distinguishing between arrivals from within the country and arrivals from outside the UK. Although there appears to be an unlikely spike in the data services for the period 2001-03, the general pattern is one of a slight decline in the number of visitor arrivals through the 2000s and one where non-UK arrivals are about 10% of the UK arrivals figure. Figures from the UK Travel Survey suggest a higher number of over-staying visitors in the county but does not indicate where the visitors might be staying (for example whether they are staying with friends and family or whether they are staying in collective tourist establishments such as hotels). Estimates for

international arrivals are similar between the Eurostat estimates and those obtained from the International Passenger Survey (IPS).

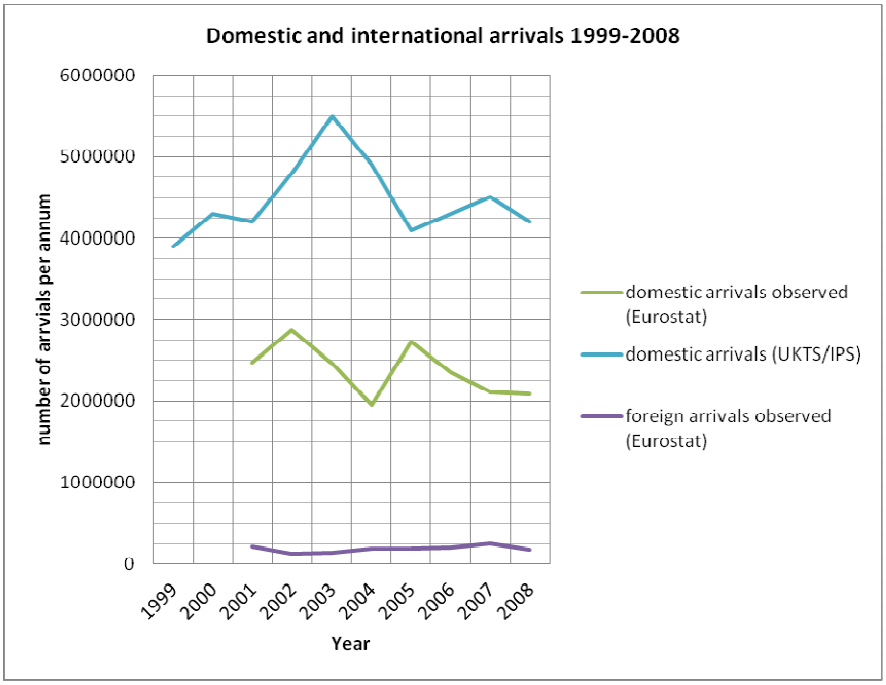


Figure 5: Visitor numbers for Cornwall and the Isles of Scilly 1999-2008

Overall mobility flows into the county are dominated by flows within the UK. The county is more insular on average than other local authority areas/NUTS2/3 areas within the UK. This pattern of insularity is replicated in tourism attraction, the proportion of passenger traffic into the 'regional' airport and the proportion of non-UK domiciled students studying within higher education in the county. Thus it would be reasonable to expect the drivers of mobility to be driven primarily by factors within the UK.

Combining the figures on migration rates and on visitor rates, placed Cornwall in cluster 3 of the ATTREG typology (see Figure 6). This puts Cornwall in the same category as peripheral tourist locations such as the Algarve, Aland Islands, the Mediterranean islands such as Corsica, the Balearics or mountainous regions such as Trento or the Austrian Alps. The ATTREG analysis considered flows and flow rates of territorial regions and the degree to which these flow and flow-rates correlate to our metrics of territorial capital. In this analysis, the data suggested that Cornwall experiences higher levels of attraction that might be expected based on its territorial capital.

Although the time series data presented above might suggest that some of the metrics for attraction were high during the period covered by the ATTREG data (2000-06) and (with the exception of net migration rates by younger adults) these metrics of attraction appear to be lessened since 2006.

[awaiting revised map of the typology that brings together the net migration rate for 2001-07 and total tourist arrivals per head of population 2004-07]

Figure 6: ATTREG typology of flows

2.2 Attractiveness and the assets of territorial capital

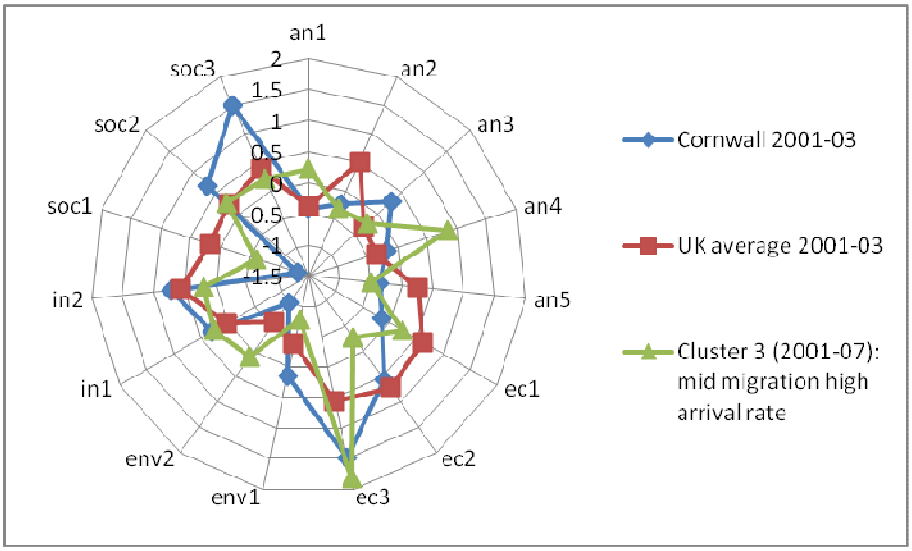


Figure 6: Territorial capital profile of Cornwall (2001-03 and 2004-07) in comparison with Cluster average (on overall net migration and total arrival rates for 2001-07)

Table 1: Territorial capital indicators (without dummy variables)

No	Indicator code	Indicator description
an1	MOINDN2	Monuments and other tourist sites valued 2 stars in TCI "green guides series", indexed, NUTS2 (AN2_05)
an2	POP_DENS08	Gross population density (inhabitants per sq km) (AN2_11)
an3	RANKAIRPAS	Rank of airport passenger numbers (1 = largest airport)
an4	BEDT0906N2	Number of tourism accommodation beds in NUTS2 region (AN2_15)
an5	WKPOPACC01	Sum of population accessibility scores (working age population accessibility per hour travel distance, 2001)
ec1	AVGDPHD0103	Average GDP per capita (EH2_27)
ec2	TERPROP0103	Average % of working age adults with tertiary education (EH2_40)
ec3	CONEMPRT0103	Average % of consumption-related employment (EH2_18)
env1	DIFFTCI	Difference between WARM and COLD season mean TCI (EN2_23)
env2	NATURA	Percentage of NUTS2 region made up of Natura 2000 sites (EN2_34)
in1	SATHLTHSER	Percentage of respondents who were more satisfied with the "state of health services in country nowadays" relative to the EU median score (IN2_48)
in2	PUBEMPRT0103	Average % of public sector employment (EH2_14)
soc1	STUDIMP07	Ratio of the number of university students against people aged 15 to 24 years, (SC2_35)
soc2	SATLIFE	Percentage of respondent in the area who were "satisfied with life as a whole" relative to the EU median score (SC2_02)
soc3	DEPRAT01	Dependency ratio of population aged 65 and over and the working age population, (SC2_20)

The territorial profile within the ATTREG dataset for Cornwall is compared to the average of the NUTS2 regions within cluster 3 (regions with mid-level net migration rates and high arrival rates) and to average NUTS2 value for the UK. Figure 7 sets out the standardised scores of the territorial indicators. In comparison with the average for the UK, Cornwall is poorer, less accessible and has fewer degree level students studying within the region than the UK average. The region also has a higher proportion of employment in retail, tourism and transport, a greater satisfaction with life and a higher ratio of adults of pensionable age (against the 'working age'

population) both in comparison to the UK average and of the average of cluster 3 regions. The region also has a significantly higher proportion of working age adults with a degree in comparison with other cluster 3 regions as well as having a climate with a more marked difference between summer and winter average conditions.

2.3 Predicting and observing mobility in Cornwall

Within the ATTREG project cross-sectional regression analysis established a series of correlative relationships between territorial assets of attractiveness measured (where possible) in the time period 2001-03 (see Section 2.2) and our measures of attraction (or mobility) for a time-lagged period (between 2001-04 for tourism arrivals and 2001-06 for net migration flows). If these equations are run using territorial profiles for Cornwall and the Isles of Scilly the regression equation predicts the measure of attraction (the flow of people).

Table 2: predictions based on regression analysis using locally derived territorial capital profile

	Territorial capital profile for 2001-03	Territorial capital profile for 2006-08
Annual net migration flow for 15-24 year olds	-1400 to -200 persons	0-100 persons
Annual net migration flow for 25-49 year olds	-2400 to -1500 persons	800-1300 persons
Annual net migration flow for 50 to 64 year olds	1000-1200 persons	1300-1500 persons
Annual number of over-staying arrivals from within UK	1.14 million to 1.44 million	2.17 million to 2.34 million
Annual number of over-staying arrivals from outside UK	No arrivals (negative number)	0 to 0.24 million

Table x demonstrates that Cornwall has very different potentials for attracting migrants and visitors in the two periods 2001-03 and 2006-08. The stock of assets according to the time series data-sets has increased over the period resulting in moving from a predicted state of net out-migration for the earlier time period to one of being a net in-migration location with the second profile. If one compares these predicted flows with the flows that were actually observed (see Section 2.1) it is notable that the patterns predicted by the territorial capital profile for 2006-08 more closely predict the flows actually observed during this period. However the pattern of flows predicted on the basis of the territorial profile for 2001-03 are quite different from those actually observed. Thus Cornwall is predicted as a net loser of population whereas during this period the county experienced strong net in-migration flows for all but the group of younger adults (aged 15-24 years).

If we assume that the regression modelling has a degree of validity in predicting mobility flows for clusters of regions (but not always predicting the behaviour of individual regions), it is possible to infer that somehow Cornwall and the Isles of Scilly have managed to be significantly more attractive than the territorial profile might suggest (locally specific reasons make Cornwall more attractive than would otherwise be the case).

The data suggests three potential changes in the territorial capital profile of the sub-region that have resulted in the county's territorial profile to converge with its observed patterns of attractiveness:

- A doubling of the provision of higher education places within the county from 1600 places in 2001 to over 3000 places in 2008;
- The opening of Newquay airport in 2004 with a resulting 300,000 passenger movements per annum through the airport.

- A doubling of the number of tourism beds recorded in collective tourism establishments by Eurostat between 2001 and 2008.

Clearly the regression model may be limited in its capacity to measure attractiveness given its dependence solely upon the territorial profile of the destination region. However it does set up some avenues for investigation. If these are indeed influential on patterns of migration and mobility there is a need to identify the causal linkage between the two. However the regression analysis does indicate that the county was significantly more attractive to working age in-migrants (from the South West and South East of England) in the early 2000s than its profile of territorial assets for the early 2000s suggests and that this localised effect was somewhat dispersed by the later 2000s. We are hoping to see the dynamic impacts of airport building and higher educational provision through the ATTREG model.

2.4 Observations on the attractiveness of Cornwall

Cornwall offers some interesting insights into the interpretation of the statistical work carried out within ATTREG. At the heart of the story is that based on the regional data profile for the period 2001-03 (against the 19 independent variables of attractiveness), Cornwall appears to be more attractive than would be predicted based on the regression equation both in terms of net migration flows and visitor flows. However the predicted flows based on the data profile for the period 2007-09 more closely predicts the inter-regional flow of people in and out of the county. This comes down to the development of air passenger traffic into the county (from 2004) and the increase in the number of beds in collective tourist establishments (according to EUROSTAT data) in the late 2000s. Equally it is noteworthy that the observed mobility flows for the period 1999-2010 suggest that the county has become less attractive because it is both attracting smaller in-flows of migrants or has maintained a level of attractiveness for visitors yet the ATTREG regression model would suggest that the county would be attracting higher net in-migration and visitor numbers (with the exception of younger adults) over this period.

This statistical profile suggests that there are four areas of interest associated with the sub-region of Cornwall:

1. What are the ways in which the patterns of migration amongst young adults (aged 15-24 years) have been influenced over this period?
2. What have been the implications of increasing air passenger traffic for the sub-region?
3. What have been the drivers behind the apparent growth in the tourist industries (generating a rise in the number of beds available in 'collective tourism establishments')?
4. What are the implications of a growing number of tourism beds on the housing stock of the County?
5. What might be the causal links between the changes in territorial capital (university provision, airport infrastructure, the conversion of housing stock to tourism accommodation) and the measures of mobility (net migration and visitor levels).

Cornwall and the Isles of Scilly is a case study that will allow the team to explore how a relatively rural and peripheral region has tried to become more retentive with regards younger people (through the setting up of a University) and will allow the team to explore how regional policy makers are trying to manage the consequences (positive and negative) of a tourist-migration nexus that has historically been problematic for the indigenous population (in terms of access to housing for example) and that leads the local economy to be very dependent upon seasonal, casual and poorly paid employment. Policy makers have also identified a problematic relationship between in-migration and overall economic wealth in that despite relatively high levels of in-migration over an extended period (of 30 years) the overall level of poverty in the

county have remained relatively entrenched. Thus the case study would provide an insight into the policy levers and mechanisms that might be considered within the context of spatial development in order to tackle this problematic relationship.

3 The Spatial Development context for Cornwall and the Isles of Scilly

3.1 Institutional context

The institutions of spatial development in England have been subject to much change in the period since May 2010. In the case of Cornwall there has been much change since localised local government boundary re-organisation that came into force in April 2009.

Table 3: Governance institutional arrangements for Cornwall and the Isles of Scilly 2000-2011

Territorial level	Pre-2010	Post-2010
NUTS0	United Kingdom	United Kingdom
NUTS1	South West England regional bodies (regional assembly for regional spatial strategy and regional development agency for regional economic strategy)	Regional bodies abolished in 2010/11
NUTS2	County of Cornwall (planning of waste – responsible for Strategic Land Use planning before 2004), Cornwall Local Strategic Partnership (LSP – abolished 2011)	County of Cornwall becomes unitary authority in April 2009 taking on role of local planning authority (Isles of Scilly are separate unitary authority), Local Enterprise Partnership (LEP) announced 2011
NUTS3	County of Cornwall	Unitary authority of Cornwall
NUTS4/5	6 districts – responsible for local [spatial] planning, sub-county LSPs	Community partnerships/Parish councils

However Cornwall is rather special in the context of the UK in that it is a place where a strong sense of place-identity (and the politics of place-identity that go with this) are co-terminus with the institutions of governance and co-terminus with the particularities of the NUTS2/3 geographies.

3.2 Policy levers and mechanisms

Strategic spatial planning in Cornwall has been framed by a series of up-dated Structure Plans adopted in 1997 and 2004. This has then informed on-going work elaborating a Local Development Framework (LDF) which is on-going (in 2011). The English conceptualisation of a strategic spatial plan is somewhat narrower than might be found in other parts of Europe in that whereas the general vision of spatial planning is about thinking through the land use implications of expected patterns of development rather than being a primary vehicle for conceptualising (or even co-ordinating) a spatial vision for an area. However the three main vehicles for altering the attractiveness of Cornwall through the 2000s would have some land use implications:

- The opening of Newquay airport would require a planning permission although the provision of such infrastructure is to be primarily guided by national policy rather than local planning policy;
- The provision of tourist accommodation would be the most directly influenced by the planning system given the needs for change of use and building planning permissions associated with providing establishments such as hotels, bed and breakfasts and self-catering accommodation;

- The provision of higher education would only be shaped by spatial planning to the degree that the provision requires the change of use of existing buildings or the provision of new buildings.

The general position of spatial planning within the County conceptualises long term demographic growth within the County (and thus pressure on housing stock) as dependent upon net in-migration to the county. There is no explicit statement as to wanting to attract particular groups. The 2004 Structure Plan indicated an average net migration flow through the 1990s as just under 5000 net in-migrant per annum and that the elevated net migration rates of the early 2000s were exceptional. In terms of framing economic development associated with specific developments such as opening Newquay Airport, opportunities arising from the Combined Universities in Cornwall project or around 'key visitor attractions' the structure plan looks to facilitate the provision of appropriate sites (the Structure Plan itself is not a vehicle for direct development). In relation to tourism development the Structure Plan sets out to improve the quality of tourism development and that tourism-related tourism should not have a harmful effect on the availability of housing (through conversion to tourist accommodation for example).

4 Spatial Development policy responses to managing attractiveness in Cornwall and the Isles of Scilly

This case study will focus on one of the areas of potential intervention for framing the territorial profile attractiveness and thus influence flows of attraction for the period covered by the statistical analysis. In this section we will concentrate on the provision of higher education places to make Cornwall more attractive/retentive to younger adults and to underpin a smarter greener local economy.

4.1 Retention of younger adults: the role of the European Structure Funds

As described in Section 1 Cornwall and the Isles of Scilly (C&IS) is a relatively rural and peripheral region, heavily dependent on tourism and declining agricultural, fishing and mining sectors with a business structure dominated by small companies and low levels of productivity. The resulting employment structure is seasonal/part-time and often low paid leading to quite high and entrenched levels of poverty and a workforce less well qualified than the UK national average. The latter implies a 'skills shortage', this is something that is quite widespread across the labour market, but particularly noticeable in relation to what are often termed 'knowledge workers' – those deemed essential to the development of a knowledge-based economy.

In the Single Programming Document (SPD) prepared for the C&IS Objective 1 Programme 2000-2006 the region is characterised as having "a narrow economic base, with preponderance of low value added sectors". The key aim of the Objective 1 Programme was to act as a catalyst supporting the key objectives of the South West of England Regional Strategy which were:

- Improving business competiveness
- Addressing social and economic imbalances
- Improving regional cohesions

These objectives were to be achieved by intervening in four strategic drivers considered necessary for sustainable regional economic development, the drivers being

- Innovation and Technology
- Skills and learning
- Environment

- Partnership

All of this was designed to address the weakness of the regional economy and build on existing strengths in order to make the transition to a knowledge-based economy based on high value added firms employing a suitably skilled workforce.

One of the key problems identified in the SPD, and more generally in studies of the region, was the out-migration of younger people mainly due to limited educational opportunities in the region – this so-called 'brain drain' (Cornwall was described as "a major 'exporter' of undergraduates") was identified as a major obstacle to the development of a knowledge-based economy in the region. It was the loss of these people, and their skills that was seen as one of the key factors hampering efforts to transform the region's economy. Thus improving the provision of Higher Education (HE) and Further Education (FE) within the region was seen as essential to achieving the overall strategy. To this end the Objective 1 Programme embedded actions to support the development of HE and FE in its activities – indeed reading through the document it is clear that this was at the heart of the strategy (perhaps because this was an area where it was thought changed could be brought about and because it was one of the factors that actors within Cornwall all agreed was necessary).

As a central element in this approach the setting up of the Combined Universities of Cornwall (CUC) was accorded a high priority in the Programme's strategic investment. Thus in the Objective 1 Programme Complement of 2005 it was stated "A fundamental strand for delivering this Priority is using Higher Education as a means of driving forward the economic growth. The Combined Universities in Cornwall…has a key role to play in developing opportunities by supporting intellectual assets and building on higher quality HE and FE provision." In terms of developing a knowledge driven economy in the region it was argued that:

> …CUC is an exciting opportunity to redress the deficit of intellectual capital and to build on existing high quality HE and FE provision as well as the considerable talent of local people…The project enables an innovative approach to the challenges ahead in the migration to a more knowledge-based economy…The development and retention of a well qualified and adaptable workforce…requires a range of appropriate facilities and facilities which enable equal access for all…A wider range of high quality opportunities will help to retain individuals in the region and redress the deficit of intellectual capital. (p31).

Furthermore the development of CUC was intended to strengthen links between education and employers with cooperation on R&D, linking educational provision to the needs of companies and more generally to support upgrading of skills and qualifications in line with the needs of a knowledge-based economy. CUC is both a major beneficiary of Objective 1 funds (particularly in relation to the capital investment needed to provide the relevant infrastructure) as well as being a key actor in bringing about the transformation of the region's economy.

If anything these themes are even more strongly emphasised in the OP of the Convergence Programme for Cornwall and the Isles of Scilly 2007-2013 where the role of CUC is even stronger as it is embedded in Priority Axis 1 (Innovation and Research and Development), Priority Axis 2 (Enterprise and Investment) and Priority Axis 3 (Transformational Infrastructure) as well as contributing to the other Priority Axes. Indeed the OP suggests that CUC had already begun to achieve a degree of success in reversing the 'brain drain', noting "There has been a recent reversal in the out migration of young people with evidence from ONS data sets indicating that fewer younger people are leaving Cornwall and more are moving in…These figures are encouraging and coincide with recent developments: the Combined Universities of Cornwall initiative has sought to deliver a step change in HE provision, and become a key driver for growth and regeneration." (p45)

The desire to develop a university in Cornwall dates back to the 1990s and in 1997 the University of Exeter began a process of establishing a satellite campus in Penzance, although this did not have a great deal of support within Cornwall as it was not considered to be distinctively 'Cornish[1]'. Given the region's peripheral status and the loss of young people, who frequently did not return to Cornwall, to higher education institutions elsewhere in the UK there was general support among decision makers for an expansion of higher education provision in Cornwall and thus moves were made to develop an organisation that could fulfil this desire. In effect an embryonic CUC existed prior to the launch of the Objective 1 Programme, but its existence depended on funding being available through Objective 1, particularly to provide resources for the development of the necessary infrastructure (buildings, a new campus in Penryn). Thus in the original SPD while the role of education is frequently mentioned as being crucial to the transformation of the region's economy there is little or no direct mention of CUC. But the implementation of the Objective 1 Programme from 2001 onwards allowed CUC to begin to come into existence and by the time the Objective 1 Programme Complement was published in 2005 CUC featured as a central actor and is even more central to the post-2007 Convergence Programme. Thus by the mid-2000s CUC had become a major participant in actions to transform the region's economy into a knowledge based economy.

It was clear from the outset that CUC should take on this role of transforming the region's economy. For instance the CUC Combined Plan of 2001 describes CUC as "…the 'anchor project' of the Objective 1 Programme and related regeneration activities." and that it "…represents a 'joined-up' response to the development needs of one of the EU's lagging region.". The Plan further notes:

> A key dimension of the initiative relates to the constraint on the economic development of the County that the absence of a major HE presence in Cornwall represents. These negative economic effects stem from:
>
> - the loss of qualified graduates from Cornwall;
> - the absence of a pool of suitably qualified labour;
> - limited vocational training and low participation rates for mature students and professionals;
> - the ability to attract inward investment; and
> - the lack of representation in high growth/value added sectors.

Addressing these issues necessitated building close links with the region's business community. Thus a strategic element of CUCs plans was the establishment of a team specifically dedicated to building relations with the business community and, in particular, knowledge driven businesses with high growth potential as well as setting up incubation facilities in the HUB (see below for more detail on the particular spatial structure of CUC).

As well as receiving EU funding matched funding was also provided by the UK government and the Higher Education Funding Council for England (HEFCE), this reflected a generally supportive attitude within central government which encouraged and supported the setting up of CUC. For instance a press release from HEFCE (May 9th 2001) noted:

> *The Higher Education Funding Council for England (HEFCE) has warmly welcomed the announcement (8 May 2001) by David Blunkett, Secretary of State for Education and*

[1] It is useful to bear in mind that there is a distinct 'Cornish identity', perhaps best expressed in the existence of an officially recognised Cornish language (one of the Celtic language group that includes Breton and Gaelic). Exeter University is located in the county of Devon and therefore not seen as Cornish, the participation of educational institutions in Cornwall was deemed essential to the creation of a 'Cornish University'.

Employment, of additional government funding towards the development of higher education in Cornwall. The funding will support the Combined Universities in Cornwall (CUC) project, which will enable a step change in opportunities for local people to enter higher education in their own county. The HEFCE has promised recurrent funding through additional student numbers. The additional government contribution towards the matched capital funding includes £11.5 million additional funding from the Department for Education and Employment (DfEE) in recognition of the special circumstances of higher education in Cornwall, plus funding from the South West Regional Development Agency and the Department of Trade and Industry, reflecting the project's contribution to regional economic regeneration. This will match the funding from Objective 1 as part of an overall capital funding programme of £55 million.

It is clear from the above that as well as being supported within Cornwall and the South West of England more generally there was also clear support for the initiative from central government, which was prepared to provide funds of its own (from a number of central government departments) to support the initiative.

It is important to note that CUC is a partnership rather than an independent freestanding university. Initially the partnership consisted of the Universities of Exeter and Plymouth, University College Falmouth, The Open University, The College of St Mark and St John, Cornwall College, Truro College and Penwith College. It now also embraces the Peninsula Medical School which is a partnership between the Universities of Exeter and Plymouth and the NHS within Devon and Cornwall. The founding constitution of CUC, ratified in 2004, states that the members have formed "an unincorporated association with the aim of developing and expanding higher education ("HE") provision in Cornwall through the Combined Universities in Cornwall ("CUC") initiative...". It goes on "objectives will be primarily achieved through co-operation between the Members and will involve the development of a major education HUB at the Tremough Campus, Penryn together with an academic Rim at the Royal Cornwall Hospital, Truro and at the Further Education Colleges…in Cornwall, in addition to the individual activities of the Members...".

In terms of the HUB-RIM structure the HUB is supported by Cornwall's existing FE Colleges at the RIM through the growth in the range of HE programmes to include more HNDs and new two year Foundation Degrees. The intention was also present that there would be an articulation between the HUB and RIM, foundation degrees in the RIM would allow students to move to the HUB to complete their degrees in Cornwall (or at Plymouth and Exeter in Devon) or at other HE providers. The RIM colleges would also provide courses suited to the needs of local businesses. The dispersed spatial location of the education partners in CUC meant that initially coordinated working between the partners was slow to develop but a dedicated unit (the CUC Partnership Support Team) was set up in 2001 to facilitate and drive the this process forward. Although questions remain regarding the extent to which CUC is able to operate as a single cohesive provider of education. The original HUB-RIM structure was supplement by the setting up of a NODE in Truro (Peninsula College of Medicine and Dentistry). All of these activities involved working with a range of public (SWRDA, GOSW, Cornwall County Council, Urban Regeneration Company) and private (e.g. representatives of different business sectors and umbrella organisations) partners. In this sense CUC represents a quite unique approach to the provision of HE and FE in England.

What is also noteworthy about the constitution is that CUC was not conceived as an independent organisation, rather it "will act as the strategic planning mechanism for the development of HE opportunities in Cornwall". Thus, in addition to its 'Hub and Rim structure' it had the unique quality of not being an independent organisation – all in all this represented a new mechanism for delivering HE and FE provision in England.

The objectives of CUC are:

(i) expand and extend HE provision in Cornwall;

(ii) promote access to HE at all levels;

(iii) develop and increase research and consultancy provision and facilities in Cornwall;

(iv) develop and coordinate business support and business incubation activity in Cornwall;

(v) facilitate student progression and transfer between CUC Member institutions; and

(vi) contribute to the social and economic regeneration of Cornwall.

It is interesting to note that CUCs objectives explicitly include working with business, supporting movement between FE and HE (essentially this means from the RIM to the HUB and into the Universities of Exeter and Plymouth) as well as contributing to Cornwall's social and economic regeneration, these objectives are clearly related to CUCs role within the Objective 1 and the later Convergence Programme as well as to the wider and more long term transformation of the region's economy proposed in the Regional Economic Strategy[2]. This reflects a clear understanding that CUCs role was to support Cornwall's economic development and to work with businesses in the region. As well as ensuring that there was a supply of suitably qualified workers for business there was also a clear understanding that CUC would seek to help businesses develop in ways that would be consistent with the establishment of a knowledge-based economy. This involved supporting existing businesses to develop new production techniques and products and targeting new markets, a Research Knowledge Transfer Team was set up to support these processes, to build networks of companies and identify relevant knowledge and skills.

This strategy entailed supporting existing Priority Business Sectors indentified in the Regional Economic Strategy which were:

- Food and drink
- Advanced engineering & aerospace
- Information and communications technology (ICT)
- Tourism

However, the strategy also included supporting innovation and the development of cutting edge high tech initiatives related to the region's existing strengths and priorities – e.g. investment in environmental technologies. One of the ways in which this is being done by establishing Innovation Centres in close proximity to CUCs campuses, the first of which the (Pool Innovation Centre) was opened in July 2010 providing work units, hot-desking spaces and offering a range of business support services. Research within CUC was expected to support such developments; high level cutting edge research would open up new possibilities for technological spin-offs that would be developed by businesses (hopefully in cooperation with CUC) within the region. The emerging sectors identified for support were:

- Creative industries
- Environmental technologies
- Bio-technologies

[2] It should be noted that the South West of England Regional Development Agency which developed the Regional Economic Strategy for the region (and other regional strategies) has recently been abolished (all Regional Development Agencies were abolished by the new coalition government that came to power in 2010). However, interviews indicated that this has had little or no effect on CUC and its activities given that most of the capital expenditure necessary to provide CUCs infrastructure had already been made available and much of it was already in place. Interviews also indicated that is, post-2013, no further European funding is available this will not cause problems for CUC.

All of this is clearly reflected in the CUC Phase Two Business Plan of 2005 where it is argued: "CUC is building the infrastructure to create a seamless process of higher education, research and innovation, knowledge transfer and business incubation and growth, as its contribution to the economic growth of Cornwall.". In terms of working with business CUC has developed a number of projects including Building Capacity in Environmental Research, Creative Enterprise Cornwall (CEC), Unlocking Cornish Potential, all of which seek to build links between CUC and enterprises through graduate placement schemes, research or business support. Examples of the CUC research specialisation linked to the emerging sectors are the Performance Centre, the Environment and Sustainability Institute, the Medical Research Centre and the Peninsula Research Institute for Marine Renewable Energy. A good example of the sort of collaboration hoped for is the "Wave Hub" which is a shared offshore facility for research demonstration and provision of arrays of wave energy generation devices over a sustained period in which the Peninsula Research Institute for Marine Renewable Energy is closely involved with several businesses. Such initiatives will, it is hoped, provide the basis for the development of companies who will operate not only in national markets but also globally. This last point is significant because it is recognised within CUC that any companies that develop need to be able to compete in markets beyond Cornwall and the UK if they are to survive and thrive – thus there is a search for high-tech 'niche markets' that reflect the knowledge-based strengths of CUC and the emerging new regional economy.

In terms of HE provision the numbers of students (full-time equivalents) increased from just over 3,000 in 2001 to 7,700 in 2010 (it is planned to increase the number to 10,000 by 2025). By 2025 the overall CUC project plans that over 1,700 students will graduate each year and of these 340 will find graduate employment in Cornwall each year. In terms of what currently happens to CUC students after graduation according to the CUC 2010 Review in 2009 48% found work in Cornwall and another 18% found work elsewhere in the South West of England. As regards students from Cornwall who were CUC graduates 88% of these found work in Cornwall. All of this suggests CUC is making headway in countering the 'brain drain' and in retaining students.

However, it is more difficult to be clear about CUCs contribution to the transformation of the region's economy. For instance if we take the issue of productivity, which for many years has been seen as in need of improvement, one recent overview by Cornwall County Council noted:

> An examination of productivity data for Cornwall clearly indicates below average and declining rates, while the economy exhibits various features of low productivity, with weak GVA and below average earnings for both the employed and self-employed. In 2007, Cornwall's productivity measured by Gross Value Added per full-time equivalent worker equalled 64.5% of the average for Great Britain…[in Cornwall] productivity per full-time equivalent worker peaked in 2001 and has declined since." (Economic productivity in Cornwall – constraints and challenges, Summary, May 2010, p3)

In the area of skills and innovation (seen as essential to a knowledge based economy) a recent note (May 2009) on Knowledge and Innovation prepared for the Joint Monitoring Committee of the Convergence Programme for Cornwall and Isles Of Scilly pointed out:

> The underlying asset in a knowledge-driven society is a knowledge equipped workforce. One commonly used indicator of a knowledge workforce is a higher proportion with NVQ4+ or equivalent (degree level). Cornwall and the Isles of Scilly lag behind the UK by 14% using this measure (28% are qualified to NVQ4+ or equivalent compared to 32.6% across the UK). Another is the proportion of the workforce in the top three occupational levels (managers and senior officials; professional occupations; and associate professionals and technical occupations). Again, in terms of those in employment, Cornwall and the Isles of Scilly is behind the national level at 37% compared to 43.6% for the UK, *the gap has increased compared over the last two years.* There is a strong

correlation between the proportion of the workforce in the top three occupations and average earnings. (emphasis in original)

The note also points out that in the region "The number of businesses (data units) in the knowledge intensive sector has increased both in relative and absolute terms… However, in relation to the GB average it has remained static...". The note also argues that "the increase in the percentage of knowledge intensive industries has increased less in Cornwall than in the South West or Great Britain.". Thus while there are indications that the region has moved forward in its strategy to make the transition to a knowledge based economy the results have been somewhat varied and, relatively speaking, it still appears to be performing less well than the country as a whole or the South West. This would seem to imply that the region's peripheral position and relatively poor connectivity (compared to say the Bristol region) remain significant factors. In this context, and given that CUC has only been in existence for a relatively short period of time with many of its initiatives only coming on line in the last few years, assessing its impacts on the region remains problematic, especially when the types of changes CUC is intended to support/facilitate take a lengthy period to bring about and require a range of policies and resources it does not have direct control over (or even in some cases access to). Undoubtedly the current recession will impact negatively on developments, much, however, will depend on the length and depth of the recession. It is therefore neither possible, or reasonable, at this stage to make any definitive judgements about CUCs impacts on the transformation of the region's economy. Nevertheless, it is clear that CUC has become a very active participant in the region's development, a role that goes beyond higher education. It has become a key partner, along with Cornwall County Council, the UK government and the EU in the region's development seeking out new ways to stimulate economic innovation but also through its involvement in key bodies/committees related to economic development in the region. This reflects the fact that CUC has already developed considerable expertise and know-how related to regeneration and dissemination of knowledge/experience. Overall one can say that CUC has made significant progress towards achieving its original goals and even expanded it role into one of becoming a central participant in driving the region forward in its attempts to establish a knowledge-based economy.

5 Impact of policy responses

We have structured this case study around a number of questions related to the attractiveness of Cornwall and how policy makers have sought to respond to perceived problems. In particular action has been structured by the notion that the Cornish economy needs to make the transition from one reliant on tourism and declining economic sectors and low levels of productivity to the development of a knowledge-based economy. Central to this was the need to address the 'out-migration' of young people (the so-called 'brain drain') and a perceived 'skills shortage' particularly in terms of so-called 'knowledge workers'. CUC was seen as central to addressing these issues, both in terms of rectifying the 'skills shortage' and creating a pool of suitable 'knowledge workers'. Moreover generally it was also allocated a central role in supporting both innovation and the development of cutting edge high tech initiatives that would provide the underlying infrastructure for a knowledge-based economy.

One of the problems in assessing the effectiveness of the various initiatives referred to is that in many cases there impacts will only become apparent over a lengthy period of time (perhaps 20 years or more) and the strategy to transform the Cornish economy was only put in place 10 years ago. Moreover, the current economic crisis inevitably makes this task more difficult. However, the evidence we have provided in the previous section does allow us to make some provisional judgements, particularly in relation to the issue of the 'brain drain'. The data we were able to collect does support the contention that this 'brain drain' has been halted and indeed reversed

with an expanding pool of graduates being present in Cornwall. However, in one interview it was suggested to us that this process had begun before CUC was set up and that the current crisis may be having an adverse impact on the process. Nevertheless, it does appear that CUC has made a clear contribution to reversing the process. However, the extent to which CUC has been able to address the 'skills shortage' and support the creation of a pool of 'knowledge workers' is less clear. The evidence suggests that while some progress has been made in absolute terms in addressing the 'skills shortage' Cornwall is still performing less well that the UK average and the same applies to the presence of 'knowledge workers'. Similarly there does not appear to have been any improvement in the productivity od the Cornish economy, indeed it would seem that it has actually declined since 2001 (when the Objective 1 Programme commenced). The picture is therefore rather complex and the outcomes, to date, somewhat varied. Nevertheless, there does seem to be some grounds for optimism regarding the creation of the infrastructure necessary for the development of a knowledge-based economy centred on the development of niche technologies such as the 'Wave Hub'. Peripherality and connectivity remain key issues that cannot easily be overcome; it is unlikely that in the foreseeable future the infrastructure will be put in place to significantly reduce either. One thing that did become clear during the course of the case study is that CUC has become part of the networks of regional actors leading the transformation processes, sitting on a wide variety of bodies and using the expertise it has developed to support other actors in the networks through advice and knowledge transfer. As far as we can ascertain this was not part of the original strategy but should be seen as a positive development strengthening the overall strategy.

6 Conclusion

The material presented in this case study provides insights into how a region has sought to address a series of interlinked problems that were perceived by policy-makers to be responsible for the region's poor performance and to implement a long-term strategy that would enhance the region's attractiveness and support the transition towards a knowledge based economy. The region has sought to do this through the elaboration of a detailed strategy, developed by regional, sub-regional and European institutions, and financed by resources from UK and European Objective 1 and Convergence funds. European support played an important catalytic and framing role in the development of the strategy which has been driven forward by organisations and bodies within the region. This has involved a restructuring of the region's economic base in an attempt to effect a transition to a knowledge based economy.

Our particular focus on CUC has illustrated how this institution has come to play a pivotal role in enhancing a particular deficiency in its attractiveness; addressing particular problems (e.g. the brain drain) and improving the wider attractiveness of the region through addressing deficits in intellectual capital. CUC has also played an important role in implementing the overall strategy and process by working with and supporting initiatives that, potentially, provide the basis (or infrastructure) for the development of a knowledge based economy. It is important to emphasise that this is a long term strategy that even in favourable circumstances would take 20 years or more to bring about. The current crisis may slow down, or even halt, progress; however, it does appear that the range of activities pursued under the Objective 1 and Convergence Programmes has created a solid foundation for future development. While the evidence we have provided does indicate that the region has increased its attractiveness in terms of certain factors it has not significantly improved its relative performance (compared to the UK as a whole) on several indicators related to the knowledge based economy. It is also clear that there is a long way to go before one can realistically talk about the creation of a knowledge based economy in the region. In wider terms what this suggests is that if attractiveness is to be improved primarily based on endogenous potentials then it is important to develop and implement a long term strategy for development (that identifies the problems, specifics drivers for change and is backed up by the

necessary institutional capacity and financial resources) and the need to ensure that the various strands of the strategy are integrated by an institutional framework that has long-term political and financial support. In this sense the region has put in place many of the key elements necessary to bring about change.

December 2010

The ESPON 2013 Programme

ATTREG
The Attractiveness of European regions and cities for residents and visitors

Applied Research Project 2013/1/3

Annex 4/4
ATTREG Case Studies

Istanbul

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EUROPEAN UNION
Part-financed by the European Regional Development Fund
INVESTING IN YOUR FUTURE

This report presents the draft final results of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

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This basic report exists only in an electronic version.

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1 Introduction

1.1 Presentation of the case study and research questions

Istanbul is a coastal metropolitan region, located at the northwest of Turkey (Figure 1), on an area of 5315.33 kmq that includes 39 district municipalities. It is a NUTS2[1] region (which in this case coincides with the NUTS1 and 3 delimitations), with a population of 12.915.158 (2009), the 17.8 % of Turkey's total population. The annual rate of population growth is 2.60% in 2010 (TUIK) and it is the 19th biggest city in the World in 2011 (Demographia, 2011).

Accounting for the 27% of national GDP, the 38% of total industrial output and more than 50% of services, the 45% of the total national export and for the 49% of total import (Istanbul Greater Municipality, 2007) the Istanbul metropolitan region is the economic heart of Turkey, which is generally listed among the emerging economies of the last decade. It is also the cultural and political centre of this country, in spite of not being the national capital.

According to the classification into regional typologies conducted in this study, Istanbul is a medium flow region that attracts higher flows than predicted (Figure 1). It is also one of the main tourist destinaiton regions of Europe, and one of the more densely populated.

In spite of not sharing a border with the ESPON space, Istanbul is very close to it (a mere 4-hour drive to the Greek border on the West, and 3-hour to the border with Bulgaria on the North-West from the centre of Istanbul); as such, it is the main gateway to Europe from Turkey and in general from the South East, not only geographically, but also from a functional point of view. In this sense Istanbul offers a very important lookout on migration and attraction processes with a relevant potential impact on the spatial development of the ESPON space.

On one hand, Istanbul has been one of the main destinations of internal migration in Turkey, since the beginning of industrialization process in the 1960s. The main motivation for the people who migrate (especially the unskilled) has been traditionally related to employment and emancipation. The evidence from this study regarding the composition of flows indicate that Istanbul is especially attractive for the group of migrants defined as "opportunity-driven" in this study, described as low-skilled, young migrants from non-OECD regions, who are especially focused on local job markets and social and institutional characteristics. However, the recent changes of the Turkish economy – and the policy objectives that are attached to it – are transforming Istanbul into a new hub for other types of migration, like high skilled foreign workers from OECD countries and other forms of short-to-medium term mobilities, which overlap and interact with the traditional opportunity-driven migration.

[1] In Turkey, the number of units/regions decreases from Level 3 to Level 1 with 81 provinces in the 26 NUTS-2 regions and 12 NUTS-1 regions. NUTS regions are also expected to be the main framework for the administration hierarchy. The NUTS regions are established as following:

- Level 3- 81 Provinces
- Level 2- 26 Units (grouping of neighbour provinces among Level 3)
- Level 1- 12 Units (grouping of Level 2 Units).

In the case of Istanbul, it is defined as NUTS 1-2 and 3 level. For the administrative body, responsibilities go to both Greater Municipality of Istanbul and Governor of Istanbul. For the level of NUTS 2 and 3 we may focus on Greater Municipality since we emphasize the metropolitan area in the case study. Greater Municipality is responsible from planning within the boundaries of province.

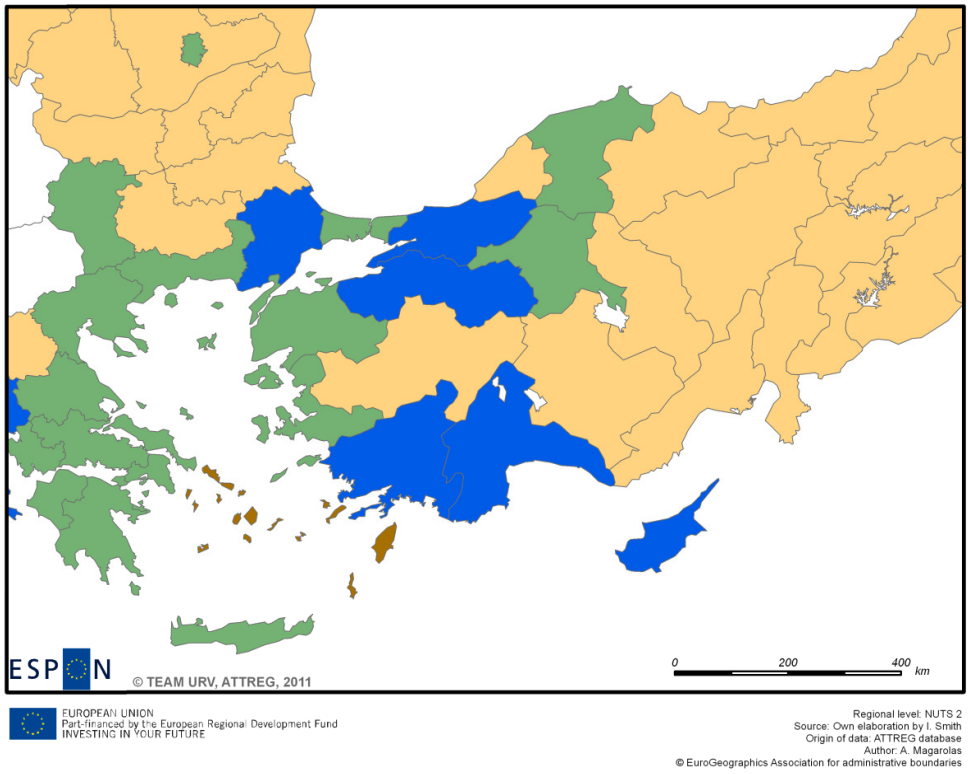


Figure 1: ATTREG Regional typology based on different types of flow rates

On the other hand, Turkey is a main generator of net migratory flows to the rest of Europe. Thus, the role of the city as "migration gateway" is a central one not only for the development outlooks of the city, but also for the territorial development of the whole European Union.

Obviously the importance of studying these phenomena is exacerbated by Istanbul's proximity with the EU border and by the status of Turkey as Candidate Country to join the European Union. If that should happen, Istanbul will be largest metropolitan area in the EU, and at the same time the poorer, with a per capita GNP (in 2008) that is only 10% of that of London Greater Metropolitan area or 12% of Paris', the two largest metropolitan areas after Istanbul.

In this case study we will especially focus on its proactive strategy and current situation of attracting foreign investments and companies, looking for factors that may explain the performance of Istanbul in terms of flows attracted, and define Istanbul's emerging role as a global hub for the Eastern European region, both in economic and in cultural terms. This case also addresses the issue of the future. How is Turkey capitalizing on having positioned itself as a

strategically located economic hub within the east and the west, focusing on travel passengers' movements with different motivations or reasons and attractiveness for business?

Given the aims and the focus of this case study, we have identified three sets of research questions. The first group relate to the results of the analysis conducted in previous parts of the ATTREG project.

- Is the classification of Istanbul according to the typologies elaborated by ATTREG a meaningful one for stakeholders in Istanbul? Can they relate the situation of the city in the past decade with the territorial trends that these typologies describe?
- Are there any differences between objective indicators and determinants of attractiveness, and subjective perceptions of different groups on such determinants?

The following more specific second group of questions are related to the question of the attractiveness of Istanbul for FDIs and being a regional hub for migration flows:

- What are the interactions and trade-offs between different forms of attractiveness vis-à-vis different populations attracted into the city, such as unskilled migrants, skilled international workers, and tourists?
- What are the main factors that explain the attraction of foreign investors and labor to Istanbul? Do they relate with "territorial capital" dimensions as identified by ATTREG or do they relate to other, unexplored dimensions?
- What are the factors that explain the attraction of travelers and tourists to Istanbul? Are they related in positive or negative ways with the factors that make the city attractive for foreign skilled workers and other migration groups?
- Are there any selective strategies to attract specific types of resident or visitors? Which stakeholders or coalitions of stakeholders are enforcing these strategies?
- What might the characteristics of specific successful mobilization strategies be?

Finally, a third group of research questions look into the future and relate to expectations and scenarios of development in the next years:

- What are the expectations concerning the future development of Istanbul's attractiveness, considering possible economic, political, environmental, demographic and socio-cultural changes? (being a hub and/or destination for visitors and business)
- Would structural changes be a challenge for attracting skilled labor?
- Can Istanbul strengthen its position as a hub in the Euro-Asia region? What would membership to the UE imply for Istanbul's outlooks?

1.2 Research methodology and structure of the report

The research methodology of this case study consists of two steps. First, we perform a critical assessment of the situation of Istanbul in terms of attractiveness, using data and typologies from previous ATTREG research steps (and other information). At this stage we also conduct a review of policy documents concerning Istanbul's spatial and economic development. On this basis, we develop an in-depth profile of Istanbul as an attractive city characterized by an increased capacity to attract specific flows (Chapter 2). Some issues related the topic such as, air traffic (number of flights, passengers etc.), number of tourists and tourism supply, statistics of FDI and tourism and changes are explained by desk research and also by interviews with stakeholders. Thus, Section 2 consists of the data analysis related to the attractiveness of Istanbul in terms of the potential of Istanbul's being a regional hub and foreign investments as mobility indicators. The profile of the region is analyzed through the existing position, potentials and obstacles.

In the second part, we address the research questions using qualitative information mostly obtained though face-to face interviews with stakeholders that were identified on the basis of the scope of the study. They include representatives of local and central government, private sector, and NGOs as listed below.

- Istanbul Greater Municipality (Bureau of Istanbul Metropolitan Planning)
- Istanbul Development Agency
- Convention and Visitors Bureau
- Istanbul Chamber of Commerce
- Chamber of City Planners
- Association of Turkish Travel Agencies
- International Investors Association
- National Competitiveness Researches Institution
- DTZ Real Estate Development and Consultancy
- Economy and Strategy Consultancy Services (ESDH)

Hence Section 3 includes a policy review exploring the regional institutional context, vision and strategy and the policies concerning the territorial attractiveness of Istanbul for indicated audiences. General evaluations and final remarks in relation with the research questions are in Section 4.

2 The Attractiveness of Istanbul Metropolitan Region

The interest in Istanbul is on the rise in every area, as the city has shown to be able to adapt rapidly to the changing world conditions. One of these is increased human and financial mobility spurred by globalization, and Istanbul is significantly taking advantage of its main role as a regional mobility node for human and capital flows.

Istanbul has strong assets in order to position itself as tourism and cultural centre, and also as a regional hub between Europe and Asia. Not only it connects Europe and Asia, but also the Black Sea to the Marmara and the Mediterranean seas. It is a centre of economics and trade, bridging historically between different cultures and civilizations. With these qualities, Istanbul has been for centuries the most attractive hub in the Eurasian region.

While the city's millenary historical heritage may explain its attractiveness for tourism, the fact of being ranked among the fastest growing OECD metro-regions (OECD, 2008) is becoming a powerful magnet of different migratory flows.

As we are approaching the migratory issue is strong connection with Istanbul's new function and profile, in this section we first illustrate the development of Istanbul as a destination of foreign investments and a tourism hub, and then we address the issue of migratory flows that are connected to these phenomena.

2.1 Tourism and other forms of temporary mobility: situation and trends

Istanbul as a tourist destination

Due to its business primacy, to the wealth of its historical heritage and of cultural activities, as well as to its unique position bridging two continents, Istanbul has always attracted large numbers of domestic and international visitors. One of the most important indicators of

attractiveness is the dimension and increase of the tourist market, also looking at the business travel segment. In 2010, 7 of the 28 million tourists who visited Turkey touched down in Istanbul (Table 1), maintaining the approximate share of 25% of arrivals over the national figure. Among Europe's main destinations Turkey (2,81%) posted a real growth in arrivals in 2009, despite the overall weak performance of Mediterranean Europe (-3,8%) (WTO, 2010). Turkey grew a further 5% in 2010 (Table 1). There has been much growth in leisure and business arrivals from the Middle East (including Saudi Arabia, Syria and Iran) and in business events in Istanbul (WTO, world tourism barometer, 2010). Despite growing performance of Turkey, Istanbul lost international visitors in 2010. The change between 2009 and 2010 was -7,7%, while -0,3% in London. Growth was -6,3% in 2009, -2,7% in 2008 in London, but 6,52% in 2009, 9,25% in 2008 in Istanbul.

Table 1: Number of visitors to Istanbul and Turkey

	Turkey	*Change%*	Istanbul	*Change%*	*Share%*
2000	10 428 153	*39,27*	2 420 541	*46,66*	*23,21*
2001	11 618 969	*11,42*	2 517 139	*3,99*	*21,66*
2002	13 256 068	*14,01*	2 705 848	*7,49*	*20,41*
2003	14 029 558	*5,83*	3 148 266	*16,35*	*22,44*
2004	17 516 908	*24,85*	3 473 185	*10,32*	*19,82*
2005	21 124 886	*20,59*	4 849 220	*39,61*	*22,95*
2006	19 819 833	*-6,17*	5 346 681	*10,25*	*26,98*
2007	23 340 911	*17,76*	6 453 598	*20,70*	*27,65*
2008	26 336 667	*12,83*	7 050 748	*9,25*	*26,77*
2009	27 077 114	*2,81*	7 510 470	*6,52*	*27,74*
2010	28 632 204	*5,74*	6 928 867	*-7,74*	*24,20*

Source: Ministry of Culture and Tourism statistics

Germans are the first market among international visitors, followed by Russians. According to one of our interviewees, for visitors coming from the East, Istanbul is a place of opportunities, while for Western visitors it is a unique, fascinating and authentic attraction hub and a window to the whole concept of "the East". As all the interviewed stakeholders mentioned, expectations are that the number of visitors will continue to increase, whereby the figures for the occupancy rate and average length of stay are still considered low (Table A in Annex). Average length of stay is 2,1 in Istanbul (Ministry of Culture and Tourism, 2009), compared to 3 in Barcelona, and 4 in Paris and London (tourism statistics of London, Paris, Barcelona, 2009). According to official statistics average occupancy rates of Istanbul (approx. 40%) is also low when comparing with other main European Cities (77,2% in Paris, 74,50% in Barcelona) but according to hotel performance in August 2010, it was 71,8% in Istanbul, while 81,3% in London, 75,1% in Paris, 73,1% in Amsterdam, 67,1% in Berlin, 61,3% in Madrid (STR Global, 2010, UNWTO).

The supply side has followed this trend, having undergone strong modernization in the last decades. Today, besides being one of the largest hotel markets in Turkey with a room capacity of more than 30,000, almost all of which consist of city hotels, Istanbul has also become one of the most successful cities in terms of sector performance, with a ADR (average daily room rate) of €155 in 2009, while in 2010 €155 was maintained as ADR in spite of the increasing room supply. Even though it is the city with the largest hotel stock in Turkey, it still presents opportunities to hotel investors as it continues to attract international attention. Over the last few years, several international chains have opened in Istanbul's European side, and some are now considering the relatively backwards Asian side. Operators of luxury boutique hotels are especially in competition with each other to run a hotel in Istanbul that will reflect the prestige of their brands (Colliers Turkey, 2010).

Euromonitor International's Top City Destinations Ranking, covering 100 of the world's leading and most dynamic cities in terms of international tourist arrivals, ranked Istanbul as the 9th most

visited city in 2009 with 7.5 million arrivals, a 7% increase on 2008 (Table 2). The next year, it ranked 6th, right above Rome, in the list of hotel value per room; in the last seven years it stepped up five positions in this rank, proving the strength of its hotel market (Colliers Turkey, 2010).

Table 2: Top City destination Ranking 2009

City	Rank 2009	Arrivals 2009	Perc. Growth 2008-2009
London	1	14,059	-4.7
Bangkok	2	9,986	-2.2
Singapore	3	9,683	-4.3
Kuala Lumpur	4	9,400	5.2
Antalya	5	8,868	3.5
New York City	6	8,479	-10.7
Dubai	7	7,783	2.6
Paris	8	7,750	-6.9
Istanbul	9	7,543	7.0
Hong Kong	10	7,011	-3.8
Mecca	11	6,985	6.1
Rome	12	5,543	-1.5
Miami	13	5,241	-9.4
Las Vegas	14	4,784	-14.9
Los Angeles	15	4,510	-8.0
Barcelona	16	4,465	-5.3
Cairo	17	4,432	-11
Shanghai	18	4,328	-2.0
Pattaya	19	4,259	-3.3
Dublin	20	4,220	-7.0

Source: Euromonitor International

While Istanbul's image is first and foremost one of an urban and heritage tourism destination, the Congress and Conventions sector (C&C) – an emerging industry of the "mobile" global world - has become one of the most important components of Istanbul's economy, especially in the wake of the very successful European Capital of Culture event of 2010. The progress with the positioning of Istanbul as a C&C destination is impressive: according to ICCA (International Congress and Conventions Association) in 1999 it hosted 23 congresses, 66 in 2007, and 80 in 2009, reaching the 17th place as congress city in the world; in 2010, ICCA already classifies Istanbul as the 7th most popular C&C location in the world, and the 6th in Europe (Table 3), with 109 congresses organized, attracting a total of 46,374 visitors (ICCA 2010, Hurriyet Daily News, July 5 2011).

All stakeholders mentioned that being a European Capital of Culture in 2010 was a very important yardstick for Istanbul, and an opportunity not only to promote the city, but also to attract investments to the amelioration of its infrastructure. In particular, the activities and projects that were realized by the Istanbul 2010 European Capital of Culture Agency (450 projects with an international character) brought about a structural change in the vision of Istanbul for the future. Mostly, they were directed at protecting and restoring the city's cultural heritage, but also included cultural-artistic activities, initiatives to strengthen the tourism economy and campaigns to promote Istanbul's image. The impact of the Agency's activity will become clearer in the future. As a positive direct impact of the mere nomination the Municipality of Istanbul (in co-operation with civil organizations and some entities of the central governments) started several projects to increase the capacities of hotels, museums and other cultural amenities. Pro-

active marketing and communication campaigns were implemented, aiming at attracting a larger number of events and festivals to the city of Istanbul (OECD, 2008). The common opinion is that Turkey's position as a bridge between the East and West and the fact that it has the sensibilities of both worlds is a great advantage for Istanbul. In the same way, Istanbul offers quality service and adequate infrastructure for every segment of tourism.

Table 3: ICCA country and city ranking measured by number of meetings organised in 2010

2007			2010		
Rank	**City**	**N. meetings**	**Rank**	**City**	**N. meetings**
1	Vienna	154	1	Vienna	154
2	Berlin	123	2	Barcelona	148
3	Singapore	120	3	Paris	147
4	Paris	115	4	Berlin	138
5	Barcelona	106	5	Singapore	136
6	Budapest	90	6	Madrid	114
	Lisbon	90	7	Istanbul	109
8	Beijing	87	8	Lisbon	106
9	Amsterdam	82	9	Amsterdam	104
10	Madrid	77	10	Sydney	102
11	Copenhagen	76	11	Taipei	99
12	Prague	72	12	Beijing	98
	Hong Kong	72		Bounes Aires	98
14	Seoul	70	14	London	97
	Stockholm	70	15	Copenhagen	92
	Bangkok	70	16	Seoul	91
17	London	69	17	Stockholm	89
18	Taipei	67	18	Budapest	87
19	Kuala Lumpur	66	19	Prague	85
	Istanbul	66	20	Hong Kong	82
	Brussels	66			

Source: ICCA, 2010

In the past, the city of Istanbul has been relatively passive in marketing itself to the international community, something that could be achieved through a more pro-active media exchange program. Currently this lackluster marketing strategy has been changing with private initiatives (i.e., construction of Formula 1 Istanbul Racing Circuit, increasing the number of private museums such as Istanbul Museum of Modern Arts (Istanbul Modern), Sabancı and Pera Museums, preparation for European Cultural Capital). The metropolitan government has recently initiated more pro-active marketing and communication strategy with support from private initiatives (OECD, 2008).

Istanbul as a regional mobility hub

For both the local and foreign business worlds, Istanbul provides access to every corner of Turkey and the region; from Istanbul, everybody can reach 900 million people with one three-hour flight.

A significant indicator of centrality in mobility flows is transit passengers. Istanbul and its Istanbul Atatürk Airport have come to the fore as vital transit points. For example, 66% of transit-passenger traffic passes through the European-Asian corridor and Istanbul is positioned at the centre of this corridor. The destination of 1,017 travel routes out of a total of 4,080 destinations (and only ranking second to Cairo in this sense), Istanbul is arguably the most advantageous transfer point between the 8 "hub" cities in Europe, Africa and the Middle East (Madrid, Frankfurt, Amsterdam, London, Paris, Cairo, Dubai, and Istanbul) and for 51 million people making one-way journeys.

The Istanbul Ataturk Airport, with a total passenger traffic of 32 million for the year 2010 (around 20 million of which in international lines – see Tables 4, 5), is among the top 40 airports in the world in terms of total passenger traffic and the 16th busiest in the world in terms of international passenger traffic. It was Europe's 8th busiest airport in 2010 (ACI, 2010). The total number of passengers has doubled in the past five years, and domestic traffic has almost quadrupled. Istanbul Ataturk Airport is also handling over 947,000 tons of load (cargo, freight and mail).

The total capacity of Istanbul's air accessibility system also involves its second airport, Sabiha Gokcen International Airport, which is on the Anatolian (Asian) side of Istanbul, and had an annual passenger traffic of 11.1 million (3.7 million in international lines) in 2010 (Table 5). The total number of passengers in international lines for both airports is shown in Figure 2.

Table 4: Air traffic in Istanbul airports

	Istanbul Ataturk Airport				Istanbul Sabiha Gökçen Airport			
	2007	**2008***	**2009***	**2010***	**2007**	**2008**	**2009**	**2010**
Total number of aircrafts in international lines	146128	161972	175701	183584	15944	19132	23065	41272
Total passengers in international lines	13600306	17069069	18363739	20344620	1191946	1516337	2006591	3700199
Total Cargo and Commercial Flights in international lines	142488	155390	169943	178862	-	-	22975	36770

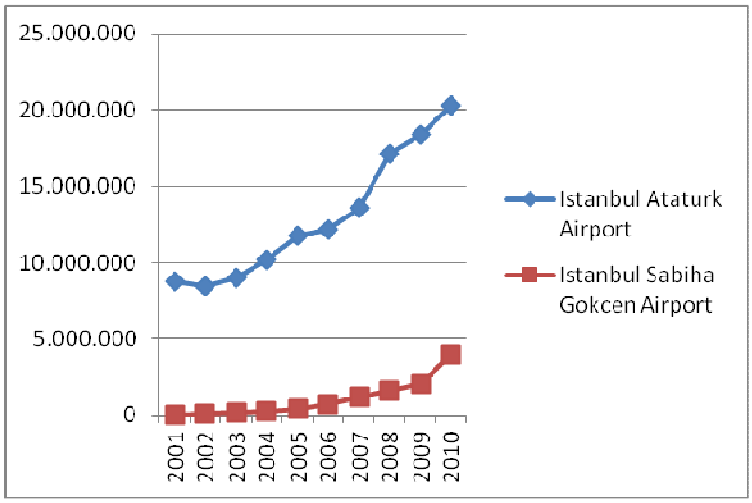
Source: General Directorate of State Airports Authority
*after 2008 transit passengers are included

Table 5: Istanbul Ataturk Airport Passenger Traffic Statistics

Year	Domestic	Perc. change	International	Perc. change	Total	Perc. change
2010	11.800.999	3.0	20.344.620	11.0	32.145.619	8.0
2009	11.393.645	0.8	18.363.739	7.6	29.757.384	4.2
2008	11.484.063	19.7	17.069.069	25.5	28.553.132	23.1
2007	9.595.923	5.5	13.600.306	11.7	23.196.229	9.1
2006	9.091.693	21.0	12.174.281	3.3	21.265.974	10.2
2005	7.512.282	38.3	11.781.487	15.9	19.293.769	23.7
2004	5.430.925	69.9	10.169.676	14.2	15.600.601	28.9
2003	3.196.045	12.1	8.908.268	4.7	12.104.342	6.6
2002	2.851.487		8.506.204		11.357.691	

Source: General Directorate of State Airports Authority

Turkish Airlines has played an important part in transforming Istanbul into a hub in the last five years, having focused on transit passengers. In 2009, Turkish Airlines carried 2.1 million transit passengers out of a total of 25 million passengers; this figure increased to 29.1 million in 2010. It is expected that this figure will reach 34 million in 2011 (TA, 2010). Turkish Airlines operates scheduled services to 146 international and 41 domestic cities serving a total of 187 airports, in Europe, Asia, Africa, and the Americas. In 2006, 2007, 2008, 2009 and 2010 Turkish Airlines (THY) carried 17 million, 19.7 million, 22.5 million, 25.1 million and 29 million passengers (TA, 2010).



Source: General Directorate of State Airports Authority

Figure 2: Total number of passengers in international lines

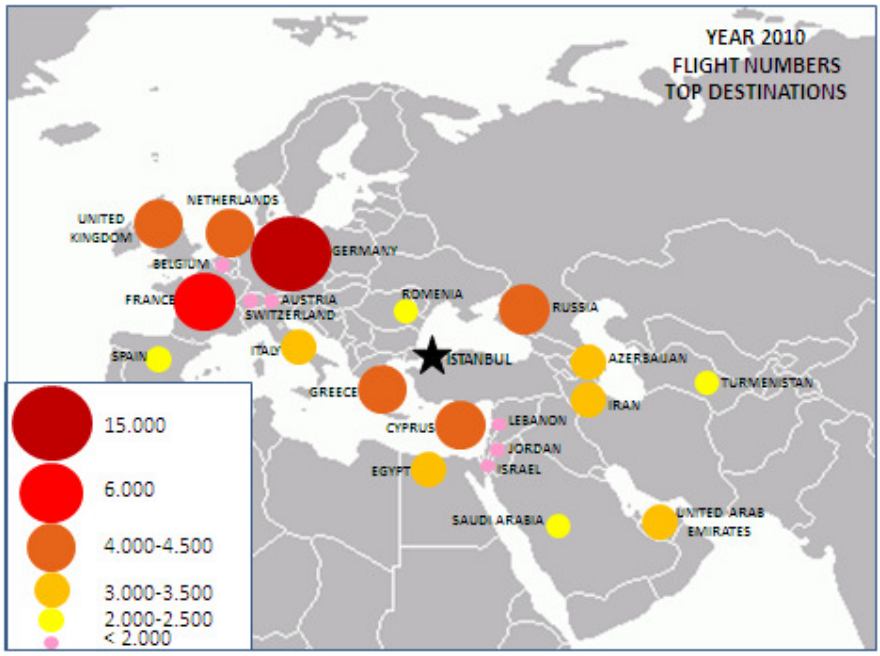
Other 92 companies operate flights from Istanbul to different destinations. The busiest route from Istanbul is Germany (Table 6, Figure 3). There are direct flights to 83 countries to different cities from Istanbul Ataturk Airport, 35 direct flights to 35 countries from Sabiha Gokcen Airport (Airport Official Reports).

Table 6: Busiest International Routes from Ataturk Airport (2010)

rank	city
1	Frankfurt, Germany
2	Amsterdam, Netherlands
3	London, Heathrow
4	Rome, Italy
5	New York, JFK
6	Dubai, UAE
7	Madrid, Spain
8	Paris, France
9	Munich, Germany
10	Seoul, Incheon

Source: TAV, 2010

Istanbul's rising position as a destination and a mobility hub suggest that Istanbul is going to become one of the main gateways from Europe to the east. Most of our interviewees claim that Istanbul is already a natural hub. National and local authorities planned to attract more than 10 million foreign visitors to Istanbul in 2010, and up to 20 million in 2023 (IMM, 2007). Some of the interviewees mentioned that the new project of establishing in the city the new "Istanbul International Finance Centre", Istanbul will be transformed not only into a city that competes with other hub cities in the financial sector, but also into a city that is competitive in the international transit-trade sector. It was underlined that many of the transit-trade companies which operate in Dubai express their interest in transferring their centres of operation to Istanbul.



Source: TAV, 2010

Figure 3: Number of flights from Istanbul in terms of volume

The goal to strengthen tourism as part as the regional hub strategy has been explicitly stated in some strategic documents. For instance, Istanbul's Expert Commission Report within the 8th Five-Year Development Plan (published by the State Planning Organization in 2000), and the Istanbul 2023 Vision and Strategic Action Plan (published by the Istanbul Metropolitan Municipality) articulate the municipal level efforts to link the city's urban heritage, culture, tourism and urban developing strategies.

The investments in transportation infrastructure will also contribute the competitiveness of the region in attracting the visitors and foreign investment. A third airport is being planned at 40 km west of Istanbul, in order to meet Istanbul's growing domestic and international air traffic demand as a source, destination and transit point, beside Ataturk and Sabiha Gokcen Airport.

The multi-modal Pan-European Transport Corridor 4 connects Germany, Czech Republic, Austria, Slovakia, Hungary, Romania, Bulgaria, Greece and Turkey. Running from Dresden/Nurnberg this multi-modal corridor assures a Northwest–Southeast transport link, which, with the realization of Istanbul Bosphorus Tube Tunnel Project, will connect Europe to Asia not only by road but also by rail. The transport corridor TRACECA starts in the Eastern Europe (Bulgaria, Romania, and Ukraine) and also crosses Turkey. Other routes connect Istanbul across the Black Sea to the ports of Poti and in Georgia, and goes on using transport network of the Southern Caucasus; and by land towards this same region from Turkey.

2.2 Foreign investments: situation and trends

Although compared to other European regions foreign capital and investment are underrepresented in Istanbul, economic growth and the stability of Turkey in the last decade made of Istanbul the most developed region and the most attractive for foreign capital not only in Turkey but also in a wider regional context, with a notable effect on the attraction of human flows into the city.

In the 2008 Global Cities Index (which ranks the cities according to 24 metrics across five dimensions) Istanbul ranked 28th of 60 cities, the 8th in the dimension of 'political engagement' and the 13th for 'human capital' (Global Cities Index, 2008). In the European Cities Monitor, bases on interviews with board directors and senior management in charge of location for the 500 largest companies in Europe, Istanbul is ranked as 26th city for locating a business within 36 European cities of Europe, and the 3rd city for companies looking to expand in the next 5 years. In terms of "easy access to markets, customers or clients" (the top factor for companies deciding where to locate), Istanbul moves up to the 17th from the 23rd in one year. In terms of the quality of telecommunications, it is ranked 36th, and 34th from the point of the quality of life for employees (European Cities Monitor, 2010).

In the "Emerging Trends in Real Estate Europe, 2011" published by PwC and Urban Land Institute, based on the opinions of 600 industry experts, Istanbul ranked as the first place in Europe for 'City Investment Opportunities: New Property Acquisitions' and the second best place in terms of existing property performance, affordable property prices, cheap living costs and decent rental yields, all contributing towards the city's investment potential. Indeed, despite being the economic and cultural hub of Turkey, Istanbul was voted only the 37th most expensive city in the world in a recent survey.

In the urban competitiveness index of Turkey created by the National Competitiveness Research Association by using 4 sub-index (human capital and quality of life; innovation and branding capability; accessibility; commercial ability and production potential) in 2010, Istanbul is ranked as the first city in Turkey, but only the second in terms of human capital and quality of life (URAK, 2010).

With the gradual elimination of the effects of the global financial crisis, Turkey has continued its great leap forward. In the first quarter of 2011, Turkey is the most rapidly growing country in the world, with an 11% growth rate of its economy. In addition to this, all the other macro-economic indicators put both Turkey and Istanbul forward as very secure places for investment. Consequently, Istanbul continues to attract the attention of foreign investors for its business and employment opportunities.

The attractiveness of Istanbul for foreign direct investment can be summarized in the following features:

- *A unique geographic location* at the intersection of Europe and Asia. While being the milestone of the national economy, it has also become the "centre of the large hinterland formed by the countries bordering the Balkans, Caucasia, Turkic Republics, Middle East and the Black Sea" (Berkoz and Eyüboğlu, 2007). The role of the city as financial centre of the country and its economic and politic stability are also attractive factors. As one of the stakeholders emphasized, "one of the most important reasons for which Istanbul is a centre of attraction is the increasing role and power of Turkey in international politics and the world economy. In the last 10 years the Turkish economy has undergone a wide-reaching transformation, reaching a performance that has dazzled the entire world."
- *A very good accessibility.* The two international airports make the city accessible from West and East within a short time.
- *The availability of highly skilled labor*. Turkey hosts 166 universities and 42 of them are located in Istanbul, as 6 of the 40 Turkish Technology Parks, which contribute R&D and transfer functions.

Thus, between 1995 and 2006, Turkey received the largest share (28.27%) of foreign investment in Southeastern Europe (Table 7, based on Serin & Çalışkan, 2010).

Table 7: Annual Average FDI Inflows in Balkans, Europe and the World

Countries	Average FDI (1995-2006) Million USD $	Share in Balkans (%)	Share in Europe (%)	Share in the World (%)
Albania	157	1.21	0.04	0.02
Bosnia and Herzegovina	263	2.02	0.07	0.03
Bulgaria	1,813	13.93	0.51	0.23
Croatia	1,306	10.03	0.37	0.16
Greece	1,319	10.13	0.37	0.17
Macedonia, TFYR	171	1,31	0.05	0.02
Romania	2,899	22.27	0.81	0.37
Serbia and Montenegro	951	7.31	0.27	0.12
Slovenia	458	3.52	0.13	0.06
Turkey	3,680	28.27	1.03	0.46
Balkans	13,017	100	3.65	1.64
Europe	356,878			45.04
World	792,303			100

Source: Serin & Çalışkan, 2010

The metropolitan region of Istanbul attracts the highest share of foreign investments in Turkey due to the size and characteristics of its economy. According to the records of Under-Secretariat of Treasury, a total of 27,344 companies with international capital were operating in Turkey by April 2011; looking now at the investment locations, it turns out that 15,236 of these companies, the 55.7%, are in Istanbul (Table 8).

Table 8: Breakdown of companies with international capital by investment location (1954-2007/2009/2011 April)

City	Number of Companies (1954- 2007)	Number of Companies (1954- 2009)	Number of Companies (1954- 2011/April)
ISTANBUL	10053	13001	15236
ANTALYA	2283	2976	3334
ANKARA	1224	1567	1782
MUĞLA	1123	1391	1580
IZMIR	1120	1333	1389
BURSA	372	483	543
AYDIN	330	419	473
MERSIN	325	397	463
KOCAELI	218	290	327
ADANA	142	176	199
Other Cities	1118	1518	2018
Total	18308	23551	27344

Source: Under secretariat of Treasury

In Istanbul the majority of companies with international capital is in the wholesale and retail trade sectors (5,446 firms), but they also operate in manufacturing (2,646), real estate renting and other business activities (2,294 firms).

In 2010, 3,044 foreign investors registered newly established companies at the Istanbul Chamber of Commerce, with a capital totalling 823.3 million Turkish Liras (395.8 million Euro) (Table 9).

The foreign capital flowing to Istanbul in 2010 was mostly interested in the informatics and electronics sector; the capital of foreign companies set up in this area reached nearly € 122 million with a number of 450 foreign investors. This was followed by consultancy services (€ 122 million), construction (€ 37 million) and banking-insurance (€ 34 million) (ICOC,2010).

The top four foreign nations to establish companies in Istanbul were Spain with a € 75 million foreign capital, Holland (€ 71 million), United Kingdom (€ 31 million) and Iran (€ 30 million) in 2010. On the other hand 20.89% of the foreign investors were from Iran, while 10.97 % were from Germany with a foreign capital of € 13 million (ICOC, 2010).

Table 9: Newly registered foreign investors and foreign capital in Istanbul (2010)

COUNTRIES	N. OF FOREIGN INVESTORS	FOREIGN CAPITAL (€)	Share in total	
			Foreign investors %	Foreign Capital %
SPAIN	41	75.375.022	1,3	19,04
HOLLAND	106	71.082.519	3,4	17,96
UNITED KINGDOM	11	31.115.06	0,3	7,86
IRAN	636	30.785.25	20,8	7,78
SAINT KITTS and NEVIS	7	23.304.56	0,2	5,89
AZERBAIJAN	178	23.052.06	5,8	5,82
US	107	14.156.97	3,5	3,58
GERMANY	334	13.414.07	10,9	3,39
CZECH REPUBLIC	19	11.816.87	0,6	2,99
ENGLAND	97	11.280.28	3,1	2,85
SWEDEN	22	7.673.617	0,7	1,94
UNITED ARAB EMIRATES	34	6.409.063	1,1	1,62
MALTA	3	6.384.326	0,1	1,61
LUXEMBOURG	21	6.064.192	0,6	1,53
Other	1.428	63.928.650	46,9	16,95
TOTAL	3.044	395.842.54	100	100

Source: ICOC (Istanbul Chamber of Commerce)

The total value of capital investments made by foreign investors in Istanbul was down 29.36% in 2009 over the previous year, while the number of foreign investors dropped by 13.91%. In 2008 and 2009 the effects of the global crisis hampered foreign investments all over the world. However, foreign capital inflow experienced a comeback in the second half as the worst effects of the global crisis started to ease (ICOC, 2009). While the number of investors in the finance sector is lower than the investors in other sectors, it has the 4th highest share in total capital (ICOC,2010). It is also possible to expect that the realization of the Istanbul International Financial Centre, which is a project included in the Ninth Development Plan covering 2007-2013, and accorded top priority and importance by Turkish Government, will cause increase in both values.

The overall performance of Turkey in international investment indices produced by leading international institutions since 2006 is presented below (Table 10) (Under-secretariat of Treasury, 2011).

Thus, Istanbul is arguably the leading city of Turkey and also it is moving up in Europe, but its attractiveness is nevertheless still hampered by various factors.

According to a survey carried out by ICA (Investment Climate Assessment), company-level data were collected from 1,152 companies from Turkey during January 2008-April 2009. In the report, access to finance (26%), tax rates (18%), political instabilities (18%), informal sector practices (14%) and inadequacy of educated labour force (9%) were identified as the basic investment climate obstacles. While tax rates were defined as the most problematic issue on the investment environment by the companies in 2005, the significance ranking of this issue deteriorated in 2008. The ratio of the companies that perceive tax rates as an obstacle reduced to 50% in 2008 from 81% in 2005. Informal sector practices are also perceived as a significant investment environment obstacle. In this context, the ratio of the companies that perceive informal sector

practices as an obstacle increased to 52% in 2008 from 42% in 2005. Moreover, 32% of the companies of all sectors declared that competing with informal companies is a serious obstacle. The companies that perceive the education and skill levels of labor force as a significant constraint declined to 25 % in 2008 from %33 in 2005 (Under-Secretariat of Treasury, 2010).

Table 10: Ranking of Turkey in Investment Indices: Six Years Perspective

Name of Index/ International Institution	Ranking/ N. of countries 2006	Ranking/ N. of countries 2007	Ranking/ N. of countries 2008	Ranking/ N. of countries 2009	Ranking/ N. of countries 2010	Ranking/ N. of countries 2011	Change (2006-10)
Ease of Doing Business/World Bank	84/155	65/175	60/178	63/181	60/183	65/183	19
Economic Freedom Index/ Heritage Foundation	92/157	90/157	81/157	75/179	67/180	67/179	25
Best Countries to do Business Index /Forbes	61/135	48/144	41/121	41/127	46/128	-	15
Corruption perception Index/ Transparency International	60/163	64/180	58/180	61/180	56/178	-	4

Source: Undersecretariat of Treasury, 2011

2.3 Migrant population: situation and trends

İçduygu and Sert (2009) indicate that Turkey has been attracting an increasing number of immigrants from Western Europe. A growing number of EU member-state citizens, professionals as well as retirees, have been settling in Turkey in recent years, particularly in Istanbul and some of the Mediterranean resorts.

Yet, this trend should be considered in a longer time horizon. In general, transition to democracy and the liberalization of the economy after 1980, as well as the overall impact of the globalization process, made Turkey a more attractive destination for immigrants. By the mid-1980s, Turkey had become an attractive holiday destination for Western European tourists who later chose to come back for longer periods. The start of accession negotiations with the EU has made a further impact in making Turkey an acceptable choice for long-term residence among EU nationals. In addition to being a country of origin and transit, Turkey has thus become also a country of destination for a considerable number of foreign nationals with different profiles, through both regular and irregular channels (İçduygu & Sert, 2009)

According to the Population Census of 1985, foreign population in Turkey was nearly 410,000. In 1985, 70% of the total immigrant population was from West Germany and about 150,000 (37%) of the immigrants were mainly located in Istanbul, Ankara and Izmir (Table B in Annex). In the population census of 1990, while 42.95% of the immigrant population was from Bulgaria, 21.25% was from West Germany. In 1989, because of the obligatory migration, thousands of Bulgarian Turks had to move to Turkey. The population of the immigrants decreased to 235,000 in 2000. 31.5% of immigrated population was from Germany, 11.7% was from Bulgaria and 5.9% was from Turkish Republic of North Cyprus (Table 3). Istanbul as the biggest city of the country has received 23% of total migration whereas Izmir, Bursa and Ankara have 8% of total migration (Baycan Levent et al., 2008).

Table 11: Foreign population in Istanbul and Turkey

	Foreign Population				Total Population			
	2007	2008	2009	2010	2007	2008	2009	2010
TURKEY	98064	104441	167344	190531	70586256	71517100	72561312	73722988
ISTANBUL	42228	43516	47826	52901	12573836	12697164	12915158	13255685

Source: TURKSTAT

According to address based population registration system the number of foreigners living in Istanbul is given in Table 11. Even though the number of immigrants is increasing every year its share in total number of foreigners in Turkey is decreasing. On the other hand, the figures might be not reflecting the real foreign population, since foreigners are not obliged to register at municipalities where the population data is compiled from.

The recent development of Istanbul as a destination of foreign investments means that new foreign companies are establishing in the city and go on the local market for high number of skilled workers; some of these workers are actually attracted from other countries. It is a small number in total but one that makes a significant change in the direction and composition of the migratory flows mobilized by Turkey, as well as on the "atmosphere" of the city and its social fabric.

Though quantitative data on this flow are not available, clues from more general data and research, as well as qualitative information from interviews, could be used to make an assessment in this sense. In 2006, according to the figures provided by the Directorate of General Security, there were over 187,000 foreigners residing in Turkey with residence permits (Table 12). While 18% of them were people with work permits and 13% were students, the rest were mostly families of working and studying foreigners (İçduygu & Sert, 2009).

Table 12: Ten main countries of origin of foreigners in Turkey with residence permits, 2006

Country	Residence Permits	Work Permits	Student Permits	Total
Bulgaria	47,746	495	3,276	51,517
Azerbaijan	7,963	902	2,014	10,879
Germany	7,351	1,532	269	9,152
United Kingdom	5,388	1,656	185	7,229
Russian Federation	4,787	1,562	834	7,183
USA	3,829	2,157	395	6,381
Greece	3,787	326	2,078	6,191
Iraq	4,800	604	523	5,927
Iran	4,193	877	766	5,836
Moldova	4,157	262	255	4,674

Source: (İçduygu & Sert, 2009) and Bureau for Foreigners, Borders and Asylum of the Directorate of General Security of the Ministry of Interior.

Some of our interviewees also emphasized that foreign firms and investments are attracting a number of foreign population, but not as high as it may be expected because of the availability of high skilled labor in Istanbul and also due to the barrier represented by the long process of obtaining a work permit.

The average length of stay for foreigners who come to Turkey to work varies from three to five years. Among the reasons of foreigners for choosing Istanbul, interviewees mention the availability of foreign schools and the fact that there are good transportation links to their home country. There is also a far from negligible number of retirees who came to Turkey for a holiday and extended their stay by becoming homeowners on the country's southern coasts. According

to the 2007 census, foreign nationals living in Turkey account for 14 per 1,000 of the country's population. Istanbul is the first one as foreigners' city of choice (42,228), followed by Bursa (11,495), Ankara (7,166), İzmir (6,707) and Antalya (6,343) (TURKSTAT, 2007). In 2010 Istanbul continued to be the first destination of foreigners in Turkey with a population of 52,901, followed by Antalya (18,647), Ankara (14764), Bursa (14,703) and Izmir (11,420).

The increasing cosmopolitism of Istanbul can also be associated to its increased popularity as a location for creative people and foreign students. As it is suggested by various works among which Russo and Van der Borg (2010), the development of a city as a global economic hub and a tourist destination is today closely linked to its performance as a cultural centre: cities that become "fashionable" creative hubs also on account to the market strength provided by urban tourism, have more chances to transfer creativity and innovation capacity to the mainstream economic sectors and attract foreign skilled workers and firms in a virtuous cycle of culture-oriented economic development.

Thus, Istanbul had around 295,000 creative professionals[2] in the 2005-2008 period (a 10% increase on 2001-2004), or the 6,8% of its active population, and it received 550 exchange students in its universities in 2008 (they were 150 in 2004). On the other hand the number of foreign students studying at universities in Istanbul in 2005 was 4875 (16059 in Turkey) showed an increase to 7547 in 2010 (OSYM). More in general, narrations of Istanbul's burgeoning cultural life relate of numberless openings of galleries, theatres, cafés in the last decade, contributing to what Richard Florida considers in his work an ambience that triggers the attraction of high skilled professionals and in general a good climate for the location of international firm and the breeding of innovation.

Table 13: Cultural facilities in Istanbul

N. of museums	N. of public art galleries	N. of halls[1]	N. of cultural centres	N. of festivals[2]	N. of art galleries	Number of event places/halls
78	14	143	92	136	172	254[3]

[1] theatre, opera, concert halls and stages of cultural and convention centres, [2] visual arts, music, film, [3] festival and exhibition places

Source: inventory of Istanbul cultural heritage and culture economy, 2010

2.4 Spatial relations

Though the foreign population choose both European and Asian sides of Istanbul to live, there tend to be higher concentrations of foreign families in the neighbourhoods located at the European side of Bosphorus, like Bebek, Arnavutkoy, Emirgan, Istinye, Yenikoy (all located in the of Besiktas and Sariyer districts). Etiler, Levent, Ulus (Besiktas) are also preferred neighborhoods owing to their good access to shopping malls, schools and major roads, but have waterfront views as well. Especially young and high skilled labors tend to live in Cihangir and Galata, neighborhoods of the Beyoglu district, hosting many cultural activities (Figure 4).

However, to some extent, the location of professionals and immigrants in the city is also depending from the location of firms, as the chaotic character of the city's traffic prevents to a large extent the movement of people from one side to the other of the city. Thus, Berköz and Eyüboğlu (2007) divide Istanbul into 3 zones, in their study focusing on the location of FDI firms in Istanbul. Eminonu and Beyoglu – the old CBD, with a radius of 3 km at the core of the city – as the first zone; the districts of Beşiktaş, Eyüp, Fatih, Kadıköy, Şişli, Üsküdar and Zeytinburnu, within a 12 km radius, as the second zone; the area beyond the second zone constitutes the third zone.

[2] From the creative workforce database, author A. Russo, ESPON DB 2013.

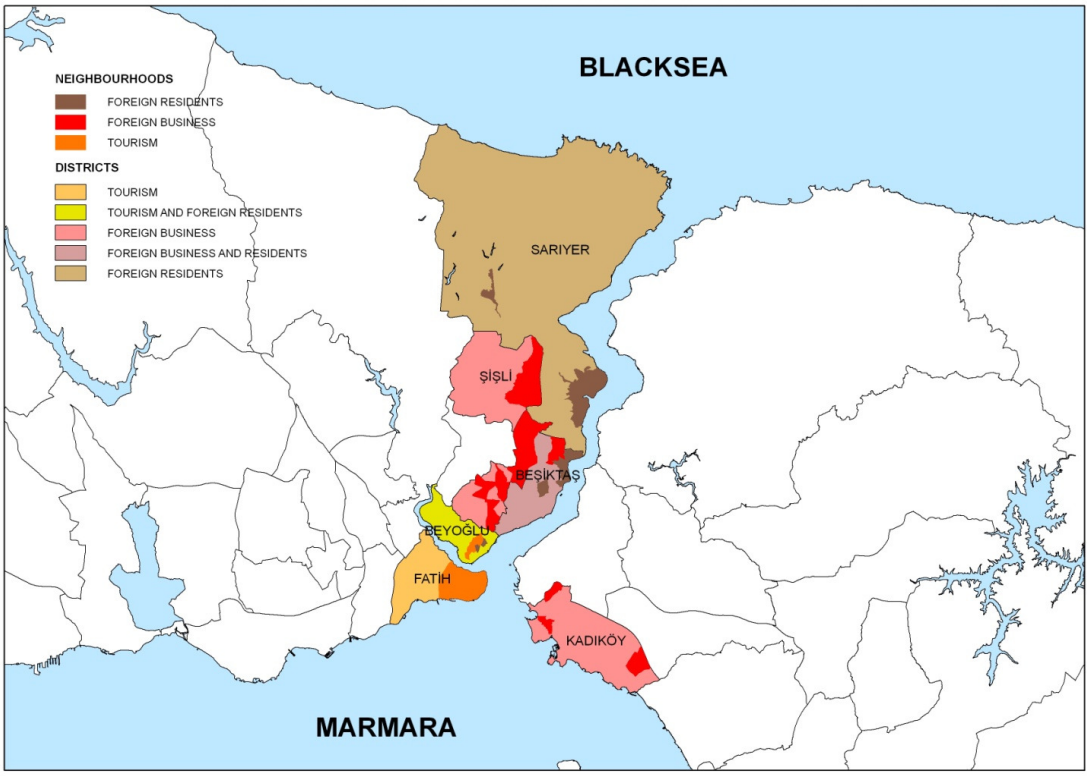


Figure 4: The concentration of foreign business, tourism and foreign residents by neighbourhoods and districts

"Of all FDI firms with a foreign investment rate of 1–50%, 44.5% of the total capital is located in the core zone, 52.69% of the capital in the second, and 2.78% of the capital are in the third. With 227 firms and 25.34% of the total capital, Besiktas, and, with 426 firms and 20.59% of the total capital, Şişli are the districts in the second zone where firms with a foreign investment share of 1–50% are concentrated. The non-core CBD includes the districts in the second zone, creating a new Istanbul CBD. This new Istanbul CBD in the Zone 2 has acquired such an important role in Turkey's national income that the districts of Şişli, Beşiktas, and Kadıköy in this zone rank third among the country's 50 largest districts, producing 46.5% of the national income" (Berköz and Eyüboğlu, 2007).

In the findings of another research (Yılmaz, 2010), it is observed that most of the FDI tend to locate in Esentepe, Fulya, Halaskargazi,Harbiye, Maslak, Mecidiyeköy, Meşrutiyet, Merkez, the neighbourhoods of Şişli district and in Koşuyolu, Kozyatağı and Osmanaga in Kadikoy districts, as shown in Figure 4.

These considerations seem to suggest that there is a certain polarization of the wealthiest population of the city in certain areas, with the traditional division between the Asian side, known as residential part of the city for a long time, and the European side as the center of administration, business and cultural functions, which could be further accentuated by potential strengthening of the presence of international firms and professionals in the next years. Face to these trends, there have been attempts to reinforce the poly-centric nature of the urban system and its spatial diversity. For the moment, the distribution of attractiveness hints at spatial inequalities rather than spatial diversity, with different 'Istanbuls' take shape within the metropolitan city: the Historical Peninsula including Sultanahmet, Eminonu, Grand Bazaar and Spice Bazaar are the main attraction areas for the tourists, while Tünel, Karaköy, the Bosphorus, Taksim, Beyoğlu and Istiklal street are main centers of entertainment. On the other hand, Levent

and Maslak as the neighborhoods of the districts of Besiktas and Sisli are the main centers for new developments of business (CBD).

In this regard, and on account of the factors mentioned earlier, Istanbul thus faces challenges that could haphazard its ambition to become a Eurasian hub for finance, logistics, culture and tourism, as well as its development in general. Its economy is changing from being driven by labor-intensive activities to knowledge-based sectors, while traditional and labor-intensive sectors (e.g. textiles and its supply chain) are shifting only gradually and slowly to other complementary industry segments. Constraints on human capital development and the informal sector have hindered productivity levels and increased income disparities. However, the skilled labor pool is the one of the strengths of Istanbul in relation to the national average (OECD, 2008). The increase in population is becoming a burden to Istanbul's transport, public infrastructure and housing, as well as on earthquake risk management. The scale and variety of these challenges necessitates improving local public management and implementing a national strategy to reduce regional disparities and to limit migration flows towards the megalopolis (OECD, 2008).

Most of the stakeholders agree that Istanbul is a city on the rise, but it still ranks low in terms of quality of life. Insufficient transport infrastructure within the city, traffic congestion, high population density, problems of integrating immigrants into society, earthquake risk are the factors effecting attractiveness of Istanbul negatively.

On the other hand, it is possible to say that if the right steps are taken in solving these problems with the collaboration of local and central government, and also through the efforts of the investment support agencies, the initiatives of private sector, and the ongoing legal arrangements for improving investment environment, Istanbul might have a better position in the global scale in future.

3 Policy review

3.1 Institutional context

In Turkey, the most important administrative units at regional level are the Provinces (NUTS3). The 26 NUTS2 regions that were established in 2002 due to the adjustment requested by European institutions to provide comparable statistical data, these larger regional delimitations do not have political autonomy. They were used as regional delimitation for establishing Regional Development Agencies. Within the context of NUTS regions, Istanbul is one of the provinces which is classified at the same time as NUTS1, 2 and 3. As a metropolitan area with a population of 13 million, institutional responsibilities have become challenging. The Greater Municipality (with an elected Mayor), and the Governorship (with an appointed Governor) are the responsible institutions for the local and the central government. Before 2004, the Greater Municipality was responsible for the planning or 1830.92 km², then extended to 5315.33 km² and covering the whole provincial area. Though this extension solved the problem of the ambiguous planning responsibilities in this region, it still fails to represent the real functional metropolitan area.

Moreover, in spite of the local authority's powers over the Istanbul Metropolitan Area, the influence of the central government on planning are still very strong and enforced through autonomous, top-down decisions such as that of building a third bridge over the Bosphorus, or that to moving the Central Bank from Ankara to Istanbul to develop a financial district-centre within the Asian side of Istanbul, without any integration with the Istanbul's master plan. However, several stakeholders pointed out that developing a financial center in Istanbul would increase its competitiveness. İt is also remarkable that several ministries that have competencies in the spatial development of Istanbul. For example, if the Ministry of Culture and Tourism declares that an area within the city is to develop as a tourism centre, the planning authority over that area belongs to the Ministry and the Municipality is not involved in this process at all.

Development Agencies were established in 2006 with the task of preparing a development plan for their regions under the coordination of State Planning Organization. Development Agencies are expected to act as facilitator for the related projects and investments, and to use the EU funds in an efficient way; a main mission is to attract more investors. The Turkish Investment Support and Promotion Agency also works to attract foreign investments by promoting investment opportunities in the country through different activities within Turkey and abroad, in coordination with the Investment Support Bureau of Development Agencies.

The Foreign Investor Association is another significant institutional body in the attraction of foreign investments, while the Chamber of Commerce and the Chamber of Industry assume the responsibility for urban development related to their sectors. The Istanbul Chamber of Commerce is a key agent in the solution of problems as Istanbul's infrastructure, security, tourism capacity and urban development, and collaborates actively with public institutions. Besides, the Convention and Visitors Bureau was established by Istanbul Chamber of Commerce in order to promote especially the congress tourism in Istanbul, while the Tourism Master Plan of Istanbul has recently been conducting by Greater Municipality. For the being international hub (in terms of air-connections), Turkish Airways takes the leading role, while it has a noticeable growth with marketing strategies such as being sponsor of well-known European football teams.

Coordination between public powers and the private sector has greatly increased in the recent years. Entrepreneurs in every sector, but especially real estate developers, have progressively taken a key role in the governance of the city transformation process. With the consequent increase of its attractiveness: for instance, in relation with cultural events, where collaboration between the Ministry of Culture and Tourism, the Greater Municipality authority and several private sector initiatives are fundamental. However the lack of coordination between different institutions has always caused overlaps or lacking points which make all the efforts less efficient.

3.2 Vision and strategy of Istanbul's spatial development

Although the reduction of interregional disparities has been one of the main objectives in Turkish national and regional policy, Istanbul not only keeps its position, but becomes stronger and more attractive as the economic and cultural heart of Turkey as well as the main gateway to the country and a growing regional mobility hub. Considering the uniqueness of Istanbul not only in terms of its population size, but also of its location, history, culture, diversity and economic dynamism, the definition of a vision becomes a very ambitious task.

In recent years, nearly all the most important planning documents of Istanbul (Master Plan of Istanbul, Regional Plan of Istanbul, OECD Territorial Review, and Competitiveness Index of Provinces in Turkey) express a vision to be more competitive in the financial and logistic sectors, as well as in tourism and innovation. Furthermore, the question whether Istanbul might become an economic hub in the Euro-Asia region has affirmed as one of the key questions for the city, as is claimed by the OECD Territorial Review (OECD, 2008). The Master Plan approved by the Greater Municipality in 2009 with a planning horizon spanning to 2023, and the Development Plan prepared by the Istanbul Development Agency in 2010, are the most recent policy documents that affirm those ambitions and set up the conditions to achieve the development objectives.

The vision of the city is defined through a number of objectives: being a global city, a financial, innovation, logistics, culture and tourism centre. The OECD Territorial Review of Istanbul Metropolitan Area expreses a similar vision. In the OECD report, one of the main questions addressed is: "can Istanbul become a hub in the Euro-Asia region?", and then sets on to charaterise the sectors on which such strategy should be articulated, and the potential threats that they face:

"Istanbul does benefit from important assets in these three areas but reforms and strategies are needed:

- *In logistics, Istanbul has a long experience as the node of Turkey's international transportation corridors, processing 60% of the country's total trade volume, more recently strengthened by major transnational transport infrastructure projects, expansion of the modal transport and improved port management systems. It is however crucial to take environmental concerns into account, especially related to over-use of the Strait of Istanbul, and avoid a fast track implementation of specific projects.*
- *Istanbul's historical heritage makes it an attractive tourism destination and its recent nomination as the "2010 European Capital of Culture" has led to a series of renovation, restoration and demolition projects, complemented with financial incentives to increase the capacities of hotel, museums and other cultural amenities. The implementation phase, however, suffers from limited capacity, infrastructure deficiencies, cumbersome administrative procedures and limited access to financial resources. More attention could be put to attract repeat visitors and cultural events, or promote competitive creative industries linked with traditional industries.*
- *In finance, the Istanbul Stock Exchange (ISE) has witnessed a dramatic increase and the banking sector is more experienced than other places in the Euro-Asia region. Weaknesses include a low capitalisation rate and the capital markets being dominated by public securities over stocks. Reforms are needed to reduce high transaction and intermediary costs, and the financial intermediary institutions' high dependency on the stock exchange."*

Two main strategies of Istanbul master plan are defined as "raising the competitiveness and providing sustainability". To conserve its historical and cultural heritage, to preserve natural resources and to develop new activities and enhance the economy diversified are the challenging objectives. On the other hand, the vision of the Development Plan by Development Agency is defined as "A city which protects historical, cultural and natural heritage; enhances economic activities with high-value added; and raises life quality". The main development axes are; global competitiveness, social development, urban life quality, environmental and cultural sustainability, and accessibility. All these themes are significant elements to make the cities "attractive" for different groups. Although the target groups of Istanbul point out heterogeneity rather than homogeneity, it is obvious that Istanbul tries to attract more skilled labour due to the structural changes that we mentioned previous sections.

Moreover, the policy priorities are to make the city more competitive at world level, enhance the level of integration to the global economy, and to be a global attraction hub for tourism. The Foreign Investors Association emphasized in our interview that their mission and responsibility for the forthcoming period is "to enhance the image of Turkey as an attraction centre". Apparently, at this stage the objectives of public and private sector and their respective strategies converge to a large extent, both in what regards the attraction of foreign investors, skilled labour, and tourists, and on the "hub functions" that the city could take up.

The representative of the Istanbul Chamber of Commerce stated "… we plan to attract more than 20 million foreign visitors to Istanbul in 2023. The n. is remarkable, when it compares with the tourist arrivals in the big tourist destinations such as London (14 million), New York (8,4 million), Paris (7,7 million), Rome (5,5 million), Barcelona (4,4 million) in 2009. But the trends between 2008 and 2009 indicate that the growth of tourist arrivals has been decreasing for almost all the cities in Europe, while the cities in the eastern countries have been growing (Euromonitor International, 2010). ICOC states that with the 'Istanbul International Finance Centre' project, Istanbul can be transformed not only into a city that competes with other "hub" cities in the financial sector, but also into a city that is competitive in the international transit-trade sector". Furthermore, they highlight "…these visions will transform Istanbul into a tourist and business

centre as well as a financial and technological centre for the region. It is possible to realize this vision not only by completing the infrastructure - in every sense of the word - of Istanbul, but also with intense publicity on a global level".

In spite of the consensus reached on this vision with all the key decision-makers, it still faces issues and challenges for the diversity of interests and opinions that it raises. Most critiques focus on the mere economic character of the growth strategy driven by the "investors' agenda", which might at one point come to ends with concerns of sustainability and quality of life. This issue deserves special attention, because skilled foreign workers and visitors could become especially sensible to failing levels of quality of life in their decisions, besides obvious concerns for economic dynamism and stability: for these target groups, traffic congestion, high density of built up areas, and lack of open and green space would be negative points in considering Istanbul a good destination, hampering the effects of infrastructure investments and marketing campaigns. Besides, Istanbul is today more than ever risking to become a divided city, where the economic successes feed widening socio-economic disparities also at a spatial level.

3.3 Relevant policies for tourism and the attraction of foreign companies and workers

The investments made by Istanbul in recent years cover many of the dimensions of territorial capital identified in this study.

Marketing is one of the major strategies to attract visitors and foreign investors by promoting the territorial assets of the city. Although the Ministry of Culture and Tourism is the responsible authority for promotion the assets of Turkey, there is almost a consensus on the desirability of new approaches in this area. Place promotion is not just plain advertisement: other ways to make the city known in the world are being considered, such as producing a world-wide brand, organizing international events, private sector relations, etc. From this point of view, ECOC 2010 was a great opportunity not only for the international promotion of the city but also for significant investments.

Istanbul has the largest proportion of foreign investment in Turkey, however Turkey has a relatively low proportion compared to other Eastern European countries. Therefore, the increasing scale of foreign investment to Turkey would create many expectations on the flow of foreign capital to Istanbul. Thus the question of how to improve the investment climate and how to encourage a greater inflow of foreign capital needed special interest within the national policy. According to the research done by Dumludağ (2009), executives of multinational companies agree that among Turkey's strongest points of attraction is its large domestic market. This author notes: "…Turkey would need to focus on marketing effort to advertise itself as an attractive investment location abroad. However, Turkey was unable to succeed in establishing a promotion agency until recently. Political and macroeconomic instability are seen as by foreign investors as the most significant hindrances to higher inflows of FDI. The weakness of the judicial system in the enforcement of contracts and the recognition of property rights create a feeling of insecurity and arbitrariness. The rule of law is perceived as weak by foreign investors. This problem can be improved by creating an independent dispute resolution mechanism or by improving the legitimacy of those responsible for regulating legal disputes and contracts".

Our inquiry with key stakeholders (the Foreign Investors Association) highlights similar problems in the attraction capacity of Istanbul for foreign capital: corruption, instability, judicial arbitrariness and inefficiency. Recently, Turkey has made considerable progress in modernizing its business legislation. In the first half of the 1980s there were major reforms, and a second stage began in the mid-1990s. Foreign investors also demand a better cooperation between the public and private sector in the solution of these problems, and they take an active role in the platforms like Coordination Commission for Improvement of the Investment Environment in the

Istanbul Development Agency. Another stakeholder emphasizes the better capacity of the private sector to promote the city than public authorities. Therefore, "…the role that the private sector takes on is to protect competition and to ensure that contributions are made to the economic vitality and variety in such a way that Istanbul's value brand will be rising on the global scale. … the private sector should act in close association with companies abroad, publicizing the opportunities that Istanbul offers to the world".

The decision of establishing a Financial District in Istanbul is perceived as another opportunity for economic development and the attraction of foreign investment by most stakeholders, although it is a well-known example of top-down decision-making. Since skilled labor is also significant factor for foreign investors, human capital is defined as one of the strongest part of Istanbul due to the high ratio of young population and the developed higher education capacity with total 42 universities, by stakeholders.

In regard to foreign tourist, we mentioned above the actors and main strategies for Istanbul. Here, we should highlight the city history and cultural heritage as the main source for visitor flows. However, development of modern parts of the city and economic dynamism increases the flows related to the business as well. Therefore, the profiles of visitors have become more diversified, while the flows have been increasing.

On the other hand, being on the UNESCO's World Heritage List forced Istanbul to prepare a Management Plan for the Historical City which is expected to achieve a good state of conservation and opportunities for sustainable valorisation of the heritage. Changing functions, new visions of the city and the risk of earthquakes have spurred several urban regeneration projects, whose outcomes are considered critical for the long-term improvement of the quality of life in city, a fundamental element of attractiveness. Another issue related to the environmental capital is urban sprawl, which generates pressure on water reservoirs and forests on the north of Istanbul. Furthermore, trends of urban sprawl make the city more difficult in terms of management, more expensive in terms of infrastructure investments, less sustainable due to the invasion of the lands. All the interviewed stakeholders emphasize traffic congestion as the major obstacle for living in the city of Istanbul. However, the majority of them are optimistic about the improvements brought about by investments in transit, and especially the more efficient use of water transportation and the modal integration that increased the length of subway and light train lines.

4 Conclusions

4.1 General Evaluation

The factors contributing to the attractiveness of Istanbul and the challenges in maintaining the attractiveness for different user groups might be shortly summarized by the following categories of territorial assets.

Environmental capital

As a metropolitan city located along two continents makes Istanbul "unique location". Being situated at the intersection of Europe and Asia, being in the middle of European-Asian corridor, natural beauty it possess and having a mild Mediterranean climate are environmental features contributing to the attractiveness of the city. On the other hand, while the earthquake risk it has and insufficient green spaces are effecting its attractiveness negatively, due to the increasing population and urban sprawl the probability of damaging water reservoirs and forest areas is also a threat for the sustainability and quality of life in Istanbul. Istanbul might have a chance to transform the earthquake risk to opportunity with regeneration of the city, although there have been several critics and conflicts on this regeneration process.

Antropic capital

The historical background, cultural heritage, multi-cultural and cosmopolitan character of the city, to be seen as a bridge between the East and West are playing an important role in visitor flows.

Related to its geographical location, transportation linkages make the city a kind of magnet ss having the Europe's 8th busiest airport, the increase in the n. of passengers and visitors every year. At the same time, the realization of the projects like the third airport in 40 km west of Istanbul, the multi-modal Pan-European Transport Corridor 4 which connects Germany, Czech Republic, Austria, Slovakia, Hungary, Romania, Bulgaria, Greece and Turkey , the transport corridor TRACECA and also the investments in public transportation of the city will surely effect the attractiveness of Istanbul positively. Taking place in the list of UNESCO world heritage list and the outcomes of being European Capital of Culture (ECOC) in 2010; as ongoing projects to increase the capacities of hotels, museums and other cultural amenities, rapidly growing physical infrastructure, intensive activities to promote Istanbul and the efforts to link the city's urban heritage, culture, tourism and urban developing strategies are the opportunities for the future of Istanbul. Moreover, being the 7th most popular location in the world and the 6th in Europe for conventions in 2010, it is possible to say that Istanbul is progressing in being a regional hub. Pro-active marketing and communication strategies and also increasing n. of organized events are other strengths of Istanbul. High population density, traffic congestion, insufficient transport infrastructure, irregular settlements are defined as the weaknesses of the city in attracting visitors and also foreign investment.

Socio cultural capital

The availability of highly skilled labor, having a young population, existence of foreign/international schools, hosting 42 universities are strengths of the region especially in attracting the foreign population and investors. Diversified socio-cultural city atmosphere, existence and abundant of cultural activities, tolerance would be other components of attractiveness.

Economic and human capital

The politic and economic stability of Turkey has also reflected on Istanbul as being the economic center of the country. The growing of business services due to the economic growth the city performed last year is the main attractiveness for foreign capital. Though it ranks low among OECD metro-regions in terms of gross domestic product (GDP) per capita, Istanbul has registered one of the highest output growth rates since the mid-1990s. It is changing from an economy driven by labour-intensive activities to one based on knowledge industries, while traditional and labour-intensive sectors (e.g., textiles and its supply chain) are shifting only gradually and slowly to other complementary industry segments. Not surprisingly, Istanbul gets the lion's share of total FDI and generates half of total exports in Turkey (being the OECD country with one of the highest trade-to-GDP ratios).

Current policies to foster regional innovation and productivity could be further strengthened including those targeting Technoparks, technology development in logistics and textile and managerial and technological modernisation of SMEs. Such initiatives could be complemented by specific policies to tap all the potential of FDI in technology transfer.

To be able to offer quality service with a strong infrastructure in every type of tourism should be considered as the facts to increase the attractiveness. The realization of Istanbul International Financial Center Project requires improvements in the city, but in case of a success this might considered as an important opportunity for Istanbul. Being the most dynamic city within an emerging market, the rising interest of investors in real estate are other opportunities of Istanbul.

On the other hand, policies of investment support agencies, legal arrangements for improving investment environment, bilateral agreements between Istanbul and other cities are also helping to attract the investors to the city. As a destination for investors the main challenges are; existence of informal economy, long process of obtaining a working permit for foreign labour, lack of an efficient tax and incentive system and relatively high labour costs.

Institutional capital

However, there has been an increasing power of local authorities and also realizing the significance of co-operation among public and private actors, the implementation of top-down decisions is still one of the critical points with respect to governance of Istanbul. These decisions which are not compatible with the master plan of Istanbul generally appear as threats especially over the natural sources of the city. Self-organising capacity and lack of coordination are pointed out as the weak points of governance. Recently, Turkey has made considerable progress in modernizing its business legislation to attract foreign investment.

4.2 Final remarks

The growing dynamism, diversity and sectorial changes of Istanbul convene to further increase its traditional attractiveness as a tourist destination and the epicentre of Turkish economic and cultural life.

While it is argued in this paper that it is especially the role of as a regional hub of mobility that made a change in the city's attractiveness (directly mobilizing a large audience of passengers and tourists), this has important bearings also on the desirability of Istanbul as a business location, and thus on the capacity to attract foreign investors and skilled workers. It is trivial to separate these target groups in terms of strategy, that seems to stem instead on an increased awareness at all levels of the favourable position of the city and its performance as a regional "tiger" and on the intention to build on it.

Changing institutional and legal frameworks are stimulating this process, and so is the intensifying cooperation between public and private actors, and between governmental agencies at different levels, which, nevertheless, is not yet perfect.

A common concern is investments that are aimed at improving urban quality and making the city more attractive not only for tourists, such as infrastructure, a more efficient public transportation system, the regeneration of certain areas with the provision of new housing, and the increase of open and green spaces.

According to results of the regional typologies analysis (in RA3), Istanbul is a medium flow region that attracts higher flows (flow rates according to internal migration, airports and Erasmus students) than predicted. As a result of interviews, most of the stakeholders agree with the typology and highlight the location as a natural hub. With respect to its long history and cultural heritage, it is obvious that Istanbul has become recently more attractive with its dynamism, diversity and sectorial changes. Therefore, it is hard to concentrate on a specific target group, however the vision and strategies are mostly highlighting the attempts to attract more skilled labour due to the structural changes.

Main factors that explain the attraction of foreign investors and labour to Istanbul are related with the territorial capital defined by ATTREG and elaborated in the previous section. The components of territorial capital do not need any trade of between different target groups, however flows of foreign capital are more depend on the improvements of economic and institutional capital, while the flows of visitors are much more related to the environmental and antropic capital. Further, the increasing numbers of meetings in Istanbul and also attempts for the project of Financial Centre would be evaluated the strategies for attracting business visitors to Istanbul, which combine the foreign investors and visitors. For these specific strategies, public

and private sector (Greater Municipality of Istanbul, Chamber of Commerce) have been acting together.

For future aspects, stakeholder emphasize that the role of Turkey as an emerging market makes Istanbul progressively attractive for foreign capital. However, there has been already a remarkable increasing trend of flows not only visitors, but also foreign capital to Istanbul the mobility among the regions of EU has been higher since there is no border between member states. The interviews put forward that Istanbul would be a higher flow region especially due to its economic and cultural capital in future. Possible membership to the EU, would create two side flows both from Turkey to EU, but from EU to Turkey and Istanbul as well. Increasing problems and unemployment due to the global economic crisis within the EU, put forward some demands towards emerging markets from foreign capital and labour. Therefore, population size of Istanbul would be a challenge for foreign capital as a market, while sectorial changes from industry to higher value-added production and service sectors make the city more attractive for skilled-labour. Moreover, one of the expectations from the possible membership to the EU, is to improve the urban quality of life, especially with ongoing transportation infrastructure investments and regeneration of the city.

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ANNEX 6/4/1

Table A: Distribution of N. of Arrivals, Nights Spent, Average Length of Stay and Occupancy rates in Istanbul by Type and Class of Establishments*Motel, Boarding house, holiday village, camping, golf est., training est., tourism complex, mountain house, boutique, apart, thermal hotel

	N. of Arrivals			Nights spent			Average length of stay			Occupancy rate %			
	Foreigner	Domestic	Total	Foreigner	Domestic	Total	Foreigner	Domestic	Total	Foreigner	Domestic	Total	Type and class of establishment
2010	3004998	1197485	4202483	6997699	2063726	9061425	2,3	1,7	2,2	34,53	10,18	44,72	TOTAL HOTELS (with stars)
	3371952	**1269257**	**4641209**	**7839170**	**2219366**	**10058536**	**2,3**	**1,7**	**2,2**	**34,36**	**9,73**	**44,09**	**TOTAL (hotel and others*)**
2009	2589793	1360275	3950518	5942244	2418370	8360614	2,3	1,8	2,1	29,52	12,02	41,54	TOTAL HOTELS (with stars)
	2804242	**1452070**	**4256312**	**6500709**	**2592780**	**9093489**	**2,3**	**1,8**	**2,1**	**29,43**	**11,74**	**41,17**	**TOTAL (hotel and others*)**
2008	2715270	1418672	4133942	6124800	2400017	8524817	2,3	1,7	2,1	31,95	12,52	44,47	TOTAL HOTELS (with stars)
	2930019	**1479959**	**4409978**	**6652379**	**2547188**	**9199567**	**2,3**	**1,7**	**2,1**	**32,42**	**12,41**	**44,83**	**TOTAL (hotel and others*)**
2007	3196133	1612744	4808887	7200860	2738234	9939094	2,3	1,7	2,1	34,62	13,16	47,78	TOTAL HOTELS (with stars)
	3201845	**1618228**	**4820073**	**7218526**	**2765667**	**9984193**	**2,3**	**1,7**	**2,1**	**34,55**	**13,24**	**47,79**	**TOTAL (hotel and others*)**
2006	2275591	1662539	4438130	5961401	2768014	8729415	2,1	1,7	2,0	30,98	14,39	45,37	TOTAL HOTELS (with stars)

	2795228	**1738234**	**4553462**	**6009157**	**2890178**	**8899335**	**2,1**	**1,7**	**2,0**	**30,52**	**14,68**	**45,19**	**TOTAL (hotel and others*)**
2005	2792546	1664613	4637159	6505224	2724965	9230189	2,2	1,6	2,0	35,36	14,81	50,17	TOTAL HOTELS (with stars)
	2992436	**1746447**	**4738883**	**6541793**	**2845666**	**9387459**	**2,2**	**1,6**	**2,0**	**34,82**	**15,15**	**40,97**	**TOTAL (hotel and others*)**
2004	2051728	1481523	3533251	4909846	2642956	7552802	2,4	1,8	2,1	27,53	14,82	42,36	TOTAL HOTELS (with stars)
	2081766	**1600287**	**3682053**	**4951580**	**2844593**	**7796173**	**2,4**	**1,8**	**2,1**	**26,40**	**15,17**	**41,57**	**TOTAL (hotel and others*)**
2003	1787598	1196003	2983601	4550046	2182688	6732734	2,5	1,8	2,3	27,51	13,20	40,71	TOTAL HOTELS (with stars)
	1791776	**1215068**	**3006844**	**4576563**	**2239282**	**6815845**	**2,6**	**1,8**	**2,3**	**26,12**	**12,78**	**38,90**	**TOTAL (hotel and others*)**
2002	1944957	1091044	3036001	4698654	2019777	6718431	2,4	1,9	2,2	28,83	12,39	41,22	TOTAL HOTELS (with stars)
	1956399	**1151227**	**3017626**	**4756794**	**2179716**	**6936510**	**2,4**	**1,9**	**2,2**	**27,50**	**12,60**	**40,10**	**TOTAL (hotel and others*)**
2001	1830100	1023865	2853965	4199334	1777341	5976675	2,3	1,7	2,1	26,21	11,09	37,31	TOTAL HOTELS (with stars)
	1875988	**1105804**	**2981792**	**4281692**	**1936245**	**6217937**	**2,3**	**1,8**	**2,1**	**24,58**	**11,11**	**35,69**	**TOTAL (hotel and others*)**
2000													TOTAL HOTELS (with stars)
			1765340			**4023800**			**2,3**			**-**	**TOTAL (hotel and others*)**

Source: Ministry of Culture and Tourism statistics

Table B: Immigration by countries, 1985 – 1990 – 2000. Source: Baycan Levent et al., 2008 from TURKSTAT 1985, 1990, 2000

	1985				1990				2000			
Country	**Total**	**%**	**Share in the population**	**Rank**	**Total**	**%**	**Share in the population**	**Rank**	**Total**	**%**	**Share in the population**	**Rank**
Germany	288323	70.28	0.57	1	82654	21.25	0.15	2	73736	31.50	0.11	1
The Netherlands	14818	3.61	0.03	2	10052	2.58	0.02	6	8013	3.40	0.01	6
Turkish Republic of Northern Cyprus	11190	2.73	0.02	3	12327	3.17	0.02	4	13844	5.90	0.02	3
Saudi Arabia	9416	2.3	0.02	4	25786	6.63	0.05	3	6334	2.70	0.01	9
France	9348	2.28	0.02	5	9588	2.46	0.02	7	7746	3.30	0.01	7
Austria	7836	1.91	0.02	6	2707	0.70	0.00	11	5557	2.37	0.01	11
United States of America	6612	1.61	0.01	7	6944	1.79	0.01	8	7561	3.20	0.01	8
Iran	5879	1.43	0.01	8	3397	0.87	0.01	13	5138	2.19	0.01	13
Switzerland	5403	1.32	0.01	9	6090	1.57	0.01	9	5370	2.29	0.01	12
Belgium	4442	1.08	0.01	10	5522	1.42	0.01	10	2740	1.17	0.00	16
Bulgaria	954	0.23	0.00	20	167089	42.95	0.30	1	27470	11.70	0.04	2
Iraq	2971	0.72	0.01	13	12058	3.10	0.02	5	4617	1.97	0.01	14
Azerbaijan			included in Russia				included in Russia		9127	4554	0.01	4
Russian Federation	470	0.11	0.00	23	627	0.16	0.00	21	8626	3.70	0.01	5
England	3183	0.78	0.01	11	3208	0.82	0.01	14	5708	2.40	0.01	10
Others	39167	9.55	0.08		39348	10.12	0.07		42524	18.16	0.06	
Total immigrants	**410232**	**100**	0.81		**388994**	**100**	0.69		**234111**	**100**	**0.35**	

December 2010

The ESPON 2013 Programme

ATTREG
The Attractiveness of European regions and cities for residents and visitors

Applied Research Project 2013/1/3

Annex 4/5
ATTREG Case Studies

Euro-metropole Lille-Kortrijk-Tournai

Prepared by
Bartosz Hakbart and Loris Servillo

EUROPEAN UNION
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This report presents the draft final results of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

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This basic report exists only in an electronic version.

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1 Relevance of the case study

1.1 Introduction

The main aim of the case study is to contribute to the understanding of the potential of cross-border governance mechanisms in mobilising territorial assets to enhance the territorial attractiveness of cross-border areas.

Building on the results of the pan-European comparative research project on attractiveness of European regions and cities, conceiving attractiveness as the result of the mobilisation of specific territorial assets towards specific segments of population, the case study aims at assessing the situation of a urban region situated in a cross-border area.

Polycentric urban regions may create opportunities to pool resources, exploit complementarities and optimise spatial diversity, given proper governance. In a cross-border context, and given the negative effects a border situation represents, the effectiveness of cross-border cooperation is at stake, considering the complexity of collective actions in increased political and institutional fragmentation.

The case of the Eurometropolis Lille-Kortrijk-Tournai was chosen as an object of study as in one hand it is presented as a successful example of innovative governance in a cross-border polycentric setting that is expected to bring benefits to the cooperating territories; in the other hand, the general findings of the pan-Eu analysis have indicated the involved regions as under-performing in terms of territorial attractiveness.

Adopting the perspective of the research project, the thesis will explore the governance mechanisms at work in a cross-border polycentric territory, the path dependency of the decision making concerning strategies of mobilization of assets, and their possible impact on the attractiveness of a territory, measured in terms of distribution of populations and trajectories of change.

1.2 Overview of the territory and its cross-border characteristics

The territory considered gathers about 2 million inhabitants (with 1.1milion on the French side, 600.000 on in the Flemish region and 350.000 in the Walloon Region) on an area of approximately 3.500 km²(with 18% in France and 82% in Belgium). It is grouped in 4 Flemish districts (Ieper, Roselare, Tielt and Kortrijk), 3 Walloon districts (Mouscron, Tournai, Ath) and a French district (Lille Communauté Urbaine) gathering 147 municipalities/communes (see Fig.1).

The Eurometropolis territory area therefore spans across two countries and three regions: the Province West-Vlaanderen, the province of Hainaut and the French region Nord-Pas de Calais (see Fig.2) .

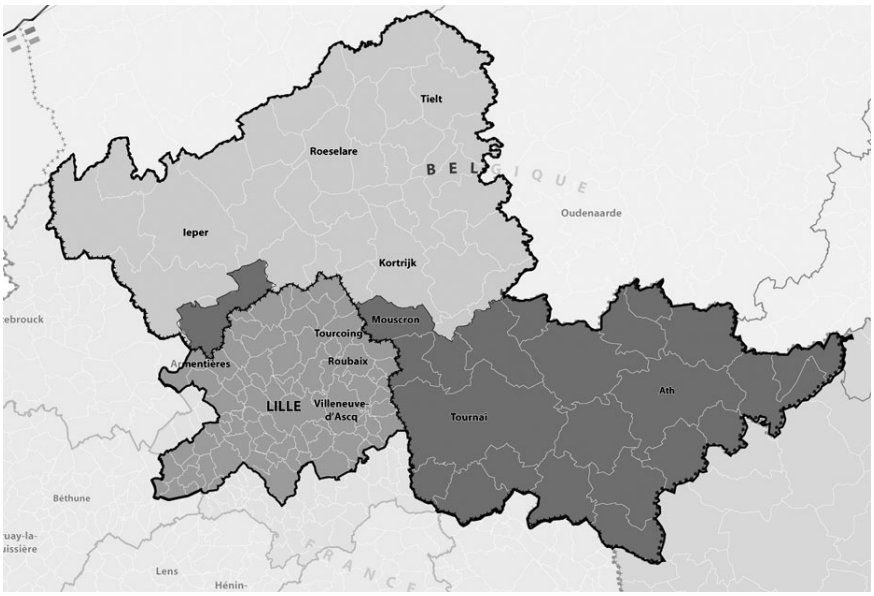


Figure 1: Municipalities participating in the Eurometropolis - source: adapted from ADULM 2010

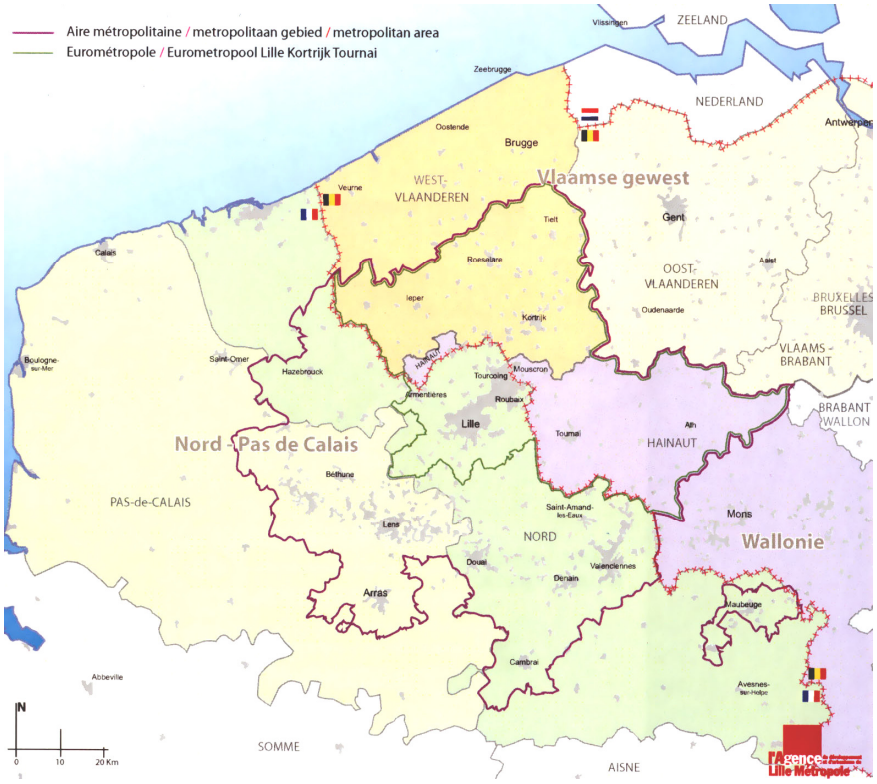


Figure 2: Administrative context of the Eurometropolis and AML - source ADULM 2010

The territory displays a geographical and morphological continuity (see Fig.3), which is also translated into a degree of functional integration. Taking cross-border commuting as a measure, a recent study showed that the number of cross-border workers from France to Belgium was steadily growing (about 6%) in the period 2000-2006 to reach 27.500 commuters[1] (ESPON,

[1] Of which 5.000 from Belgium, 22.500 from France. Although these flows are smaller than for other metropolitan areas such as Basel (49.000) or Geneva (47.500), they are superior than other agglomerations such as Aachen-Liege-Maastricht (17.500), Copenhagen-Malmo (13.500) or Strasburg (6.000).

2010b, p. 38). In a historical perspective, these flows were much more important (about 60.000) in the interwar period, and have diminished then to reach a historical low in the early 1990s (Van Staeyen, 2008b). It seems that other activities such as shopping are also an increasingly important factor of mobility, with 49% of the Eurometropolis area residents declaring shopping in Belgium, and conversely 59% of its Belgian inhabitants declaring shopping in France in 1996. Finally, health seems also a factor of mobility, especially as regards retirement homes or handicap treatment.

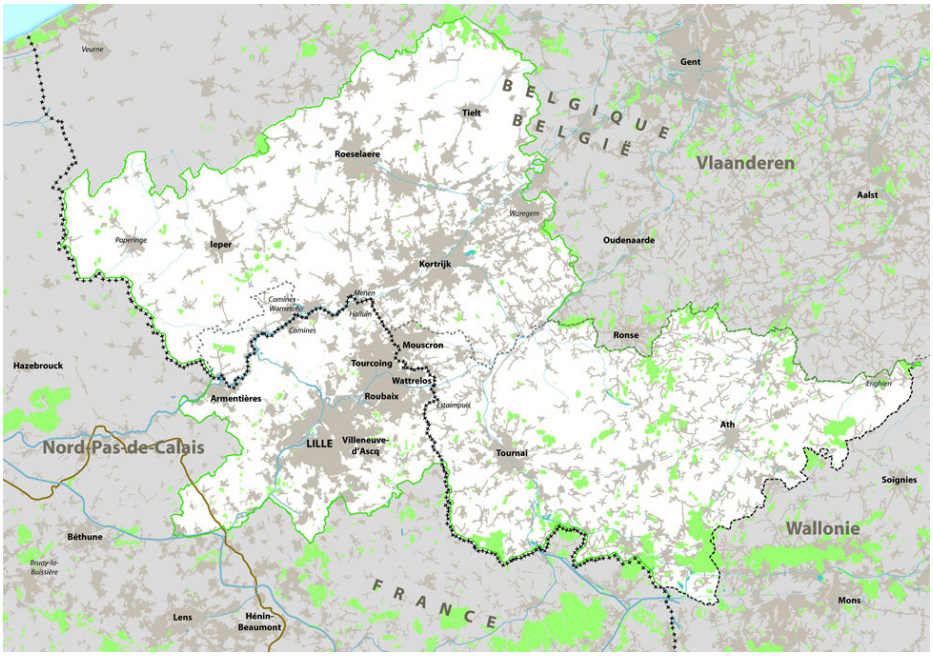


Figure 3: Morphological and geographical integration of the Eurometropolis Lille Kortrijk Tournai : Built, Green and Water areas – source: adapted from ADULM 2010

In general, the cross-border situation magnifies several problems encountered by 'regular' conurbations (e.g. mobility, environment, delivery of public services), adds to specific challenges (in terms of hindrance to socio-economic ties and coherent management, possibly neglected by central authorities) and exacerbates unhealthy economic competition.

A more functional approach of the territory might suggest more collaborative strategies: cross-border governance processes seem to be the institutional strategy to better enhance the polycentric urban regions potentialities. What more, in a context of dismantling of internal borders in Europe, the border may also be positively perceived as a contact point between different cultures, and a factor of innovation, and at the same time, cross-border strategies are increasingly seen as an opportunity to reach a critical mass to international scale and overcoming setbacks related to their peripheral, border situation (Wu, 2001).

In this context, it is interesting to note that the cooperation in the area of the Eurometropolis began in 1991, has produced a strategy for the territory in 2002, and has led most recently to the first European Grouping of Territorial Cooperation (EGTC) set up in 2008 as a follow-up to previous cooperation structures (Vidal & Van Assche, 2008). The specific character of this cross-border cooperation mainly comes from its bottom-up approach, backed by a strong political leadership and a progress towards increasing institutionalization. The EGTC is also an innovative mechanism as it gathers all 14 levels of government[2] having competences in the area in a

[2] France: State, Region NPDC , North Department, LMCU; Belgium: Federal state, Flemish Region and Community, Province of Western Flanders, Leiedal and WVI inter-municipal organisations, the Walloon region, the French Community of Belgium, the Province of Hainaut, IDETA and IEG inter-municipal organisations.

common structure, with a dedicated agency having a specific budget and an increased attention paid to the inclusion of civil society in the decision process.

The Eurometropolis Lille-Kortrijk-Tournai appears as a polycentric cross-border area exhibiting a degree of functional integration, and bearing a potential to develop complementarities to overcome setbacks stemming from the border situation. It has a record of cross-border cooperation, which has recently led to the creation of an innovative cross-border governance mechanism[3].

Thus, the cross-border context has been chosen as a geographical peculiarity, but also a peculiarity in terms of possible public action field. The geographical scope is the making of a governance structure that deals with spatial issues for the cross-border metropolitan area. The European Grouping of Territorial Cooperation (EGTC) "Eurometropolis Lille-Kortrijk-Tournai" as it represents an innovative governance structure, a combination of bottom-up approach and upper tiers' will, backed by a strong political leadership, a progress towards increasing institutionalization, and covering part of a functional urban area.

Nevertheless, the statistical analysis carried out in the framework of the ATTREG pan-EU perspective showed that the territories in which Eurometropolis is located do not have outstanding performance in terms of attractiveness, and that are lower than the features of the territorial capital may let expect. This result may come as a surprise, especially given the complementary of assets that could have enhanced the attractiveness of the entire polycentric region, if properly pooled[4]. (ESPON, 2010a). However, it is important to note that the statistical borders used in the study do not reflect the borders of the cross-border cooperation. Thus, a narrowed focus on te characteristics and the dynamics of the specific area of cooperation, together with a qualitative analytical approach, may contribute to a more detailed picture and insights for the ATTREG project.

1.3 A theoretical and interpretative framework

The theoretical framework adopted defines attractiveness "both as the capacity to attract new residents (or migrants), visitors […] and to retain (and potentially develop) these mobile communities and assets" (ESPON, 2010a, p. 1). The concept of 'territorial capital' is given a central place in this framework. As a complex system of natural and socio-economic elements defining the uniqueness of local assets, it should be capable of capturing the diversity and the complex combination of factors that drive increasingly fluid mobility patterns.

However, as the attractiveness is a dynamic concept, mobility of population cannot be related to a simple combination of assets present on a territory. On the contrary, it needs agency to be activated or 'mobilized' through specific governance processes, which determine different forms of attraction and retention, and which in turn, help explaining different outcomes of similarly or identically 'endowed' regions.

In this framework, cross-border conurbations have to face additional challenges stemming from their specific geographic position (in terms of hindrance to socio-economic and coherent management, and difficulties with central authorities). Thus, cross-border cooperation (CBC) especially in a polycentric urban context seems to offer opportunities to overcome some of these

[3] The structure being new, only very few scientific publications attempted at exploring it (notably master theses), and when doing so, mainly from a legal perspective (Duindam & Waddington, 2010; Janssen, 2009; Obwexer & Happacher, 2010; Toca & Popoviciu, 2010). Surprisingly, the cooperation that led to the development of the EGTC and that started in 1991 was neither the subject of academic research.

[4] For instance, while the French area displays a richer higher education offer, the Flemish area displays a more economically dynamic environment and better health indicators, the Walloon area greater landscape qualities and diversity in population.

additional challenges, exploiting complementarities and reduce disparities. CBC can be seen as a coordinated process of mobilization of assets in a coherent and strategic way. The attempt of activating specific forms of Territorial Capital adopts the crossborder region as territorial reference, in order to overcome the internal contradictions and conflictualities as well as to gain a critical mass to develop synergies that can re-position the territory in a national and international context.

An authoritative definition of CBC from a regional studies perspective is provided by M. Perkmann, according to whom CBC can be defined as "a more or less institutionalised collaboration between contiguous sub-national authorities across national borders" (Perkmann, 2003a, p. 156) and should respond to four criteria:

- First, it has to have public agency, meaning that the actors of CBC should be public authorities.
- Second, these actors should operate at a lower than national level, thus not being able to conclude international agreements with foreign authorities.
- Third, CBC is mainly dealing with practical problem-solving.
- Finally, CBC involves an institutionalisation, or in other terms a regular reproduction of cross-border relations.

At a regional scale, cross-border cooperation is often pursued within specific structures and often referred to as cross-border region (CBR). The central defining element of a CBR is the notion of political or administrative border separating an otherwise functionally or 'naturally' homogenous area: "A transfrontier region is a potential region, inherent in geography, history, ecology, ethnic groups, economic possibilities and so on, but disrupted by the sovereignty of the governments ruling on each side of the frontier."(Council of Europe, 2000, p. 9). However, "the 'regionness' of a CBR can not be taken for granted but has to be understood as the outcome of a process of social construction. A cross-border region can be only defined as a *bounded territorial unit composed of the territories of authorities participating in a CBC initiative*."(Perkmann, 2003b, p. 5). This suggests that there is no need for a 'natural' foundation of such regions, although the discursive dimension of a cross-border region will usually attempt at 'naturalising' its construction, and refer to supposedly common cultural, historical, economic or ethnic elements. Furthermore, the constitutive character of the CBR is the CBC between authorities.

In terms of institutionalization processes, many empirical studies on CBC or CBR frame their analysis in the wider context of 'unbundling' of the state. However, Hooper and Kramsch (2004) argue that regarding the respective role of the different levels of public actors in the cross-border process the de-territorialisation process of governance has not led to an autonomisation of cross-border interactions. In CBR, the central governments still play a major role, although the border situation may create partial and variable autonomy for local actors (Hooper & O. Kramsch, 2004).

Finally, in terms of motivations and scopes, E. Gualini (2003) stresses how the reasons for engaging in cooperation vary between opportunistic behaviours and emerging strategic attitudes. The main aims of such cooperation may be a mix of elements such as access to funding, promotion of local assets, lobbying, positioning in international competition and intergovernmental relations, policy exchange and sharing of best practices. In practice, the most frequent motivation to enter such a cooperation is the improvement of a comparative economic advantage. However, due to the thinness of the cross-border institutions, these initiatives are highly vulnerable to political opportunism and strategic use (Gualini, 2003). Therefore, the CBC institutions created, and the constraints put on the use of funding have a constraining effect on the strategic options of the actors by the horizontal and vertical networks in which they are inscribed.

Briefly, the above overview leads to different assumptions:

- First, the cross-border region implies the 'construction' of a notion of territory, which may reflect logics that are not necessarily congruent with functional urban areas.
- Second, it requires the instrumental-functional justification of its existence, combining the aim of solving specific cross-border problems with a political will to fulfil political objectives.
- Third, more often than not, CBRs are institutionally 'thin' and prone to strategic use by local actors (instrumentalisation). This, together with the necessary involvement of state actors, determines institutionalisation processes that undermine the independence of cross-border activities.

The distinctive aspects of cross-border governance can be seen, thus, as the governance features related to the conflictual, socially constructed, path-dependent nature of the objectives of collective actions in the specific cross-border contexts, together with the role of vertical (multiscalar) and horizontal (cooperative) networks. It is also distinctive by leaving an important role to the state, giving public sector agents much primacy over non-governmental actors, putting a softer emphasis on problem-solving capacities than polity discourses, and leading to less institutionalised forms of cooperation, which local actors may more easily instrumentalise but which have higher strategic capacities.

To the purpose of building an analytical framework for a cross border case, the conceptualization of "organising capacity" of metropolitan governance as defined by Van den Berg and Braun (1999) may provide interesting analytical categories. They can be re-interpreted adopting a specific focus on cross-border contexts as follow:

- First, a **spatial vision** that supports an integrated approach is a precondition for developing **strategic capacities** (Albrechts, 2001a, 2006)**.** Indicated as main issue, it revolves around the ability to create and maintain particular imaginaries about what needs collective attention and from whom. The goal setting and framing role of the vision therefore deserves a specific attention.
- **spatial-economic conditions** are expected be of great importance in creating the motives of cooperation and binding actors. It is the interest or the motives to cooperate, often expressed in terms of opportunities and threats. However, the political dimension of cross-border cooperation also points out to more socially constructed motives.
- The role of **administrative organization** is also important in several of its dimensions. First as regards the definition of the scope and aims of the cooperation (in relation to the vision and strategy) is a proxy for the absence of material competences in cross-border areas. Second, the definition of the territory (geographical scope) is also essential as the "regionness" cannot be assumed and is rather the result of a social construction process. Third, the degree of formalization should also be explored as it determines the ability of the actors to instrumentalise the cooperation, and therefore plays a role on the balance between partners in the cooperation.
- The importance of **strategic networks**, the role of which should be further refined in two dimensions: first, a vertical dimension (interaction between different levels of government in the same country); second, the horizontal dimension (both interactions between different levels of government in different countries, and the cooperation between public and non-public actors).
- **Leadership** as the ability to lead strategic networks using specific resources: such as hierarchy, finances, administrative capacity, political leadership etc. is expected to be more difficult to achieve due to the multiplicity of actors.

- Finally, the **political support and involvement** appears to be an important aspect to explore, as it also may give indication about the importance of the spatial-economic conditions as well as societal support.

Overall, these considerations on CBC and on the organizational capacity of governance processes provide important inputs to specify the notion of mobilization of assets, when framed within the theoretical construction of the concept of territorial attractiveness. Taken as a reference, the analytical framework allows exploring the cross-border governance mechanisms and their capacity to mobilize specific forms of Territorial Capital, influencing the attractiveness of the cross-border area.

1.4 Research Questions

As seen in previously, several authors attribute valuable potentialities to cooperation in polycentric urban regions. This could help overcoming some of specific challenges of cross-border areas (in terms of hindrance to socio-economic and coherent management, possibly coupled with a neglect from central authorities), or exploiting complementarities and reducing internal disparities. The territories gathered within the Eurometropolis Lille-Kortrijk-Tournai are part of such a polycentric urban region, which in addition since the early 1990s is engaged in cooperation process, recently formalized by the creation of a new governance structure.

The hypothesis is that this conjunction of a common governance mechanism to enhance cross-border cooperation might have mobilized specific elements of territorial capital, and therefore have had an impact on the attractiveness of the area. However, the analysis carried out in the framework the ATTREG project showed that the territories, in which Eurometropolis is located, do not perform better than expected in terms of migration flows (ESPON, 2010a).

This apparent discrepancy leads to the main question of the case study :

> *What are the influences and the potentialities of cross-border mobilization strategies on the attractiveness of the cross-border territory?*

This question was then broken down in sub-questions that should enable a qualitative answer to the main question.

First, as regards the attractiveness of the cross-border territory measured in terms of mobility of population, the analysis aforementioned was performed at the regional/provincial level, which matches a specific statistical unit that enables comparison across regions, but does not correspond to the territory of the Eurometropolis. Therefore, it is interesting to explore the validity of the analysis at lower scales. Second, the analysis performed focused on the 2001-2007 period, without taking into account wider timescales. Third, the analysis does not provide explanations or hypotheses as to the results in terms of relationship to a larger urban system or spatial diversity within the area of analysis.

Therefore there is a need for a more in-depth exploration of the situation as regards attractiveness of the cross-border metropolitan area.

> The first sub-question is : *What is the attractiveness of the cross-border metropolitan area as compared to the results of the analysis performed at regional/provincial level ?*

As seen in the literature review, the understanding of the attractiveness of a region cannot be separated from its socio-economic context. Therefore, to answer this question, it is necessary to frame the situation of the territories of the Eurometropolis within a broader socio-economic context. This should lead to an assessment of attractiveness specifically of the territory of the Eurometropolis, possibly identifying challenges common to the area. These results should also be put in a time perspective showing the main migratory trends, and in a spatial perspective, which

is from the perspective of a larger urban system, and a smaller scale that could identify internal spatial diversities. This question leads to the data analysis part of the case study (Chapter 2).

> The second sub-question should be related to the governance process and the mobilization strategies : *What are the cross-border mobilization processes deployed on the territory of the Eurometropolis and what consequences in terms of mobilization of assets?*

According to the theoretical overview and the analytical framework presented in the previous paragraph, this sub question refers to the policy analysis of the cross border cooperation (Chapter 3). The mobilization processes can be broken down into several elements, of which the vision and strategy bears a specific importance as it is the main tool to create and frame imaginaries that guide collective action. An analysis of the strategy and vision using the categories of territorial capital would help understanding what assets were to be mobilized towards what type of populations.

Moreover, the strategy needs to be articulated with regard to the specific governance arrangements which support them. As recalled by L. Albrechts, it is also plan-making structures and decision frameworks that can initiate spatial change (Albrechts, 2006, p. 1491). Therefore, the cooperation processes at work in the Eurometropolis should also be assessed using the criteria indicated in the theoretical assumptions and re-elaborated in order to fit the purpose of this work.

Answering both sub-questions could deliver some elements that could help answering the main question of the case study. However, it is important to point out a limit of the investigation. Cross-border cooperation strategies do not exhaust territorial strategies deployed. They do not replace local, provincial, regional or national initiatives. As they are deeply entangled with them, it would be hazardous to try to establish a direct causal relationship between specific outcomes in terms of population mobility and cross-border cooperation strategies. Therefore, on the one hand, the exploration of the attractiveness of the Eurometropolis has to be aware that the CBC takes place within a larger framework characterized by articulated multilevel governance processes and various regional development strategies that are only partially interacting with cross-border actions. On the other hand, the attention to the CBC is able to indicate the main trajectories and potentialities in terms of mobilization of territorial assets, and consequently how these findings fit together with the territorial performances of the referred territories.

1.5 Methodology

The main objective of the research is to explore governance mechanisms at work in a cross-border polycentric territory and their possible influence on its attractiveness.

In order to answer this research objective, the research has partly involved the review of secondary statistical data, with an attempt at consolidation, which has shown the limits of a statistical approach in this cross-border context. It has also gathered the views of a number of key participants (see 0) of the cross-border cooperation process to validate the conclusions, give a qualitative insight into the meaning of statistical data.

In a second activity, it has mainly performed an analysis of official documents and discourses expressed in these documents. In a third activity, and given the scarcity of data about the research topic (cross-border cooperation on the French-Belgian border), most of the material was gathered through semi-structured interviews with key participants of the cross-border cooperation as well as an analysis of their manuscripts.

One limit of the research appeared during the interviews, is that the participants refused to be quoted. Therefore, a method of attribution of the data to the participants without naming them explicitly was adopted. The research is therefore based on a mix of primary and secondary data.

It is also important to make a methodological remark on the limits of the exercise. The data presented here is mainly based on national or regional statistical offices data and reports, complemented by a few expert reports, as well as interviews. Several limitations should be nonetheless stressed. First, all interviewees concurred on the lack of comparable statistical data at the cross-border scale. While some comparative data exists at regional scale (notably through Eurostat), differences in collecting methodologies as well as statistical categories and concepts create difficulties in comparative exercises. For instance, there is no systematic information on interregional cross-border migrations, except piecemeal studies[5].

Therefore, the sections that follow will mainly be divided in analyses by country, with a summary attempt to bring the data together at the end of each section. Second, in terms of time series, there was a difference in the material available, which results in wider data availability on the French side (longer trends, more specific data) and produces a certain imbalance.

2 Attractiveness in the Eurometropolis Lille-Kortrijk-Tournai

This chapter will explore the characteristics of the territories constituting the Eurometropolis Lille-Kortrijk-Tournai in terms of migration flows, trends and challenges. It integrates the analysis carried out in the pan-EU ATTREG analysis, narrowing down the focus.

To this purpose, the first section will recall the results of the ATTREG research project, and will describe the weight of the Eurometropolis in this regional/provincial context. The second part will specify the main migratory challenges of the Eurometropolis, attempting at defining specific categories of population. The third section will place the results in a wider time scale. The fourth section will attempt at placing these issues in a more regional context, exploring the spatial diversity of attractiveness before concluding on the existence of particular and common concerns, as well as possible interdependences and trends.

2.1 ATTREG results

The statistical analysis performed in the first stage of the ATTREG research project has shown that at the (wider) regional context of the Eurometropolis[6], the territories can be categorised as "generally unretentive" and in terms of flows as "low flow / little visitor attraction" (figure 4) according to their performances during the first years of 2000s (2001-04, and 2002-07) (ESPON, 2010a).

This descriptive categorisation is based on a statistical analysis of nine variables[7] that capture the inter-regional movements of people across Europe. However, it is important to note, that the interregional migration presented in the table captures transnational flows (i.e. migrations between regions and countries) but is not able to specify their origin.

The category of "stickiness" was introduced to distinguish between places that attract high flows of people, and those which have a high net migration rate, and thus can be qualified as "retentive". (ESPON, 2010a). Thus, NPDC is losing more population (-9 to -2 %) than the Province of Hainaut (close to 0% change) and the Province of West-Flanders, which displays a slightly positive balance. These results do not differ significantly when disaggregated by age bands (15-

[5] A notable exception is the work carried by EuresChannel network of cooperation between public employment services of NPDC, Hainaut and West-Flanders public employment services, trade unions and employers organizations that regularly publishes reports on cross-border workers since the mid 90s (see http://www.eureschannel.org)

[6] The lowest statistically comparable and meaningful level of analysis was set to NUTS2 level, which corresponds in France to the level of the region, and in Belgium to the level of the province

[7] Net migration rate (total, for 15-24 years, for 25-49 years and 50 to 64 years), average internal inflow and out flow rates, average number of arrivals per head of resident and non-resident for all types of accommodation, number of Erasmus students

24; 25-49, 50-64). Overall, NPDC is a very stable region(in France), with 97% of the population not having moved during the 2001-2006 period (INSEE, 2010b). Own estimates for the Belgian part of the Eurometropolis show a more significant turnover (between 5-6%) in 2006.

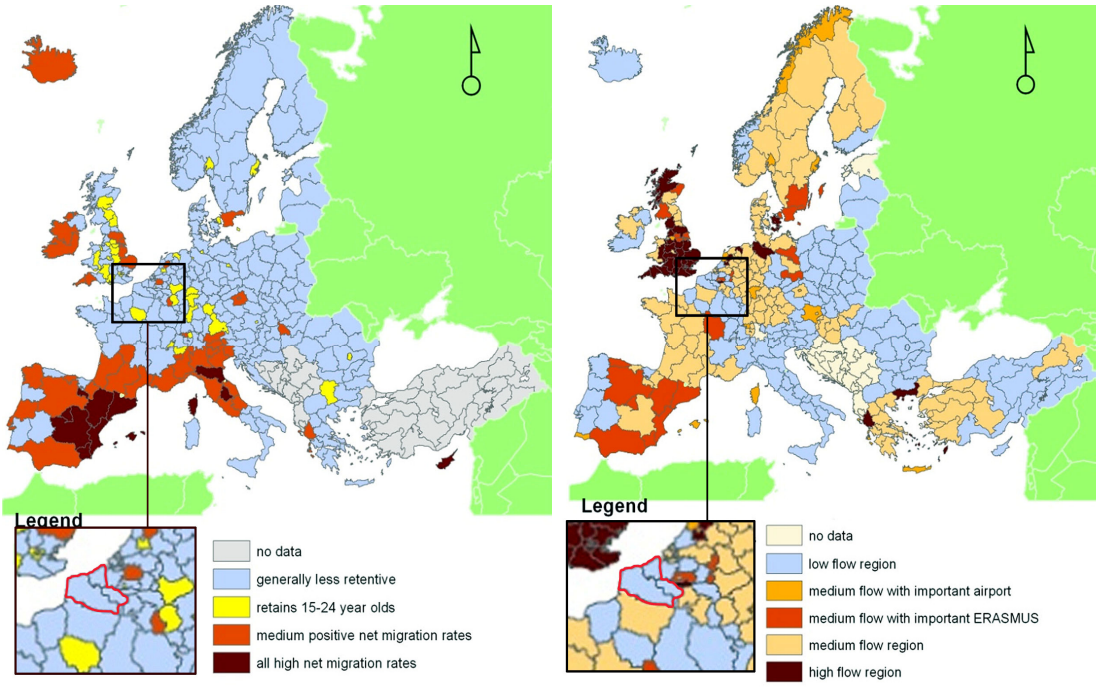


Figure 4: Regional typology based on net migration rates (left) and Regional typology based on flow rates (right)- source: ESPON 2010

These results have implications in the aggregated indicator that combine net migration and visitor flow rates. The map (figure 5) shows how borders matter. The French-Belgian border divides a 'low retentive – low visitor attractor' macro area that corresponds to the North-East France from a general 'middle retention rate – middle level visitor attractor' area that characterizes almost the entire Belgium.

The difference is mainly due to different performances in net migration rate, in terms of both aggregated and disaggregated data by age bands.

Concerning tourism performances, NPDC received more tourist arrivals (between 3.8 and 7.5 million) than Province of West-Flanders (below 3.8 million) and Province of Hainaut (below 1.7 million). However, due to the large dimension of the regions and the presence of the coast, which are outside the territory of the metropolis[8], in the statistical units, the data are less meaningful. Moreover, the tourism is either local (20% of foreign visitors among all visitors in North Department in 2008, but 42% in West Flanders in 2006) or consists of daytrips (CRT, 2009; Province of West Flanders, 2009). Thus, the sections that follow will focus on the migratory trends.

[8] In NPDC, Lille represents 16% of the market, against 35% for the coastal areas

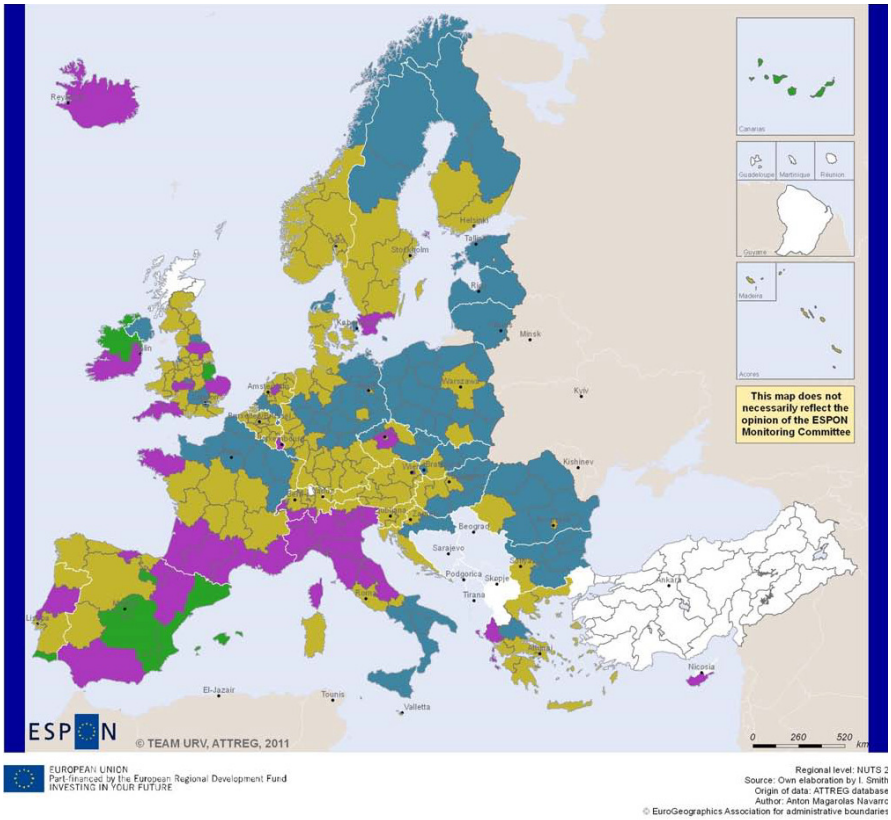


Figure 5: ATTREG regional typology based on differentiating net migration and visitor flow-rates (2000-06)- source: ESPON 2010a

2.2 Profile

This section will present the main migratory aspects that characterize the profile of each of the three subregional entities that constitute the Eurometropolis.

Overall, the Eurometropolis Lille-Kortrijk-Tournai is a territory composed of a French district (Lille Communauté Urbaine) situated in the North department, and 7 Belgian districts: 4 Flemish districts (Kortrijk, Tielt, Roeselare and Ieper) situated in the Province of West-Flanders, 3 Walloon districts (Tournai, Ath, Mouscron) situated in the Province of Hainaut and.

The NPDC population counts 4.018.644 in January 2006 (latest figures), it is the fourth region in France, and has the highest population density after Ile de France region (324/km² on average), the North department has 2.5 million inhabitants. LMCU concentrates 8 of the 20 main cities in the NPDC region (12 in the department), and its population was 1.1 million in 2006, which represents 43% of the department (INSEE, 2010b).

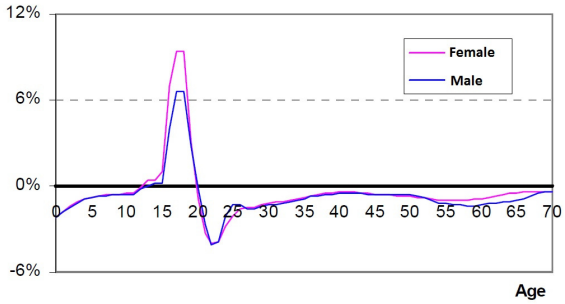
The Flemish Province of West-Vlaanderen (WV) with 1.141.866 inhabitants is the third largest of the five Flemish Provinces[9]. With 612.868 inhabitants, the part of WV lying in the Eurometropolis area represents 54% of the Province and 37 of its 64 municipalities.

The Walloon Province of Hainaut with 1.290.079 inhabitants is the biggest province in the Walloon region. The part lying in the Eurometropolis area represents 25% (330 965 inh.) of the Province population and 23 of its 69 municipalities.

In general terms, in terms of mobility flows, these profiles seem to display a certain level of consistency as regards the outflow of young graduates/professionals, despite disparities and specificities such as the high attractiveness of the French area towards young students, the cross-border migrant worker flows to Flanders, and the rural tourism efforts of the Walloon part.

NPDC

For NPDC, an exceptional natural growth (at national and European level) balances the negative migratory trends of the region, although forecasts announce a relative decline in the near future (Daubaire, Fabre, & Hubelau, 2009). In terms of mobility, NPDC mainly attracts the 18-24 (24% of the in-migrants and 19% of out-migrants) which is also the most mobile group (only 10% of persons not having changed regions), and the 25-39 age group constitutes the bulk of migratory trends (close to 39% both in terms of in and out migration). At a smaller scale, these trends appear even more clearly. Fig 6 and 7 show the migration rates for the AML (2.8 million inhabitants, approx. 70% of NPDC population), and the results for LMCU. It appears clearly that the positive trends for the 15-20 year group (which are less visible at an aggregated level and in the broader 15-24 category) are mainly concentrated in LMCU.



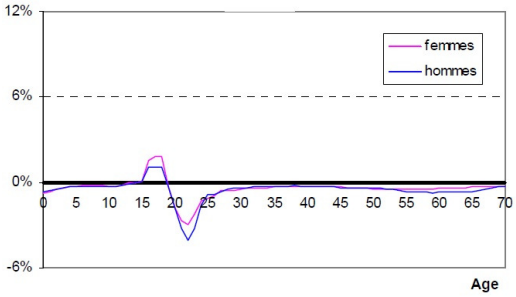


Figure 6 (left): LMCU net migration rates by age and sex 1999 - Source: Insee / Omphale2009

Figure 7 (right): AML net migration rates by age and sex 1999 - source: Insee/Omphale 2009

The explanation given by the interviewees for these results is that the massive state investments in education have created one of the strongest university pole in France around Lille and Villeneuve d'Ascq. This pole attracts students from the region, and from all over France. However, this influx of young students is then depressed by a large out-flux of young graduates that mainly leave the region for Paris or the south of France (See Section 0) creating a "brain-drain" effect.

In terms of occupation, NPDC is most attractive for the students and pupils (although the score is comparable to other French regions) and least for the managers/executive[10] category which displays the third worse results among French regions. Although this category has increased by 30% between 2001 and 2006, they have increased less than the national average (Antonov,

[9] The difference is mainly in relation to the Province of Antwerp (1.6 million) and Limburg (0.8 million)

[10] The French notion of "cadre" has no direct equivalent in English; it denotes a legal and socio-professional category encompassing scientists and researchers, a number of media-related professions, but also engineers and managers as such.

Zafirov & Rodriguez, 2009) and NPDC has still the highest under-representation of this category in its employment structure (INSEE, 2010b).

The main challenges, as confirmed by the interviewees, are to attract population at all ages and socio-economic profiles. The exceptional situation of students and young people coupled with a high natural growth ensures a positive (although very slow growth). As interviewees also suggest, the main concern is not in retaining the student population, but attracting all categories of population, possibly the professionally active (given the relatively low employment figures in the area). This is especially true for the most educated workers and the highest earners.

West-Vlaanderen and Hainaut

The researcher has not been able to find comparable data for the Belgian side of the Eurometropolis, the bulk of the information below is therefore based on interviews.

Hainaut

For the Walloon part of the Eurometropolis (also called "Wallonie Picarde" (or WaPi) the main challenges are related to a fragile economic structure relying on light manufacturing and logistics (therefore partially competing with the French part), as well as a lack of universities. While the unemployment figures are less worrying than other areas of the Province of Hainaut (for instance the region around Charleroi), employment remains a strong concern. This concern also encompasses a qualification and education issue, which the region attempts at tackling through actions to increase human capital (see previous section).

Interviewees nonetheless suggest that the area has a limited number of specialized and attractive higher education facilities (art schools, architecture schools, health and medical professions) especially for French students, which in some areas outnumber Belgian students. On the contrary, Belgian students only exceptionally venture to French universities, despite their relative proximity. The recent decision to create an e-Campus[11] is part of a strategy to remedy this state of things.

Another often-mentioned relation between Hainaut and France was the exchanges in the Health area, which mostly consist of pensioners and disabled pupils together with teachers that put a disproportionate burden on small Walloon municipalities.

As the most of the territory is semi-rural, with a limited number of urban centres, the challenge is also to mobilize touristic assets and create an attractive offer, mostly for proximity tourism and complementarily to more urban or business tourism, which could be the specificity of the French part of the Eurometropolis.

Aware of this specific setting, the WaPi region does not aim at attracting specific categories of population, especially the most educated and the highest revenues, as it does not have any of the perceived critical features for this type of populations (highly specialized professions, and headquarters of international enterprises, or international institutions, are to found in Brussels and Lille). It tries therefore to promote its territory as a balanced and harmonious one.

The area has also to overcome internal disparities on the territory (the eastern part being at commuting distance from Brussels, while the western part is strongly influenced by its proximity to Lille. (ADULM, 2010).

West Flanders

For West Flanders, the main challenge appears to be the low and decreasing natural growth figures (see Figure *8*8), and ageing of population.

[11] on the disused border post on the Belgian side at Lamain. It would be a higher education institution coupled with a business park and focused on new technologies

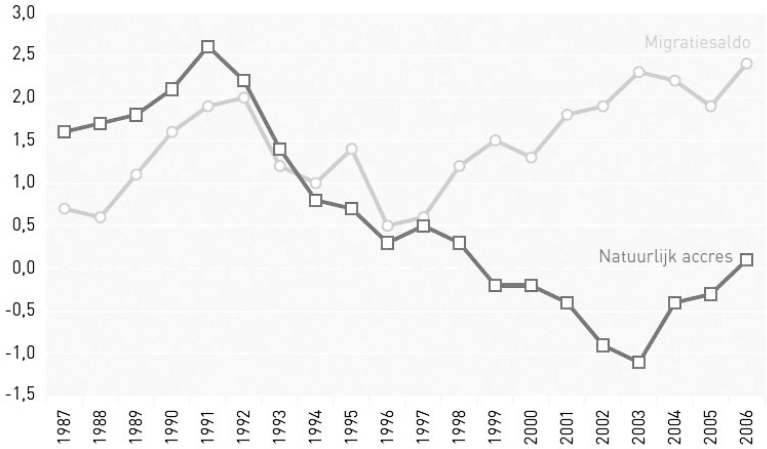


Figure 8: Evolution of natural growth and net migration (per 1000inh.) for the West Flanders Province 1987- 2006 - source: Provincie West-Vlaanderen 2009

However, at a smaller scale, focussing on the territories included in the Eurometropolis only, differences emerge: the coastal regions are clearly compensating their low natural growth rates by positive net migration figures, while Ieper and Kortrijk display not only negative net migration, but also decreasing natural growth (see

Figure **9**) although most recent figures show a positive evolution towards a very slightly positive net migration (Province of West Flanders, 2009).

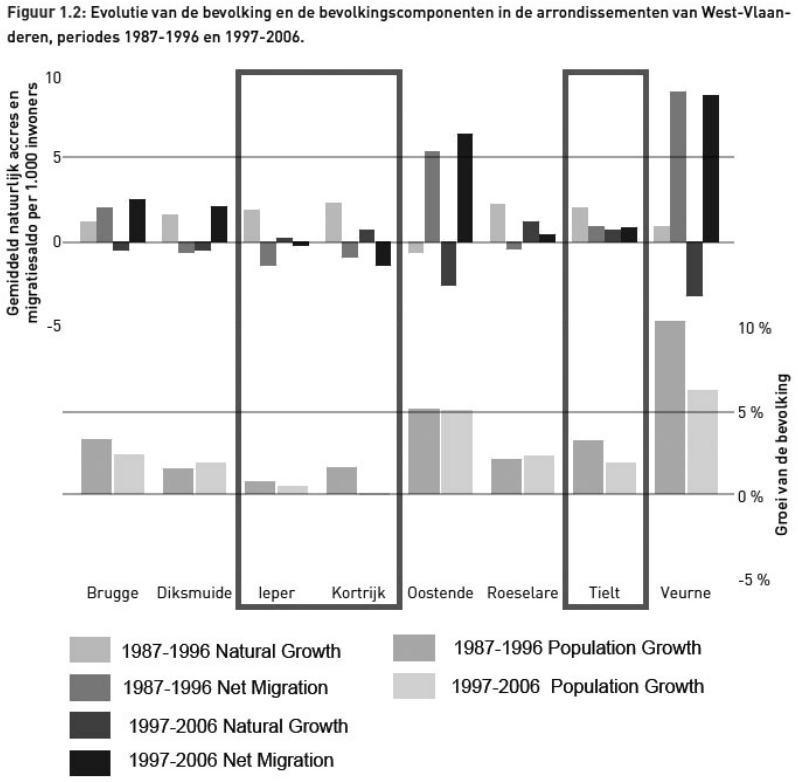


Figure 9: Evolution of population per district 1987-1996 and 1997-2006 - Source: Provincie West-Vlaanderen 2009

The area does neither attract migratory nor do touristic flows, which are directed to the coast although these results do not appear at provincial level, which aggregates both parts of West Flanders (see also previous section). The main challenges in terms of migratory flows are students and young graduates, who tend to leave the area for major city centres (mostly Gent, Brussels), but also migrant French workers (mostly cross-border commuters), which do represent a sizeable amount of the workforce, especially in the Kortrijk area (see Figure *10*10).

The activities linked to the enhancement of attractiveness of the area were mainly the economic development of the region through the attraction of an increased number of innovative businesses, which would in turn provide jobs. In parallel, the opening of a university campus (branch of University of Leuven[12]) as well as a progressive specialization in design are seen as part of a strategy to create a more attractive and innovative environment.

[12] The campus gathers about 1000 students and presents itself as a "launching pad" for further academic studies, as well as an interface in specific areas with the business districts of the area.

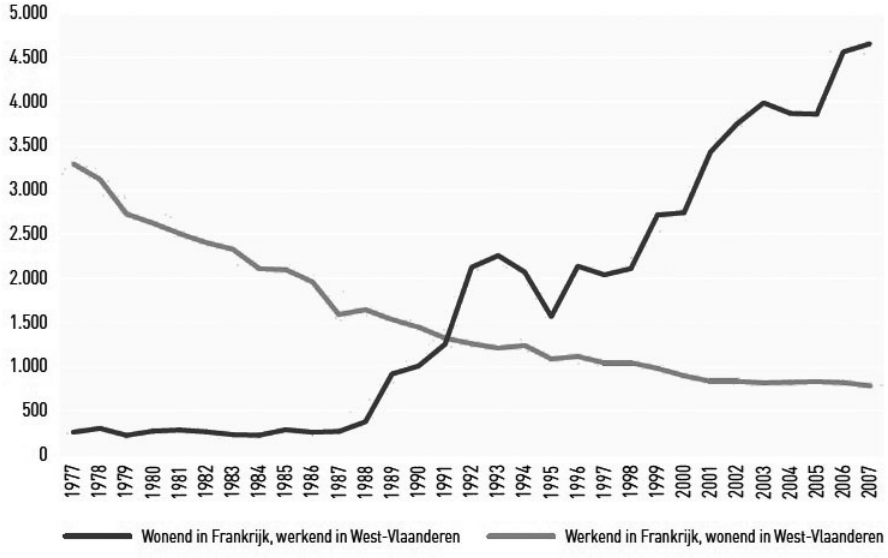


Figure 10: Number of cross-border workers residing in France (darker) and residing in West-Flanders (lighter) 1977 - 2007 - source: Provincie West-Vlaanderen 2009

In terms of spatial interventions, this is mainly manifested through the renovation of city centres, and surrounding green areas (the Leie/Lys valley being notably one of the structuring axes at regional level). Several targeted projects towards young graduates were also attempted, with mixed results. Since few years, the area also invests in touristic promotion and activities (such as bike paths) which are to a certain extent framed in a cross-border context.

2.3 Trends

This section will attempt at presenting trends in the ability to attract over the years. These analysis shows that the main changes in the ability to attract were the large scale investments and redevelopments centred in LMCU, although not sufficient to revert structural trends, while on the Belgian side, the main change in attractiveness occurred at the border, with an increase of French population settling there. Moreover, there is a prevalence of mostly internal / local migration flows, albeit still low in absolute number.

LMCU

A long-term perspective on interregional migratory trends in France since 1954 has identified two main trends: first, an overall regular increase of interregional mobility rates, except for the 1975-1990 period; second, a more mobile group such as the 20-30 years-age segment of population. (Baccaïni, 2007). In this context, it is useful to remind that despite largely negative migration rates, NPDC is one of the most stable regions of France (97% of the population has not moved between 2001 and 2006).The negative net migration seems to be embedded in a long-time trend of increasing out-migration that has stabilised between 1968 and 1982 , and was even accompanied by an increase in in-migration between 1982 and 1999 (see Figure 111).

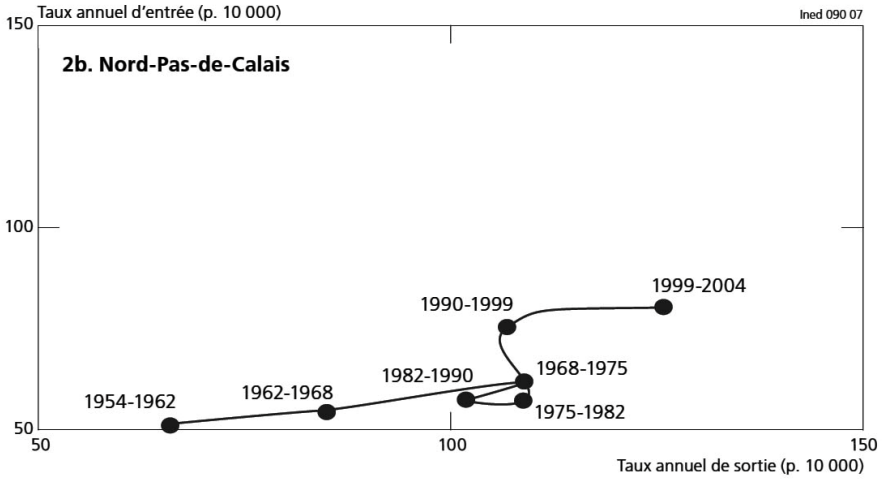


Figure 11: Yearly entries (vertical) and exists from NPDC (for 10 000 pop.) 1954 -2004 - source: Baccaini 2007

Interviewees suggest that the massive investments (High Speed Train, development of the services sector, urban regeneration, investment in education etc.) have not succeeded yet in reverting the trends, but have at least slowed them down the massive outmigration of the 70s and 80s. The main challenges are still socio-economic in nature, with pockets of poverty, high rates of unemployment of youth, and a deficit of attraction at all ages, except the 15-20 years old. Economic reconversion efforts, together with a strong drive towards internationalization and attraction of transnational businesses has to a certain extent succeeded to create a positive trend in some sectors of the economy but has not yet been able to change significantly and durably the situation.

West-Vlaanderen and Hainaut

Between 1991 and 2001 only 82 of the existing 589 Belgian communes have lost population. Almost a quarter of those were situated in the Belgian area of Eurometropolis (see Figure 122). Given low natural growth, changes in population are mainly driven by migration. Similarly as for the 1981-1991 period, it is the major urban centres (Liege, Charleroi, Antwerp, Gent) that have lost most of the population. However, the tendency is diminishing.

In this general trend, and focusing on the Belgian area in the Eurometropolis, the migratory trends were negative in larger urban areas of Eurometropolis (except Roeselare, Waregem and Poperinge in West Flanders, and Estaimpuis, Ath, Enghien in Hainaut). The explanation given for the positive results of smaller urban areas are migration from neighbouring sparsely populated areas in Wallonia and small agglomerations in Flanders(SPF Affaires économiques/FOD Economie, 2009).

The evolution between 2000 and 2008 (see Figure 133) shows a confirmation of slow growth trends in the most remote part of Hainaut and a reversal of trends in the areas bordering LMCU on both the Flemish and the Walloon side. One explanation, confirmed by interviewees is that as the French population[13] in these border territories (on both the Flemish and Walloon side)[14] has

[13] Attracted by a higher quality of life (larger presence of green areas, less urbanized spaces), to a certain extent employment in WV areas, tax incentives (an advantageous cross-border worker status) and a higher quality of housing.

[14] French citizens living in border territories represent 34% of the whole French population in Belgium, and due to language differences 83% of the French living in the border area on the Belgian side do so in the Walloon region. French citizens represent an important part of the bordering municipalities population: 20% in Estaimpuis, 17% in Commines, 13% in Mouscron.

grown faster than the population of the region itself. The Belgian border territories as seen as attractive for French citizens for a number of reasons, including tax evasion, but mostly due to a higher standard of the built at comparable or lower prices. French citizens are more prone to establish themselves in the French-speaking areas (although the Flemish area around Menen does also display about 7% of French citizens). This movement has accelerated in the last decade, and is benefiting mainly the Walloon side (with areas around Tournai becoming net attractors in terms of migrant population), mainly due to linguistic reasons, but also due to lower housing prices in the region.

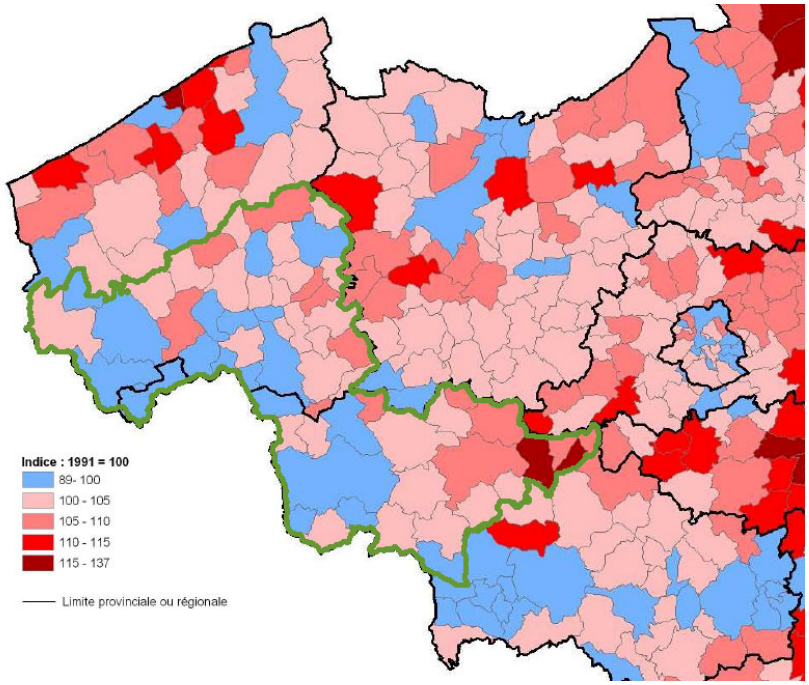


Figure 12: Net population change 1991 – 2001 (base 1991=100) Belgian territory of Eurometropolis in green - Source: FOD/SPF

The continued positive trends observed in the eastern part of the WaPi would mainly be due to the expansion of the catchment zone of Brussels, which is at commuting distance. Interestingly, some positive net migration in the area close to Ronse (see Figure 133) comes from Flemish migrants deciding to establish themselves in this area, which boasts high quality natural parks (south of Ronse).

The trends in the Flemish side of the metropolis seem to have changed only marginally, the main urban areas (Kortrijk, Ieper and Roeselare) still losing population. However, areas in the close vicinity of these cities have experienced a slight growth suggesting a suburbanization effect. (ADULM, 2010).

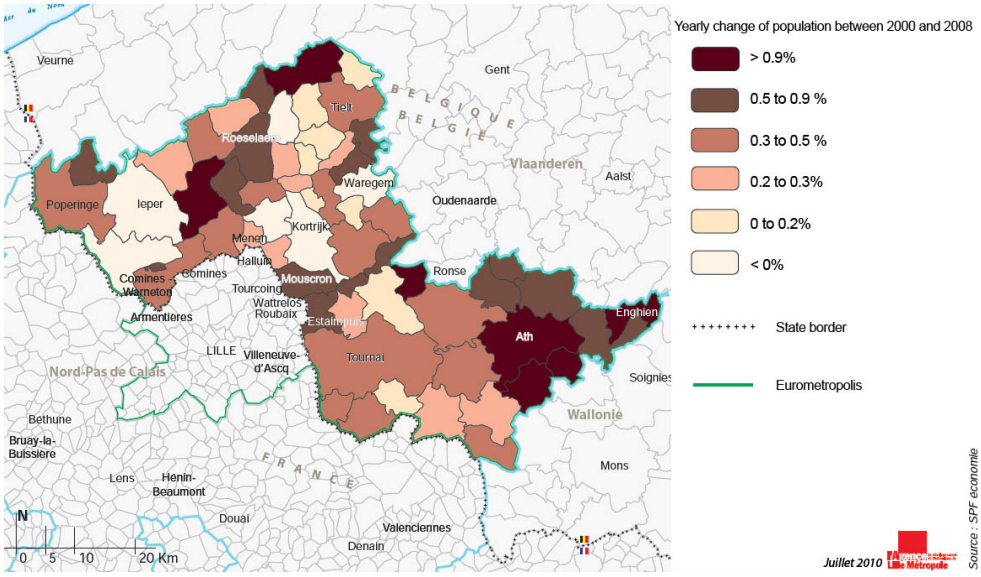


Figure 13: Average yearly population growth 2000 – 2008 in percentages on the Belgian side of the Eurometropolis - Source: ADULM - SPF/FOD

2.4 Position & spatial diversity

This section will attempt at looking at the Eurometropolis in a larger urban system. The inadequacy of existing statistical data mentioned in the introduction is even more striking here, as the relevant urban system is seen as different in each of the parts (France, Flanders and Wallonia). The lack of information on interregional-cross-border flows impedes the analysis at an interregional scale.

The overview of the situation of the different areas of the Eurometropolis in their broader context suggest that most of the population flows are interregional, but confined to the country: international migrations represent 20% of the migrations in NPDC (one quarter from Belgium), 20% of the Walloon part of the Eurometropolis, and less than 10% in its Flemish part. This, combined with the results of the previous section seems to suggest that there are interactions as regards population movements, and most of the category of international migrants may well be regional.

However, these migrations represent only up to 20% of the migrations in regions that do not display high mobility rates, and a very slow growth. Therefore, the overall conclusion for the territory regarding interregional and international migrations may be that migrations between the areas of the metropolis are marginal, and the integration of migratory flows very limited.

NPDC in France

Out of the 136 000 in-migrants to NPDC, 30 000 arrived from outside France, 12.770 from Europe (half of them from Belgium) and 12.850 from Africa. This information about the international provenance of migrants to NPDC shows that approximately 6000 Belgians (which is approximately 5% of the total in-migrants) have settled in the region between 2001 and 2006.

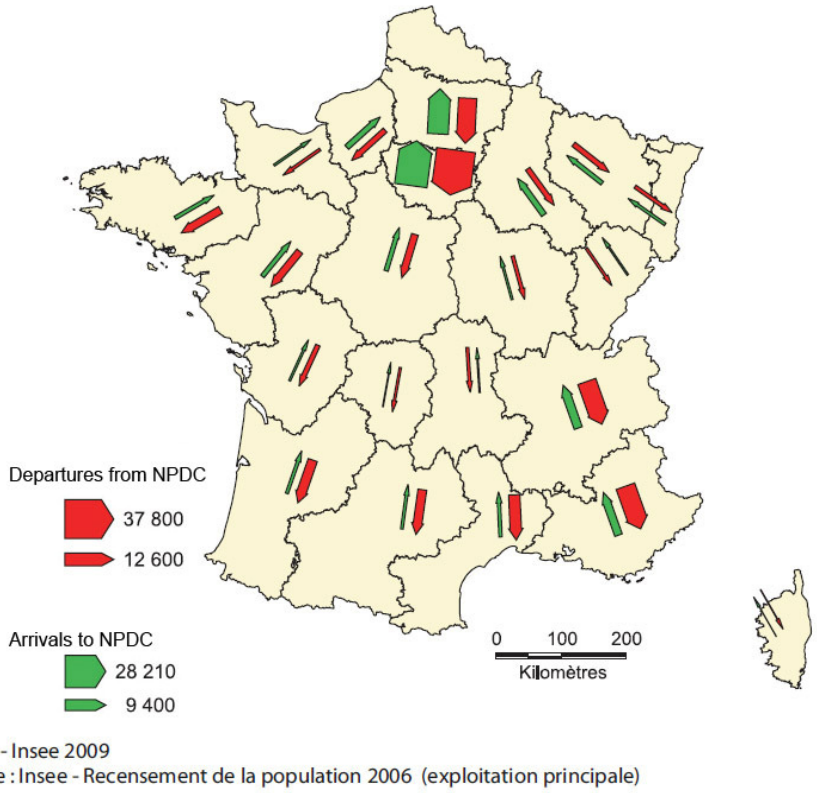


Figure 14: Residential migrations between NPDC and other French Regions (Green: arrivals in NPDC, Red: Departures from NPDC) 2001 - 2006 Source: INSEE 2009 (in Antonov Zafirov & Rodriguez 2009)

Most of the out-migrants of the region leave for Paris and the surrounding region (30% of 15-29 age group and 17% of the 30-59 age group) or the south (mostly the 30-59) . These are therefore mostly students or young graduates leaving the region to continue studies or find a first job. Considering the in-migration trends, the retirees (over 60 years) are mainly coming back from Paris region, although some of them also move out to the south (Antonov Zafirov & Rodriguez, 2009). The 15-29 is also the group most attracted by NPDC.

In terms of mobility, the Lille Metropolitan Area (AML)[15] gathers most of the inter-regional residential migrations[16] and LCMU plays a disproportionate role in AML with 40% of the population, but 52% of arrivals and 46% of departures.

Overall, most of the in-migrants are attracted by LMCU, and then 'redistributed' alongside more complex logics on the territory.[17] At smaller scale, these movements are unequally distributed over the territory, with three territories exhibiting a negative net migration: the city of Lille (possibly due to gentrification effects mentioned earlier), the area around Villeneuve d'Ascq[18]

[15] Lille Metropolitan Area corresponds to the functional definition of the metropolitan area of Lille, excluding its Belgian side. It comprises most of the North Department and has a population of 2.5 million inhabitants. This multiplicity of scales and statistical units illustrates the difficulty to gather comparable data at metropolitan scale, and even more at cross-border metropolitan scale.

[16] Inter-regional migrations represent 75% of all migrations in the area. 114 000 arrivals and 178 800 departures out of respectively 136 000 and 184 000 for NPDC

[17] The AML is presented as a really polycentric area, where the city of Lille plays a major role, but does not create a centre-periphery model. The ratio of daily commuting movements between Lille and the periphery are close to 1:4, which still indicates that a considerable number of people live in Lille and work in the periphery.

[18] interviewees suggest that this problem may partly stem from a specific quality of cities built in the late 60s, which display an unusual homogeneity in terms of population.

concentrating the main universities ("territorie est" on the map) and to a lesser extent the area around Roubaix (which still suffers from a difficult socio-economic situation).

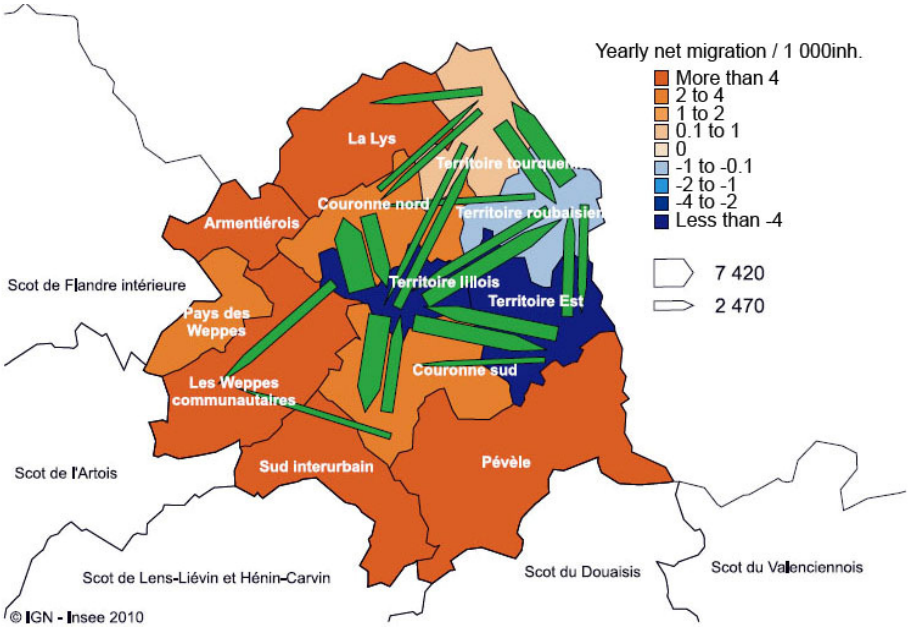


Figure 15: Yearly flows (more than 1500 pers.) and averages (per 1000 inh.) of net migration within Lille SCOT[19] in the years 2001-2006 - Source : Insee 2006

Exchanges with other regions of France explain more than 95% of the negative net migration and the remaining 5% are internal to the AML (INSEE, 2010c). LMCU is the only area to attract students (+ 9 900), mainly from other French regions, but also from NPDC (62% of all students of the region are in LMCU). It has a very positive net migration rate for the 15-20 age group, and a negative for the 21-34 (which represent 19% of population, but 40% of departures).

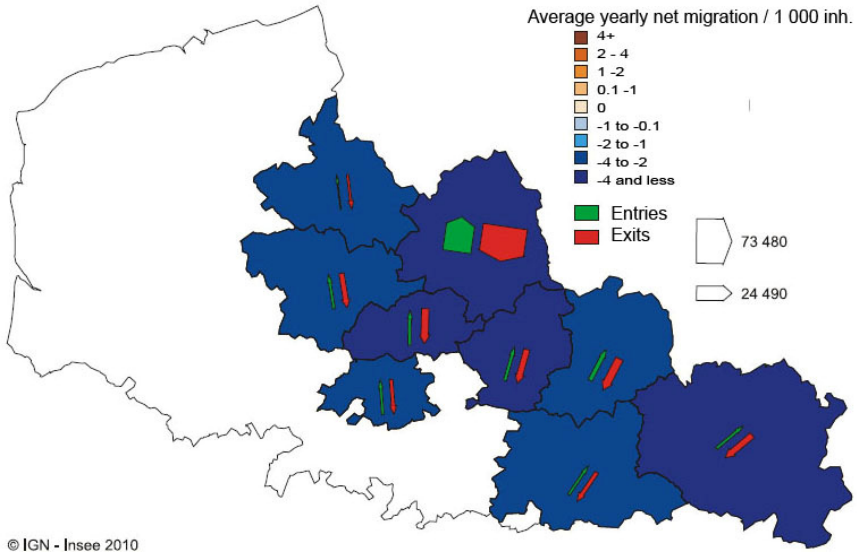


Figure 16: Inter-regional migratory flows and stocks (with other regions of France) for AML 2001-2006 Source: INSEE 2010

[19] The SCOT territory is slightly larger than the LMCU territory (LMCU and "Pévèle" and "Sud interurbain").

As mentioned earlier, these movements may represent a move of pupils together with their parents, as well as a strong attractiveness of the area towards students (due to the presence of numerous universities and scientific institutions). However, young graduates and professionals leave the region more often than not.

Interviewees have nevertheless indicated that the attractiveness of the city of Lille can in the medium term lead to a lower performance in demographic terms. With gentrification effects and increases in housing prices, young couples and families are likely to leave the central part of the agglomeration to the neighbouring areas.

West-Vlaanderen and Hainaut

In terms of interregional and international migrations, there is a notable difference between the Walloon and the Flemish part of Eurometropolis.

Migrations in the Flemish part of the Eurometropolis are more intra-district, than inter-district (i.e. between the district and the region), and to a marginal degree inter-regional (notably no migrations from Brussels, very few migrants from Wallonia) or international (these populations may represent French citizens settling in Flemish municipalities at the border)[20].

The Walloon part of Eurometropolis displays a higher number of migrants from the Flemish region, Brussels region (due to its commuting distance) and international migrations (mainly French, but not exclusively).

A possible explanation for the low attractiveness of the Flemish area, given by the interviewees is that it is situated outside the main development area, and does not benefit from positive spill-over effects from large cities. On the contrary, cities like Gent are exerting a strong influence over the young section of the population and creating out-flows.

Compared to the whole Flemish region (+0.5%), the Flemish part of Eurometropolis has a much slower growth (+0.1%) between 2000 and 2008. In the Provincial context (see also

Figure **9** above), the difference is even more marked as coastal areas have much higher average annual growth rates (from +0.8% to +0.3%).

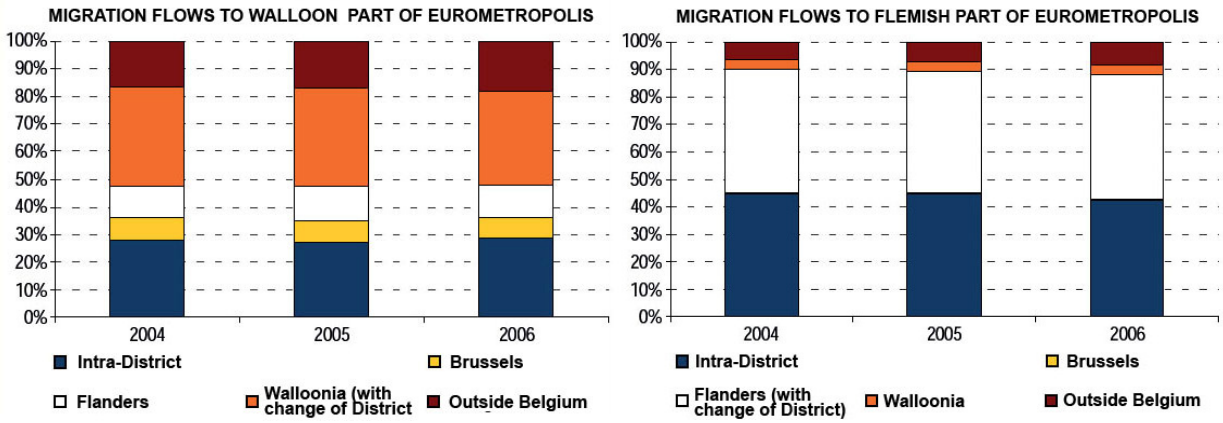


Figure 17: Structure of migratory flows in Walloon and Flemish part of Eurometropolis- Source: SPF/FOD

The Walloon side of the Eurometropolis has a development pattern close to the regional one (+0.4%), and at provincial level, the areas closest to Brussels display a higher dynamism (+0.6%

[20] In absolute terms, the movements for the Flemish part of the Eurometropolis represent about 26 000 in-migrants and 24 000 out-migrants(FOD/SPF, 2011).

for Ath and Soignies), especially compared to the main population centres, Charleroi and Mons (no growth) (FOD/SPF, 2011).

3 Strategy and Mobilization process

Following the theoretical and interpretative framework defined in Chapter 1, this chapter will highlight the capacity of mobilization of assets of the cross-border governance processes, exploring the characteristics, the potentialities and the trajectories of the cooperation and how they fit in the general territorial trends described in the previous chapter. The chapter starts with a brief overview of the history of the cooperation. Then, it will be articulated in different sessions, using a reinterpretation of the analytical categories described in chapter 1:

1. History of the cooperation
2. Vision, territorial assets and implementation (articulated in 'COPIT/GPCI vision', 'continuity and differences', and 'implementation')
3. Spatial-economic conditions and scope of the cooperation
4. Administrative organization (articulated in 'definition of the territory' and 'degree of formality)
5. Actors and strategic networks (articulated in 'political support & involvement' and 'leadership')
6. Coordination and cooperation (articulated in 'vertical cooperation', 'horizontal cooperation' and 'participation')

3.1 Overview of cross-border cooperation

From a historical perspective, the French-Belgian border is often presented as artificial, as it has no natural barrier such as a river or other morphological feature, and was for a long time under a single jurisdiction (Giblin-Delvallet, 2004). Its impacts are mostly felt from the 19th Century onwards, with the French protectionist policies, which adversely affect Belgian textile industry, and create large flows of cross-border workers as well as an increased development of the small towns bordering the city of Lille. The relative importance of these cross-border flows as well as cultural and linguistic proximity have contributed to the idea of a rather porous border. However, this integrated space is seen as taking increasingly divergent paths in the twentieth century and more markedly after the second world war, with an increasing role of central state in local policies, a balancing of economic conditions, policing of labour markets and a strengthening of the linguistic division (Van Staeyen, 2008b).

The origins of the French-Belgian cooperation can be traced to the decade following the Treaty of Rome and the first towards European economic integration. The first French-Belgian cross-border cooperation mechanism was the "Comité de liaison économique régional franco-belge" [French-Belgian regional economic liaison committee], which operated from 1960 until 1968. Its main thrust was to start coordinating regional economic development efforts, with a view to the nascent European Economic Community and the prospect of a customs union, which would severely constrain existing protectionist policies. It was mainly an economic-administrative initiative led by regional economic development associations. (Cleyet-Michaud, Nord, Denizart, & Passot, 2007, p. 135).

The next attempt was the "Commission franco-belge pour l'aménagement des régions frontalières" [French-Belgian commission for the planning of border regions] established in 1970. (Saez, Leresche, Bassand, & Ascher, 1997, p. 33). The first attempts at cross-border cooperation

were therefore circumscribed to an international framework (i.e. a cooperation between states) and did not involve local authorities.

Despite the initiatives mentioned above, and specifically in terms of planning, the national border blocked any concerted planning on the Belgian side, despite the fact that the industrial activity of the French towns was for long time dependent on the Belgian workforce. Until the 1980s, there was little or no cooperation along the border (Giblin-Delvallet, 2004)**.**

The decentralisation in France engaged in the early 1980s and the increasing devolution of competences to Regions in Belgium, together with the creation of international legal instruments (especially the "Madrid Convention"[21]), new financial incentives resulting from the creation of a regional policy at European level[22], and the arrival of the High Speed Train[23], created new opportunities for cooperation , which were reflected in the creation of interregional projects (between France and Walloonia, and between France and Flanders) with the help of INTERREG programmes (INTERREG, 2011).

The idea of a political conference on cross-border cooperation was developed at the occasion of a common trip of Belgian and French officials outside Europe (Prévot, 2010) and was formalized by an agreement in October 1991 between a French and four Belgian inter-municipal organisations[24] to work towards the creation of a European metropolis. Together, they formed COPIT/GPCI[25] which was a political agreement between the directors of the inter-municipal organisations (Van Staeyen, 2008b). The cooperation developed institutionally and in 1994 it acquires a permanent secretariat nested in LMCU's development agency, ADULM. From 1998 to 2002 COPIT/GPCI was engaged in a pilot project supported by European funds (Grootstad) that aims a defining a cross-border strategy for the area. The strategy was adopted by the five inter-municipal organizations in 2002. Having developed a number of studies and proposals for cooperation in the area, COPIT/GPCI was rapidly confronted with the practical difficulties (in organizational, legal and to a certain cultural terms) of implementing the ambitious goals defined (Van Staeyen, 2008b).

At the same time that the local initiative gains in importance, and recognises the limits of an informal cooperation in a cross-border context, it attracts the interest of higher authorities (French State, Flemish and Walloon governments). These authorities agree to support the

[21] Outline Convention on Transfrontier Co-operation between Territorial Communities or Authorities

[22] Although the role of European policy and funding seems to have played an important role, an investigation of the developments of the cross-border interregional cooperation in the framework of European programmes is outside the scope of this study, which is mostly interested in the more discrete cooperation developed between the inter-municipal organisations across the border and within a metropolitan area. Consequently, this study is not an exhaustive analysis of all cooperation forums or activities that have emerged in the region.

Other examples include the creation of the Transmanche region between Kent (UK), Nord-pas-de-calais (FR) and Belgium (Cannon, 2005), or the cooperation established between Chambers of Commerce within "Euro6" (Armentières-Hazebrouck, Kortrijk, Lille-Roubaix-Tourcoing, Mouscron, Ieper et Tournai), which after several changes becomed EURO 3 in 2007 (Chambers of commerce of WestFlanders, Grand Lille, Wallonie Picarde). A number of agreements of cooperation were also signed at the same time, for instance the cooperation agreement between the Nord Department and West-Vlaanderen province (1989) and the cooperation agreement between the Nord Department and Hainaut province (1989).

[23] However the first plans seem to favour a cooperation directly with Brussels. This seems to have influenced Belgian local actors who started building ties around the Lille Kortrijk Tournai triangle (Giblin-Delvallet, 2004)

[24] Lille Métropole Communauté Urbaine (LMCU), IDETA, IEG, Leiedal, Wvi with the support at most stages of the Agence de développement et d'urbanisme de Lille Métropole (ADULM), the Urban development agency of LMCU.

[25] COPIT/GPCI stands for Permanent Cross-Border Conference of Inter-municipal Organisations [Conférence Permanente Intercommunale Transfrontalière / Grensoverschrijende Permanente Conferentie van Intercommunales]

initiative by creating legal tools[26] that would facilitate cross-border cooperation at sub-national level.

In 2005, a bi-national French-Belgian parliamentary mission is created to identify the legal and administrative obstacles to cooperation, as well as possible solutions (Groupe de travail parlementaire franco-belge / Frans-Belgish parlementaire werkgroep, 2007). The results of this work are on the one hand a consolidated list of obstacles to cross-border cooperation, and on the other hand a precise suggestion as to an institutional solution to (some) of these issues in the form of a governance structure, taking the shape of a recently created European legal instrument. The European instrument is the European Grouping of Territorial Cooperation (EGTC)[27] that is both a political tool consolidating the will to cooperate, and also a technical tool resolving several obstacles to the implementation of cross-border projects. In January 2008, less than a year after the parliamentarians' mission report the Eurometopolis Lille-Kortrijk-Tournai is created as the first EGTC in Europe. The main features of the new cooperation tool are the participation of all levels of government (from municipal to state level) as well as a dedicated administrative agency and a budget. The agency is fully operational since late 2009 and the EGTC has started working simultaneously on a number of projects, including a common strategy for the territory.

3.2 Vision, territorial assets and implementation

Summarizing the previous session, since 1991, four metropolitan strategies were conceived:

- Proposal for a strategy for a cross-border metropolis (COPIT/GPCI:2001)
- Proposal for a Metropolitan Cooperation (AML: 2005)
- Report of the French –Belgian Parliamentary group (French-Belgian Parliamentary group: 2007)
- Eurometropolis Lille Kortrijk Tournai first elements for a strategy and main themes (Eurometropolis 2009-2011)

The first[28] between 1998 and 2002 in the framework of the *Grootstad* project, led by the COPIT and financed by the EU. The second, although not explicitly labelled as such, in 2005 to respond to a call for proposals on metropolitan cooperation launched by the French government (although the actors participating were different). The Report of the French –Belgian Parliamentary group can be considered as third one. The forth one is currently being elaborated by the Eurometropolis.

This section will first focus on the COPIT/GPCI strategy elaborated and accepted by the inter-municipal organizations. Then, it will analyse the evolution of the contents in the various phases of the cooperation, comparing the discourses in the four different strategies. Finally, it will describe the implementation of these strategic cooperation's.

[26] Accord entre le Gouvernement de la République française, d'une part, et le Gouvernement du Royaume de Belgique, le Gouvernement de la Communauté française, le Gouvernement de la Région wallonne et le Gouvernement flamand, d'autre part, sur la coopération transfrontalière entre les collectivités territoriales et organismes publics locaux, Bruxelles le 16 septembre 2002 [Agreemment between the government of the French Republic, the government of the Kingdom of Belgium, the government of the French community, the government of Walloon region, the government of Flemish region on cross-border cooperation between local governments and local administrations, Brussels, 16 September 2002] in force since 2005.

[27] European Parliament, Council of the European Union, Regulation (EC) on a European grouping of territorial cooperation (EGTC), Doc. No. 1082/2006, OJ L 210, 5 July 2006

[28] One should mention at this stage the difficulty to access the first strategy elaborated, which is mentioned in most of the documents related to the cross-border cooperation, which were removed from public access after the dissolution of the COPIT association in late 2007, and are not yet made available by the Eurometropolis.

3.2.1 The COPIT/GPCI vision

Based on 16 reports and studies assessing the cross-border area[29] the first strategy aims at developing the French-Belgian metropolis and strengthening its cross-border aspect.

The vision declares the intention to:

(1) become an international metropolis able to compete at global scale that would bring prosperity and quality of life,

(2) that has a relevant governance adapted to cross-border development and planning challenges,

(3) merging an "objective metropolisation" (functional) with and a pro-active (referring to political voluntarism) cross-border cooperation to bring an added value to the citizens (COPIT, 2002, p. 19).

Moreover, the vision is then articulated into four strategic axes, explicitly without hierarchy among them:

(1) Build a metropolis for the citizens

(2) Transform the urban cross-border area into an European metropolis of international importance

(3) Cooperate to create a quantum leap in the urban environment (built and natural)

(4) Create a relevant governance for a polycentric, tri-cultural and bi-national metropolis

An examination of the strategy in terms of territorial capital basing on a summary of the main "principles of action" and "proposed activities" shows a willingness to mobilize all the six elements of territorial capital (TC) in creating the metropolis. Given the diversity of principles and actions proposed[30], only a qualitative categorisation is possible:

- **Environmental capital:** landscaping (green and blue links) to create a better image for tourists and residents
- **Antropic capital:** better connection of metropolitan territories to the HST station, cities attractiveness and reinforcement of cities centrality, build missing cross-border train and road connections, reconversion of disused border posts.
- **Economic capital:** create positive synergies through common territorial marketing to attract firms, promote a common image of the territory and aim at a shared use of existing

[29] Covering a wide area of topics: Economic competition and synergies, Landscape analysis, Political perceptions and expectations towards the metropolis, Water management, Economic analysis, Mobility, Planning, Employment, Culture and Languages.

[30] Some of the objectives are extremely specific and precise, such as: "Realise projects that symbolize the cross-border cooperation through their function and/or localization" translated into three principles of action : (1)"redesigning of border posts", (2)"definition and implementation of cross-border urban projects" and (3)"definition and implementation of projects that through form, function and implementation process symbolize cross-border ambitions and achievements of the metropolis" (COPIT, 2002, pp. 42-43). Five specific projects proposals are given (that in several cases refer to existing studies).

Other are much more abstract, such as one of the five objectives aiming at creating a metropolis of European importance: "a great step forward in the knowledge of languages" which principles are "trilingual generation: encourage learning languages from early years", "give priority to the languages of the neighbours", strengthen the presence of native-speakers", "create a multilingual environment (medias, clubs, exchanges…)", create a long-lasting awareness activities focused on youth and coordinated with education institutions" (COPIT, 2002, p. 63). The actions proposed are: a common event around languages, a cross-border secondary education institution which opens education opportunities in both countries, strengthen language teaching, favour bilingual signposting, create an institution open to all dedicated to European languages.

infrastructures, and common or coordinated creation of new ones. Attract innovative firms, reinforce existing business clusters and create more links with existing higher education. Use culture and tourism as economic capital.

- **Human capital**: enhance the mastery of languages through school exchanges, enhancement of the language offer. Open up the labour market (legal barriers for employment, tax and social benefits, enhance qualifications to better meet demand and offer).
- **Institutional capital:** create an appropriate governance for the cross-border area, building on the plurality and diversity of the territories and cultures, working in parallel on promotional and projects, favour visible actions, act at the most appropriate level, favour a positive competition.
- **Social and cultural capital:** creating synergies through networking of the existing cultural activities of the territory, and possibly creating new common events (sports, entertainment, culture). Enhancing student mobility and common usage of higher education facilities. Creating a common identity (name)

The elements of territorial capital mobilized show a willingness to exploit possible complementarities between different assets of the territory (schematically: metropolitan functions and large workforce in Lille, including university centres, dynamic businesses and vibrant economy in Flanders – including also landscape qualities – and mostly landscape qualities, availability of space and workforce for the Tournai region) and also building on common assets (multiculturalism, diversity, to a certain extent bilingualism and innovativeness stemming from the border – as a capacity to overcome barriers).

In this sense, the strategy tries to mobilize existing assets, through territorial marketing, linking higher education institutions, enhancing the use of languages, networking cultural activities. In addition, it attempts at creating new capital through improvement of the environmental capital (green areas and valleys), antropic capital (enhancing mobility in the region between the main cities and enhancing their internal and external accessibility), economic capital (by a shared use or preferably common development of new infrastructures), cultural capital (common events, common identity) and institutional capital.

However, despite being related to attractiveness strategies, the metropolitan vision remains rather vague on this subject. It seems that the audiences are multiple, and not precisely defined: “The metropolitan cores are attractive places: attractive for the citizens (quality of life, employment, cultural and commercial services, social fabric…), attractive for entrepreneurs, researchers, creative people … “ (COPIT, 2002, p. 12). A closer look at the strategy suggests that some specific audiences are thought of in the course of the document:

- Attractiveness for **investors and most qualified workers**: need to offer a wide and diversified labour market to attract investors, who will be able to provide highly qualified jobs. (COPIT, 2002, p. 49)
- Capacity to attract the **most qualified workers**, most innovative projects and capitals depends on the international image (COPIT, 2002, p. 53)
- Perception of a lag with other urban regions in Europe in terms of **environment** and **quality of life** (COPIT, 2002, p. 67) landscape quality plays an increasing role for **residents and visitors** alike (COPIT, 2002, p. 70) that can bring benefits in terms of identity
- Attractive cities: as a networked metropolis, all its components should aim at quality of cities (regeneration, accessibility, centrality and mobility between them) (COPIT, 2002, pp. 77-78)

The explicit mention of attractiveness shows the primacy of economic criteria (investors, most qualified workers, tourists), and a specific understanding of existing assets of the territories:

(1) possibility to reach thresholds through pooling of economic resources (common and complementary specializations)

(2) capitalizing on cultural and linguistic diversity, as well as innovation potential resulting from the border and create complementarities in higher education (notably to enhance the labour market)

(3) taking advantage of unexploited environmental potential and polycentric situation

To a certain extent, the creation of cultural capital (through networking of activities, or common new events, creation of a common identity) and environmental capital seem to serve the double purpose of reinforcing the external image of the metropolis, and its internal support. Activities related to human and social capital (multilingualism, cross-border labour market, university cooperation and specializations) also serve a double objective of economic development and legitimacy towards the population. It seems therefore that this double-track approach aims primarily at reinforcing the attractiveness of the metropolis to the outside world (investors, qualified workers, tourists), and in doing so creating added value for its inhabitants.

In terms of spatial vision, a conceptual spatial overview of the developments is presented under the second objective of the strategy (Transform the urban cross-border area into an European metropolis of international importance). It seems to give an overview of the major axes of development for each territory (see Figure 18).

This scheme is interesting, as it gives a unified view of the cooperation space, where areas are divided more functionally than politically or administratively. It also gives indications as to possible strategic orientations for the different areas, notably:

- a further integration of the Belgian city of Mouscron in the Lille urban area, and a reinforcement of its urban qualities
- in the area between Kortrijk and Roeselare, a better rail connection (notably to the High Speed Train) and a strengthening of business networks and moving up the value chain
- Two main green areas around Ieper and Tournai, where the natural heritage, possible economic development (thanks to higher reserves of land) and complementarities in touristic functions of urban centres could be envisaged.
- Five natural zones to be further developed.

Without going into the details of the elements of the visions, it seems that the complementarities identified are mostly at the metropolitan scale and attempting at enhancing the attractiveness of the area as a whole, and not necessarily attempting at altering the distribution of functions over the territory[31]. This ambition seems coherent with the attractiveness challenges of the area, which as a whole would benefit from increased in-migration. The rebalancing of attractiveness at smaller spatial scales seems to be less of a cross-border ambition, except for the general suggestion to enhance the attractiveness of the main cities, which in any case may be less of a cross-border concern.

Some concerns for rebalancing of assets exist in the ambition to integrate job markets, and mobility between major cities and along the border. However, residential mobility does not seem to have been taken into account at that stage. The ambition rather seems to focus on possible

[31] Taking the example of cultural capital, Lille has seemingly used culture as an integral part of the redevelopment of some areas that were seen as unattractive (for instance the flagship reconversion of a swimming pool into a modern art museum complex in Roubaix, or the recent renovation of the municipal modern art museum of Lille). Similar examples can be given for Kortrijk (the BUDA art centre) and Tournai (heritage restoration). It is not clear to which extent these activities are framed by the cross-border strategy, but it seems that the ambition is not yet to create a common management of the territory, but start with a common management in the areas that can bring clear added value to all participants.

synergies and aiming towards a common development vision to prevent unhealthy competition (as suggested in the area of logistics and retailing: a cross-border multimodal platform would avoid such effects). This in turn implies different activities in different areas.

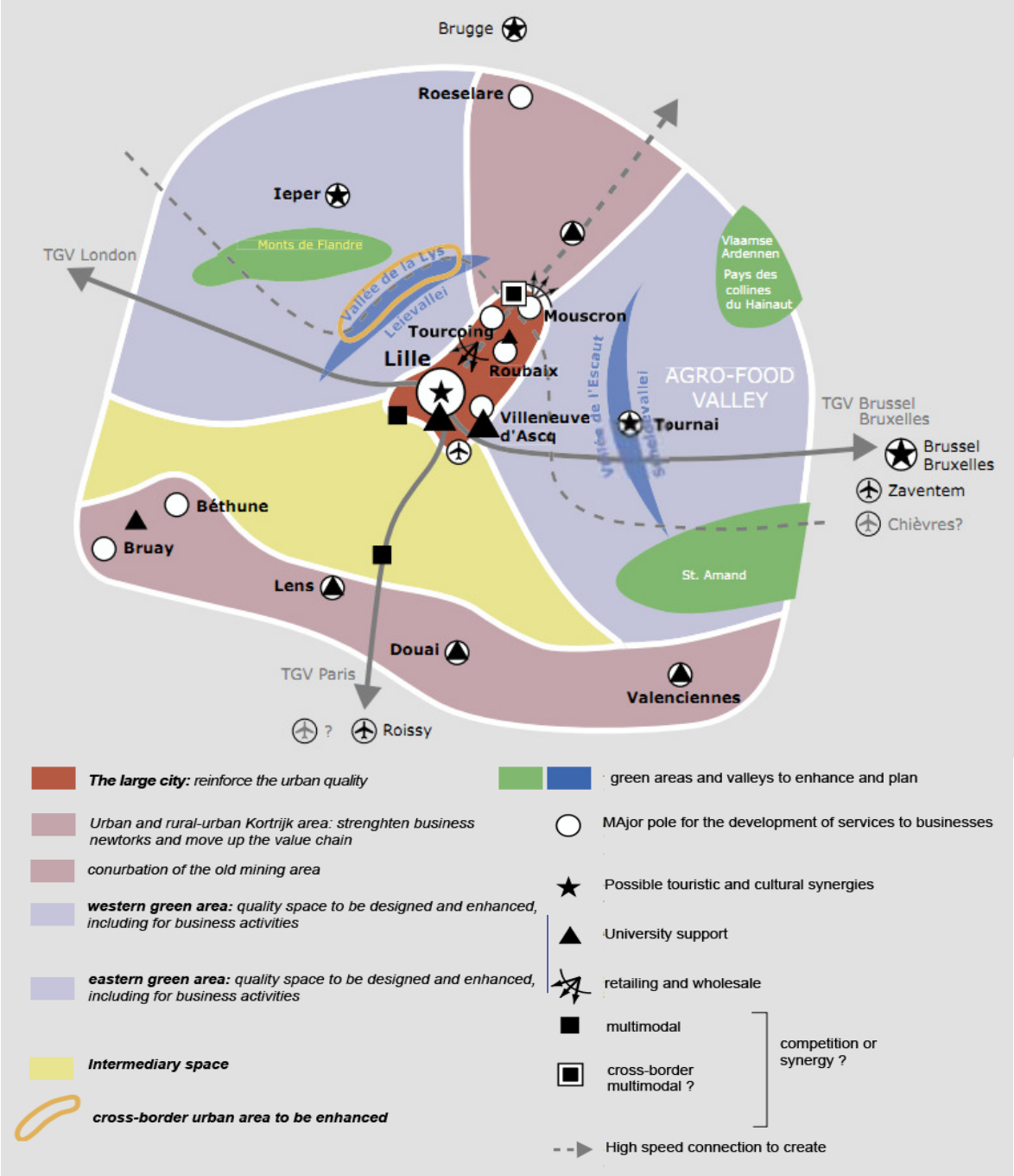


Figure 18: **Spatial and functional organization of the metropolitan area - Source: COPIT/GPCI 2002 p.55**

3.2.2 Continuity and differences in cross-border cooperation themes

As mentioned in the introduction, the initial strategy was followed by several other steps in the cooperation. This section will give an overview of the evolution of the themes of cooperation at four major stages. The comparison aims at detecting continuities in the documents and

discourses despite institutional changes, differences in actors involved. In addition to the strategy analysed above, three documents will be considered from a discursive perspective.

First, the Proposal for a Metropolitan Cooperation (AML, 2005) is a joint response of the inter-municipal organizations associated in the COPIT together with the areas south of Lille[32] to a French government call for proposals for metropolitan cooperation. As interviewees specified, the change of scale was to a certain extent motivated by the possibility of additional resources (which never materialized as the French government withdrew from the initiative).

Second, the report of the French – Belgian Parliamentary group in response to a joint French-Belgian governments' request to "reflect and make proposals to foster cross-border cooperation projects in the Lille-Kortrijk-Tournai agglomeration, notably to be better placed in the competition between European metropolises" (Groupe de travail parlementaire franco-belge / Frans-Belgish parlementaire werkgroep, 2007). The scale is here corresponding to the territories of the COPIT, but actors are to a certain extent different.

Finally, as the Eurometopolis Lille Kortrijk Tournai is still in the process of elaborating its strategy[33], the first elements on which the analysis is based are the public information about its themes of cooperation (through the working groups established) as well as interviews.

Table 1 (Appendix 3) compares the main themes of cooperation, and summarizes under each of them the main elements composing the theme. The titles of the categories stem from available documents, while the description in brackets summarises the actions proposed trying to match the language used as faithfully as possible.

Overall, the comparison displays a remarkable continuity of themes giving the impression of a successful framing for collective action and a common imaginary (except security, which was only tackled by the group of parliamentarians and the issue of health that has permeated to the Eurometropolis working groups). The most consistent themes of cooperation are **economic competition** (especially for territorial marketing, development of business clusters and cross-border workers[34]), **mobility** (internal and external accessibility and requalification of border posts), **planning** (consultation and information aiming at common decisions) and **landscape/environment** (especially on the common development of the Lys/Leie valley and ensuring continuity in the blue and green grids). In the other fields, the continuity is less marked. For **higher education**, the continuity appears in the student exchanges. In the field of **culture**, it is also the networking of cultural actors and a common labelling of cultural events that remains. **Languages** is also a constant theme, although it changes categories (culture or education).

An important element present in all documents is the reflection on **governance** and the common management of the area: it is one of the four strategic axes in the metropolisation strategy[35], it is

[32] The 'bassin minier' comprises: Hainaut-Valenciennois, Lens-Liévin-Hénin-Carvin, Béthune, Cambrésis, Maubeuge-Val-de-Sambre,Arras,Coeur de Flandre. Grouping together 1.6million inhabitants.

[33] The first elements of the strategy indicate an articulation of three main axes:

- "visualize our metropolis in real time" assembling and updating data about the common territory to be used as a communication support
- "feel our metropolis" which would consist of a flagship large-scale project giving a physical dimension to the Eurometropolis (for instance around the water links that offer various opportunities in terms of urban design, mobility, culture, tourism etc.) and
- finally a "Metropolisation strategy" which would improve the competitive position of the territory through an enhanced visibility on the international scene (Eurometropolis, 2011a).

[34] except for the metropolitan cooperation proposal, for at the AML scale these movements may appear negligible

[35] And has led to a number of internal reflections within COPIT/GPCI : 2004, the need to associate higher levels of government, in 2005 the change of legal status (to the newly available GLCT created by the French-Belgian agreement of 2002), 2005 the necessity to create an independent agency, and in 2006 to associate mayors and burgomasters in the form of a conference.

the most tangible output in the MEPs report, and it has eventually been achieved in the form of the Eurometropolis Lille-Kortrijk-Tournai. In this sense, the governance mechanism is not only the tool (conceived as mobilization process) but also the result of this mobilization process, contributing to the institutional capital of the cooperation area.

3.2.3 Implementation

As the previous sections have demonstrated, the cross-border cooperation process has been successful in establishing a strategy, which aimed at a comprehensive set of actions on themes that could bring added value to the cooperation area as a whole. This strategy has exhibited a remarkable continuity in the themes of cooperation.

However, and despite the continuing reflection on governance, one crucial aspect, namely its relation to the implementation seems to be lacking. It is not possible within this work to provide a comprehensive analysis of the implementation, or the outputs of the different themes of cooperation mentioned so far. While this may be seen as a shortcoming of the analysis, it seems very difficult and hazardous both conceptually and practically to make a clear and mechanistic link between the strategy, a number of implemented projects and their effects on attractiveness. As the cross-border strategy is an addition to the regular activities of all the actors involved in the cooperation, it is also strongly dependent on evolutions outside the scope of the cooperation (although the ambition of an increased consultation and information attempts at resolving this issue). The cross-border strategy seems to have as an ambition to merge existing development strategies or management activities of the different elements composing the area, but focusing on the common or cross-border elements.

However, there is a common assessment about the interviewees as to the limited number of implemented projects within the scope of the cross-border cooperation. Interviewees do agree that the governance structure created in the first period of the cross-border cooperation has been able to create a number of networks between technicians and politicians, produced a vast amount of knowledge in the cross-border area, has elaborated a comprehensive strategy, but was not necessarily the right vehicle for the implementation of projects. This analysis is shared by the French-Belgian group of Parliamentarians who mention that the efforts engaged since the 1990s have progressively uncovered the scale and the diversity of obstacles to cross-border cooperation, as well as the limits of the previous form of cooperation. The European dimension of the cross-border metropolis can in their view only develop through common projects, which implementation is made more complex by the discrepancies in the political and administrative systems on either side of the border, and therefore requires a commitment of all levels of government (Groupe de travail parlementaire franco-belge / Frans-Belgish parlementaire werkgroep, 2007, p. 5).

The successful cooperation projects mentioned often revolve around economic issues, and involve European funding. This is the case of the *Cross-border centre for commercial and industrial development* (Centre transfrontalier de développement industriel et commercial - CTDIC) and the *Cross-border business development board* (Bureau de développement transfrontalier des entreprises - BDTE), which are merged today in one organization: CTE GO-KMO[36]. Both were created with the assistance of Interreg IIIA funds and continue operating with the support of Interreg IV France-Vlaanderen-Wallonia. It is also the case of common marketing and promotional activities, notably the *European laboratory of economic integration* (Laboratoire européen d'intégration économique L.E.I.E), which was an Interreg IIIA project to both identify the barriers to cross-border economic development, and to organize a common marketing strategy and activities, such as the presence in international events[37]). Another case is the *cross-*

[36] http://www.ctdic.com/

[37] http://www.espaces-transfrontaliers.org/en/detail_projet.php?idprojet=99

border employment forum[38], which was organized since 2006 by the unemployment offices on either side of the border together with employers organizations and trade unions, supported since 2007 by the Interreg IV programme. It is seen as a major success, attracting numerous job seekers and also employers not only from the region) and the *Emulation* (Interreg IIIA)[39] to promote exchanges of practices in the development of new business parks.

Activities in the field of culture are mainly related to the events organized at the occasion of Lille 2004[40] as European capital of culture and followed up by Lille3000, which also involved Belgian participants, and now highly symbolic cross-border TV programmes[41] broadcast in France and Belgium, as well as cultural festivals such as NEXT. Finally, interviewees also mentioned water treatment stations (5 cross-border infrastructures realized between 1993 and 2006 involving complex repartition schemes), and more recently the creation of a cross-border crematorium serving French, Flemish and Walloon areas, that has also led to cooperation in public tendering.

This list of projects is by no means exhaustive, and should take into account the difficulty to locate specifically projects on the Eurometropolis territory, as the ambition was to foster cooperation at different scales. However, the creation of the Eurometropolis seems to have accelerated the cooperation and increased the number of projects realized on the territory or supported by the Eurometropolis[42].

3.3 Spatial-economic conditions: motives for cooperating

The motives for establishing the cooperation play an important role in fashioning the collective action (Berg, Meer, Otgaar, & Speller, 2008)[43]. As Braun suggests, the main motive to enter into regional partnerships is "the assumption that cooperation and coordination produce added value to the region, and the participating actors." (Berg & EURICUR, 2005, p. 6) This added value can then be differently defined for each actor, typically in terms of reaching a critical mass, creating synergies between complementary functions, creating learning mechanisms, or accessing resources (such as higher level financing or support).

In the case of the cooperation that has led to the creation of the Eurometropolis, it seems that all these goals were perceived as relevant. In terms of critical mass, the idea to create a metropolis was clearly identified with the global competition between cities, and became the main leitmotiv of the cooperation. As regards synergies, the works preparing the strategy focused on (mainly economic[44]) possible synergies that the territories could reach by cooperating. The learning process is also evidenced by the role of the cooperation as a consultation and information

[38] http://www.job-eurometropole.com/

[39] http://www.espaces-transfrontaliers.org/detail_projet.php?origine=rec&id=116

[40] For an evaluation see (Werquin, 2006)

[41] http://www.interreg-fwvl.eu/fr/page.php?pageId=487

[42] Although a precise definition of the projects realized on the territory would go beyond the frame of this work, it has to be noted that the fusion of the French-Flemish and French-Walloon programme (20% of the financing available for tripartite projects in Interreg III continued in the next programming period) has greatly increased the number of tripartite programmes realized. The Interreg IV programme covering cooperation activities between 2007 and 2013 shows at least 10 projects for the period. Two of them were nominated as "strategic projects" (Cross-border enterprises centre : CTE-GO-KMO and Transactua,Transit,Transpuls TV Programmes) , the other concern economic development (employment forum – common marketing of business clusters) tourism (virtual tourism office and promotional material), culture (Next festival), social work (SAM Eurométropole), environment (study of urban biodiversity, Green Links: connection of the three main cities through biking and trekking paths). (INTERREG, 2011)

[43] It has to be noted that a community of interest and goals may be insufficient incentives to create collective action, as conflict over the distribution of benefits or control over the collective action process may hamper it. This brings to consideration the role of additional incentives or external opportunities threats as enabling or hampering cooperation.

[44] Economic competition and complementarities are the first theme of the series of publications produced within the Grootstad project.(COPIT, 2000)

mechanism, to overcome the lack of knowledge on the reality on either side of the border. Finally, the access to higher level support or financing may be detected in the latest works of the Eurometropolis.

However, interviewees have brought to the fore two additional main motives, which tipically characterise cross-border cooperation. The first is the solution to specific cross-border problems flowing from morphological and geographical proximity but being cut by state or administrative borders. Regarding this issue, the report of the French-Belgian parliamentarians gives a good overview of the legal and administrative hurdles as it identifies 73 legal or administrative barriers in the seven themes, with more than half of these being concentrated in the fields of health, employment and education (Groupe de travail parlementaire franco-belge / Frans-Belgish parlementaire werkgroep, 2007).[45]

The second motive is more related to the specific position of each of the cooperating regions in its national/regional structure. For France, the extension of the cooperation beyond the borders was inscribed in the logic of becoming a metropolis[46]. Given the disproportionate weight of Paris, and the rapidly developing urban centres in the south of France, Lille attempted to avoid becoming a periphery of the capital. This was to be achieved through an internationalisation of the city and the development of a metropolitan scale. It needed therefore not only to reach a critical mass, but possibly build strong international ties. It seems that LMCU's ambitions framed by its own metropolitan strategy have extended beyond the border on the Belgian side, where they were met with a positive response. However, a second attempt at enlarging the scale of action towards the southern part of LMCU[47], capturing the former mining region seemed as necessary as the former, but more difficult from a political point of view.

Concerning the Belgian side, it seems that both for Flanders and Wallonia, the dynamic development of Lille and its geographic proximity made cooperation unavoidable. Interviewees insisted on this necessity flowing not only from the geographic proximity, and the relative functional integration (in terms of shopping, leisure and cross-border employment) of the urban systems, but mostly on Lille's development dynamics, which were seen as an opportunity in terms of access to the High Speed Train, as well as to a number of metropolitan functions.

This is confirmed in the Flamish Structure Plan (1997) in which a number of key concepts indicated the intentions of supporting stronger territorial cooperation: "deconcentrated clustering" to concentrate growth and curb sprawl for a more economic and qualitative use of space, "ecological networks" around valleys, "linear infrastructures" to structure spatial development and "gates of national and international mobility networks". Moreover, West Flanders province established a think tank on relations with the North of France as soon as 1998, and in 2006 the Province issued a political note on the cooperation with the north of France. It takes up the arguments elaborated in the Strategy for a cross-border metropolis (as regards the functional integration, the historical and geographical links, the assets of the territory, the opening of the borders, global competition etc.). Here, the stress on equality of partners as well as a much clearer analysis in terms of threats and opportunities differs from the enthusiastic discourse presented in the strategy. Worth noting is also that the first objective here is to tackle cross-border disputes (for instance in terms of pollution around Menen or lorries traffic), and then only to reach common benefits.

[45] These obstacles seem to be the hardest to solve, as they would require a legal harmonization or a specific derogatory regime. However, perhaps surprisingly, the group of parliamentarians is mostly insisting on information and consultation gaps

[46] Interestingly, the inter-municipal organisation Communauté Urbaine De Lille (CUDL) is renamed Lille Métropole Communauté Urbaine (LMCU) only in 1997

[47] This is to extend to the functional urban area, which in terms of critical mass would add 1.6 million inhabitants, reaching about 3.5 million inhabitants, and ranking as the 18th metropolitan area in the European Union (ESPON, 2007b)

Concerning the Walloon side and its strategic document (1998), the region placed between Brussels and Lille appears to be in a similar limbo situation between urban poles as its Flemish counterpart. However, the plan also indicates specific "cross-border poles", including Tournai (as a cross-border, touristic and euro corridor anchorage point). Lille is identified as being at a strategic geographic position and having a dynamism, which expands beyond its borders on Wallonia and Flanders, while Tournai is indicated as lacking of integration in the cooperation dynamics around Lille as is the Flemish side, although the zone of Mouscron is clearly part of the dynamic. This vision was largely confirmed by interviewees, who clearly saw the intermediate position as an opportunity to catch part of the exchange flows between the two metropolitan areas. Moreover, they insisted on the positive effects of being attracted within the development area of Lille and notably being able to benefit from common marketing at international scale, which the territories could not access without being identified as part of a much larger ensemble.

The exploration of the motivations to cooperate of the main partners shows a deep understanding of the interdependence of the three actors in terms of development. This interdependence is also framed in a long-term perspective, and can be used to create added value for the participants. With diverging degrees of support from higher authorities, the partners have tried to enhance their position in their own regional contexts, through a common position on the international stage. However, the interdependency and commonality of interests is also framed in agendas with different priorities and to a certain extent a divergence of interests, showing a more complex view than the one depicted by the strategy.

This analysis of the motivation of partners to enter into cooperation also contributes to explaining the major preoccupation of the strategy with international and economic development, and only to a lesser extent local cross-border issues (although all interviewees concur in giving the local obstacles to cooperation a great role).

These aspects are reflected in the formal mandate of the various cooperation episodes. At its foundation in 1991, the first cooperation structure COPIT/GPCI is mainly a political declaration of the five inter-municipal organizations, without legal status, nor specific competences, but with a common objective "to join forces in the construction of an European metropolis" (Van Staeyen, 2008a, p. 3). It aims at doing so through "promoting and realizing cooperation projects", "encouraging and organising partnership forms enabling the realization of cooperation objectives" and "enhance the processing of its projects by the local, provincial, departmental, regional, national and European authorities" (Verger, 2010).

The scope of the cooperation is very broad, and the tasks are also rather vaguely defined. What comes out is the realization of common cooperation projects, the networking activities and the link with other levels of government. The broad scope of the partnership will receive a clear focus between 1998 and 2001, within the realization of an European project - Grootstad[48], on "engaging in a common decision making process for the planning and development of the French-Belgian metropolis of Lille. This process will be materialized in the development of a common development and planning scheme for the cross-border area" (GROOTSTAD, 2001). Eventually, between 2000 and 2007 the COPIT will exist as a non-profit association with unchanged goals.

Further on, the EGTC "Eurometropolis Lille-Kortrijk-Tournai", created on 28 January 2008, has as "main mission to promote and support an efficient and coherent cross-border cooperation policy on its territory", and more specifically to: "ensure consultation, dialogue and promote political debate", "produce cross-border coherence at the scale of the whole territory", "facilitate, support and realize projects translating the development strategy to be elaborated in common"

[48] The European Regional Development Fund (ERDF) contained a support for innovative actions programme 1994-1999, including on spatial planning (TERRA).

and “facilitate the everyday life of the inhabitants of the French-Belgian metropolis”. (EGCT Lille-Kortrijk-Tournai, 2008). It is interesting to note that the interviewees had different expectations as to the role of the Eurometropolis. Some insisted on its missions as facilitator for the emergence and the realization of projects (notably by the increased networking capabilities offered by the presence of all levels of government within the organization, or through increased strategic guidance), while other interviewees had much higher expectations notably in terms of legislative harmonization that could not be achieved through local authorities cooperation only.

To conclude, the evolution of the CBC has achieved in broadening the scope of the partnership to more political concerns (explicit mention of political debate, reference to the citizens of the metropolis, etc). At the same time, it has narrowed it down through a more precise articulation of strategy and projects, as well as an explicit reference to cross-border coherence of the territory. If the implementation of the cooperation has clearly favoured a pragmatic cooperation with the actors most willing to cooperate, the exploration of the motives for cooperation has also shown a number of possible conflicts of interests and necessary trade-offs between partners and at lower scales. The gap between the ambitious aims of the cooperation and the political interests and different agendas remains an issue. The effectiveness of the CBC is in fact affected by the combination of formal and informal mandates, the perceiving of common territorial challenges, and the trust in the institutional process.

3.4 Administrative organization

In terms of administrative organisation, the evolution leading towards the EGTC Eurometropolis Lille Kortrijk Tournai has brought two changes to the cooperation. First, it has confirmed the territory of cooperation, and has clearly favoured a pragmatic cooperation with the actors most willing to cooperate. Second, a steady institutionalisation of the cooperation that should lead to speeding up of the cooperation by creating a more stable and predictable forum of cooperation that might be viewed as mean to balance the bargaining power in asymmetrical situations. Shortly, the institutional capital is in a long-term implementation process.

3.4.1 Definition of the territory

The lack of consensus in academic debates about the borders of a ‘relevant metropolitan region’ (Berg et al., 2008, p. 4) only partially explains the delimitation of cooperation areas. It is both strategic concerns in terms of marketing (Parr, 2004) and pragmatic concerns flowing from a social construction process (Perkmann, 2003b) that seems to determine the geographic scale of the cooperation. The definition of a relevant territory seems also important as to ensure the matching between the cooperation arrangements and the spatial scope of the cooperation.

In the first years of the cooperation, the issue of the territory covered was not precisely delineated, possibly partly due to the fact that not all inter-municipal organizations had a precisely delineated territory (i.e. the participation of Belgian municipalities in inter-municipal organizations depends on the topics of cooperation). However, there was an implicit definition of the cooperation territory (6 urban districts : Lille[49], Ieper, Kortrijk, Mouscron, Roeselare, Tournai) during the first decisions about financing and data gathering exercises. This definition was then explicitly confirmed with the implementation of the Grootstad project. (Van Staeyen, 2008b) Eventually the creation of the EGTC will only marginally modify the territory of the cooperation. It is extended to two urban districts in Flanders (Tielt and Ath), and two Walloon municipalities (Silly, Enghien, Lessines) (Groupe de travail parlementaire franco-belge / Frans-Belgish parlementaire werkgroep, 2007).

[49] There is small difference in territory between the inter-municipal organization LMCU and the urban district of Lille (slightly larger)

This neat definition of the territory does not necessarily correspond to all cooperation practices, as the interviewees suggested. First, the delimitation of the territory should not impede cooperation activities that extend beyond its borders or this scale (one example might be the cooperation within the Scheldt International River Basin District, which regroups partners from the EGTC territory, but also partners from other areas from the Netherlands to France, another example concerns the mapping and data gathering activities, which should be framed in a regional context).

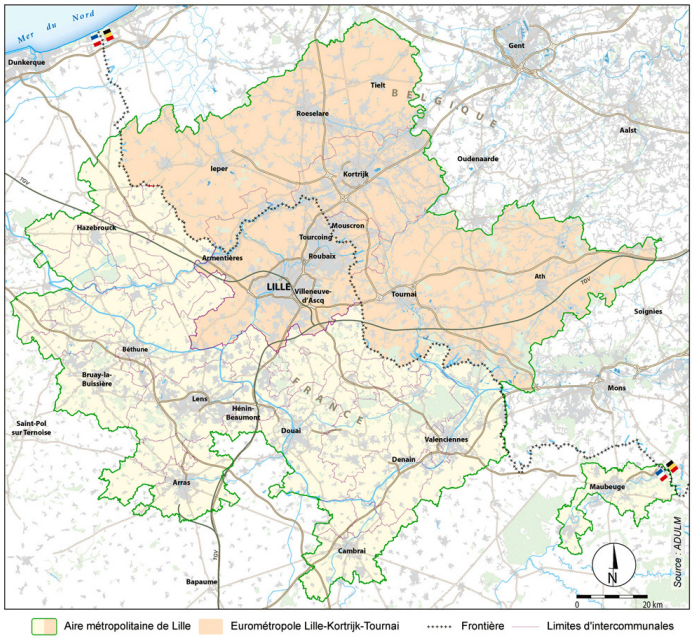


Figure 19: Spatial Eurometropolis LKT and Lille Metropolitan Area (AML)

Second, the relevant territory may differ for the different actors. If the territory indeed corresponds to the territories of the authorities participating in the initiative,[50] the relevant territory for the cooperation may differ. This idea will be illustrated by two examples, one from a parallel and to a certain extent sub-EGTC scale and a second about an ensemble larger than the Eurometropolis.

Regarding the sub-EGTC scale, it is important to remind that the cooperation in EGTC is also inscribed in other territorial and cooperation arenas and scales. The evolution of the Walloon part of the territory, which was extended for the formation of the EGTC can be explained by the willingness of the authorities to match the territory within the EGTC with the territory of a new entity or organization: the "Wallonie Picarde". This project started in 1999 by the then-health minister Rudy Demotte around the municipalities of Tournai, Ath and Mouscron is inscribed in an internal-Walloon debate about the relevance of the Provincial level in the territorial organization of the Region. Interviewees suggest that indeed, the Province of Hainaut does not correspond to a unified living area, and therefore "wallonie picarde" is an answer to give this territory an internal coherence through a common development project "WaPi 2025", which also has the advantage of solving collective action problems (by harmonizing positions of the municipalities), and helping creating a significant weight for the development of projects[51]. The strategy[52]

[50] To be precise, the territory is defined as a list of municipalities. This list of municipalities corresponds to the areas of the inter-municipal organizations, except for the inter-municipal organization WVI, which territory also englobes the northern part of the West-Flanders province. The extension of the cooperation to new actors (state,region,province,department) has not modified its borders.

[51] One example given was the common support from all municipalities to the organization of a common event in the framework of Mons becoming an European cultural capital in 2015.

approved in 2008 seems to follow an objective of creating a supra-municipal level of governance gathering public and private actors for the development of the area.

As for the articulation with the EGTC, interviewees saw it as natural nesting of scales, with the WaPi being instrumental in reaching a common Walloon position within the EGTC, and avoiding potentially damaging internal disputes.

Regarding the supra-EGTC scale, it should be mentioned that studies preparing the "Strategy for a cross-border metropolis" operated a differentiation between a cross-border area north of Lille characterized by geographic proximity and a strong political will, and an area south of Lille characterized by geographic proximity and functional links (Sinn et al., 2001). In this publication, a there is a certain ambiguity about the cross-border area, which is mainly referred to as the area around Kortrijk and Ieper, and the territory corresponding to COPIT. The illustrative maps do not allow a precise delimitation of the territories, as they are mostly concerned with the conceptual frame (see Figure 18).

A following study by C. Vandermotten (co-author of the above mentioned study) on metropolitan areas in Europe identifies the metropolitan area of Lille as covering, on the Belgian side, the areas around Kortrijk, Tournai, Ieper and Mouscron – therefore carving out a large part of today's EGTC territory. (Vandermotten et al., 2008)

While political factors, and the need to reduce imbalances in the partnership (in terms of demographic weight notably) have motivated the focus on the territory with a longer history of cooperation and political will, from the perspective of Lille, there is an ambiguity as to the relevant cooperation territory, which was considerably extended at the occasion of a call for proposals for metropolitan cooperation (see **Error! Reference source not found.Error! Reference source not found.** launched by the French government in 2005.(AML, 2005) Eventually, the French government pulled back from this call for proposals, and the Belgian partners did not invest in the newly created association (three years before the EGTC). Nevertheless, this project evidenced an ambiguity in Lille's relevant area for cooperation and the unclear articulation of both scales (Eurometopolis and AML).

In conclusion, If the territory of the cooperation remained relatively stable over the years (with a small truncation of LMCU, and an enlargement on the Belgian side), it appears that the 'regionness' of the area (Perkmann, 2003b) is decisively socially constructed. In this sense, the multiplicity of actors involved in cooperation over time has enabled the emergence of a rather stable, but permeable cooperation territory. However, this overview of the territory has also shown (not exhaustively) diverse understandings of meaning of the territory and the relevant scale for cooperation. A more in-depth study of views of the actors, notably the decision makers in the municipalities that are situated at the borders of the EGTC)[53] might reveal a very different 'metal map' reflecting a number of conflicts and trade-offs disparity between cooperating within the EGTC as a whole and cooperating on the French-Belgian border (which geographically covers a much larger area on the Belgian side – see **Error! Reference source not found.** p.**Error! Bookmark not defined.** for a map of municipalities) with authorities outside the Eurometropolis.

[52] Its main objectives are the economic development of the area (including improvement of human capital), environmental excellence, actions oriented towards citizens, enhancing the attractiveness of cities (through tourism, quality of life and urban regeneration), a metropolitan ambition (through LKT) and a common territorial marketing (focused on quality of life, heritage and traditions, rural tourism, innovation and business) (Seynhaeve & Hellendorff, 2008)

[53] The territory of cooperation, defined as the territories covered by the inter-municipal organizations (with the exception of the split in Wvi) is not necessarily the most relevant for each of the individual actors involved in the cooperation. Taking the example of Walloon municipalities situated between Mons (BE) and Valenciennes(FR), the relevance of cooperation with Lille or Roeselare may appear thin. However, it is possible to assume that rallying them is precisely the role of inter-municipal organisations. The same can be said of provincial or regional actors, whose territory differently impacts their perception of the cross-border cooperation.

In this sense, the cross-border metropolis magnifies some of the difficulties faced by metropolises in a national/regional context. These difficulties in coordinating activities are not only related to access to material competence, but also to the frames of action of those exerting these competences.

3.4.2 Degree of formality

The degree of formality of the cooperation may give an indication of the stability and permanence of the cooperation[54]. Following D. North, it is possible to identify a number of solutions that institutions bring to collective action problems, notably in terms of reduction of transaction costs through regular and routine exchanges, by creating a formal constraint to supplement informal constraints especially in more complex exchanges, or as a resource in situations where the bargaining power of different parties is unequally distributed, and facilitating the enforcement of decisions taken in common (North, 1990). These arguments are confirmed by interviewees who suggested, there was from a very early stage a need to constrain the actors to participate, to bring the most relevant parties to the table, and to reflect on the decision making framework. In this sense, the importance of the institutional setting was a concern from the early days of the cooperation although some interviewees more clearly attribute this preoccupation to the French participants[55].

The evolution from the early days of the cooperation to the EGTC may be described as a progressive formalization of the cooperation. The cooperation has started in the early 1990s on the basis of a political agreement between the heads of the inter-municipal organizations on either side of the border, and until 2000 it has no legal personality or specific status. It has indeed a number of functioning rules (unanimity of the five heads of organizations), and 'organs' such as a plenary assembly (representatives from the inter-municipal organizations), a permanent secretariat (directors of the inter-municipal organizations and project officers). To a certain extent, the realization of the Grootstad project also induces a change in the organization: the application for a project required a legal convention between the parties, it also gave the organization a budget and rules as to the spending. This accelerated the frequency of meetings, increased the involvement of technical staff (one person per inter-municipal organization), allowed for a permanent and dedicated secretariat, and a political decision-making structure enlarged to elected representatives.

In 2000, the COPIT received legal personality as a non-profit association, and new 'organs' that under the umbrella of a President (P.Mauroy) gathered a general assembly of 30 elected representatives, a restricted board of 10 members, a restricted college of heads of inter-municipal organizations and a technical work group. However, the functioning of the organization was impeded by a rule in Flanders internal law, which prevented the participation of Flemish organizations to the French association. De facto, Flemish representatives were associated, but the question of the form of the partnership has grown in significance. Eventually, the non-profit organization started preparing a transformation of its status to a new legal form of organization created by a French-Belgian convention on cross-border cooperation.

[54] This does not imply that informal institutions have no permanence. What more, institutions cannot be only restricted to their formal aspect, as they imply shared beliefs, rules of behavior etc. (Hall & Taylor, 1996). However a fully fledged neo-institutional analysis of the cooperation would go far beyond the scope of this study.

[55] To a large extent, it appears that the governance structure put in place bears large similarities with the governance structure of LMCU, the main differences lying in the practical arrangements in the working groups and the board (consensus). A more detailed comparative analysis of both structures, coupled with a discursive institutionalist analysis (Schmidt, 2008) might held a key to explaining this apparent similarity.

However, the parallel involvement of a French-Belgian mission of parliamentarians and the creation of an European legal framework[56] has put a stop to these efforts and reoriented the organizational structure towards an EGTC, which is a very formalized structure, associating partners at all levels of government on both sides of the border, creating a strong political chairmanship, involving a large number of elected representatives (in the assembly, but also through a specific forum for the 147 representatives of the municipalities), an advisory body from the civil society and a dedicated agency with staff and budget.

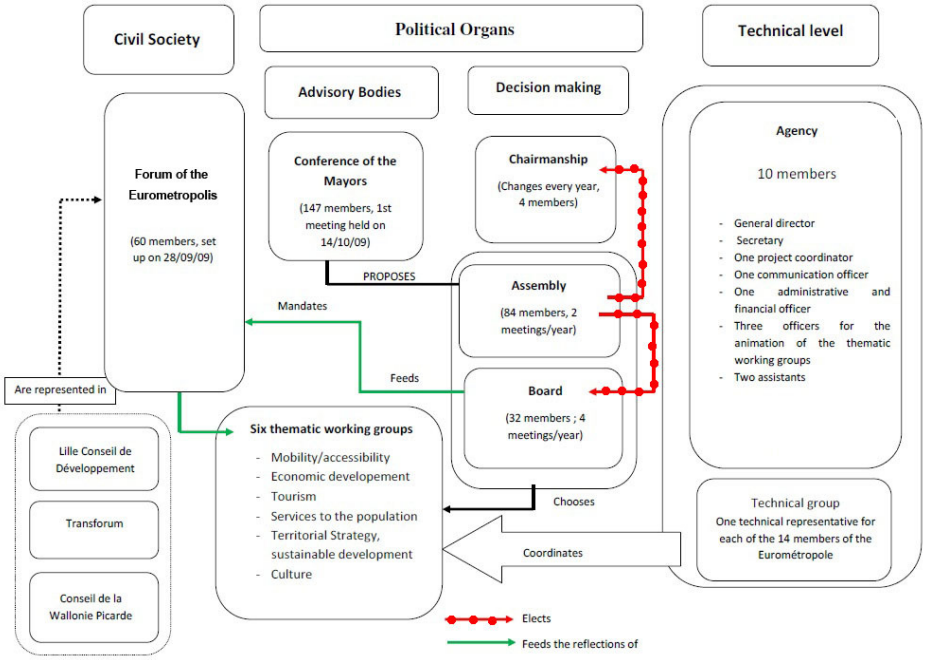


Figure 20: Eurometropolis Lille-Kortrijk-Tournai governance - Source:LMCU 2010

n addition to this increasing formalization of the cooperation, the EGTC has partly formalized some intangible institutional elements or discourses, such as the working practices, of which unanimity rule for decisions (which is the rule in international organizations), the guarantee of bilingualism and the double parity between France and Belgium, and between French-speaking and Dutch-speaking were enshrined in the legal text creating the EGTC. The other constitutive elements of the cooperation, such as a common definition of the territory, a vision for the territory (the networked metropolis), and priorities generated during the early days of the cooperation seem still relevant.

The strategic usage of formalized institutional agreements also appears in the interviews, as the strong asymmetry in resources and leadership (certainly for the initiation of the cooperation) favours the French side. As the motives of the partners for entering the cooperation are not identical, and there are both divergences and convergences of interests in the territory (see section 0). Moreover, while the proposal for a strategy for a cross-border metropolis focuses on the benefits of increased cooperation in specific areas (see section 0) it also occults the divergences in interests between actors. A more formalised framework of cooperation may be seen as a strategic tool to reach more equality between partners.

In conclusion, the analysis of the steady institutionalization and formalization of the cooperation shows the path dependent evolution that has led to the creation of the EGTC. It also evidences the need felt by the actors to create a stable, predictable and acceptable forum of cooperation.

[56] EC Regulation No 1082/2006 of 5 July 2006 on a European grouping of territorial cooperation (EGTC)

The formalization is also seen by the partners as a necessary precondition for the speeding up of resolution of cross-border issues and towards a common management of the area, which would respect the interests of all the partners involved. In this sense, the formalized structure can also be analyzed as mean to balance the bargaining power in asymmetrical negotiations situations.

3.5 Actors and strategic networks

This section is articulated in two parts. The first analyzing the involvement of actors in the cooperation, and putting the emphasis on the involvement of politicians or technicians. The second section will focus on leadership, notably in terms of resources.

"Leadership by key persons or organizations is necessary to utilize the potential of new and existing networks to direct the efforts of parties involved. […] There must be leadership, whether relying on specific competencies (position in the administrative hierarchy, financial capabilities, specific know-how or other powers) or on the charisma of private individuals who fulfil the function of 'puller' successfully" (Berg & Braun, 1999, p. 996).

3.5.1 Political support and involvement

As mentioned earlier, the cooperation has begun with the establishment of a permanent conference of inter-municipal organizations (COPIT), which was mainly seen as a political forum of debate. Launched by Pierre Mauroy, former prime minister (1981-1984), mayor of Lille (city) from 1973 to 2001 and president of the inter-municipal organization LMCU. As interviewees mention, the first priority at the time of the launch of cooperation was to find partners across the border. In this sense, it was a kind of coalition of the willing, between apparently similar organizations. This political involvement on the French side was not entirely reciprocated on the Belgian side. Despite notable exception on the Flemish side of Ms Van der Stichele, elected representative for the West Flanders province, the core members of the COPIT were the presidents of the inter-municipal organizations. The larger plenary assembly of the COPIT (7 meetings between 1991 and 2000), indeed gathered more political representatives (25). However, the large majority of them were mayors or burgomasters (head of the municipal executive) of bordering municipalities[57] and did not match the 'political weight' of P. Mauroy.

The second phase of COPIT, around the Grootstad project enables a stronger involvement of the technical teams through a permanent technical structure: the "cross-border workshop" (with a representative from each inter-municipal organization working half time for the project), nine working groups involving members of the 'atelier transfrontalier' together with other ad-hoc experts. The role of politicians is to a certain extent diminished (the decision-making organ is composed of 6 local representatives, the directors of inter-municipal organizations, and technicians from the 'atelier transfrontalier'), as the work focuses on the production of technical expertise, and debates with different members of the civil society (Prévot, 2010, p. 70)

The third phase of COPIT (2000-2007), as a French association is more ambivalent. Pierre Mauroy becomes the president of the association, and the number of politicians involved increases (to a lesser extent for the Flemish partners, as they are legally unable to join the association) to about fifty, as well as the frequency of their meetings: the full assembly meets twice yearly, the restricted board (gathering a political representative from each of the inter-municipal organizations) meets even more regularly (33 times). However, more noticeable than the simple

[57] Burgomasters and Mayors: G. Bossuyt (Menen), R. Lernout (Wervik), Sansen (Kortrijk), R. Van Spitael (Tournai), G. Deleu (Comines-Warneton), JP Detremmerie (Mouscron), A. Faugaret (Wattrelos), H.Segard (Comines municipal assembly), P. Delanatte (deputy mayor of Tourcoing). A Declety (Senator in Walloonia), JP Perdieu (Walloon region assembly). French mayors were often combining mayoral functions with deputation at department or regional level (or both, as in the case of H.Segard)

numerical increase of local representatives is the participation of politicians of regional/federal scale on the Walloon side[58] (R. Demotte had regional and federal ministerial responsibilities from 1999 onwards and is involved in the COPIT since 2001).

This stronger involvement of political staff is confirmed by the increased interest at governmental level in the cross-border cooperation: with the signature of an agreement on cross-border cooperation between local governments and local administrations in September 2002 and the creation of a joint mission of French and Belgian parliamentarians that will lead to the creation of the EGTC.

The EGTC itself has a dual nature, involving both technical staff (the Agency – Working Groups) and political staff (the Chairmanship, Board, Assembly, Assembly of Mayors and Burgomasters**Error! Reference source not found.**). The Chairmanship involves major political figures in both countries (M. Aubry, S. De Clerck[59], R. Demotte and a member of the European Parliament Gilles Pargneaux[60]), the Board is almost exclusively composed of politicians or senior heads of administration of the 14 partners and the Assembly which includes mainly locally elected representatives[61] (Eurometropolis, 2011a). The Working groups gather technicians mandated by the 14 partners or representatives to propose actions that have then to be validated by the Board.

In conclusion, the evolution of the cooperation has seen a progressive involvement of both local and higher level politicians. The reasons most commonly given for this progressive involvement were related either to the objectives of the partnership (as a political consultation and forum for debates, which was to a certain extent the founding aim of the COPIT, and is still present as one of the main missions of the EGTC) or the technicalities related to the implementation common actions.

In this sense, while the more technical episode of the COPIT around the Grootstad project enabled an acceleration of the technical and knowledge output (cartography, technical studies and more than 16 publications, including the "Proposal for a cross-border metropolitan strategy"), it did not necessarily lead to the implementation of common actions. Given the differences in competences, different actions were to be implemented at different levels by different actors. The difference between LMCU (which has own competences including implementation and project management) with Belgian inter-municipal organizations (which do not have exclusive competences) implies that at implementation level, individual municipalities are at the forefront. This is a partial explanation of the increasing involvement of local representatives, which interests are not necessarily perceived from the perspective of the Eurometropolis territory.

The same reasoning applies to other authorities, which involvement was also necessary to mobilize actors at appropriate scales in each country/region and which the technical structures alone were not necessarily able to reach. Finally, the implication of major politicians at national/regional scale in the Chairmanship was responding to a need of visibility, but also to enable prompting the authorities at national/regional level. Eventually, as the EGTC has not

[58] On the Flemish side, although S. De Clerck plays a supporting role in the cooperation, he is not formally involved in the COPIT

[59] Former mayor of Kortrijk, having held ministerial functions at federal level.

[60] Who was previously one of LMCU's vice presidents

[61] The Assembly is comprised of 84 members. On the French side: 32 representing LMCU, 4 representing the Region, 4 Representing the department and 2 designated by the state. On the Belgian side, 30 representatives of the municipalities chosen in agreement with the inter-municipal organizations, 2 representatives designated by the Federal government, 4 representatives designated by the regions and communities, 2 representatives designated by the Provinces. The Board has a similar composition, proportionately reduced to include 32 members.

gained any exclusive competence, it is still bound to build partnerships between competent authorities at different levels in France, Flanders and Wallonia around specific projects.

3.5.2 Leadership

As seen in the previous section, the cooperation has seen the involvement of an increasing number of politicians with a stronger commitment towards the cross-border cooperation and holding higher functions. This section will briefly examine the evolutions in terms of leadership in the cooperation as an essential in mobilization processes: "networks lack a formal (legal) hierarchical structure. There must be leadership, whether relying on specific competencies (the position in the administrative hierarchy, financial capabilities, specific know-how or other powers) or on the charisma of public and private individuals" (Berg & Braun, 1999, p. 996).

In terms of resources, there is a clear asymmetry favouring the French side, which is recognized by all interviewees.

The LMCU's budget for 2008 was 1.5 billion EUR, 30% of which was specifically attributed to public transport, urban ecology, roads, land-use planning and development (Baert, 2008) and 2300 employees, 16 of which were dedicated to cross-border and transnational cooperation (in 2005) (LMCU, 2011). LMCU also uses the services of dedicated agencies for its economic development and promotion (APIM) and urban development (ADULM) – see section **Error! Reference source not found.**. In comparison Leiedal, the inter-municipal organization for the Kortrijk region (277 000 inh. in 2006) has total operating revenues of 19 million EUR and employed less than 50 persons (Leiedal, 2007). IDETA, the inter-municipal organization for the region of Tournai employed 52 persons in 2007 for an operating revenue of 17 million EUR (IDETA, 2007). Although these data are not directly comparable, and also correspond to the differences in competences of the inter-municipal organizations, they clearly show an imbalance towards LMCU, which is also reflected in the financial contribution to the cooperation[62].

Focusing now on the role of key persons or organizations, it seems clear that the dynamics created in LMCU around the metropolitan idea, and involving at the same time charismatic figures (P. Mauroy) with far reaching personal and political networks, a large support in the business community (through the Comité Grand Lille), backed up by powerful urban development agencies (ADULM) were essential in the development of the agglomeration (Baert, 2008; Giblin-Delvallet, 2004; Louguet & Tiry, 2010; Paris, 2000; Paris et al., 2009). It appears that ideas developed at this time, especially the idea of uniting behind a metropolitan concept have been largely taken up by the actors involved in the cooperation, which is also evidenced in the creation of the strategy.

With the creation of a dedicated agency of the Eurometropolis, and the progressive involvement of major political figures on all three sides of the cooperation (see previous section), there is a clear will to rebalance the cooperation and to provide leadership and within vertical networks (see next section). The asymmetry in available resources still remains, and despite the cardinal rules of unanimity and double parity (between France and Belgium and then between Dutch-speaking and French speaking) de facto entrenches a balance favouring the French side. It

[62] Focusing on the cooperation itself, the COPIT first budget was attributed in 1994 and covered only some of the organizational needs, with the Grootstad project (1998-2002) the budget increases to 610 000 EUR yearly, the COPIT as an association (2002-2006) approximately 300 000 per year. The EGCT in this context started in 2008 with a budget of close to 1 million EUR, extended to 1.5 million in 2010 and an agency of approximately 10 persons (LMCU, 2010). Interestingly, the repartition of the contribution of the partners to the budget has evolved from a contribution proportional to the population in the COPIT, to a division of the contribution disconnected from the population (50% French 50% Belgian, the Belgian contribution being divided between the federal state, the regions, the provinces, the inter-municipal organizations) which mostly decreases the share of LMCU (from 67% to 25%) Leiedal (from 16% to 3%) and IDETA (from 8% to 4%), but globally diminishes the French contribution, increases the Flemish and even more the Walloon one.

remains nonetheless to be seen how the work within the working groups created by the Eurometropolis is progressing, and how leadership within these groups – that are structured around themes of cooperation to foster the emergence of projects – will be distributed.

In conclusion, if asymmetry is a structural element of the cooperation and the French side was for a long time able to provide leadership, there seems to be a progressive trend to balance the disequilibrium through the creation of a dedicated agency, political involvement and formalisation.

Reading the evolution of leadership in the cooperation may also strengthen some conclusions stemming from the analysis of the strategy and vision. The main focus on economic activities at the level of the whole area, and the relative absence of a concern for the rebalancing of disparities within the territory may be read an avoidance of conflicts over the distribution of the benefits in a context of strong leadership.

3.6 Coordination and cooperation

This sub-section will analyze the evolution in terms of strategic networks in their vertical dimension (this is patterns of interaction between different levels of government in the same country), their horizontal dimension (patterns of interactions between different levels of government in different countries), and cooperation between public and non-public actors around policy issues or projects.

3.6.1 Vertical networks within countries

In terms of vertical networks, the situation is markedly different on the three sides of the cooperation. First, in France, the personal networks and ability of P. Mauroy have greatly facilitated a vertical integration and a convergence of views (and to a certain extent actions) in France on the cross-border cooperation. To give a significant example: in 1997 the French state recognized the suboptimal use of European funds for cross-border cooperation and decided to create a specific organization in charge of helping the emergence and implementation of cross-border projects. It had a political steering at ministerial level[63] and began with five pilot areas including Lille. Pierre Mauroy rapidly became president of the association from 2001 to 2008 (MOT, 2011). He was also personally involved in the French-Belgian Parliamentarian mission between 2005 and 2007, where (jointly with S. De Clerck) he led the works regarding the governance of the area, and which eventually be the main output of the mission[64](Groupe de travail parlementaire franco-belge / Frans-Belgish parlementaire werkgroep, 2007).

There seems to be less integration with the regional and departmental services, which are not systematically involved in the cross-border cooperation before the establishment of the EGTC.

On the Belgian side, as mentioned earlier, the vertical integration with other levels of government is rather weak despite the involvement of personalities able to reach out to the Provincial level, notably Ms van der Stichele and to a certain extent P. Breyne (Governor of West Flanders province since 1997 and former burgomaster of Ieper, he leads since 1998 a think tank

[63] Interministerial delegation for planning and regional attractiveness (DATAR) in charge of coordinating the French policy and European regional policy (inter alia), Ministry for Foreign and European Affairs, Ministry of Ecology, Sustainable Development and Housing, Ministry of Interior, Local Government and Immigration, Caisse des dépôts (French financial organization under control of the Parliament)

[64] The parliamentary mission was working in parallel on 8 themes, each theme was led by a French-Belgian tandem. It is worth noting that F. Vercamer, C.Vanneste and P.Delnatte involved in the COPIT since 1991 or 2000 are each leading two groups, leaving only the group in charge of transport and communications to a deputy not involved so far. On the Belgian side the link to the participants of COPIT is less evident, only two of the six parliamentarians were related to COPIT.

on the relations with the North of France (Province of West Flanders, 2011) and has supported a number of initiatives without being formally part of COPIT). As seen previously, the interest of higher levels of government begins in the early 2000s, with a coordination of the Flemish positions in COPIT started in 2004, following the French government call for metropolitan projects, and being formalized in 2005 by an official mission given to P. Breyne as coordinator for the relationship with the North of France(Flemish government, 2008a).

On the Walloon side, the evolution of vertical networks is much less clear, and the interviewees did not specifically refer to this topic. It is certain that the participation of R. Demotte to the COPIT was a first link to higher levels of government. At the same time, there is little indication of regional or provincial involvement, although the inter-municipal organizations (IDETA-IEG) being also involved in European cross-border projects have certainly had a contact with these levels.

Thus, in general, the vertical integration of the networks in the three regions was at a different stage of development, and that the creation of the EGTC, which involves all levels of government has helped to complete the integration through a formal constraint put on the actors. However, the constraint to participate does not necessarily entail a successful collaboration between the levels, which eventually may emerge only through repeated interactions. The involvement of all levels of government, while solving the issue of competences does not resolve some of the possible conflicts between the levels of government. Taking the implementation of European funding for cross-border as an example[65], the differences in priorities and modes of action among the different levels (local-regional) may well create conflicts within the negotiation of the next period of programming.

3.6.2 Horizontal networks between countries

Although a precise examination of the web of relations between all authorities would be outside of the scope of this work, a first review seems to indicate a thinness of relations outside the strong ties created by the inter-municipal organisations[66]. This view seems to be confirmed by the analysis performed in the sections **Error! Reference source not found.**, notably as regards the involvement of local representatives. On the contrary, the cooperation initiated through the COPIT was the most successful vehicle for creating ties between the inter-municipal organizations, and which has since 1991 not only created intermittent contacts, but real and regular working relationships between the heads of the inter-municipal agencies, and also at technical level between members of staff.

[65] Since 1994, the European Union co-finances a number of projects in the framework of Interreg programmes, specifically aimed at cross-border cooperation. However, the administration of these programmes is done at a regional/provincial level, which covers a much wider area. The Eurometropolis represents only 9 out of 62 districts covered by the programme. In this sense, access to European funds became a growing concern of the cooperation, which never had an own budget sufficient to carry out projects. In this sense, by reflecting on a European strategy in parallel to the reflection on a strategy for the Eurometropolis, and attempting at a more intensive use of European funds, the Eurometropolis is trying to fulfil its mission as a bridge between political debate and consultation and strategic-operational organization.

[66] Although these relations exist, especially on the bilateral level between different authorities – for instance for the implementation of European funds - their intensity has no common measure with the cooperation developed within the metropolitan area. Taking the bilateral relations between Flanders and France as an example, it appears that despite three common declarations between Flanders and the Nord-pas-de-Calais region (in 1990, 2001 and 2003) As a result an informal "cooperation forum" met in 2003 and 2005. However, there seems to be no activity beyond intermittent cooperation on European projects. (Flemish government, 2008b). The situation is similar at Department-Provincial level: a cooperation agreement between the Nord Department and West-Vlaanderen province was signed in 1989, and only gained impetus in 2003, with the decision to put in place an informal coordinating political assembly gathering in addition of the presidents of the Province and the Department, members of the respective assemblies. However, the cooperation is mostly confined to the field of environment (North Department, 2009) and a thorough analysis of common and diverging competences was made only in 2005. (see note **Error! Bookmark not defined.** p.**Errore. Il segnalibro non è definito.**).

The challenge of the EGTC will be to create strong horizontal ties between partners on a competence and project basis and therefore not necessarily respecting a similar (in name) hierarchical order, which seems to have been the key to working relations.

3.6.3 Horizontal networks - civil society and societal support

The second level of involvement of horizontal networks is the establishment of horizontal networks with the civil society and ensuring societal support.

It is difficult to trace a systematic involvement of the civil society in the works of COPIT since its early days. Indeed, the COPIT has acted on a number of topics related to cross-border cooperation, and in its activities, it was guided by the idea to create and participate in specific networks according to topics. Therefore, the will to involve the civil society may be seen as systematic, but certainly very dispersed, as framed by topics. Several examples can illustrate this point. For instance, in 1994 COPIT organized two conferences, one on the cooperation in the fields of culture and education in June and in November of water management. However, the main activities were centred around the group of inter-municipal organizations, including selectively additional stakeholders of the cooperation (for instance bordering municipalities, or water management companies).

After the establishment of a communication plan in 1999, the networking activities seems to become more structured, although the grouping of these activities rather seems to optimize existing opportunities offered by a number of conferences and debates on cross-border themes rather than a systematic lobbying and networking activity[67]: six open debates were organized between 2000 and 2001 at the occasion of publication of studies, as well as about sixty presentations of the project or specific studies between 1998 and 2001 to different actors at the occasion of conferences or meetings. Networking activities seem to have been focused on building links with similar cross-border conurbations (GROOTSTAD, 2001).

However, it is difficult to speak of a systematic involvement of other actors, except two meetings of a committee gathering representatives from different government levels, as well as the Comité Grand Lille, academics, Chambers of commerce, Trade unions, EURES and BENELUX, and an increasing involvement of local politicians.

A more systematic support for the involvement of civil society will come from initiatives outside the cooperation, such as the LMCU decision to open up its "conseil de développement" [development council][68], which is also interested in cross-border cooperation (especially in relation to cultural activities) to a participation from the bordering territories (16 Belgian members out of 180), or the invitation of Belgian participants to the revision of the SCOT[69], which also pursues a reflection on cross-border cooperation (Syndicat Mixte du SCOT, 2010).

With the creation of the EGTC, the consultation of the civil society seems to become a permanent feature: a consultative organization, the "forum of the Eurometropolis" gathering

[67] With the notable exception of : meeting of Flemish employers association in 1998, meetings with local actors in charge of employment in 1999, meeting with "Davidsfonds" cultural foundation in 2000, LMCU in 2000, Social and economic council of the region NPDC in 2001, DATAR working group 2001

[68] This body is a consultative forum of the civil society, mandatory for agglomerations exceeding 50 000inh. since 1999. Its missions are to formulate opinions on the request of the municipality, but have also the option to formulate an opinion on any topic related to sustainable development. In practice it is consulted on strategic plans and projects.

[69] The Schéma de coherence Territoriale (SCOT) is a planning document creating a common project for a territory coordinating different policies in the fields of urbanism, housing, mobility, commerce and environment.

representatives from the three regions[70] was set up in 2009 and is presided by the former president of the "conseil de development" of LMCU.

In terms of societal support, it is difficult to speak of an explicit strategy of communication towards the citizens. However, the concern is clearly present in the "Proposal for a cross-border metropolitan strategy", which identifies a number of symbolic actions, or actions specifically aimed at citizens to create a common sense of belonging. The first of the four pillars of the strategy is named "citizens of a metropolis" and it includes the will to give a strong anchor of the project in the civil society through the support of cross-border civil society initiatives, a common name, symbolic urban interventions (transformation of the disused border points, cross-border park along the Lys/Leie river, urban interventions in the border cities), information to the citizens, student exchanges, networking activities for stakeholders active in the field of culture (COPIT, 2002).

The first reflections on a strategy for the EGTC indicate a strong emphasis on communication and creation of a visual identity. The three (proposed) main axes are: "visualize our metropolis in real time" assembling and updating data about the common territory to be used as a communication support, "feel our metropolis" which would consist of a flagship large-scale project giving a physical dimension to the Eurometropolis (for instance around the water links that offer various opportunities in terms of urban design, mobility, culture, tourism etc.) and finally a "Metropolisation strategy" which would improve the competitive position of the territory through an enhanced visibility on the international scene (Eurometropolis, 2011a).

The 2009-2010 report mentions among five main actions the creation of a logo and preparatory work on a map which would create a communication support (Eurometropolis LKT, 2010) and the report on 2010-2011 mentions among 6 main activities carried out a touristic map helping to "visualize an attractive and united territory"[71], the creation of a website to "respond to a need of visibility of the Eurometropolis on the territory[72]", partnerships and support of cross-border actions (labeled as eurometropolitan in the fields of sport, music, contemporary arts, journalism, employment forum), and direct communication actions towards the municipalities (Eurometropolis LKT, 2011).

In conclusion, it is possible to affirm that there has been an increasing involvement of civil society within the cooperation, starting from a selective, but occasional involvement (mostly the competent administrations, academics or experts) on specific topics, to broader debates with the increasing scientific production on the cross-border cooperation, ending with an institutionalized consultation within the EGCT. However, it is not certain that this type of formalized cooperation with the civil society will be able to provide also an adequate involvement and support of the private actors, comparable to the articulation between the civil society, administrative and political structures that has occurred in Lille in the 1990s (notably through informal cooperation structures such as the "Comité Grand Lille"[73] led by the president of the Chamber of Commerce, or the "club des urbanistes" led by the vice-president of ADULM, both of which were open to Belgian members).

[70] 60 (30 French, 15from Flanders, 15 from Wallonia) representatives from the civil society coming from their respective civil society forums (France: conseil de développement, Flanders: Transforum, Wallonia: Conseil de la Wallonie Picarde)

[71] Together with a study on mobility at Eurometropolitan scale, and the launch of a business clusters platform

[72] Further specified as the "enhancement of the visibility of the Eurometropolis helping to foster a feeling of belonging to the territory, providing answers for inhabitants and stakeholders, providing services to citizens (cross-border informations) […]"

[73] a civil society forum largely dominated by businesses and having played a key role in the redevelopment of LMCU

4 Conclusions

4.1 Findings

4.1.1 Attractiveness and residential-flow patterns

In terms of attractiveness and mobility of population, the Eurometropolis Lille-Kortrijk-Tournai seems to display overall common features, such as the stability of the population and the low level of interregional and international migration. At the same time, the territory seems characterized by common challenges, especially as regards the difficulties in the retention of young graduates or professionals, as well as the issue of cross-border workers, which is seen by all interviewees as great importance, but which does not lead to migration and therefore does not appear in the official analyses.

However, it is difficult to speak of coherent and integrated logics in terms of attractiveness. Given the relatively low integration in terms of migratory trends (French citizens settling in bordering Flemish or Walloon municipalities, Flemish Belgians settling in Wallonia, Belgians settling in NPDC region) it seems that different logics drive the population movements in the regions.

For the French area, it is clearly the city of Lille the main territorial driver, which acts as a 'hub' for in and out migrations mostly towards and from other regions of France, with intra-regional migrations being marginal compared to this main trend. For the Flemish part, it seems that the populations are more mobile but also within a much lower range (with most migrations being intra-district and the mobility restricted to the regional scale) resulting in a growth that is slower than the involved Province's. Finally, the Walloon part seems to tobe challenged by the developments in Lille and Brussels, and given its landscape and natural scenery as well as lower built densities it attracts some interregional Belgian flows.

The common attractiveness challenge of the area as a whole may therefore be framed as a general lack of attractiveness. The spatial differentiation on the other hand does not indicate strong differences between lower spatial units (to the exception of more marked differences between LMCU and the southern part of the AML) and therefore rebalancing needs.

Despite the results of chapter 2 broadly confirming the validity of the ATTREG statistical analysis performed at regional/provincial level, they also point out to a number of specificities that could not be captured at more fine-grained analysis.

First, the concentration of migrations and migratory flows around the Lille area in France, as well as the very high level of attractiveness for a specific category (15-20 years) compensated by high out-migration flows in a slightly older group (20-25 years)[74]. It can be seen as the effect of the university pole in Lille, which attracts students that then in most of the case leave immediately towards job-supplier areas, notably the international metropolitan areas as Paris and Bruxelles.

Second, there is a marginal role of cross-border-regional migrations, although a precise evaluation of these phenomena would require a much stricter analysis, including comparisons with other international cases. In general, though, the mobility is characterized mostly by internal and local migration, and most of the population flows are interregional, but confined to the country. There are relatively different interregional migration trends in the three areas: 95% of inter-regional migrations for the French side, about 70% for the Walloon side and about 55% for the Flemish side. On the opposite, international migrations represent the 20% of the migrations in NPDC (of which one quarter from Belgium), 20% of the Walloon part of the Eurometropolis, and less than 10% in its Flemish part. Thus, national and linguistic border still matter,

[74] Together these phenomena are not visible in the ATTREG analysis, which uses a different (15-24 years) statistical measure

characterizing a situation in which the mobility between urban areas of the Eurometropolis is rather limited, and the French side tends to show higher interregional mobility than the Belgian one, in particular the Flemish area.

Third, there are spatial differences, with small-scale connotations and spatial trends. The Metropolitan area of Lille shows a slow growing - or at least counterbalancing signs against a general demographic decline. Nevertheless, Lille city tends to loose population, probably due to gentifrication processes and thus to the house market, with a correspondent growth in peri-urban settlements. The city of Lille acts as a sort of hub for in and out migrations, and constitutes the first destination for incoming migrants (mostly towards and from other regions of France), with a consequent redistribution of population in the surrounding areas. On the opposite, the other urban centres present general negative trends.

Forth, there is a diversification of assets in the sub areas of the Eurometropolis, with the university pole located in the Lille city, the new e-pole in Wallonia, which is also characterized by important environmental assets, and a strong SME sectors in the Flemish side. A redistribution of specific groups of population's flows seems to follow the different assets, identifying small-scale relationships: Students – university (Lille city), residents – house price and attention to quality of places and taxation (Wallonia), workers – job offers and industrial environment (Flanders).

4.1.2 Strategy and mobilization processes

The analysis on the cross-border cooperation of the Eurometropolis highlighted important findings, first concerning the vision of the territory, the related strategies of mobilization of assets, and the level of detail in addressing specific targets of population rather than generic attempts of enhancing attractiveness for economic investments. Second, it provided an overview on the institutionalization of cross-border cooperation and its aspects of organizational capacity in mobilize assets in condition of potential different territorial interests and agendas, articulated around various key aspects.

Concerning the first point, the setting up of a cross-border strategy has been characterized by the definition of a vision that in a way has been coherent through the different steps of the cooperation implementations. The conceptualization of the metropolis departed from classical centre-periphery schemes at the early stages (when mainly focused on the metropolitan area of Lille), and turned toward a more polycentric approach – the networked metropolis - consistent with the urban morphology of the area in the more mature cooperation stages. It has been built on its cross-border specificities, being bilingual and tri-cultural. The cooperation produced a spatial vision of the territory, that approaches the territory in functional terms and to a certain extent abstracting from existing administrative borders and a comprehensive strategy, which tries to build on the complementarities of the territories to maximize added value stemming from an enhanced cooperation.

In terms of attractiveness, the overall strategy, which emerges in the continuity of the different crossborder cooperation steps, only sporadically explicitly refers to specific segments of population. This may have to do with the underlying reasoning, often confirmed by the interviewees that the main objective remains the economic development of the area. The 'classic' hypothesis behind the general approach indicates the intention to create of more and better workplaces as on the one hand source of direct benefits to the population in terms of jobs and growth, and on the other hand main factor of attractiveness of the area. Consequently, the strategy is mostly focusing on the enhancement of economic, and human capital, as well as mobility aspects, which are the classical explanatory variables for job-related migrations that can be found in the international literature. Nevertheless, the strategy also considers cultural, environmental and antropic capitals as factors contributing to the ambition of becoming a metropolis, assigning them a positive role towards both visitors and residents.

This strategy becomes looser at lower spatial scales, as the actions devised and the general vision seem more concerned in pooling assets to enhance the territory as a whole in a context of international competition than aiming at assessing differences and consequently rebalancing disparities of assets within the territory. The strategy seems aiming less at a comprehensive management of the territory, but more on the cooperation on the areas that can bring added-value for all participants. In this line, it is possible to identify some concerns about the rebalancing of assets and integration of job markets, together with the mobility between major cities and along the border. This can nonetheless be a step towards a functional management of the cross-border area.

Concerning the second part of the analysis, the results have shown the presence of a strong community of interests and a sense of interdependence between the main actors of the cooperation. This stems partly from the geographical proximity, and partly from territorial logics specific to each region, where each partner could enhance its position in its own regional context through cross-border cooperation, notably through improvements to its economic performance.

However, these commonalities are also related to divergences in interests, which may be read in the attitudes towards the metropolitan project, or its scale. While the territory of the cooperation was rather stable over the years, it is not always seen as the most relevant territory for action – depending on the actors and the topics. The project-oriented cooperation has induced de facto to a nested approach, according to which the reference territory changes in function of the topic.

The cross-border metropolitan context magnifies some of the difficulties faced by metropolises in a national/regional context, notably in terms of competences and the necessity to establish vertical and horizontal networks. The cooperation within the COPIT has shown that an appropriate mobilization of higher levels of government might have accelerated (institutional) developments that have enabled the gathering actors representing all levels of competence for the different issues a cross-border territory is facing. However, the horizontal ties between these authorities (which currently are mainly limited to inter-municipal organizations) remain to be built around specific issues/projects.

These difficulties in coordinating multilevel and multi-country activities are not only related to access to material competence, but also to the frames of action of those exerting these competences. Therefore, there is an inherent paradox in attempting matching relevant competences with appropriate scales, as these create additional difficulties in coordinating activities.

An interesting finding concerns the role of politicians. The increasing involvement of politicians was made necessary at two levels. At local scale in order to rally the municipalities, who play an important role in implementation of cross-border cooperation projects that aim at creating more coherence on the territory. At a national/regional scale as to bring a sense of leadership in parallel vertical networks, which lack formal hierarchical relations within and among them. The increasing formalization of the partnership also appeared as a solution to reinforce actors' commitment, establish common working methods through iterated cooperation activities, and with the help of a dedicated staff, to balance the asymmetrical cooperation situation.

An important aspect of the cooperation is the combination of two natures: the formal and institutionalized role of the cooperation on the one hand, and the project-oriented logic of the cooperation on the other hand. Despite having the balance between the political (steering) role for the cooperation and a practical (project-oriented) still not been struck, there is now a much clearer explicit articulation between the political/strategic and technical/project missions through the requirement to produce territorial coherence at the scale of the territory.

In conclusion, the Eurometropolis has therefore overcome many of the challenges that the initial cooperation was not able to tackle, notably a more balanced leadership in the cooperation, an

increased formalization to ensure commitment of the partners, an institutional opportunity to integrate vertical and horizontal networks, and a better reach out to civil society. However, it is still faced with the challenge of integrating these authorities in horizontal networks based on competences and projects.

4.2 Conclusion and final remarks

The case study of Eurometropolis Lille-Kortrijk-Tournai has tried to link the territorial performances (analysed in Chapter 2) with the crossborder cooperation strategy (presented in chapter 3). Minding the limits regarding the possibility to separate effects of cross-border strategies from other local developments and the methodology adopted for this research, the main objective of the case study has been to reflect about the influence of the cross-border cooperation, intended as a strategy of mobilization of territorial assets, on the performances of the territory in terms of mobility of resident population.

However, the aim of the case study cannot be intended as an attempt of 'measuring' these influences. It started with the evidences, within the pan-EU ATTREG analysis, of low performances in terms of attraction and retention of population of the vast area in which the cooperation take place. Thus, the analysis focused on the one hand on a more detailed description of the characteristics of the territory, and on the other hand on the assessment of the 'reading' capacity of the territorial strategy set by the cross-border cooperation, and on its organizational capacity to steer in a coherent way the Eurometropolis area through territorial governance processes.

As a conclusion, a series of considerations can be drawn at the end of the work.

First, the analysis broadly confirmed the findings from the provincial/regional level, but also pointed out a number of specificities that characterize the cross-border region. In this sense, the analysis has confirmed the importance of a common vision of the territory, where its perception tends to be often bounded by administrative borders. A functional approach able to transcend these aspects could reap the benefits of complementarities[75] in terms of spatial developments or avoid harmful uncoordinated initiatives. However, the vision, which can help building the perception of a strong community of interests and interdependence between the territories (which the functional approach can uncover) cannot neglect the divergences of interests that may exist. This aspect may have influenced the cooperation so far has, shown by a spatial vision and in general a strategy that has been more concerned with exploiting untapped opportunities from the change of scale, rather than the balancing of assets and qualities within this territory. Maybe the Eurometropolis, with a mission more targeted on bringing coherence to the development of the territory will engage on a different path.

The second main element is the mobilization of vertical and horizontal networks. While academic works identify these networks as being essential, their importance in a cross-border situation is increased by the "mismatch" of competences resulting from different administrative set-ups in different countries, which clearly increases not only complexity but also the opacity of the decision making mechanisms. However, as transfer of competences seems already difficult in a national/regional context[76], the integration of different levels of government and the creation of an interface seems at present the best option.

[75] The complementarities most often quoted concern the innovative business – especially in the field of innovative textiles, where cooperation has as objective to evolve towards a cross-border cluster, and which is eased by the fact that the businesses do not compete for a local market but on the global stage, where common marketing activities are beneficial for all partners (Eurometropolis, 2011b, p. 11).

[76] The transfer of competences to inter-municipal organizations operated in France in the 60s was reinvigorated recently with the reform of local government, which created a new form of local government: the metropolis, which

Third, it is possible to hypothesize that the strategy elaborated in the early 2000s, although mainly targeting economic agents, might have had effects on the territorial capital of the area, and thus enhanced its attractiveness and produced considerable changes in terms of mobility patterns. The cooperation had to face typical problems of cross-border regions that in this case, especially at the beginning, took form in term of relative deficiency in integration of vertical networks, domination of the French leadership, difficulty to access funding, lack of legal action tools, lower political involvement of municipalities, and lack societal support. These ambitions might have impeded the implementation of activities as expressed in the discursive apparatus of the strategy. However, given the stability of the vision and themes of cooperation initiated by the strategy and the institutional solutions given to the aforementioned shortcomings, it remains to be seen how the Eurometropolis will be able put in practice a strategy of mobilisation of assets (as a combination of the different elements analysed within this thesis towards the management of the urban area).

Finally, these conclusions lead to at least two elements for further research. The first would be a more in-depth study of the functioning of the working groups of the Eurometropolis and their ability to create horizontal networks around common projects/themes. The second would be more focused on the relation of the Eurometropolis to the European level, especially in terms of funding and the capacity to establish horizontal networks: the authorities responsible for implementation of European programmes may face a dilemma in terms of priorities and modes of action between their ongoing activities, and their role in the Eurometropolis.

In terms of general feedback for the ATTREG project, the case study expresses some key features.

The first one refers to the 'time' issue. It requires time to build governance processes, as well as to change territorial performances, intended as implementation and mobilization of assets and thus changes of patterns of mobility. In particular, the building of institutional capital, which in a cross-border area implies the definition of cross-border capacity of cooperate (relationships, institutions, formal and informal aspects), requires time in building vertical and horizontal relationships (mutual trust, institutional settings, etc..), as well as the involvement of citizens and private sectors.

Second, there is a dominant attention to economic development strategies. Most of the time, the attractiveness of a territory is intended as capacity to attract key features for economic development: investments, key labour forces, enterprises, etc. A change of perspective, which would imply the introduction in the analysis and in the strategy of the territory of an explicit attention to the mobility of resident population, may suggest a different attention to the territorial assets that require mobilization and implementation, in the perspective of the territorial cohesion aim.

In line with this concern, the case study has shown how targeting economic development and building critical mass for international competition may be easier and, to a certain extent, more political neutral than setting a strategy that aims at internal balancing logics. In particular, the necessity to overcome disparities and unbalances in crossborder contexts requires efforts in building trust and shared perception of needs and thus of territorial strategies.

Finally, the case study has brought an important exemplification of crucial elements of strategic spatial planning: the role of a vision of the territory helps in gathering consensus based on specific territorial considerations, and the discursive apparatus allows coordinating various interventions, even if not under the formal umbrella of the cross-border cooperation. In this sense, thus, visioning is at least a supportive structure for the coordination ongoing processes.

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would gather competences from the municipal, departmental and regional level (French Interior Ministry, 2011). Similarly in Belgium there are constant efforts to merge communes, and a reflection is also engaged on the role of provinces.

Nevertheless, an efficient implementing capacity is crucial and should not be underestimated. The institutional setting of cross-border governance processes should pay attention to the features that allow building a well-working combination of vision, implementation, feedback and revision of the strategy. These features concern the coordination among actors, a dedicated budget, a monitoring system and a study of the entire territory beyond the administrative borders, and a communicative strategy that supports the legitimization of the process. A project-based cooperation and nested-scale territory are thus complementary to the process of formal institutionalization that occur in the formation of a cross-border region and its governance mechanisms.

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Appendices

Appendix A - Semi-structured questionnaire

(in **Bold**, main themes, in *italic* optional questions)

Introduction (presentation of the enquiry, techniques, objectives)

1 – Migratory and demographic dynamics

Presentation of ATTREG typologies – Do you think that these typologies are valid for the region / your territory

In terms of demographic and migratory flows and tendencies,

What is your situation within the regional context (West Flanders, Nord pas de Calais, Hainaut)?

how does your territory differ ?

Is there an evolution since the 1990s?

What are the external factors that have influenced these trends (financial crisis etc.?) are they specific to your territory, or for Flanders, France, Wallonia or for Europe ?

Do you face specific migratory and demographic challenges?

How do you expect the situation will evolve in the coming years?

Do you consider migrants are an important asset for the territory ?

Do you think there should be specific policies to encourage specific populations to settle ? if yes, which policies and which migrants? (e.g. students, elderly, skilled / unskilled workers)

At which level do you think these policies should be implemented ?

Do you consider that there are common challenges of that order that could be tackled at the level of the Eurometropolis?

2 - Cross-border cooperation

You/your organization are involved since almost twenty years in a cross-border cooperation, notably within the framework of the COPIT/GPCI and now the Eurometropolis Lille-Kortrijk-Tournai

What is your main objective in pursuing this cooperation ?

Which are for you the most important elements in the cooperation ?

Relevance of the cross-border strategy in 2002 (and its 4 main goals)

Importance of the 6 existing working groups in the Eurometropolis Agency

How do you evaluate past cooperation experience ?

What do you value the most in the cooperation – why so ?

Are there specific examples of difficult cooperation ? why so ? (linguistic, boundaries, institutional – legal competence, resource, political factors)

Do you consider the cooperation has made visible a number of common issues ? and was able to address them ?

How do you expect the cooperation to evolve ?

As regards the Eurometropolis

As regards specific themes of cooperation

Appendix B - List of Interviewees

Baert Thierry, ADULM, Project Manager and coordinator for metropolitan cross-border (01/06/2011).

Debaere Karel, Leiedal, General Director, founder of COPIT, interim head of Eurometropolis Agency (10/06/2011)

Elodie Waroquet, Eurometropolis Agency, Policy officer - 2030 strategy (email exchanges)

Kimmerlin Thomas, APIM, Project manager cross-border activities and Eurodistrict (09/06/2011)

Rapsaet Sofie, Leiedal, Project officer cross-border cooperation (01/06/2011)

Scavennec Céline, LMCU, Head of sector territorial cooperation (09/06/2011)

Seynhaeve Frédéric, IDETA, Project manager territorial development and deputy director for cross-border cooperation (06/06/2011)

Van Staeyen Jef, LMCU, Project Manager, Director of the COPIT/GPCI (2001-2007) (09/06/2011)

Westrade Daniel, Burgomaster of Peruwelz, Member of the Eurometropolis Assembly and Board, President of Wallonie Picarde association(06/06/2011)

Appendix C - Comparison of main themes of cooperation and sub-themes

Table 1 - Comparison of main themes of cooperation and sub-themes

COPIT/GPCI Strategy (2001)	Metropolitan Cooperation proposal (2005)	FR-BE Parliamentary group report (2007)[77]	Eurometropolis LKT (2009-2011)
Metropolisation of a complex and scattered territory (citizens' initiatives, name, information)			
Economic competition and complementarities (cross-border employment, harmonise legislation and adapt qualifications, common international marketing and lobbying activities, consultation on new infrastructures, develop new specialisations (cross-border, environment)	**Economic development** (business clusters, fostering research, design and university-business partnerships, common marketing, sustainable development projects, consultation on planning)	**Employment, vocational training, taxation, enterprises** (taxation, workers' mobility – including training language and recognition of diplomas , unemployment benefits , social benefits, vocational training, disabled workers, cross-border economic activities, unregistered work, labour market observatory, networks)	**Economic development** (clusters of competitiveness, employment forum, cross-border worker status, common marketing activities, a common offer)
Higher education (student exchanges, cross-border specialisations, information)	**Higher education and training** (internationalization of university activities, business-university partnerships, languages)	**Education** (recognition of diplomas, languages, mobility, research)	*(See services to citizens)*
			Services to citizens (harmonize legal framework for health, education, unemployment and vocational training, foster higher education exchanges, foster cooperation on health)
Cultural development (networking actors, new events, common use of infrastructure)	**Culture, tourism and entertainment** (marketing based on common labelling of events, or new infrastructures)	*(mentioned but not treated as a specific topic)*	**Culture** (language, networking activities, labeling of cultural events)
Languages (teaching, learning, common events)	*(see higher education)*	*(mentioned in the report under education, but not treated as a specific topic)*	*(see culture)*

[77] Analyzing the different themes from the point of view of the type of problems and solutions devised (the report distinguishes between legal, consultation and information issues), a clear hierarchy emerges, with employment (vocational training, workers and enterprises mobility) gathering most cross-border obstacles (these being almost exclusively legal and consultation issues). The second being health with mostly legal and consultation issues as well as almost no experimental actions. The third being transports with more consultation than legal issues. Then come education environment and planning with a balanced number of information, consultation and legal issues.

		Health (legal tools , policy coordination, common information actions ,emergencies, mobility of patients and practitioners, ageing populations, disabled people, funerals, financial aspects)	*(see services to citizens above)*
Mobility and accessibility (common cross-border planning, better links between cities, links to HST, Leie/Lys valley navigation, internal accessibility: public transport and missing cross-border links, border posts)	**Accessibility** (external accessibility, internal networks between main nodes, new infrastructures, common transport authority, internet access)	**Transports and telecommunications** (consultation of authorities road traffic, public transport water and rail transport, telecommunications, border posts)	**Mobility and accessibility** (assessment of the situation, common management of public transport, better infrastructural links, requalification of border posts)
Landscape development (parcs & environment, three borders zone Menen-Mouscron-Wattrelos, cross-border parks)			**Tourism** (common touristic map, landscape development)
Water management (Lys/leie valley navigation & recreation, purification plants)	**Quality of life and environment** (coherence between existing green and blue grids, common reflection on urbanization and infrastructure)	**Water and environment** (agricultural pollution, flood prevention, water management, cross-border pollution)	*(see planning)*
Cross-border planning (cooperation on urban regeneration, consultation on planning of infrastructures and environment**)**		**Planning** (information ,consultation and coordination, common projects)	**Planning** (consultations, sustainable development, blue and green grid)
Governance (status and resources of a cross-border organization, involvement of higher authorities, articulation of scales, civil society, mobilization)	**Engineering / Implementation** (observatories and monitoring tools, governance).	**Governance** (Creation of an EGCT)	
		Security (police-customs, public safety)	

December 2010

The ESPON 2013 Programme

ATTREG
The Attractiveness of European regions and cities for residents and visitors

Applied Research Project 2013/1/3

Annex 4/6
ATTREG Case Studies

Lubelskie

Prepared by
Mariusz Kowalski and Jerzy Solon

EUROPEAN UNION
Part-financed by the European Regional Development Fund
INVESTING IN YOUR FUTURE

This report presents the draft final results of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

This report does not necessarily reflect the opinion of the members of the Monitoring Committee.

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This basic report exists only in an electronic version.

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Tables

1 Introduction - first overview of the case (not final version)

1.1 Relevance of the case study

Lubelskie region (voivodship) is located in the eastern part of Poland, bordering with the countries not belonging to the European Union: Belarus and Ukraine. The region has about 2 150 000 inhabitants (5.6% of Polish population), of which only 46% live in cities. The active population (about 50% of the total) is employed in services (45%), agriculture (30%, the highest share in the country), and industry and constructions (25%). Unemployment was recently at 12%, but the researchers point also to the hidden unemployment. It is connected with relatively inefficient agriculture that produces only 10% of total income (Tokarski, 2004; Bogumił, 2009),. Gross Domestic Product (GDP) per capita places the region in last place in the country (Tokarski, 2004).

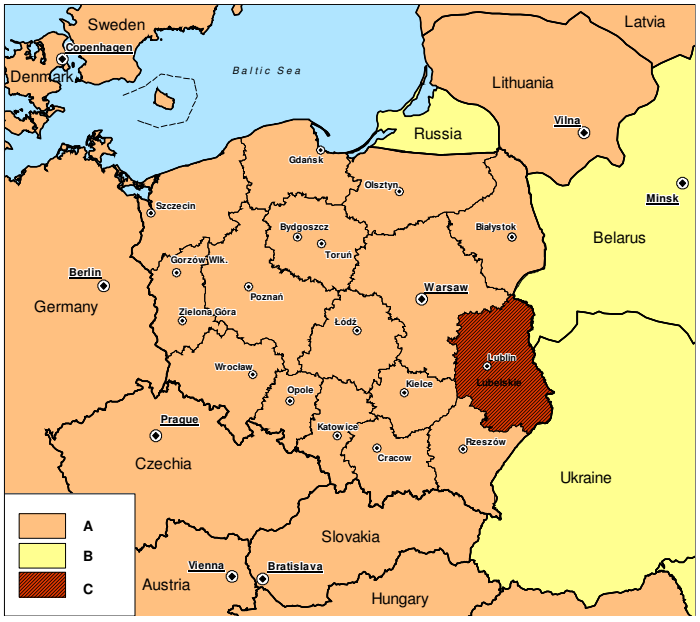


Figure 1: Lubelskie, Poland and neighboring countries. A – EU countries, B – Lubelskie, C – non EU countries

Peripheral location and the high proportion of population engaged in inefficient agriculture influence on the negative balance of migration, both in domestic and international level. Lubelskie, because of its frontier character attracts the difficult to quantify (no register data) number of temporary immigrants illegally employed as casual workers.

To sum up, Lubelskie can be described as a sparsely populated frontier and peripheral region, highly diversified in terms of socio-economic and hence the demographic situation. The official data for whole region suggest that a peripheral and rural character of the region makes it unattractive for Polish and legal foreigner emigrants. This circumstance causes low migration flow and make region „neither sticky nor retentive". The spatial differentiation of demographic processes as well as unregistered flow of casual workers from the East may makes the reality more complicated.

Taking into account the above observations it was decided in the case study to examine such issues as outflow of Polish workers and inflow of (illegal) workers from the bordering countries; policy to control these flows.

1.2 Case study questions

The aim of this case study is to corroborate, with the contribution of regional stakeholders and practitioners, whether our characterization of the region is correct; in what extent official data flows must be modified by an illegal (unregistered) migration; what is the spatial differentiation of migration processes within the region; in what extent is it a result of regional policy; whether there are any ideas to stop the outflow of the population (if it is needed at all) or/and increase the inflow of any particular group (s) of migration.

This case study, enriched by the face-to-face interviews and the panel discussion, should provide clear insight about the following issues:

- To what extent the typologies identified for Lubelskie – "low flow region" and "neither sticky nor retentive" make sense for regional stakeholders and practitioners? Do they consider that the region isn't really over-performing in any of ATTREG EXTREME CASES? How migration of illegal foreigner workers modify this "official" picture.
- What is the impact of the migration of illegal foreigner workers on the local job market? Is it danger for the local population, whether it is necessary to supplement the workforce of the economy?
- Do they distinguish intra-regional asymmetries in terms of migration of illegal foreigner workers? Of which kind? Between which type of territories? How spatial heterogeneity of Lubelskie affects migration processes?
- Taking into account possible political, demographic or socio-cultural changes, which are the stakeholders' expectations for the development of the migration of illegal foreigner workers in the future?
- Is there any selective strategy to attract (or keep away) illegal foreigner workers?

1.3 Method of research

The methodology of research will consist of:

- a literature review of relevant scientific literature and policies concerning problems of migration in Lubelskie, with special attention at the illegal workers migration;
- Analysis of data on migration processes in Lubelskie15 face-to-face interviews and a panel discussion with 5 discussion partners (see: appendix).

The discussion partners include representatives of the different sectors involved in the mobilization process in the Lubelskie, comprising the public sector, the knowledge institutions, the NGO's, other relevant entities and experts that, by their CV and professional experience in Lubelskie, have an in-depth knowledge of the regional context, performance and potential.

1.4 Structure of report

This case study is structured as follows:

- Section 2 provides a data analysis highlighting the regional capacity to attract people, the main problems and challenges faced in the recent years (migration of illegal foreigner workers), the Lubelskie's spatial diversity and strategic position to attract people in relation to larger urban systems;
- Section 3 consists of a policy review concerning different issues such as the regional institutional context, the regional policies that changed the territorial ability to attract residents and visitors and the regional vision and strategy to enhance territorial attractiveness to particular groups (Polish and foreigner);

- Section 4 concludes summing up the answers to the questions formulated to this case study with the aim of providing a better understanding of the specificity of this region in what concerns its particular capacity to attract foreign workers.

2 The ability to attract: data analysis

2.1 Profile

Analyses performed in the RA2 and RA3 confirm stereotypical opinion on Lubelskie. It belong to the large number of NUTS2 regions of northern and eastern Europe that are not distinguished by anything in particular. This is not an attractive region in terms of climate. There is also lack of significant attractions of landscape (eg, mountains, sea) and architecture (with some exceptions). Region is bypasses the international mass tourism. In the terms of the economic development, education of residents, their wealth and satisfaction with living conditions is on the last positions. This conditions seem to be confirmed by demographic phenomena (according to results of RA3). Lublin has a negative migration balance for all highlighted in the study age cohorts (A, B, C). The region has been in relation to these indicators classified as "low flow region" (like other NUTS2 units in Poland) as well as a region, "neither sticky nor retentive" (like biggest part of NUTS2 units in Poland) . As part of the combined typology based on "stickines" and "flows" (2001-2006), Lubelskie, like other Polish regions, and definitely most of the regions of central, northern and eastern Europe (Germany, Northern France, Belgium, Holland, Denmark, Sweden , Norway, Finland, Czech Republic, Slovakia, Lithuania, Latvia, Estonia, Hungary, Romania, Bulgaria, Slovenia), is included in the category "unretentive, low-flow regions."

In the northern and eastern part of Europe, the exceptions are unites dominated by large cities, especially capitals (Budapest, Prague, Copenhagen, Bucharest, Berlin, Sofia, Stockholm, Oslo). There are among them no NUTS2 Polish units, which is probably due to their large size[1]. Polish units include both big cities and large peripheral areas, which means that extreme events are averaged. The regional center for Lubelskie is city of Lublin, though its force of attractiveness can't be compared with the major regional centers in Poland (Cracow, Poznań, Gdańsk, Wrocław and Warsaw in particular). The analysis of this issue will be discussed in the next chapter.

2.2 Position

The use of smaller territorial units (NUTS3) in the analysis of demographic events in Poland, demonstrates differentiation occurring in other countries of northern and eastern Europe. In addition to the dominant areas "unretentive, low-flow regions," there are also areas that could possibly fall into the category "mostly sticky" and / or "high flow region". There is marked strong position of Warsaw (three NUTS3 regions), as well as the good situation of the other large urban centers. In the case of Lubelskie this situation applies central NUTS3 unit, including the capital of region - Lublin (see Figure 2).

The phenomenon of migration of foreigners (recently mainly Ukrainians) taking up permanent or seasonal work in Poland could be the next proof for relative attractiveness of some areas in Poland. This seasonal migration is usually not legalized and are not included in the overall balance of migration. It is also not included in the employment statistics. The vast majority of them arriving on a tourist visa and take a job in the informal economy. The influx of foreigners certainly compensates the outflow of large numbers of Poles seeking work in the countries of Western Europe (Table 1 and 2). Foreigners are willing to take poorly paid and do not require

[1] In Poland, the unit NUTS2 are average inhabited by 2.4 million, the Czech and Hungarian by only by 1.4 million. There is no NUTS2 "capital district" in Poland as it is in Czech Republic or Romania.

high skills job in agriculture, construction and domestic services. Only students from the east are staying in Poland mostly of the normal rules. But they are much less numerous group.

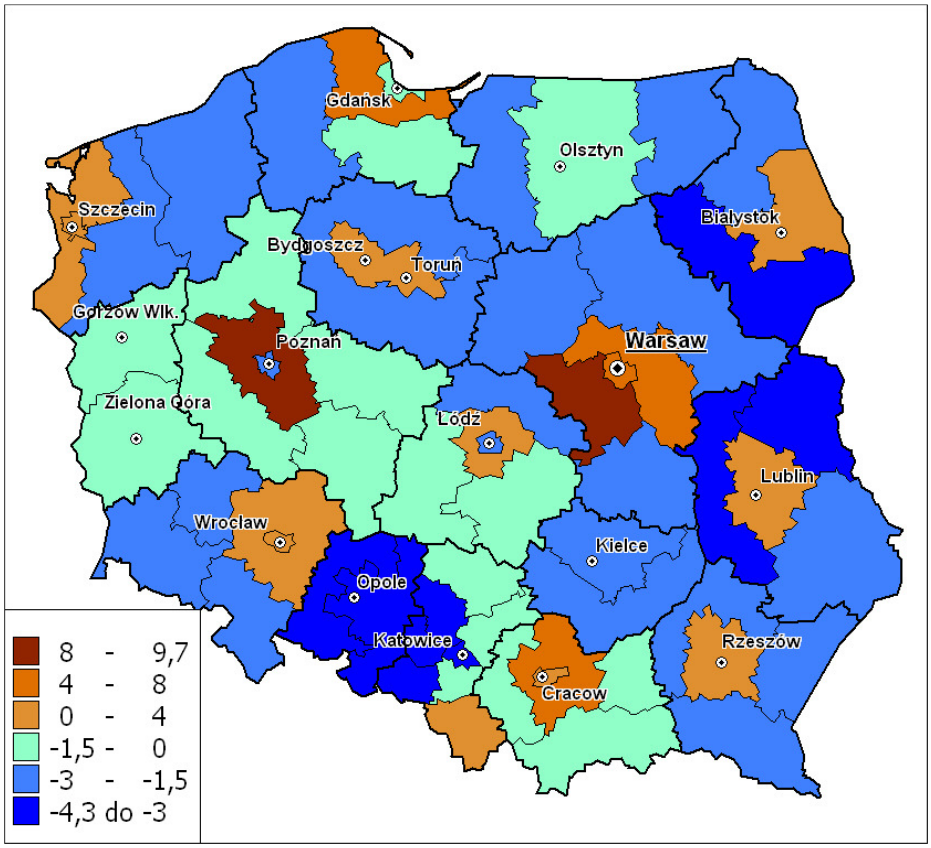


Figure 2: Average net migration rate 2001-2006 by NUTS 3 regions.

Table 1: Foreign migration for Lubelskie by main destinations 1999-2010 (official data)

		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Europe	emigr.	149	159	156	112	94	129	237	1531	1013	700	403	353
	immigr.	*82*	*83*	*89*	*90*	*89*	*183*	*246*	*198*	*438*	*452*	*498*	*358*
Asia	emigr.	0	3	0	1	0	1	2	6	2	2	0	2
	immigr.	*6*	*19*	*18*	*5*	*16*	*36*	*18*	*4*	*7*	*1*	*5*	*3*
Africa	emigr.	1	2	0	5	0	0	3	2	2	0	0	0
	immigr.	*3*	*7*	*2*	*2*	*5*	*8*	*5*	*4*	*1*	*2*	*0*	*1*
North America	emigr.	84	90	60	81	54	49	75	149	118	128	74	93
	immigr.	*61*	*36*	*27*	*30*	*46*	*43*	*55*	*62*	*84*	*64*	*65*	*50*
Oceania	emigr.	6	6	5	12	7	1	10	14	9	9	15	11
	immigr.	*1*	*1*	*1*	*5*	*4*	*3*	*6*	*2*	*7*	*4*	*8*	*7*

Sourse: Central Statistical Office (http://www.stat.gov.pl/bdlen)

The majority of recognized cases of undocumented employment of foreigners in Poland in 2007 concerned nationals of Ukraine (40%), and Belarus (30%). Location of Lubelskie makes it easily accessible for them. A 45% of recognized cases of undocumented employment of foreigners in Poland were detected just there (Kępińska, 2007). This foreigners were employed in agriculture, construction, petty trade, care and domestic services (Iglicka and Gmaj, 2008; Kicinger and Kloc-Nowak, 2008). In Poland, around 2005 there were probably from 100 to 300 thousands citizens of Ukraine (Cipko, 2006). The attractiveness of Poland for Ukrainian immigrants is significantly affected by geographical and cultural proximity and a dense network of contacts in Poland, providing support and allows relatively easy to obtain reliable information about free places of

work (also, perhaps above all, of those in the informal economy). A key factor in explaining the making of Ukrainians working in Poland is, however - as studies show - the possibility of achieving higher incomes than the country of origin. Meanwhile, in the opinion of Polish Employers, labor migrants from the East are good and inexpensive workers (Khomra 2003; Biernath and Stefańska, 2008). An ambivalent approach to this phenomenon developed, called "a silent tolerance policy" (Kicinger, 2005). The rationales behind such toleration were the foreign policy goals and economic benefits that arose from this kind of employment (Kupiszewski, 2007).

Table 2: Foreign migration for Poland by main destinations 2002-2010 (official data)

	2002		2004		2005		2008		2009		2010	
country	emigr.	*immigr.*	emigr.	*immigr.*	emigr.	*immigr.*	emigr.	*immigr.*	emigr.	*immigr.*	emigr.	*immigr.*
Austria	525	*156*	404	*136*	308	*162*	559	*282*	386	*300*	338	*289*
Belgium	119	*61*	130	*70*	149	*89*	325	*151*	281	*166*	296	*172*
Belarus	3	*130*	6	*262*	2	*364*	1	*222*	5	*212*	4	*173*
Czech Republic	38	*34*	41	*61*	49	*60*	123	*48*	44	*43*	66	*51*
Denmark	95	*27*	50	*21*	58	*23*	208	*102*	137	*147*	138	*167*
France	339	*247*	300	*293*	295	*324*	564	*331*	388	*326*	339	*388*
Greece	75	*60*	75	*95*	76	*67*	174	*108*	88	*143*	91	*127*
Spain	166	*63*	201	*103*	265	*106*	514	*273*	330	*359*	272	*337*
Ireland	13	*4*	83	*15*	405	*32*	1422	*917*	570	*1458*	565	*1200*
Island	9	*2*	19	*11*	18	*12*	99	*46*	36	*81*	43	*82*
The Netherlands	290	*83*	363	*138*	393	*164*	1004	*360*	691	*518*	680	*393*
Germany	17806	*2335*	12646	*2697*	12317	*2823*	11884	*3174*	7769	*3175*	6818	*2677*
Norway	47	*31*	51	*30*	72	*41*	418	*126*	245	*237*	303	*205*
Russia	15	*86*	15	*294*	23	*250*	18	*156*	10	*102*	13	*128*
Switzerland	88	*41*	59	*48*	75	*48*	166	*62*	111	*74*	102	*72*
Sweden	174	*70*	174	*114*	268	*100*	475	*166*	398	*224*	400	*212*
Ukraine	11	*350*	15	*1196*	29	*1067*	34	*776*	25	*609*	18	*599*
UK	254	*208*	543	*313*	3072	*468*	6565	*4365*	3502	*5408*	3472	*4409*
Italy	302	*251*	300	*253*	413	*331*	922	*428*	549	*485*	535	*518*
rest of Europe	131	*174*	87	*386*	152	*375*	253	*231*	171	*302*	171	*264*
Canada	1016	*230*	657	*323*	808	*303*	841	*391*	571	*364*	607	*354*
USA	2676	*1137*	2404	*1348*	2633	*1289*	3158	*1854*	1961	*1823*	1767	*1601*
Australia	187	*98*	165	*137*	223	*132*	239	*163*	227	*168*	163	*151*
Armenia	-	*50*	-	*155*	-	*80*	-	*65*	-	*111*	-	*90*
Kazakhstan	-	*221*	-	*211*	-	*175*	-	*77*	-	*78*	-	*56*
Vietnam	-	*124*	-	*232*	-	*83*	-	*53*	-	*117*	-	*50*
rest of the world	168	*314*	104	*553*	162	*396*	192	*348*	135	*394*	172	*481*
total	24547	*6587*	18892	*9495*	22265	*9364*	30158	*15275*	18630	*17424*	17373	*15246*

Sourse: Central Statistical Office (http://demografia.stat.gov.pl/bazademografia/Tables.aspx)

The phenomenon of the employment of foreigners was confirmed with the help of the new legislation. Since 2007, citizens of Ukraine, Belarus, Moldova, Russia and Georgia, may be employed for a period not exceeding 6 months without the need to apply for the work permission. The only requirement is to submit to the Labor Office the employer's statement of intention to carry out the work to a foreigner. On this basis, the foreigner may apply for a visa. This solution can be called a kind of verification of employment. In 2009, the Polish employers made 191.5 thousand. such statements, of which 183.3 thousand. (95.7%) concerned the employment of Ukrainian citizens. There were 21,600 such statements in Lubelskie, of which 20,800 (96.0%) concerned the citizens of Ukraine. Similarly, in the following year (180 000

Poland, Lublin 20 600). Data from the first quarter of 2011 may indicate that the phenomenon was maintained their intensity (see Tab. 3). This is confirmed by the analysis for the whole country. Experts predict even increase the number of recorded statements in 2011 to 270,3 thousands. The expected increase is explained by a better economic situation of Poland, a growing boom in industries characterized by high labor intensity and changes in rules relating to the employment of foreigners (see Wafflard, 2011).

Table 3: Registrations of foreigner workers in Lubelskie

Year	Belarus	Russia	Ukraine	Moldova	Georgia	Total
2009	804	31	20 765	40	-	21 640
2010	312	7	20 139	68	33	20 559
2011 (1st	84	4	6 030	66	103	6 287

Sourse: Labor Office of Lubelskie

The vast majority of the statements concerned the employment of foreign workers in agriculture (see Tab. 4). It can be assumed that foreigners working in other sectors, could be much less reported in the labor offices. This follows from the fact that the facilities for employment of foreigners from the east came first in agriculture. The higher labor costs in other sectors also induce to employ foreigner workers illegally. For this reason many reported to work in agriculture (and on this basis receiving a visa) later working illegally in other sectors (Kloc-Nowak, 2007).

Table 4: Registered statements in Lubelskie by economic sectors, 2010

Economic sector	Number of registered statements	%
Agriculture	15848	77,1
Temporary employment agencies	2744	13,3
Home services	558	2,7
Transportation	534	2,6
Housing	521	2,5
other	354	1,7
Total	20559	100,0

Sourse: Labor Office of Lubelskie

These figures should be treated with reserve. They don't regards number of foreigners, but the number of statements made in their case. Not everyone involved undertook later the legal work in Lubelskie. On the other hand difficult to estimate number of people still worked illegally.

Periodic influx of workers from the East has appeared in all Polish regions (see Zboińska, 2010). Everywhere dominated by Ukrainians (90%). The particular focus of this type of workers occurred in Mazowiecki. This region, with Warsaw as main regional center, is occupied first place in the country both in terms of total number of reported statements, as well as the share of foreign workers in the total number of employees. Lubelskie, bordering Mazowieckie to the north-west, in both categories took second place (see Figure 3).

In the case of Mazowieckie a magnet for foreign workers from the East is Warsaw and the cultivation of vegetables and fruits in its neighborhood. In the case of Lublin the influx of Ukrainians must to a greater extent depend on the immediate vicinity of Ukraine, as well as the location on the way from Ukraine to Mazowieckie and Warsaw. For such an assumption leads the fact that many other regions of Poland have similar or better conditions, but do not attract so many foreign workers.

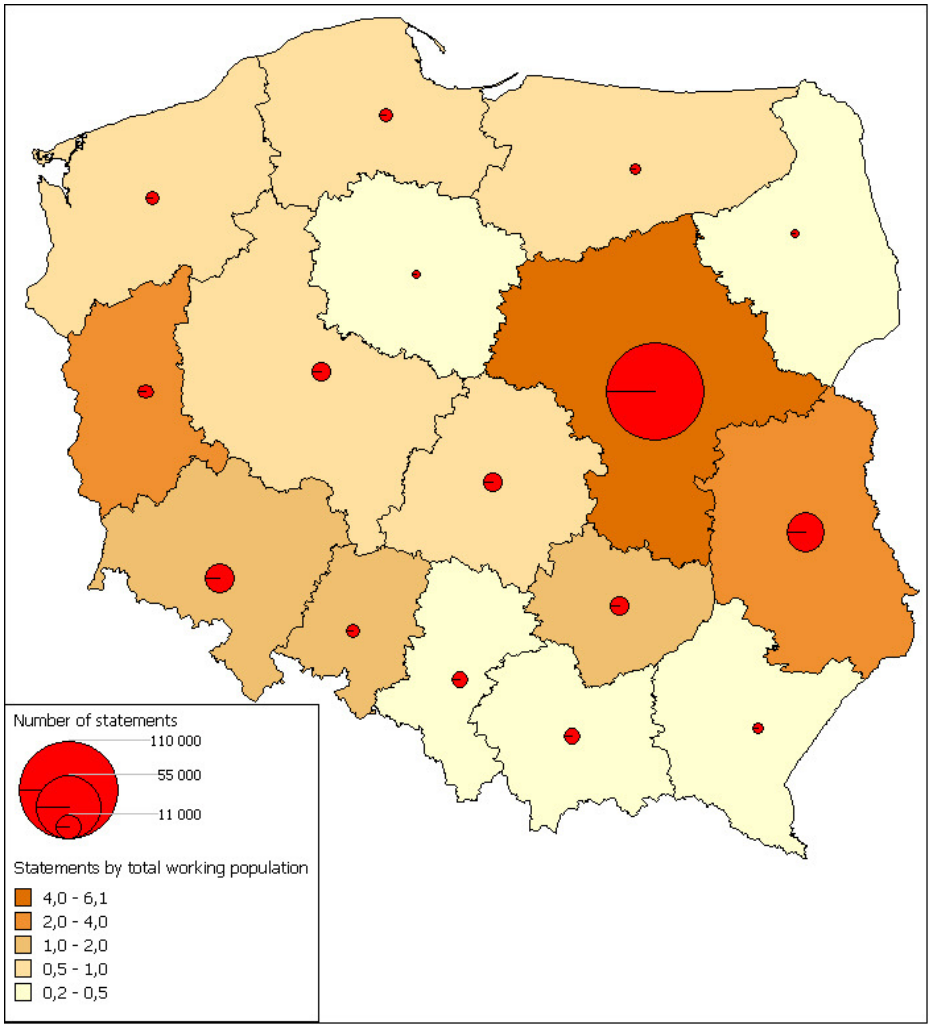


Figure 3: Statements concerning employment of foreign workers by Polish regions, 2009.

2.3 Internal differences

As it was mentioned above the situation the Lublelskie from the point of view of official registers is highly diversed. The areas with negative migration balance occur with those where the migration balance is positive. The positive balance of migration characterizes regional and sub regional centers and its surroundings (Fig. 4).

Analyses emphasize in particular the constant outflow of population from rural areas, which is connected with the search for better conditions for life (Iron, 2010). However, the large part of the migration movement stay outside the registers. This applies to both the outflow of population as well as inflow of returning and newcomers.

According to official data, permission to work in Lubelskie achieved in recent years only a few hundred foreigners every year. Some idea on the real number and distribution of the thousands foreign workers, taking a job (temporary or permanent) in Lubelskie in recent years (from 2007) provide statistics on the statements of willingness to employment (Fig. 5).

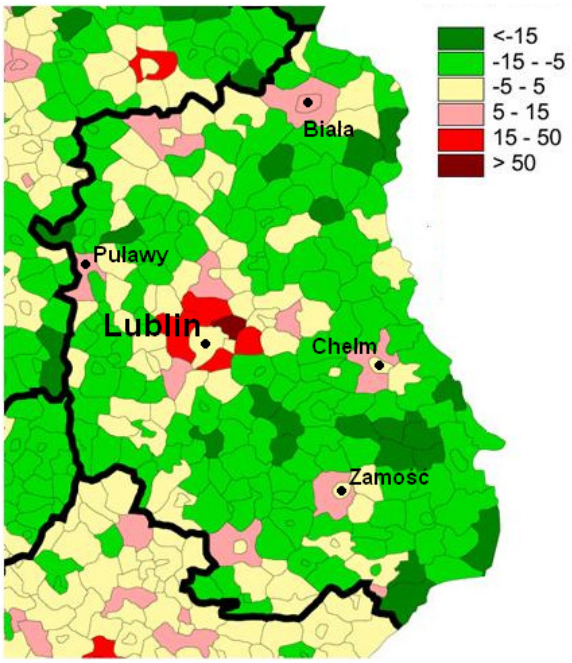
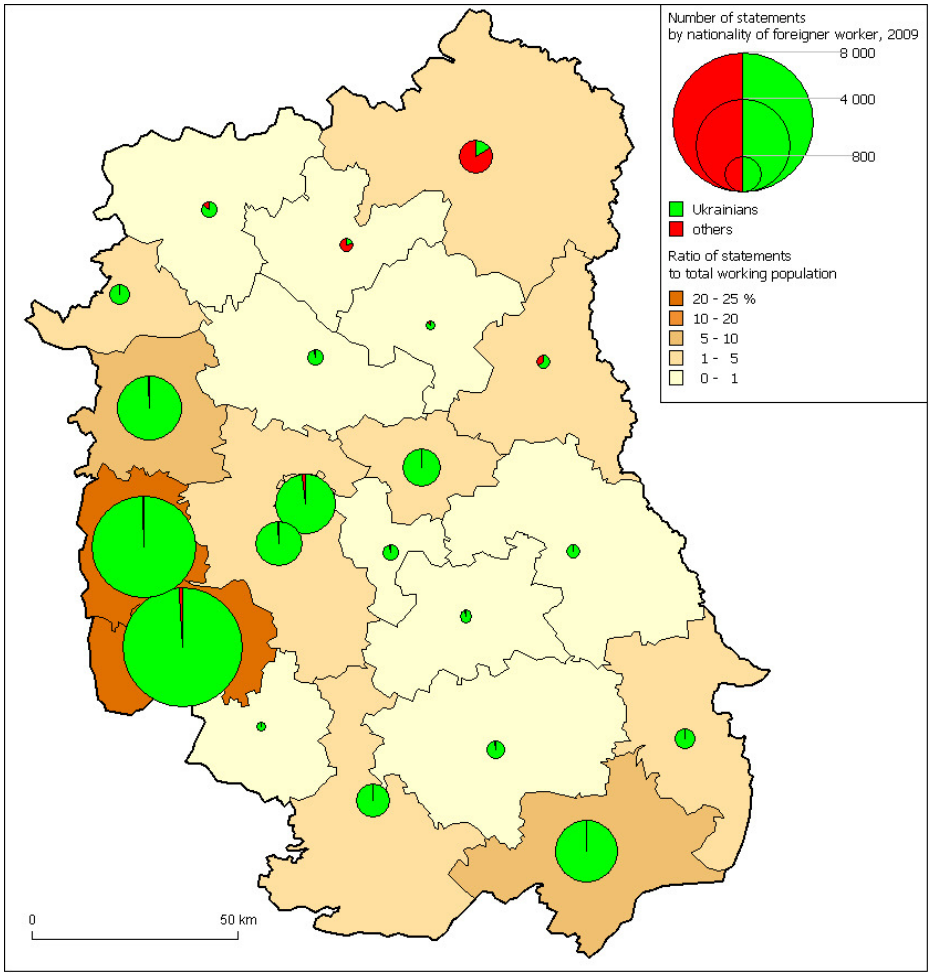


Figure 4: Percent changes of inhabitants in the communes (NUTS-5) of Lubelskie 2009-1995 (1995=100%).



Source: own elaboration

Figure 5: Recorded statement on employment of foreign workers by counties (NUTS4) in 2009.

Statements of intention to employ the foreigner in ¾ of cases concern the agriculture. The work of foreigners from the East in other economic sectors, mainly in domestic services and construction, because of its casual nature was much less legalized. It is difficult to give any figures here, but it must concern thousands of people. These kinds of jobs focused on the areas of socio-economic growth, and therefore on those which have experienced population growth according to available data (see Figure 4). The main center for illegal hiring of foreign workers must be, therefore, Lublin and its vicinity.

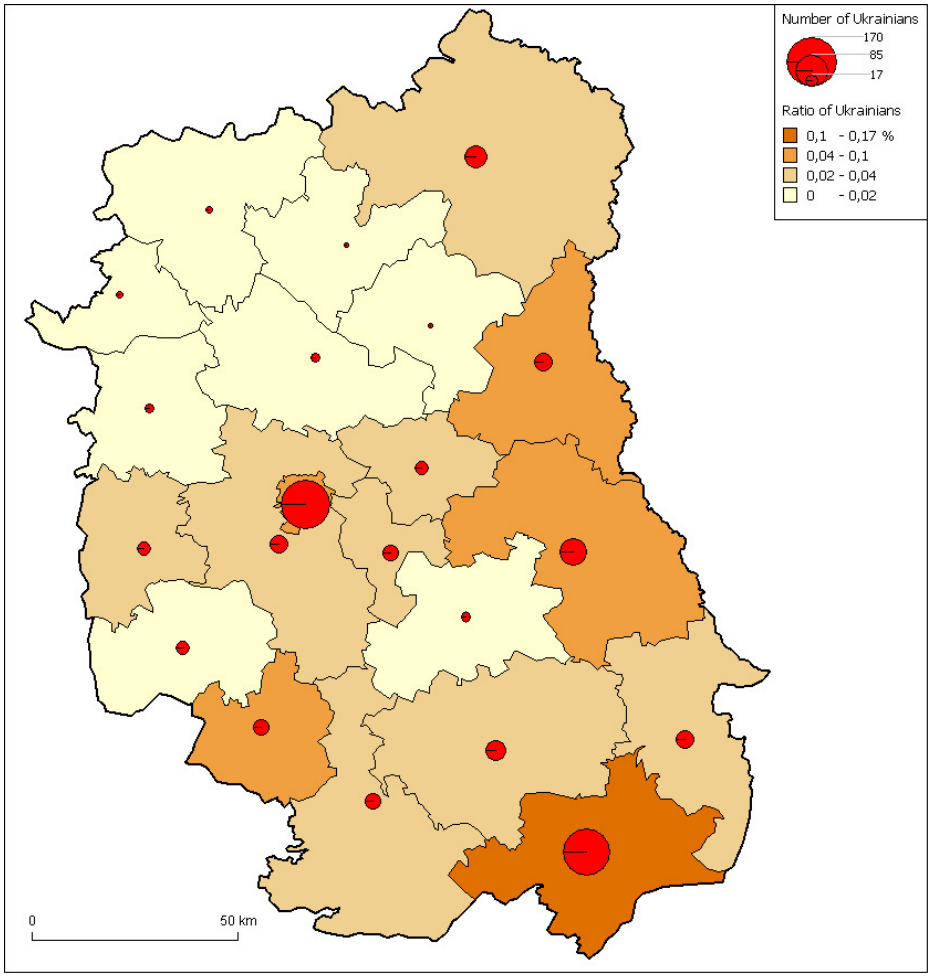


Figure 6: Ukrainians In Lubelskie by counties (NUTS4) according to census 2002.

Confirmation of this hypothesis may be data from census 2002 (2011 census results are not yet available). In the area of Lublin reported 693 people of Ukrainian nationality, including 389 with Polish citizenship. Apart from the eastern border area traditionally inhabited by the Ukrainian minority, a large cluster of Ukrainians - 161 people, including 61 who do not have Polish citizenship, was recorded in Lublin (see. Fig. 6). This is obviously just the tip of the iceberg of a much larger phenomenon.

2.4 Conclusions

Analysis of the available material supports the hypothesis of Lubelskie considerable variation in terms of demographics. Rural areas dominated by agriculture are characterized by a significant migration loss of population. Urban centers, especially the capital of the region and its vicinity are characterized by a slight increase in population in recent years.

This situation is complemented by migration from the East, mainly from Ukraine. Ukrainian seasonal workers supplement the shortage of labor in agriculture. This concerns mainly the western part of the region, which is due to good climatic conditions, specializes in the cultivation of fruit and vegetables. This type of economy requires the participation of large numbers of unskilled workers employed seasonally employed. The outflow of the local population and low salary are a serious obstacle in finding Polish workers. The gap fill seasonal workers from Ukraine. In some counties (NUTS-4), during the season of intensive work in agriculture, foreign workers are even greater than 1 / 5 of all legally employed. This share increases difficult to estimate number of people employed illegally.

Emigrants from the Ukraine, as well as the local Polish population, are also attracted by the regional centers of economic and social growth. Ukrainians are mainly employed in domestic service, construction and transport there. In most of these areas, replacing Polish specialists, looking for better paid jobs in the country (mainly Warsaw) and in Western Europe and United States.

The phenomena observed in Lubelskie are representative for the whole country. In all its regions people are moving from rural areas into the city agglomerations (especially to Greater Warsaw). This phenomenon seems to be characteristic not only for Poland, but for many countries in central, northern and eastern Europe. The significant presence of immigrants from Ukraine (or other countries) in Lubelskie is also not an exception. But it is not so much the result of socio-economic situation of the region, but rather the effect of proximity of Ukraine.

3 Policy review

3.1 Institutional context

Conducted interviews and panel discussion show that the institutions of public administration under the law involved in controlling the influx of workers from the east are primarily Provincial Office, Border Guard, district labor offices and the county labor inspectorates.

The border guards control the border and border crossing between Poland and its eastern neighbors. Since December 2007 this is also border of the Schengen area. According to the officials a serious problem are abuses concerning issuing of documents entitling to receive a visa. This situation favors the development of employment placement companies, which as authorized entities have specialized in the issuing a statements of willingness to employing a foreigner without the need to apply for work permit (for no longer than 6 months). The problem is also related to the issuance of the confirmation of conducting economic cooperation issued by companies operating on Polish territory. The Border Guard has little possibility of verification, as Polish companies rely on trade secret, or declare the employment of foreigners to carry out the undefined ongoing works. For many companies, issuing certificates and filing claims concerning foreigners has become an important source of income. They charge a fee (illegally) for issuing these documents.

District labor offices are obliged to take and verify statements. Only a few have adequate involvement in this sphere. Most simply record all incoming statements. Legality and conditions of work are investigating by district's labor inspectorates. Their actions are directed to detect those who work without authorization or in the field incompatible with the declaration contained in a statement.

A special place in the system of verification visits from abroad takes Provincial Office (directed by the governor). Its officials shall consider applications for grant of permanent residence and work permit issue. They also take applications for Polish citizenship and provide an opinion on it.

All these institutions are subordinated to the central government and implement directives of central institutions of power. For this reason, central government policy and the requirements for the EU membership and the Schengen area are also critical at the regional level. However, the problem of legality of stay of aliens is not within the competence of regional self-government, with assembly (sejmik) and executive board directed by marshal[2], nor local self-governments (counties and communes). They can only affect the conditions of their stay and build a favorable atmosphere. Such actions take, for example, self-government of Lublin. In other municipalities such ventures are rare.

Problems of foreigners involved also numerous associations and foundations (including religious). Their actions are meant to build a favorable attitude towards foreigners, and to introduce facilities for them. Special units responsible for foreigners are established also at the universities with the task to attract foreign students for paid studies and to take care over their stay.

3.2 Vision and strategy

Regional authorities seem not to notice the problem of the inflow of employees across the eastern boundary. This problem does not find any reflection in the strategies, developed by the respective regional authorities. On the other hand, the issue of the demographic regress and the need of counteracting against it, is definitely perceived by them.

According to the authors of the currently valid development strategy of the Lublin province "*An essential direction of formation of the bases for the modern society shall also be constituted by the conduct of the proper demographic policy in the region, oriented at the curbing of the negative demographic trends, associated with the ageing of the society and the forecasted decrease of the population number in the province. The primary elements of this policy shall consist in the strengthening of the family structure in the society, as well as improvement of the health state and physical condition of the inhabitants of the region, in particular – through an improved access to health care, and mass development of sports and physical culture*" (*Strategia*…, 2009).

In a further part of the document the authors write that the "*starting point for the development of foundations for the modern society in the region ought to be constituted by the activities, oriented at the increase of employment and raising of the wealth status of inhabitants of the province. Increasing of employment requires not only creation of a bigger number of jobs in the competitive sectors of economy, but shall also become possible by the way of constant increase of the level of skills and their fast adaptation to the dynamically changing needs on the labour market*" (*Strategia*…, 2009).

The following operational goals are meant to serve the attainment of these intentions (*Strategia*…, 2009):

2.1. Formation of the development-oriented population policy in the province

2.2. Raising of the education and knowledge levels of inhabitants of the region

2.3. Increase of employment and better use of human resources in the region

2.4. Supporting social integration and curbing the poverty level in the region

2.5. Strengthening and use of the cultural and social capital in the region

[2] The regional (voivodeship) assembly (*sejmik województwa*) elects marshal, who chairs the regional executive board (*zarząd województwa*). The assembly obtains the right to hold the marshal and the regional executive board accountable. In addition, the assembly can pass laws on region (voivodeship) development strategies and budgets drafted by the executive board. The assembly and executive board can be active on matters concerning the region (voivodeship) which are not reserved for the administration of the central government (most of which is managed in the region by the voivode - governor, who is appointed by the prime minister).

2.6. Improvement of the public safety and order.

The solutions proposed in the strategy are declarative in nature. However, as a result of Polish accession to the EU, there is obvious increase in investment financed under the Structural Funds. Poland is a leader in its use within the EU. Investments favor a local development in various areas, thus making the Lublin region more attractive to live. The strategy referred to emphasises the significance of cooperation with foreign countries, first of all – with Ukraine and Belarus. This, however, does not apply to the issue of the inflow of immigrants, students and seasonal workers from behind the eastern boundary. This means that the strategy do not takes in to account the attraction and integration of foreigners, as a means of increasing demographic and economic potential of the region. Very little attention is paid to the concepts of attracting new inhabitants, not only from abroad, but even from other areas in the country. This is certainly largely due to the belief of low attractiveness of the region. The struggle, namely, is not so much about the attraction of new inhabitants, but, first of all, about keeping in place those, who have been born here. It is also possible that high significance ought to be attached to the lack of appropriate competence of the self-governmental authorities in the region in the domain of creating the policy of the inflow of foreigners. This issue lies within the executive competence of the central authorities. At this level of authority one can first of all observe certain attempts of regulating (legalising) the fact that thousands of foreign employees from the East stay on the Polish territory. Some solutions that have already been introduced are meant for this purpose: the Charter of a Pole, the simplified mode of registering foreign employees, and the new regulations concerning local cross-border traffic. These solutions of national character do not find, though, any reflection in the strategies formulated in the region. One might maintain the earlier opinions, which speak of the "silent tolerance", of the overlooking of the problem on the public forum.

The reactions of the self-governmental authorities at the local level, of the non-governmental organisations and the universities are somewhat different.

3.3 Relevant policies

The present situation, linked with the inflow of the foreign employees is primarily under the influence of policies of the central authorities. Since 2007 foreigners from Ukraine, Belarus, Russia, Moldova and Georgia can be employed for the period of up to six months on the basis of a declaration of the employer, filed with the labour office. In 2008 the Polish-Ukrainian agreement was signed on the principles of the local cross-border traffic, which facilitates crossing the border for the citizens of the two countries, inhabiting the border-adjacent areas. A similar agreement was signed in 2010 with Belarus. The agreement with Russia on the same matter is supposed to be signed soon, meant to serve the inhabitants of the entire Kalinigrad district of Russia.

Another instrument of facilitation of the entry into Poland and taking up work or education in our country is constituted by the Charter of a Pole. The rights, associated with the Charter, can be applied to the citizens of all the countries, having emerged after the disintegration of the Soviet Union. The following conditions have to be fulfilled:

1. demonstration of the association with Polish culture in terms of basic knowledge of Polish language, considered to be the mother tongue, as well as knowledge of and cultivation of Polish customs and traditions;
2. filing of a declaration with the Consul of Poland, stating the belongingness to the "Polish Nation";
3. demonstration that at least one of parents or grandparents, or two grand-grand-parents were of Polish nationality or had Polish citizenship, or presentation of a certificate from a

Polish organisation, confirming active involvement in the activity for the upkeep of Polish language and culture, or Polish national minority, over the period of at least last three years.

Fulfilment of these conditions is not difficult, since Belarus and Ukraine have been linked with Poland by long-lasting political and cultural ties. Until 1939 the western regions of the present-day Ukraine and Belarus had belonged to Poland. Their inhabitants were Polish citizens. There are still several hundred thousand people on these territories, who declare Polish nationality (unofficially a figure exceeding 1 million is quoted). Persons of Ukrainian and Belarusian nationality had also been Polish citizens before the World War II.

A person entitled to the Charter of a Pole may enjoy a number of privileges on the territory of Poland, like, e.g., not being obliged to have a license to work, or being capable of setting up business on the same principles as Polish citizens, similarly as taking up university studies and other education.

Until May 2010 the Charter rights were granted 32,000 persons, of whom 87% are citizens of Ukraine and Belarus. More than 50% of applications were filed with the three Polish consulates in Ukraine (Lvov, Kyiv, Lutsk). In Lvov alone as many as 40% of all Charters were issued (see *32 tysiące Polaków*…, 2010). Many citizens of Ukraine and Belarus attempt to obtain the Charter of a Pole simply in order to be able to take up a legal and better paid employment in Poland (Różalski, 2009).

Within the confines of Lubelskie a much more active policy than those of the regional or central authorities, oriented at attracting foreigners, is carried out by the local institutions. This applies, first of all, to the university level schools located in the region.

Several universities, and, first of all, the Medical University in Lublin, introduced study curricula in the English language. This particular university comes also to the forefront with 850 foreign students from 30 countries. Separate study curricula are oriented at the students from the USA (in collaboration with the Hope Medical Institute), from Europe (in collaboration with Akkutmed Co., seated in Norway), and from Asia (students recruiting mainly from Taiwan). These are paid studies, but much cheaper than comparable studies in Western Europe, USA or East Asia. This commercial activity brings significant revenue to the University.

Other universities wish to follow the path trodden by the Medical University in Lublin. A much bigger Maria Skłodowska-Curie University of Lublin has nowadays only roughly 200 foreign students. This year, the Ernst & Young consulting company won the tender for the development of the strategy for this University for the years 2011-2021. The authorities of the University would like to make it international and to attract higher numbers of students from abroad.

This kind of policy, oriented primarily at the students from the East (mainly Ukraine), is already now being implemented by several local higher schools, both in Lublin and in smaller urban centres (Zamość, Chełm, Biała Podlaska). In 2009 there were around 300 students from abroad (mainly from Belarus and Ukraine) at the Catholic University of Lublin, while around 150 (also mainly from Ukraine and Belarus) studied at the Maria Skłodowska-Curie University. A small Higher School of Management and Administration in Zamość is also oriented at cooperation with Ukraine. Currently, more than 100 students from Ukraine study there. Students from Ukraine and Belarus choose Polish (also located in the region of Lublin) schools, since the official cost of studying is comparable to that in Kyiv or Minsk. Moreover, Polish schools are not ridden by corruption among the faculty, while curricula correspond to the Western standards. In addition, there is also the prestige of studying in a country being a member of the EU and perceived as better developed.

An increased inflow of employees and students from abroad finds also a growing counterpart in the activity of the local self-governmental bodies. These activities, though, concern first of all students. The “Lublin is friendly” project, terminated in 2009, implemented by the authorities of

the city of Lublin and the Homo Faber Association revealed a number of problems that foreign students encounter. One of the most serious issues was acquiring the residence card. The persons, taking part in the surveys, would like to see easier and quicker procedures in acquiring this document. Students from the East find it easier to melt into the Polish environment. Difficulties are much more significant for the students of English-language specialisations, those included is the Erasmus programme, or the ones studying on commercial terms. They indicate problems with communicating in English, not only with the inhabitants, but also in the shops, offices and the police. Students of Asian origin (studying at the Medical University) complained also about the symptoms of discrimination and lack of tolerance from the side of the inhabitants of the city (especially the young).

Based on the earlier experience the Homo Faber Association prepared a new project, "Welcome to Lublin" (http://hello.lublin.pl) addressed to foreigners who live or study in Lublin. Organizers would like to give foreigners and people who most often are in contact with them an opportunity to meet and to understand their mutual needs. They are going to prepare an inquiry desk and an internet portal through which we will try to solve as many everyday problems as possible. Moreover, they are also going to offer trips, meetings and workshops that will provide foreign students with an opportunity to get to know our city and learn how to function in it. They are also going to reach all the institutions and companies that are in contact with foreigners and will try to encourage them to take part in a training programme concentrating on foreign cultures and their traditions, and also introducing language basics. Finally, at the end of our programme they are going to prepare directives thanks to which the quality of foreigners' life in Lublin should significantly improve..

Following mentioned these projects there are concrete institutional solutions, implemented by the authorities of Lublin city. One of these is the web portal "Study in Lublin" (http://study.lublin.eu), functioning in Polish, English, Russian and Ukrainian languages, having as purpose to help foreigners while they study in Lublin. The idea was also coined in of establishing the plenipotentiary for foreigners with the authorities of the city.

The programmes and policies, however, concern to a very limited degree the employees, coming from the East, even though there are many more of them than of students. Perhaps an obstacle is constituted by the previously informal character of their employment (and to some extent also of their stay). Yet, nowadays an important part of the employees coming from the East are employed legally, on the basis of the declarations, filed by the employers (which, after all, does not mean that they actually work conform to the declaration). The change of this situation might have an influence on consideration of their presence in the formulation of future regional strategies and policies.

3.4 Conclusions

Increased inflow of employees and students from Belarus and Ukraine into the territory of Lubelskie has been observed over the last twenty years. Ukrainians and Belarusians take up studies in a legal manner, while employment of persons from these countries had been until 2006 mostly illegal (i.e. without appropriate working license). Despite this, at all the levels of authority the policy dominated referred to as "silent tolerance". The recent undertakings aimed at attracting foreigners and facilitating their entry into the Polish community, concern primarily students. These actions have essentially a local character, as they are implemented by the local self-governmental authorities (mainly of Lublin) and by the universities. After completing studies in Lubelskie foreigners get right to take job in Poland without applying for a permit (as other foreigners). Thanks to this law, many graduates remain in Poland, although not always in Lubelskie.

In case of foreign employees from the East the most important problem for the authorities (and this, first of all, for the central government and the regional branches thereof) is not how to attract them, but, essentially, how to legalise their stay and their work. Most of the persons questioned emphasised that these people are needed for the economy of the region. They replace the Poles, who move to other regions and to other countries. Foreigners take up, as well, jobs that are not attractive for Poles, and accept remuneration that would not satisfy Poles. They are the salvation for the local economy, first of all in the sectors of agriculture, construction and home service. The ways to normalise the existing situation consisted in the introduction of the Charter of a Pole, of the principles facilitating employment of foreigners from the East, as well as the agreements on local cross-border traffic between Poland and her eastern neighbours. These, however, are the solutions of the country-wide character, taken without the participation of the regional self-government. Implementation of these new solutions is entrusted with the regional branches of the central authority: the provincial governor office, border guards, labour offices and labour inspections. The issue is in raising the awareness of the employers, and their concrete knowledge, as to the new possibilities, but also threats resulting from illegal employment and issuing of false declarations of the wish to employ foreigners. Yet, the problem resides to a large extent in the fact that it is more profitable for employers to employ illegally (without paying taxes and social insurance premiums), and to issue false declarations (additional revenue from such service). Still, the number of filed declarations of the wish to employ foreigners, as well as a high number of Charter of a Pole documents issued seem to indicate that the situation, associated with employment of persons from behind the eastern border has undergone at least a partial normalisation.

4 Conclusions

Literature review and analysis of data, along with interviews and discussions with experts, demonstrated the correctness of the conclusions from the analysis, carried out at the preceding stages of the project. Lubelskie is characterized by the dominant outflow of population, altogether placing it among the regions, referred to in the project as “unretentive, low flow regions”. The scale of this phenomenon might even be bigger than shown by the official data, since, in the opinion of experts, a large part of the population outflow to other regions of Poland (mainly to Warsaw) and abroad is not registered. Sole the core centre of the region, Lublin, does not display these characteristics. It is an important centre of administrative, cultural, scientific and industrial significance. Yet, it does not generate sufficient opportunities for all the ambitious inhabitants of the province. Hence the negative balance of migrations of the entire region. Within the territory of Poland the main centre, attracting migrants from Lubelskie is the not very distant agglomeration of Warsaw. City of Lublin loses to this agglomeration in terms of attracting new inhabitants. In addition, it can be supposed that while in the case of Lublin the positive net migration is overestimated, it is, to the contrary, underestimated in the case of Warsaw. Due to unwillingness to the public administration many Polish immigrants to Warsaw do not inform about change of their place of residence and are not included in the statistics on migration.

The self-governmental authorities of the region are aware of the difficult demographic situation. The necessity of trying to stem the outflow of population is contained in the development strategy of Lubelskie, enacted in 2009. It has more of a defensive character. The authors of this strategy think first of all about stemming population outflow, rather than about making new inhabitants come to their region.

It should be noted, though, that for twenty years now one can observe the inflow to Lubelskie of the seasonal and permanent immigrants from the East, mainly from Ukraine. In the opinion of experts they compensate to a large extent for the shortages on the labour market, caused by the outflow of the inhabitants to date. A similar process concerns foreign students (mainly Ukrainians

and Belarusians), who replace the young moving to bigger university centres (Warsaw, Cracow). This phenomenon, especially with respect to the inflow of persons seeking jobs, has until quite recently been totally overlooked by the official statistics. Citizens of Ukraine and Belarus would most often come with tourist visas and would get employed illegally. Most of them constitute a seasonal immigration. Yet, some settle down for good.

In the case of persons coming from the East the problem consists not so much in the difficulty in attracting them to Lubelskie, as in lack of normalisation of this phenomenon. The issue remains in the hands of the central authorities and their respective offices in the region. The authorities had been for a long time in an awkward situation. On the one hand the presence, and – first of all – the illegal employment of the immigrants from the East, constituted a significant infringement of the law in force. On the other hand, though, the visitors from the East compensated for the gaps on the labour market of Lubelskie.

This situation has improved in recent years owing to the introduction of the simplified procedure of seasonal employment of foreigners from the East, to signing of the agreements with Ukraine and Belarus on the local cross-border traffic, as well as to the introduction of the Charter of a Pole. The branch offices of the central government conduct active campaigns, presenting to the local employers the new legal solutions in the domain of employment of foreigners. Yet, the margin of abuses is still quite broad, and a large part of foreigners is still employed illegally.

Local bodies, not associated with central administration, do not get involved in the strategies aiming foreign employees. Their interest focuses first of all on foreign students. In the last period an increasing activity can be seen of the local self-governmental bodies and universities in this domain, including their cooperation. This might be linked with the outflow of the local youth to the bigger academic centres and with the fact that admission of foreign students constitutes a significant source of revenue for some universities. The actions undertaken are supposed to encourage young foreigners to study in Lubelskie and to facilitate their stay after they have started studying.

An important part of activity is devoted to adaptation and integration of the young people who come to study. There is still a lot to do in this domain. Immigrants from the East, and first of all those, who wish to legalise their stay in Poland (employees, students), complain, in particular, about the administrative procedures. The regulations are especially demanding in their case.

The inflow of foreigners has also a distinct spatial aspect. Students take up studies first of all in Lublin. Some role is also played by the subregional centres with university-level schools (like Zamość). Lublin and its surroundings attract also an important proportion of persons seeking jobs. They find employment there primarily in construction and home service. Among those taking up legal jobs those employed in agriculture dominate. This concerns primarily the south-western part of the province, where cultivation of fruits and vegetables is concentrated. These crops require seasonally high numbers of farmhands.

Lubelskie is ranked second after the province of Mazowieckie (taken together with its capital, Warsaw) in terms of the number of filed declarations concerning employment of seasonal workers. The remaining regions are far behind. High position of Lubelskie in this ranking is undoubtedly the consequence of immediate adjacency of Ukraine and Belarus, and also of development of labour intensive farming, as well as location on the route between the boundary and Warsaw.

Specialists expect the numbers of employees coming from the East to grow in the nearest years. This is supposed to result from the worsening economic situation in Ukraine and Belarus, in the assumed conditions of a relatively good economic situation of Poland. Facilitation of legal employment and stays of foreigners match, certainly, the resulting need. One might suppose that this kind of normalisation should cause the presence of immigrants from the East to be also more distinctly reflected in the strategies and policies, implemented in the region.

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Appendix

Respondents of interview

1. Dr. Maciej Zięba, Director of Department of Citizen's Affairs and Foreigners, Lubelskie Province Office, Assistant Professor in Catholic University of Lublin (KUL)
2. Kpt. Krystyna Kosak-Burcon, section manager for Coordination and Supervision of the Department of Immigration, Regional Office of Border Guard in Chełm,
3. Andrzej Jakubowski, Lublin Regional Research Center, Statistical Office in Lublin
4. Piotr Skrzypczak, Homo Faber Association
5. Dr. Tomasz Sieniow, Chairman of The Rule of Law Institute, Lublin
6. Fr. Mieczyslaw Puzewicz, Roman Catholic Church, the coordinator of refugee assistance programs in the province of Lublin
7. reader Andrew Boublej, Spokesman of Orthodox Diocese Lublin-Chełm
8. Dr. Małgorzata Flaga, Assistant Professor in the Department of Economic Geography UMCS (geo-demography)
9. Dr. Wiktoria Pantylej, Assistant Professor in the Department of Economic Geography UMCS (Ukrainian, 10 years in Poland)
10. Dr. Monika Wesołowska, Assistant Professor in the Department of Economic Geography UMCS

Panel participants

11. Stefan Batruch, Ph.D. (theology, psychology), rector of Greco-Catholic parish in Lublin
12. Wojciech Janicki, Ph.D. (geography, demography), Institute of Earth Sciences, University of Lublin
13. Anna Moraczewska Ph.D. (economy, political sciences)
14. Nadia Gergało, Ph.D. (Ukrainian studies), Center of Eastern Europe, University of Lublin
15. Zofia Kawczyńska-Butrym, Proffesor (Sociology), Institute of Sociology, University of Lublin

December 2010

The ESPON 2013 Programme

ATTREG
The Attractiveness of European regions and cities for residents and visitors

Applied Research Project 2013/1/3

Annex 4/7
ATTREG Case Studies

Slovenia

Prepared by
Samo Drobne and Marija Bogataj

EUROPEAN UNION
Part-financed by the European Regional Development Fund
INVESTING IN YOUR FUTURE

This report presents the draft final results of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

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This basic report exists only in an electronic version.

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1 INTRODUCTION

The purpose of this case study is to evaluate attractiveness and stickiness of Slovenian regions on NUTS 3 and NUTS 5 level and to analyse the endowment factors which influence attractiveness and stickiness of the regions for migrants and commuters. We consider commuting as an alternative for migration. The main feature of our approach is to consider both, in-flows and out-flows, in the gravity models of human resources. Our study is thus unique inside the ATTREG's case studies in the sense that it analyses flows from different origins and to different destinations, using multivariate analysis techniques based on gravity approach. For this reason we performed analysis of gravity models also for NUTS 0 and NUTS 2 level for selected states in European Union (EU). Results for EU level enable comparison of the importance of the endowment factors of the inter-state (NUTS 0) and internal inter-regional (NUTS 2) gravity models for selected EU states to the importance of the endowment factors for local levels of internal inter-regional gravity models of Slovenia for NUTS 3 level (level of statistical regions) and NUTS 5 level (level of municipalities). The chapter "Conclusions and some simulations" at the end of this report can be understood as an policy review and recommendation.

1.1 The relevance of case study

The goal will be achieved if we find the determinants of inter-regional migration and commuting in Slovenia in 2000-2006, comparing also some basic dynamics from 1991 to 2002 (between two Censuses) and after Slovenia has become one of EU Countries (2004). Special attention was given to the migration and commuting flows after the Euro was adopted in 2007 and when Slovenia joined the Schengen Agreement. At that time a new change in direction of migration was supposed to start. We wish to find and examine also the flow creation or flow diversion that results from migration to some extremely attractive or from some extremely sticky regions. Several related variables have been selected and tested for gross inter-regional (NUTS 3 and NUTS 5 regions) migration flows and compared in some cases with NUTS 2 inter-regional flows between NUTS 2 regions inside other EU Countries. The results will show how both push and pull factors are important.

The hypothesis has been put forward that people from higher income regions migrate more and that migrants tend to move to more populated and higher income regions. Distance was also found to act as a significant deterrence to migration and commuting, whereas population density of origin and destination was studied only post-hoc. The results of the study also suggest that there were changes in the intensity and the location of growth areas in Slovenia during 2007-2009 as compared to 2000-2006.

The study of the concurrent flow will show that the regions on NUTS 5 level, i.e. municipalities, where central places of NUTS 3 regions are located (Ljubljana, Maribor, Koper, Kranj, Celje, Murska Sobota, Slovenj Gradec and Nova Gorica), have positively influenced migratory and commuting flows between origin and destination regions more than expected. Empirical results, however, will also show that the regions on the border are stickier and less attractive than expected according to the gravity model.

Attractiveness of places (regions) influences migration and commuting. Chun (1996) wrote that migration is a means of achieving both economic efficiency and equity. State and local governments in faster growing EU economies have wanted to attract migration, when and where they wanted to increase employment. In Europe this was especially the case during the bubble economy 2006-2008. The flexibility of human resources increases with accessibility of individual regions in Europe. 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. Accessibility is especially increased by investments in European transportation corridors and by removing barriers on the borders (Schengen Agreement). ESPON ATTREG project aims to investigate also the motivation and behaviour of migration flows (and daily commuting) between regions on NUTS 3 and NUTS 5 level, investigating special areas like Slovenia. Cohesion policy of the European Commission contributed to the development of new transport infrastructure increasing regional economic development. Extensive spending has taken place under ERDF, Cohesion Fund and ISPA to reduce disparities among regions and increase accessibility through Trans-European transport networks (TEN-T) by

reducing time spending distances. In Slovenia corridor X and corridor V have been reconstructed in the last 20 years, increasing accessibility to the other EU regions and between regions of Slovenia while reducing the time spending distance. How the time spending distance between EU regions as well as between Slovenian NUTS 3 or NUTS 5 regions influences migration of human resources will be studied here.

The labour market responds to shocks that an economy faces. Even before the last crisis set in, many authors had discussed this problem, e.g. (Moore and Pentecost, 2006), and the discussion was connected with the questions how intensive would the shocks be if the Schengen border would move towards the South East and the flexibility of labour market would increase.

As listed by Janssen (2008), flexibility of labour market has advantages to both sides: while workers that are mobile and skilled have (a) a better bargaining position, (b) they will not accept the 'blackmail' to cut wages in order to subsidize jobs and firms that have failed to innovate, (c) internal functional flexibility safeguards jobs through innovation and (d) flexibility and autonomy in working time could be achieved through their bargaining position. Business side is also looking at this kind of flexibility positively in favour of human resources because (a) stable jobs are good for productivity, (b) secure work force is open to innovation and change, (c) a secure work force is willing to share its (tacit) knowledge, which means a competitive advantage in today's world, (d) workers will only be willing to move between jobs if the economy is built up of good and stable jobs offering secure work contracts. It means that we can expect more flexible jobs in the future and more migrations of human resource between EU regions. Even at the beginning of the 21st century this phenomenon is not negligible in European member states and EU candidates (see Fig. 1).

Mobility of human resources is directly connected with the migration phenomenon since the motivation of job search represents one of three the main sources of human migration (Moore, 2006). There exists also intensive migration of retired population (for example to Spain) and migration of students, but both have been less intensive in the past (Russo et al., 2010).

ESPON ATTREG's previous research in RA3 created some statistical models linking attractiveness of regions on NUTS 2 level in EU (aggregated data of flows: in-migrations, out-migrations and net-migration rates) to analysed endowment factors. From Fig. 1 we can see that the mobility of Mediterranean countries is lower than that in the central and northern countries, while net migration may be similar among some Mediterranean and some Northern or Central European countries. Also, as in the majority of Mediterranean countries, the intensity of migration flows from Slovenia and into Slovenia is very low, or even lower.

There are only two regions in Slovenia on NUTS 2 level, therefore to get some statistical insights in migrations in Slovenia, we analysed NUTS 3 regions in Slovenia. Tab. 1 shows the main results of the ATTREG RA3 analysis (typology of Slovenia NUTS 2 regions). According to the ATTREG results on NUTS 2 level (Russo et al., 2010), both Slovenian NUTS 2 regions (SI01 and SI02) are:

- neither sticky (retentive) nor attractive for new migration flows,
- there are low in-flows to Slovenian regions from EU and low out-flows from Slovenian regions to EU countries.

But, we have to point out that:

- the inhabitants of Slovenia (or their family members) are owners of flats or houses in over 90 % of all flats and houses where they live, which is the highest percentage in EU. If the real estate market is not liquid enough, it can result in lower mobility, which is the case in Slovenia;
- the average number of migrations in the life of inhabitants of Slovenia is the lowest in the EU.

Both facts could influence lower mobility.

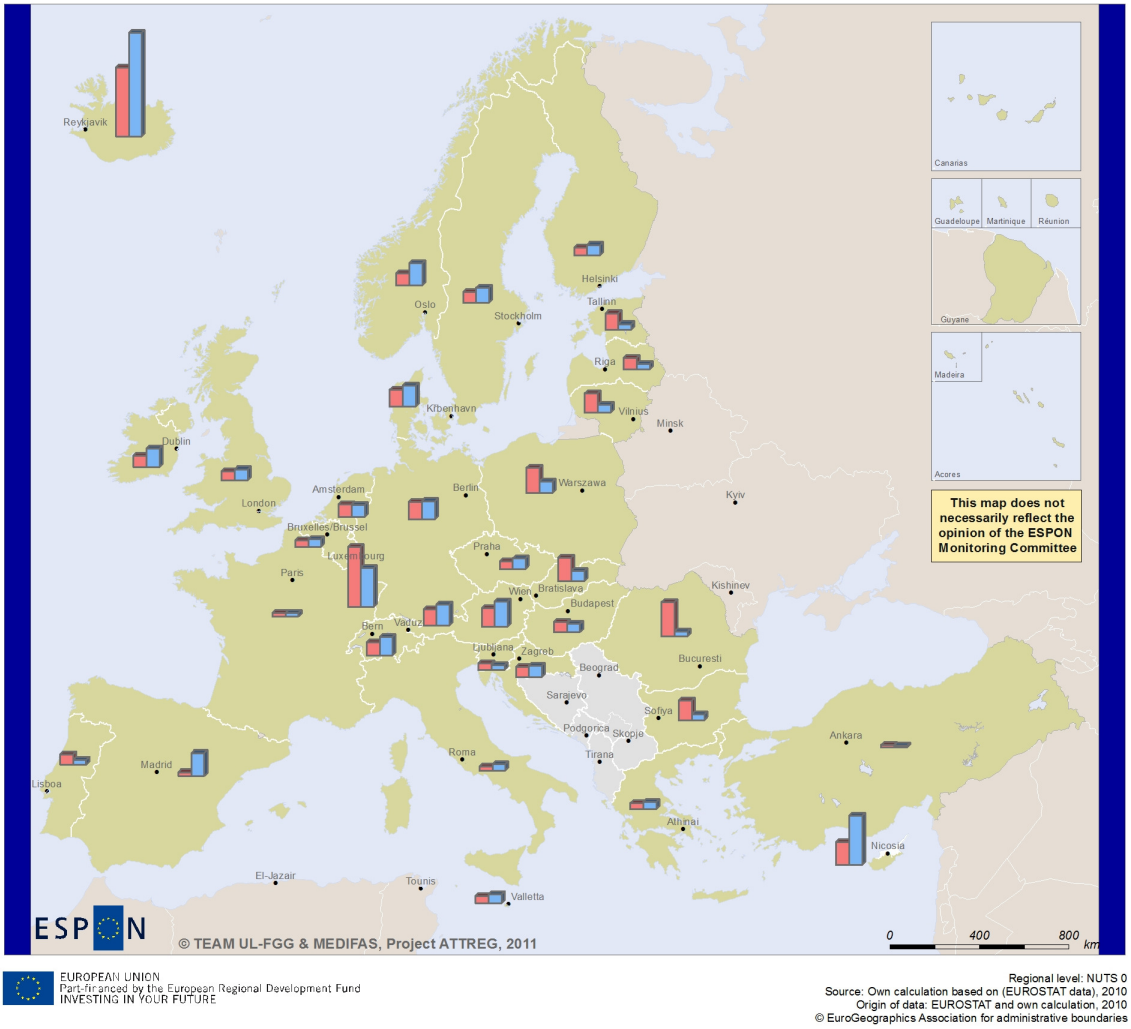


Figure 1: In-migrations and out-migrations per capita in EU and some candidate countries in average in 2005-2007.

Our hypothesis: Statistics can give more powerful results on stickiness and attractiveness of Slovenian regions:

a) if aggregated data of flows (in-migrations and out-migrations) are separated to each direction and analysed by an extended gravity model;

b) if fine-grained analysis of migration flows and flows of commuters is available.

Therefore the flows will be disaggregated and the fine grain analysis on NUTS 5 level will be performed.

The impact of different endowments' factors should be studied on different flows:

a) flows of migrants (in-migrations and out-migrations) and

b) flows of labour commuters (in-commuting and out-commuting).

In Slovenia, there are twelve NUTS 3 regions (also called "statistical regions") and 211 municipalities on NUTS 5 level (in 2011; 193 municipalities in 2006 and 192 municipalities in 2000, respectively). How they are nested in the NUTS 2 regions is presented in Fig. 2.

For comparison to the ATTREG RA3 results, the main study period in case study for Slovenia was 2000-2006. We also took a look at some previous research results from the study period between the two Censuses (1991-2002). At the present time, the latest available data for the type of study we are proposing (2007-2009) is not enough to be able to make some forecasting. As such, the intention here is to put together a model so that the results can be extended to the immediate future and to study our recent era with the hope of finding interesting and useful information capable of supporting improved policy decisions, while providing a better understanding of migration and commuting.

The ranking of regions according to the deviations from the expected stickiness and attractiveness will be analysed too. The measures of attraction and stickiness between Slovenian NUTS 5 regions (municipalities), as well as NUTS 3 regions, during this period will be studied and compared with the flows between EU states and between the flows on NUTS 2 level inside some EU states.

Table 1: NUTS 0 and NUTS 2 regions of Slovenia and main ATTREG typology of NUTS 2 region.

NUTS0	SI0 – Slovenia (Slovenija; 20,273 km^2)
NUTS2	SI01 – Eastern Slovenia (*Vzhodna Slovenija*; 12,212 km^2) SI02 – Western Slovenia (*Zahodna Slovenija*) (8061 km^2)
region that is predicted to be less sticky than observed	SI01: 0; SI02: 0
region that is predicted to be stickier than observed	SI01: 0; SI02: 0
region that attracts higher flows than predicted	SI01: 0; SI02: 0
region that attracts lower flows than predicted	SI01: 0; SI02: 0
STICKY/FLOW OUTLIERS	SI01: 0; SI02: 0

Table 2: Population, GDP and employment in NUTS3 regions in Slovenia in 2011.

Code	Name	Population total	GDP 2008 Mio EUR	Number of persons employed
SI0	***Slovenia (Slovenija)***	***2,032,362***	***37,305***	***864,347***
SI01	East Slovenia *(Vzhodna Slovenija)*	1,081,307	16,510	379,570
SI011	Mura (*Pomurska*)	119,537	1442	35,194
SI012	Drava (*Podravska*)	322,900	5050	120,008
SI013	Carinthia (*Koroška*)	72,481	1028	24,132
SI014	Savinja (*Savinjska*)	258,845	4273	101,565
SI015	Central Sava (*Zasavska*)	44,750	540	12,183
SI016	Lower Sava (*Spodnjeposavska*)	69,900	1062	20,991
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	141,166	2406	48,832
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	51,728	708	16,665
SI02	West Slovenia *(Zahodna Slovenija)*	951,055	20,795	484,777
SI021	Central Slovenia (*Osrednjeslovenska*)	521,965	13,479	325,580
SI022	Upper Carniola (*Gorenjska*)	201,779	3113	69,710
SI023	Gorizia (*Goriška*)	118,533	2098	45,340
SI024	Coastal-Karst (*Obalno-kraška*)	108,778	2105	44,147

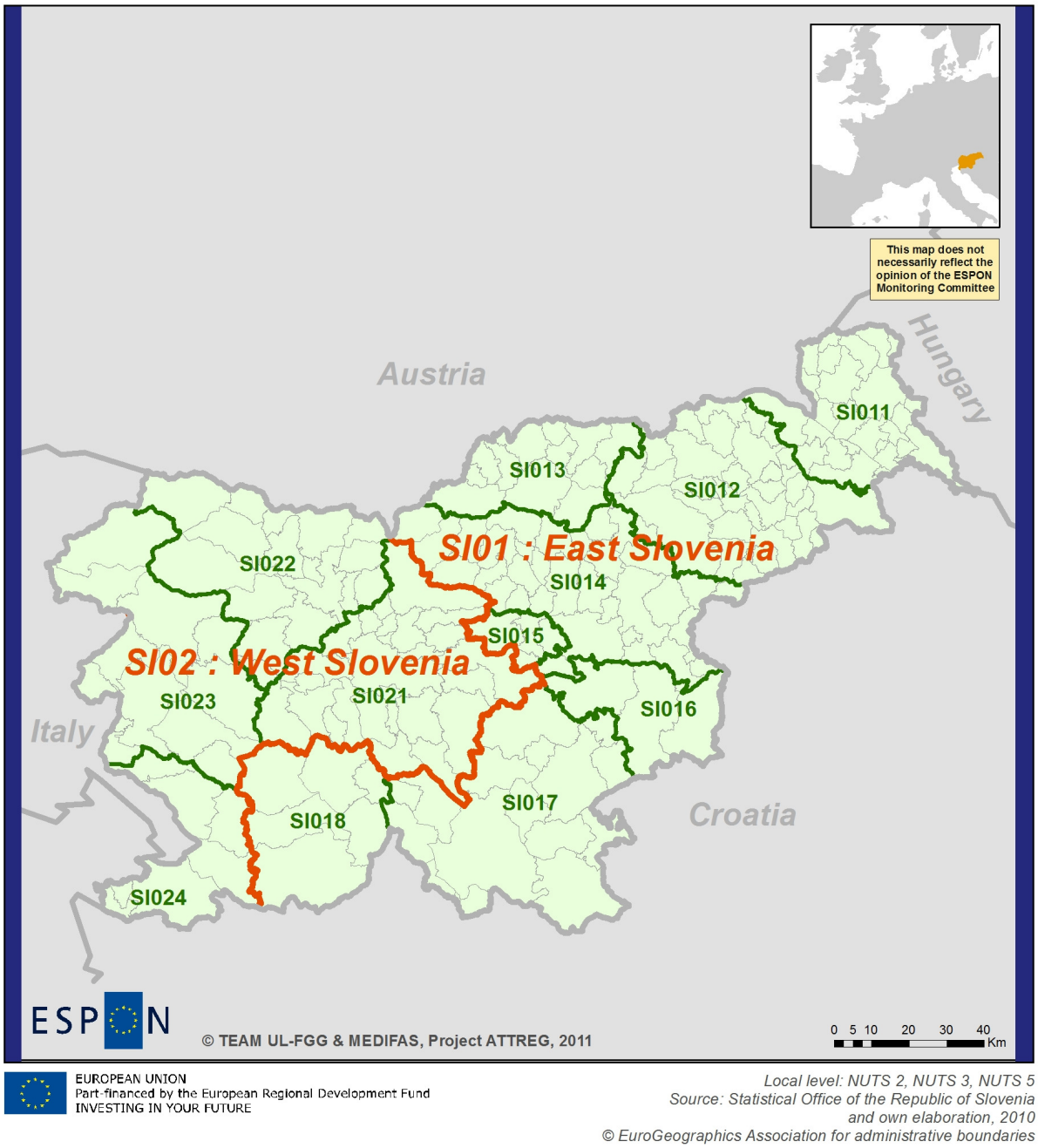


Figure 2: Two cohesion (NUTS 2) regions, twelve statistical (NUTS 3) regions and 211 municipalities (NUTS 5) in Slovenia in 2011.

1.2 Case study questions

We identified two main questions to be addressed mainly by statistical analysis using gravity model:

1. How does accessibility influence migration and commuting between Slovenian regions regarding accessibility of EU countries (ESPON ACCESSIBILITY INDEX)?
2. Are there relationships between the basic endowments (population size and accessibility) analysed in RA3 and stickiness/attractiveness of region on NUTS 2 level of EU similar at smaller spatial scales in Slovenia (TERRITORIAL CAPITAL)?
3. Which indicators of endowments (environmental, anthrophic, economic, social and cultural, human, institutional capital) influence stickiness and attractiveness in Slovenia the most? Which of them are significant when using regression analysis of gravity model and which are qualitative endowments influencing higher deviations from expected values of stickiness and attractiveness?

Therefore, we studied the following:

- Accessibility, stickiness and attractiveness for Slovenian regions on NUTS 3 and/or NUTS 5 level in the period 2000-2006 and later.
- Slovenia became EU member in 2004 and member of Schengen area in 2007. In 2007 we also joined EURO area. Did it reflected in migration flows?
- How do studied indicators (territorial capital) influence mobility and commuting, stickiness and attractiveness of regions on the level of NUTS 3 and/or NUTS 5 in Slovenia?

1.3 Method of research

Lowry (1966) explained that the labour market characteristics of an origin locality make little difference to an individual who is contemplating a move to another area, which was not really the case in Slovenian migration flows in the last decade or two. On the other hand, according to Lowry, destination characteristics do influence the locality to which migrants may move, and employment and greater income as well as its growth tend to induce in-migration. Like some others, in Slovenia also, we can refuse the validity of findings that explains that origin characteristics are not important in explaining migration flow. Thus, our study is including both origin and destination characteristics where in ***origin*** we are measuring ***stickiness*** of regions and in ***destination*** we are measuring ***attractiveness*** of the destination for migration flows and commuting flows on NUTS 3 or NUTS 5 levels.

The main feature of our models is its consideration of both in-flows and out-flows of migrants and daily commuters from each region on NUTS 3 and/or NUTS 5 level. This is noteworthy since most recent studies and especially ATTREG basic analysis have attempted to explain aggregate of net migrations from different origins as opposed to gross migration. Our study is thus unique inside the ATTREG studies in the sense that it includes gross migration flows from different origins, using multivariate analysis techniques based on gravity approach, together with other methods of evaluating endowments of regions described later in this case study. Migrations and labour commuting in each region are compared in this study of stickiness and attractiveness.

ESPON multimodal accessibility index (MM index; Spiekermann and Wegener, 2007) has been derived on NUTS 3 level and improved as the expected indicator for migration potential:

$$A_i = \sum_{j \neq i} P_j^{\beta_2} / d(t)_{ij}^{\beta_3} / \overline{A}(EU)$$

$$A_i = \sum_{j=1}^{n} \frac{P_j^{\beta_2}}{d(t)_{ij}^{\beta_3}}, \qquad \overline{A}(EU) = \sqrt[n]{\prod_i A_i} \qquad I_i = 100 \frac{A_i}{\overline{A}} \tag{1}$$

where A_i is accessibility coefficient of region i, P_j is population in j, $d_{ij}(t)$ is the average time spending distance between regions i and j and $\overline{A}(EU)$ is the average of accessibility coefficients in EU. While in

ESPON database β_i =1, we shall calculate β_i as the best estimation of regression coefficients in the Lowry-like gravity model.

The multimodal accessibility of regions at $\beta_i = 1 \quad (i = 1,2)$ has been until now used for investigating relationships between accessibility and economic development and between accessibility and migration, issues that are particular in focus in policy documents related to the European territory (ESPON, 2009). The relation between multimodal accessibility as potential for migration flows and economic development in 2006 was studied by ESPON (2009), grouping regions with regard to GDP_{pc} (gross domestic product per capita) and accessibility. In relation to potential accessibility and GDP_{pc}. Referring to this study, 69 % of EU regions are in a double positive or double negative situation, i.e. they have both GDP_{pc} and accessibility above or below the European average. Moreover, the accessibility multimodal index and GDP_{pc} show a not very significant positive correlation of 0.52.

From our previous analysis (Bogataj et al., 2004, 2009; Bogataj, Drobne and Bogataj, 1995; Bogataj and Drobne, 1997, 2005; Drobne and Bogataj, 2005; Drobne, Bogataj and Bogataj, 2008; Drobne, Lisec and Bogataj, 2008; Lisec, Drobne and Bogataj, 2008) of Lowry-like models for migration flows between Slovenian NUTS 3 regions (GM_{ij}) we found that in the model (2)

$$GM_{ij} = bP_i^{\beta_1} P_j^{\beta_2} d(t)_{ij}^{\beta_3} \prod_{s \in S} K_{s,i}^{\gamma_s} K_{s,j}^{\varphi_s}, \tag{2}$$

where s is an indicator from the sets of economic, social, environmental and other indicators S of regional capital named in (Russo et al., 2010), the following coefficients (ratios) influence GM_{ij} in Slovenia the most significantly:

- the ratio between gross domestic product per capita GDP_{pc} in region of outflow i and GDP_{pc} in total area;
- the ratio between gross domestic product per capita GDP_{pc} in region of inflow j and GDP_{pc} in total area;

or

- the ratio between gross earnings in region of outflow i and the average in total area;
- the ratio between gross earnings in region of inflow j and the average in total area;
- the ratio between employment in region of outflow i and the average in total area;
- the ratio between employment in region of inflow j and the average in total area;
- the ratio between development and environmental risk in region of outflow i and the average in total area (in the indicator there is a combination of GDP, its growth and environmental conditions);
- the ratio between development and environmental risk in region of inflow j and the average in total area.

These results will be compared with the parameters in the commuting model and a regression analysis between commuting and migration will be given.

According to the Response to ATTREG Interim Report (Version 21 April 2011) fine-grained analysis on the NUTS 5 level was done for migration flows as well as for commuters (DC) between Slovene municipalities (GM_{ij} in (3) was replaced by DC_{ij}).

Finally, the rank of regions is given regarding deviations from the expected value in the model explaining which of them is more attractive than expected and which of them is more sticky than expected.

Beside the comprehensive analytical approach to study of flows of human resources on EU level and internal inter-regional levels (NUTS 3 and NUTS 5) in Slovenia we did also some interviews about the ATTREG's results presented in Interim Report (Russo et al. 2010) and in First Dissemination Report (Russo et al. 2011). The interviews were performed individually as an inquiry into ATTREG's main results on attractiveness and stickiness of two NUTS 2 level regions in Slovenia. The inquiry was answered by two stakeholders from the Ministry of Environment and Spatial Planning and by two researches and consultants with a long experiences in the analysed topic.

1.4 Structure of the report

This case study report is unique inside the other ATTREG's case studies because of different methodology used to analyse both directions of flows (in-flows and out-flows) of human resources in the gravity models. This is the reason why the structure of this case study report is different from the structure of other case study reports in ATTREG project.

The report of the Case study of Slovenia is structured as follows: after this introduction, the proposed models are specified first, including an explanation of the equations and key variables for regions at different NUTS levels. There is explained how accessibility is introduced in the model, which territorial capital is consider on NUTS 3 level and which on NUTS 5 level. There is explained how the impact of individual indicators on stickiness and on attractiveness of the region could be measured in the model and how we should understand the results provided by the model. The comparison of powers between different factors which influence attractiveness and stickiness of regions is given.

Second, an analysis section examines the findings in the regions on NUTS 3 and NUTS 5 level in Slovenia and compares these results with the basic findings for Europe. It gives profiles for the period 2000-2006 and some information on trends (for the period of 2007-2009), giving special attention to institutional changes, after which major policy implications are discussed. Here, the resume of interviewers' answers about ATTREG's main results on attractiveness and stickiness of regions in Slovenia is given as well.

A conclusion section closes the Case study of Slovenian regions and discuses about the influence of some policies. The last section can be understood also as an policy review and policy recommendation.

2 MODELS

2.1 Accessibility

Accessibility plays a significant role in the European policy related to the development of territorial units. It influences stickiness and attractiveness of regions. In several European policy documents, as the European Commission Green Paper on Territorial Cohesion or Territorial Agenda of the EU involving all EU Member States, accessibility is seen as key factor in improving attractiveness of Member States, their regions and cities. Accessibility and mobility are prerequisites for territorial economic development. Regions having a high accessibility to raw materials, suppliers and markets are in general economically more successful regions enjoying a more competitive position in the global market. If so, transport infrastructure improvement might be an important policy instrument to promote regional economic development (ESPON, 2006, 2008, 2009). When considering location it is focused on the influence of separation or distance in reducing access to a certain location from other locations. Accessibility is a measure of ease of access and in all of our previous research works it was assumed to be symmetrical. Converting distance to time spending or some other actual costs of access, we get a measure that may provide a changed ranking of localities by centrality. By accessibility in general we want to describe an integral view of locational qualities that result from non-local influences.

ESPON (2009) compared the potential multimodal accessibility of regions in 2001 with migration trends between 2001 and 2005 (see also Fig. 3). In total, 61 % of the regions appear to be in a double positive or double negative situation, i.e. they have an above average accessibility and in-migration or they show below average accessibility and out-migration, but correlation between these two variables was 0.14 only.

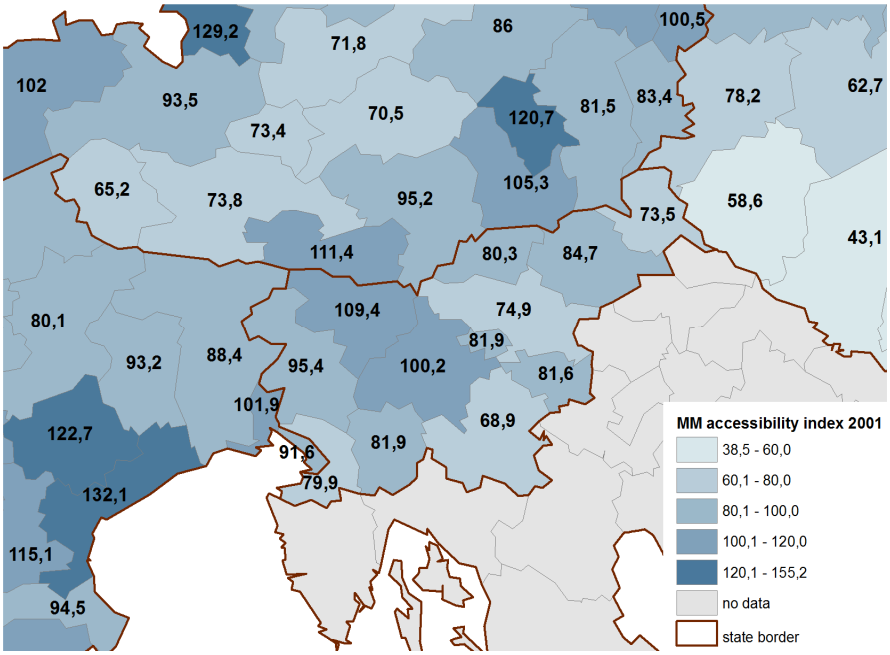


Figure 3: Potential multimodal accessibility index in Slovenian and neighbour regions on NUTS 3 level in 2001 (source of data: Spiekermann and Wegener, 2007)

ESPON results have revealed that accessibility seen from the European level might not reflect the same patterns as accessibility seen from a national or regional perspective. This can be shown also by the Slovenian case study, where data on commuting and migrations in the period of 2000-2009 were obtained from the Statistical Office of the Republic of Slovenia (SORS 2010). We found out that the correlation between the net migrations in Slovenian regions (y= $\sum_i GM_{ij}$ - $\sum_i GM_{ji}$; where $\sum_i GM_{ij}$ is sum of all out-migrations and $\sum_i GM_{ji}$ is a sum of all in-migrations) and multimodal index (x= MM index) is very low, R^2 is 0.14 only (see Fig. 4).

Therefore we have to study separately the accessibility to European countries, when EU level is investigated, and between Slovenian regions inside the state, when the flow inside of Slovenia is the subject of research.

For studying the EU inter-state flows we have used the gravity model with more precise exponents. For this purpose we have defined accessibility as

$$A_j^F = \sum_i F_{ij} = \sum_i P_i^{\alpha^F} d(t)_{ij}^{\beta^F} \quad , \tag{3}$$

where F could be gross migrations $GM(family\_members)$, $GM(students)$, daily commuting $DC(workers)$, $DC(students)$ or some other flows from origin i to destination j. Here P_i is population in i and $d(t)_{ij}$ time spending distance (or some other distance functions) between regions (in Slovenia road distance accessibility index measured as in (1) is relevant for more than 86 % of all travels, as calculated R^2 has shown), while net migration is not highly correlating with the European Multimodal index (MM index; $R^2 = 0.14$).

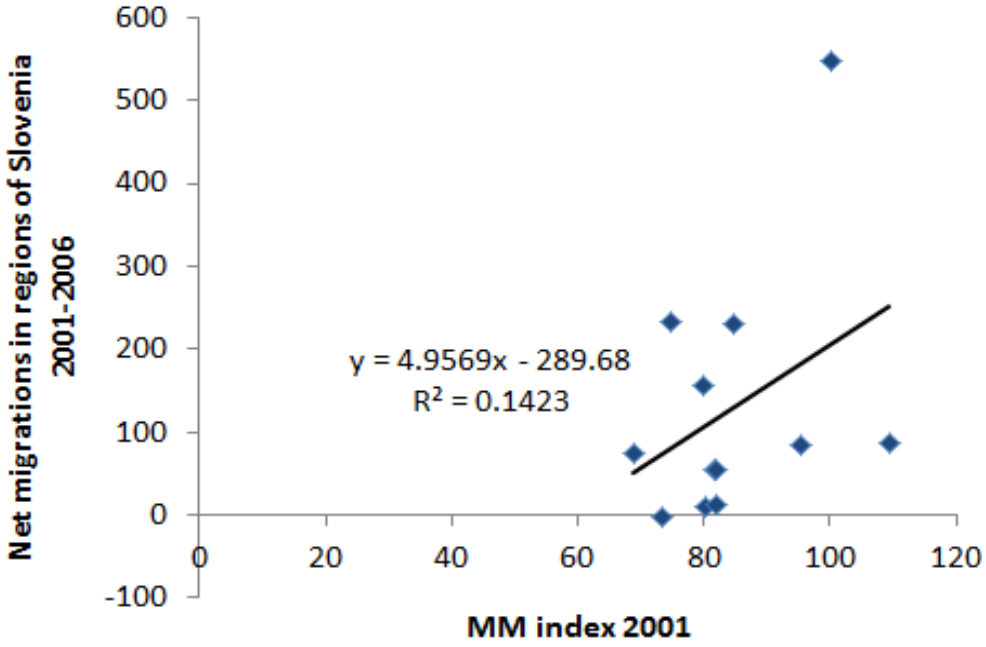
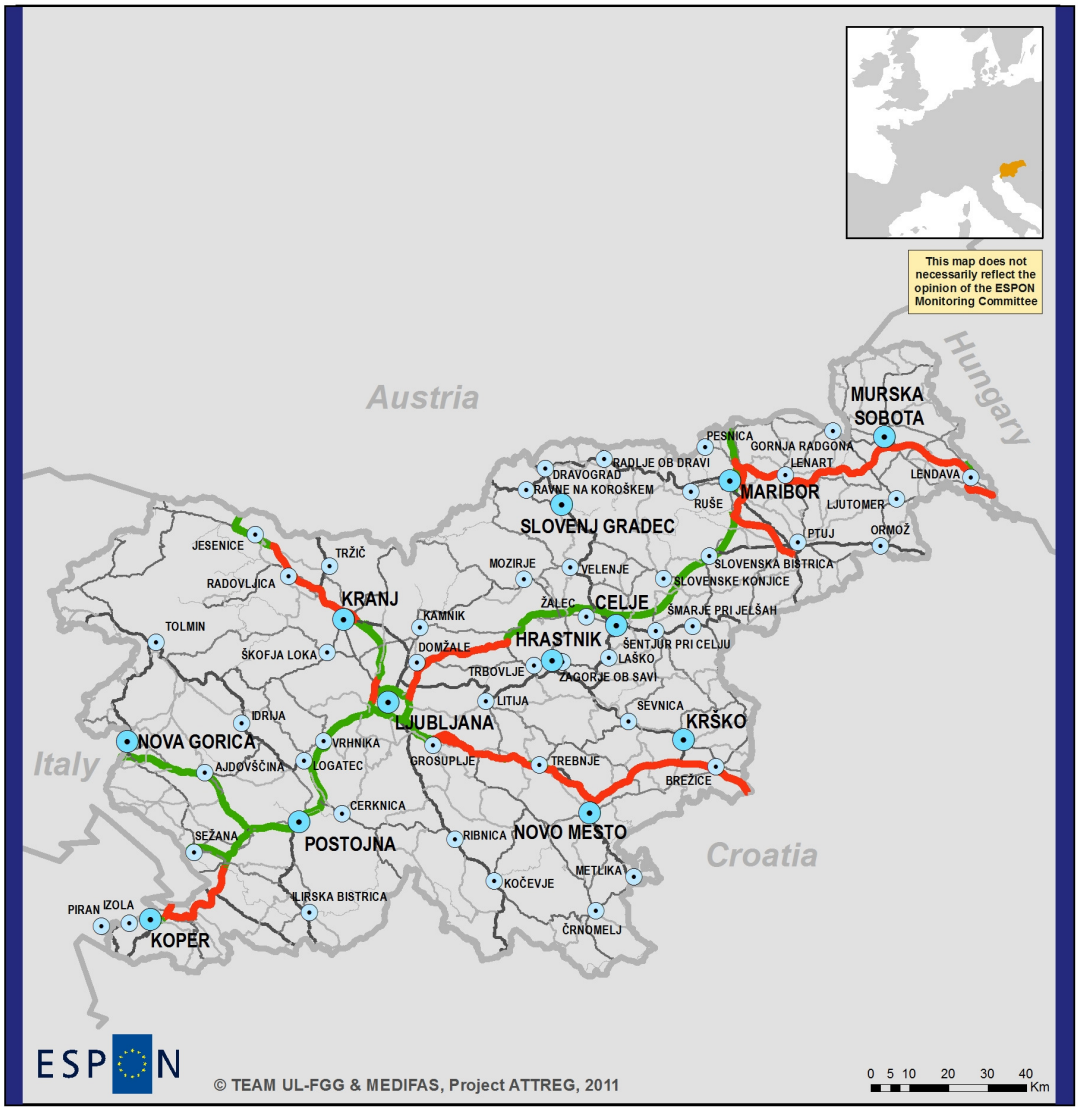


Figure 4: Regression model of net migration in regions of Slovenia 2001-2006 according to the European multimodal index in 2001.

In our study of investment decisions according to the accessibility (Bogataj et al., 2011) we found out that investments in Slovenia and in some other Central European Countries are not influenced by accessibility of region. The further study of our gravity models confirmed the mentioned results, when we conducted a number of interviews in three CE countries (Czech, Croatian and Slovenian investments) also for the flow of human resources according to investments.

The construction of roads in the period 2000-2010 influenced mobility between Slovenian regions in the last few years. It has influenced the time spending distance which appears in equation (1) (see Fig. 5).



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Local level: NUTS 0
Source: Own calculation (based on SRA and SORS data), 2011
Origin of data: Statistical Office of the Republic of Slovenia, Slovenian Road Agency, and own elaboration, 2010
© EuroGeographics Association for administrative boundaries

Regional and administrative centres and state road network

- Regional centre
- Administrative centre
- MO or FR finished in 2000-2010
- motorway (MO) before 2000
- fast road (FR) before 2000
- main road 1 (MR1)
- main road 2 (MR2)
- regional road 1 (RR1)
- regional road 2 (RR2)
- regional road 3 (RR3)
- regional road - tourist road (TR)
- state border

Figure 5: The regional central places and administrative centres in Slovenia and the main road connections in 2010 (SRA, 2010).

2.2 Territorial capital on NUTS 3 level

According to the previous ATTREG results (Russo et al., 2010), different factors attract migration of human resources and daily commuting in a region and out from the region. Therefore the factors of stickiness and attractiveness should be measured. A sustained capacity of a region to attract or retain the flows depends on a set of factors related to "territorial capital". The migrants and commuters of an area are more likely to flow in a place where there are higher gross earnings, good infrastructure and public services, more valuable environmental and cultural assets, and a good climate. It is obvious that the characteristics that drive top workers into a certain area are different from those of less demanded jobs according to skills. We can group the endowment factors (Russo et al., 2010) as:

- ***Environmental Capital*** relates to the natural environment (coastal area, Alps, area of Natura 2000 in Slovenia). These factors will be considered on NUTS 3 level or in the study of residuals on NUTS 5 level.
- ***Anthropic Capital*** relates to the quality of the built environment like the nature of infrastructure and different other facilities, percentage of built up land cover and availability of not expensive houses. It could increase in value by investments (such as investing in dwelling-places, universities, hospitals, recreation areas, or transport infrastructure); the impact of available real estate and the prices of different kind of properties on stickiness or attractiveness of NUTS 5 regions will be studied in our model.
- ***Economic Capital*** relates to the performance of the economy within the region. This group of factors includes gross earnings, the generation of wealth which is often measured through GDP and employment rates (as a measure of the capacity of a regional economy to generate the 'right type' of job). In our model gross earnings and unemployment ratio have been studied as factors influencing flows of migrants or daily commuters.
- ***Social & Cultural Capital*** capture characteristics of the people living within an area either in terms of demographic characteristics (from size of the population to demographic structure explained by age-index of aging), well-being (wealth and health). People are more likely to move to places where relatives and friends have previously migrated so as to reduce uncertainty. Previous gross migration is also according to Anjomani (2002) considered a proxy for the "availability of information". It is also widely accepted that the availability of information concerning alternative places plays a prominent role in the potential migrant's decision regarding a destination especially if other social and cultural characteristics are acceptable for him. Age index was studied here and its correlation with daily commuting or migration.
- ***Human Capital*** is measured by the availability of labour within a region as well as the blend of skills and qualifications within the resident labour force. Here the influence of the most important working cohort is subject of investigation. In our study it is embedded in index of development and environmental risk $K_{DR,\square}$.
- ***Institutional Capital*** variables measured by the provision of public series of indicators that capture changes in the accessibility potential resulting from labour movement restrictions (such as those put in place for accession countries in 2004).

Each source of territorial capital consists of a number of indicators covering the whole territory of analysis.

The values of indicators from the listed endowment groups influence gross migration and daily commuting.

From our previous analysis of Lowry-like models for migration flows between Slovenian NUTS 3 regions (GM_{ij}) we found that in the model (2) of gross migrations $GM_{ij} = bP_i^{\beta_1} P_j^{\beta_2} d(t)_{ij}^{\beta_3} \prod_{s \in S} K_{s,i}^{\gamma_s} K_{s,j}^{\varphi_s}$ and

model (4) of daily commuting

$$DC_{ij} = aP_i^{\alpha_1} P_j^{\alpha_2} d(t)_{ij}^{\alpha_3} \prod_{s \in S'} K_{s,i}^{\kappa_s} K_{s,j}^{\lambda_s}, \quad (4)$$

here S and S' could consist of different significant indicators. On NUTS 3 level we determined to consider the following indicators (endowment factors), which differ in places and in time:

$K_{GDPpc,i}$ The ratio between gross domestic product per capita GDP_{pc} in region of outflow i and GDP_{pc} in total area of Slovenia.

$K_{GDPpc,j}$ The ratio between gross domestic product per capita GDP_{pc} in region of inflow j and GDP_{pc} in total area of Slovenia.

$K_{GEAR,i}$ The ratio between gross earnings in region of outflow i and the average in total area of Slovenia.

$K_{GEAR,j}$ The ratio between gross earnings in region of inflow j and the average in total area of Slovenia.

$K_{EMP,i}$ The ratio between employment in region of outflow i and the average in total area.

$K_{EMP,j}$ The ratio between employment in region of inflow j and the average in total area.

$K_{DR,i}$ The ratio between index of development risk in region of outflow i and the average in total area (in the indicator there is a combination of GDP, its growth and environmental conditions).

$K_{DR,j}$ The ratio between index of development risk in region of inflow j and the average in total area.

Here GDP per capita, gross earnings per person, unemployment, aging, % of area declared under Natura 2000 (national parks …), percentage of higher educated inhabitants, number of working places per working persons in region and population density are combined in the unique index of development risk and ratio $K_{DR,□}$ (Kavaš et al., 2005; Pečar and Kavaš, 2006).

Therefore we can write for **migrants**

$$GM_{ij} = bP_i^{\beta_1} P_j^{\beta_2} d(t)_{ij}^{\beta_3} \frac{K_{GDPpc,i}^{\gamma_1} K_{GDPpc,j}^{\varphi_1} K_{GEAR,i}^{\gamma_2} K_{GEAR,j}^{\varphi_2}}{K_{EMP,i}^{\gamma_3} K_{EMP,j}^{\varphi_3} K_{DR,i}^{\gamma_4} K_{DR,j}^{\varphi_4}} \quad (5)$$

In (5), β_1 and γ_s are **measures of stickiness for migrants**, while β_2 and φ_s are **measures of attractiveness for migrants** for each indicator of regional capital, and the accessibility index depends on β_2 and β_3.

The exponents in the model will be compared with some exponents on the EU level for the flows between states (NUTS 0 level) and for the flows between regions intra-states on NUTS 2 level.

In the same way stickiness and attractiveness for the flows of commuters DC_{ij} on the NUTS 3 level in Slovenia will be measured, written by (4) $DC_{i,j} = aP_i^{\alpha_1} P_j^{\alpha_2} d_{i,j}^{\alpha_3} \prod_{s \in S'} K_{s,i}^{\kappa_s} K_{s,j}^{\lambda_s}$; where α_1, κ_s are **measures of stickiness for commuters**, while α_2 and λ_s are **measures of attractiveness for commuters**

for each indicator of regional capital, and accessibility index depends on α_2 and α_3 and where s is chosen from the set of significant factors of territorial capital which influence commuting.

Furthermore correlation between migration and commuting flows has been studied.

A detailed analysis between endowments influencing commuting and migration on NUTS 3 level is given and compared with the main indicators analysed on the EU level.

2.3 Territorial capital on NUTS 5 level

In the analysed period from 2000 to 2009, the municipalities of Slovenia changed twice when some were divided in two independent units: from 192 municipalities in 2000 to 193 municipalities in 2002 and 210 municipalities in 2006. Fig. 6 and Fig. 7 show the municipalities in Slovenia in the analysed period. The change reflected in the statistical research one year later (one year after the introduction of new municipalities).

Similar to equations (2) and (4) the equations here could consist of different indicators which significantly influence commuting and/or migration. They will be evaluated also on NUTS 5 level. We shall use a different notation for NUTS 3 and NUTS 5 regions. The notation will be changed to be able to differentiate the levels, especially because we also wish to find the interconnections between two two levels in our further study (not at this stage of our research work). For NUTS 5 level, therefore, we shall introduce the indicators in the models of commuting flow and migrations, explained in Tab. 3 (see also Annex B for the whole list of variables with information on sources and data cover).

Data on state road network by year are collected by the Slovenian Road Agency (SRA, 2010). Using the data on state roads, we constructed network models, which were the basis for calculation of optimal (shortest) time-spending distances between the municipal centres of Slovenia. Ten OD matrixes (2000-2009) were calculated considering conditions on state roads for each year separately: construction of new highways per year, toll stations on highways and abolition of the toll system in 2008.

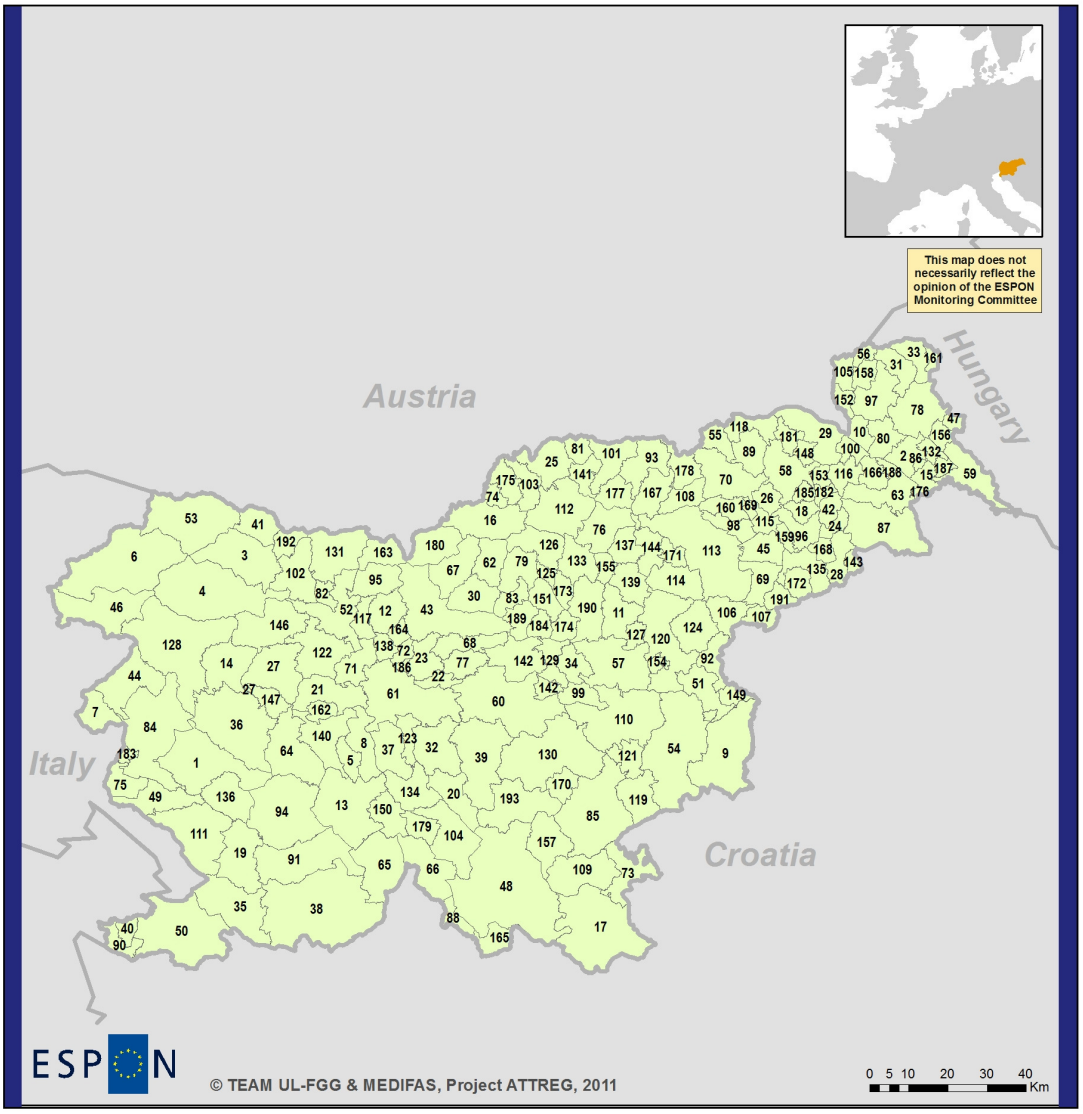


Figure 6: 192 municipalities in Slovenia in 2000 (list of the municipalities is in Annex A).

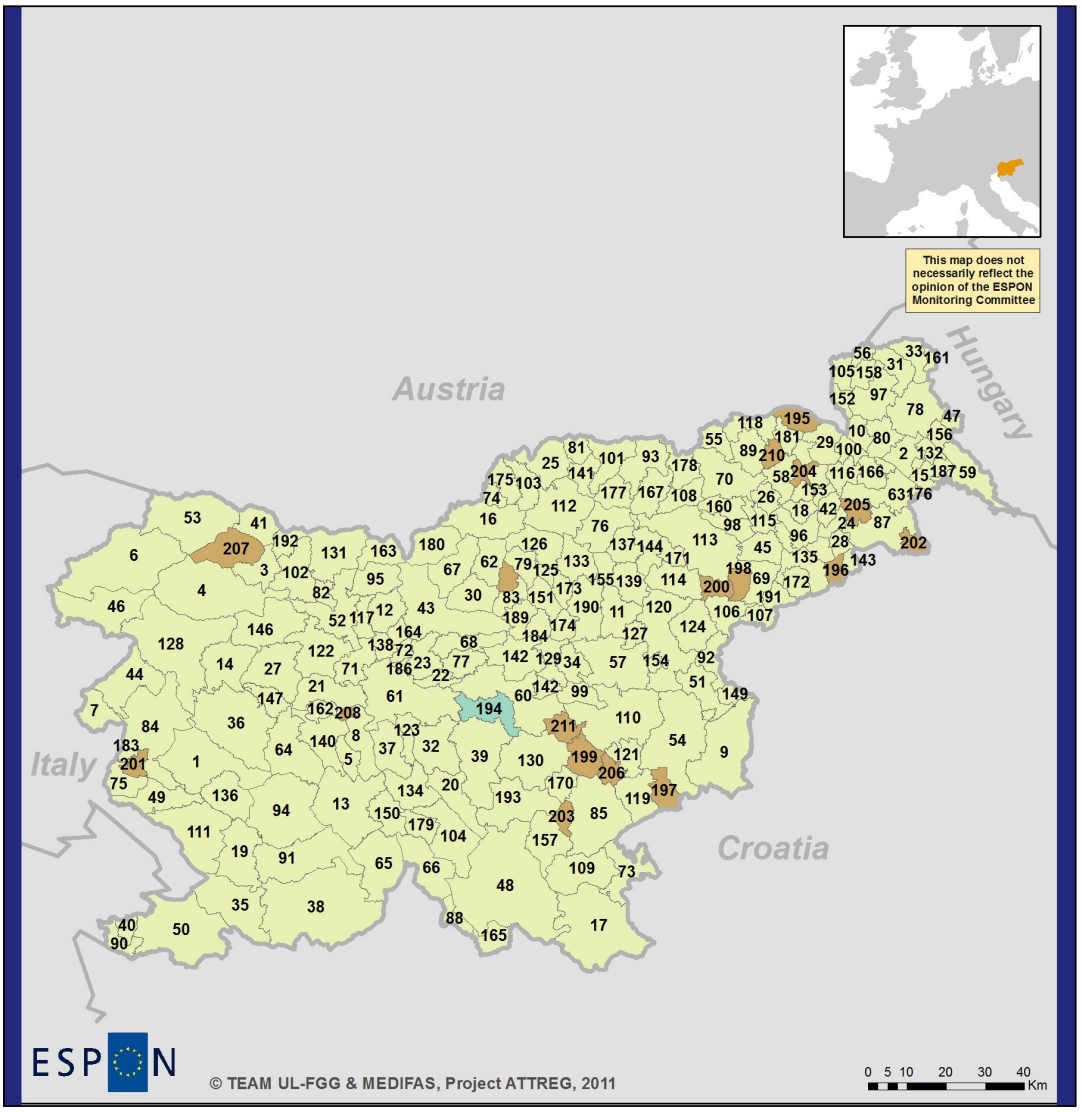


Figure 7: 210 municipalities in Slovenia in 2009 (list of the municipalities is in Annex A).

Table 3: Analysed variables in the gravity models on NUTS 5 level.

Varcode	Variable
GM_{ij}	Migration flows from municipality of origin (i) to municipality of destination (j) in Slovenia
DC_{ij}	Labour commuting flows from municipality of origin (i) to municipality of destination (j) in Slovenia
P_i	Population in municipality of origin
P_j	Population in municipality of destination
$d(t)_{ij}$	Travel time in minutes between the centre of municipality of origin and the centre of municipality of destination (the fastest way by road for car considering speed limits for seven different state road categories and waiting time at toll)
$d(k)_{ij}$	Distance in kilometres between the centre of municipality of origin and the centre of municipality of destination (the fastest way by road for car considering speed limits for seven different state road categories and waiting time at toll)
$K(EMP)_i$	Coefficient of employment in municipality of origin ([number of employed persons in municipality of origin / active population in municipality of origin] / [number of employed persons in Slovenia / active population in Slovenia])
$K(EMP)_j$	Coefficient of employment in municipality of destination ([number of employed persons in municipality of destination / active population in municipality of destination] / [number of employed persons in Slovenia / active population in Slovenia])
$K(GEAR)_i$	Coefficient of gross earning per capita in municipality of origin (average gross earning in Euro per capita in municipality of origin / average gross earning in Euro per capita in Slovenia)
$K(GEAR)_j$	Coefficient of gross earning per capita in municipality of destination (average gross earning in Euro per capita in municipality of destination / average gross earning in Euro per capita in Slovenia)
$K(UFSDPC)_i$	Coefficient of useful floor space of dwellings per capita in municipality of origin ([useful floor space of dwellings in m^2 in municipality of origin / population in municipality of origin] / [useful floor space of dwellings in m^2 in Slovenia / population in Slovenia])
$K(UFSDPC)_j$	Coefficient of useful floor space of dwellings per capita in municipality of destination ([useful floor space of dwellings in m^2 in municipality of destination / population in municipality of destination] / [useful floor space of dwellings in m^2 in Slovenia / population in Slovenia])
$K(GICPC)_i$	Coefficient of gross investments in construction work and land improvement per capita in municipality of origin ([gross investments in construction work and land improvement in Euro in municipality of origin / population in municipality of origin] / [gross investments in construction work and land improvement in Euro in Slovenia / population in Slovenia])
$K(GICPC)_j$	Coefficient of gross investments in construction work and land improvement per capita in municipality of destination ([gross investments in construction work and land improvement in Euro in municipality of destination / population in municipality of destination] / [gross investments in construction work and land improvement in Euro in Slovenia / population in Slovenia])
$K(APBL)_i$	Coefficient of average price per m^2 of building land in municipality of origin (average price per m^2 of building land in municipality of origin / average price per m^2 of building land in Slovenia)
$K(APBL)_j$	Coefficient of average price per m^2 of building land in municipality of destination (average price per m^2 of building land in municipality of destination / average price per m^2 of building land in Slovenia)
$K(APAL)_i$	Coefficient of average price per m^2 of agricultural land in municipality of origin (average price per m^2 of agricultural land in municipality of origin / average price per m^2 of agricultural land in Slovenia)
$K(APAL)_j$	Coefficient of average price per m^2 of agricultural land in municipality of destination (average price per m^2 of agricultural land in municipality of destination / average price per m^2 of agricultural land in Slovenia)
$K(APBP)_i$	Coefficient of average price per m^2 of business premises in municipality of origin (average price per m^2 of business premises in municipality of origin / average price per m^2 of business premises in Slovenia)
$K(APBP)_j$	Coefficient of average price per m^2 of business premises in municipality of destination (average price per m^2 of business premises in municipality of destination / average price per m^2 of business premises in Slovenia)
$K(APF)_i$	Coefficient of average price per m^2 of flat in municipality of origin (average price per m^2 of flat in municipality of origin / average price per m^2 of flat in Slovenia)
$K(APF)_j$	Coefficient of average price per m^2 of flat in municipality of destination (average price per m^2 of flat in municipality of destination / average price per m^2 of flat in Slovenia)
$K(APH)_i$	Coefficient of average price per m^2 of house in municipality of origin (average price per m^2 of house

Varcode	Variable
	in municipality of origin / average price per m^2 of house in Slovenia)
$K(APH)_j$	Coefficient of average price per m^2 of house in municipality of destination (average price per m^2 of house in municipality of destination / average price per m^2 of house in Slovenia)
LMI_i	Labour migration index in municipality of origin (100 x (persons in employment by territorial unit of workplace / persons in employment by territorial unit of residence))
LMI_j	Labour migration index in municipality of destination (100 x (persons in employment by territorial unit of workplace / persons in employment by territorial unit of residence))
$K(A)_i$	Coefficient of ageing index in municipality of origin (100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in municipality of origin) / (100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in Slovenia)
$K(A)_j$	Coefficient of ageing index in municipality of destination (100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in municipality of destination) / (100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in Slovenia)
$K(CP)_i$	Coefficient of creative population in municipality of origin (creative population (aged 25-49 years) in municipality of origin / creative population (aged 25-49 years) in Slovenia)
$K(CP)_j$	Coefficient of creative population in municipality of destination (creative population (aged 25-49 years) in municipality of destination / creative population (aged 25-49 years) in Slovenia)

Here we should strees out that the methodologies of defining inter-regional migrants and/or labour commuters have been changed in 2008 (for migrants) and in 2009 (for labour commuters) (SORS, 2010):

- Migration: Up to 2007, in data only migration of citizens of the RS are shown. In the data from 2008 and on migration of the whole population are shown.
- Labour commuting: In data 2000-2008 for citizens of the RS permanent residence was taken into account and for foreigners only temporary residence. From 2009 on for all pearsons is taken into account temporary residence first and only later his or her permanent residence.

However, the changes of the methodologies to define/count inter-regional migrants and/or labour commuters in Slovenia do not influence the results of the powers in the gravity models significantly. They influence only the results of the constants what is noted in the chapter of the results.

2.4 Comparison of stickiness and attractiveness

Each of the models of migration or commuting (on NUTS 0 or NUTS 2 in EU and on NUTS 3 and NUTS 5 level in Slovenia) will give different values of exponents which are measuring the influence of individual indicators on stickiness and attractiveness or accessibility. They are also changing in time, because of the changes of some anthropic, economic or institutional capital on the analysed time horizon. These changes will be subject of the comparative analysis at the end of this report. Several cartographic presentations will be given to highlight these values of indicators and their changes in time as well as the simulations and forecasting of some changes due to the change of policy will be subject of the conclusion.

3 RESULTS

3.1 EU level

3.1.1 Inter-state migrations on EU level

The study of migration (and commuting) flows provides a better understanding of the growth of regions and other factors causing this growth as well as description of the relationship of these factors. To be more accurately prepared for the future growth of regions, including all kinds of problems emerging when we have to create new opportunities for different sectors of the regional economies, the mathematical models help us to study different results of decisions and their sequences as policies that could increase the growth.

The population of Europe is increasing slowly. Currently the number of inhabitants in the countries of the ESPON area is around 515 million. Since 2000 the annual average growth rate has been below 0.5 per cent per year, which is similar compared to other developed countries, but modest in comparison to other world regions. Contrary to the past, natural population development (the difference between births and deaths) has only a limited impact on population change. Today, by far the most important force behind European population change is international migration. But, at the regional level, population change through migration consists of two different components: internal migration between regions within individual countries and international migration to and from different countries. The influence of these components varies considerably from region to region (De Beer et al., 2010). Tab. 4 shows population, estimated values for out- and in-migrations in 33 EU countries and their coefficients per capita on average in period 2005-2007.

Table 4: Estimated values for in-migrations and out-migrations per capita in EU and some candidate countries on average in 2005-2007 (source: EUROSTAT, 2010; and own calculation*).

State	State code	Population (in 1000)	Out-migrations	In-migrations	Out-migrations per capita		In-migrations per capita	
					(*10^{-3})	Rank	(*10^{-3})	Rank
Austria	AT	8282	43,450	59,990	5.3	9	7.3	4
Belgium	BE	10,548	19,644	22,028	1.9	28	2.1	23
Bulgaria	BG	7699	43,681	13,032	5.7	7	1.7	26
Croatia	HR	4442	13,343	14,683	3.0	20	3.3	15
Cyprus	CY	766	5078	10,955	6.6	6	14.3	2
Czech Republic	CZ	10,269	22,813	31,022	2.2	24	3.0	18
Denmark	DK	5437	26,222	33,114	4.8	11	6.1	8
Estonia	EE	1345	6431	2243	4.8	12	1.7	27
Finland	FI	5266	11,686	15,756	2.2	25	3.0	19
France	FR	63,438	66,063	64,468	1.0	32	1.0	32
Germany	DE	82,376	410,366	431,104	5.0	10	5.2	11
Greece	GR	11,125	19,746	23,197	1.8	29	2.1	24
Hungary	HU	10,071	29,088	23,780	2.9	22	2.4	21
Iceland	IS	300	6016	9054	20.1	1	30.2	1
Ireland	IE	4209	13,774	22,702	3.3	17	5.4	9
Italy	IT	58,942	64,178	113,764	1.1	31	1.9	25
Latvia	LV	2295	7451	3458	3.2	19	1.5	28
Liechtenstein	LI	35	163	216	4.7	13	6.2	7
Lithuania	LT	3403	18,958	7415	5.6	8	2.2	22
Luxembourg	LU	469	8166	5278	17.4	2	11.3	3
Malta	MT	405	885	1059	2.2	26	2.6	20
The Netherlands	NL	16,346	58,663	56,825	3.6	15	3.5	13
Norway	NO	4640	15,902	29,885	3.4	16	6.4	6
Poland	PL	38,141	279,032	127,618	7.3	4	3.3	14
Portugal	PT	10,570	31,410	13,935	3.0	21	1.3	31
Romania	RO	21,588	214,959	31,395	9.9	3	1.5	29
Slovak Republic	SK	5391	36,634	16,428	6.8	5	3.0	17
Slovenia	SI	2007	3822	2813	1.9	27	1.4	30
Spain	ES	44,116	52,698	296,277	1.2	30	6.8	5
Sweden	SE	9081	29,495	40,123	3.3	18	4.4	12
Switzerland	CH	7459	28,988	40,172	3.9	14	5.4	10
Turkey	TR	71,553	49,642	40,852	0.7	33	0.6	33
United Kingdom	UK	60,596	158,555	192,361	2.6	23	3.2	16

* Migration flows were estimated as follows: averages of emigrants for 2005-2007 and transposed averages of immigrants for 2005-2007 were compared, where maximum value of the flow was considered as the best estimate - because of different reports of inter-state flows from out-going and in-coming states to Eurostat.

Between first twelve states in the rank list of in-migrations per capita, there are in decreasing sequence Iceland, Cyprus, Luxembourg, Austria, Spain, Norway, Liechtenstein, Denmark, Switzerland, Ireland, Germany and Sweden. Except Cyprus, which is known as attractive because of low taxes, all other countries are old Western EU Member States. Between the last 12 states there are mostly new member states or the candidates or Mediterranean Countries except Belgium.

We can also see that the stickiest are Mediterranean and Central European Countries, but also Belgium and Finland.

In the regression analysis of the gravity model, traveling distance $d(t)_{ij}$ by car between national centres on NUTS 0 level was used. Data on road network in 2005 were obtained from JRC-IPTS (2010). Using data on roads, we constructed network models, which were the basis for calculation of optimal (shortest) time-spending distances between metropolises on NUTS 0 level. Gravity models, based on classical physics, posit that the flow of migrants between two nodes will be proportional to the population at both nodes, gross domestic product in origin i and destination and inversely proportional to the distance between them (Sen and Smith, 1998). In our previous work for case studies of Slovenia (Bogataj, Drobne and Bogataj, 1995; Bogataj and Drobne, 2005; Drobne, Bogataj and Bogataj, 2008) we found that the exponents β below are different than 1 or -1.

$$GM_{ij} = bP_i^{\beta_1} P_j^{\beta_2} d_{ij}^{\beta(t)_3}(t) K_{GDPpc,i}^{\gamma_1} K_{GDPpc,j}^{\varphi_1} =$$

$$= 3 \cdot 10^{-4} P_i^{0.76} P_j^{0.80} d(t)_{ij}^{-0.24} K_{GDPpc,i}^{0.67} K_{GDPpc,j}^{1.17} \quad (6)$$

Observations: 927
Adjusted R^2: 55.4 %

From Tab. 4, the following differences between the Mediterranean and non-Mediterranean countries have been found; Tab. 5 and 6. show frequences of 0.003 in-migrants and out-migrants for Mediterranean and non-Mediterranean countries.

Table 5: In-migrations in Mediterranean and other countries – test of association.

	Mediterranean countries	**Other countries**	**Sum**
In-migrations per capita < 0.003	7	7	14
In-migrations per capita ≥ 0.003	3	16	19
Sum	10	23	33

From Tab. 5 we can see that the density of in-migration per capita in Mediteranean countries is significantly lower than that in non-Mediterranean countries (the coefficient of association was studied, $\chi^2 = 4.47$, $\alpha < 0.04$).

Table 6: Out-migrations in Mediterranean and other countries – test of association.

	Mediterranean countries	**Other countries**	**Sum**
Out-migrations per capita < 0.003	7	6	13
Out-migrations per capita ≥ 0.003	3	17	20
Sum	10	23	33

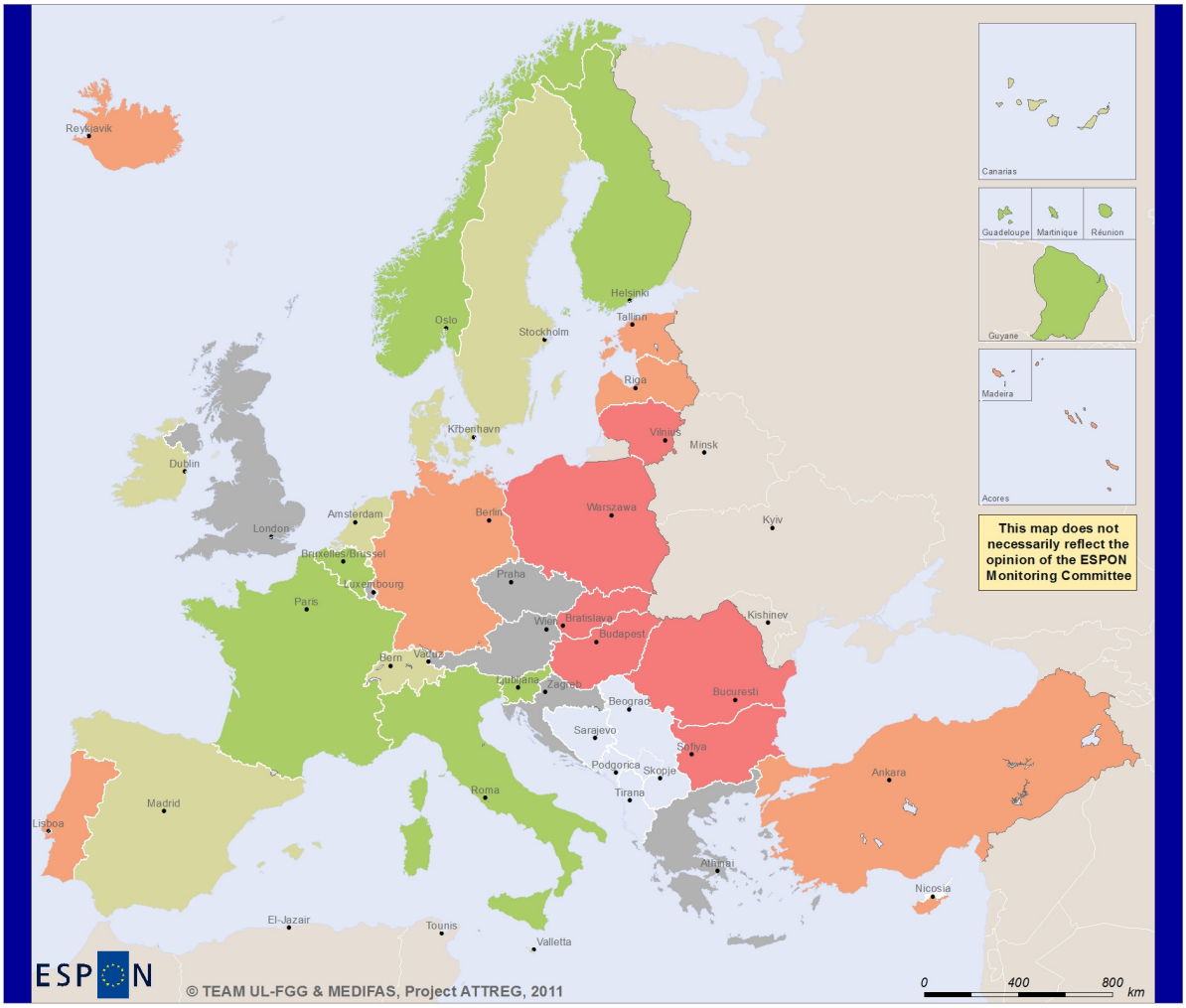
Tab. 6 shows that the density of out-migration per capita in Mediteranean countries is significantly lower than that in non-Mediterranean countries (the coefficient of association was studied and $\chi^2 = 5.63$, $\alpha < 0.02$).

Tab. 7 show and Fig. 8 and 9 show deviation of stickiness and attractiveness of twenty states for migrants according to the model (6) in 2006.

Table 7: States with out-migrations and in-migrations different than expected on the bases of the gravity model (6).

Much less sticky than expected:	Romania, Poland, Bulgaria, Slovak Republic, Lithuania, Hungary
Less sticky than expected:	Iceland, Germany, Portugal, Estonia, Cyprus, Latvia, Turkey
Sticky as expected:	Croatia, Austria, United Kingdom, Czech Republic, Luxembourg, Greece
More sticky than expected:	Switzerland, The Netherlands, Sweden, Danmark, Malta, Ireland, Spain
Much more sticky than expected:	Finland, Belgium, Norway, Italy, France, Slovenia, Liechtenstein
Much more attractive than expected:	Poland, Bulgaria, Cyprus, Romania, Spain, Iceland
More attractive than expected:	Hungary, Slovak Republic, Croatia, Lithuania, Turkey, Czech Republic, Germany
Attractive as expected:	Lithuania, Malta, Austria, Greece, United Kingdom, Estonia
Less attractive than expected:	Portugal, Ireland, Switzerland, Sweden, Danmark, Italy, The Netherlands
Much less attractive than expected:	Finland, Norway, Belgium, Slovenia, France, Luxembourg, Liechtenstein

From Tab. 7 and Fig. 8 and 9, we can see that Eastern countries are less sticky than expected, mostly much less sticky than expected. We can see the influence of lower salaries as important factor which influence out-migrations from the east. Less sticky than expected are also remote Ireland, Germany and Portugal. Germany is known as a state with retired workers from east which are returning home. Majority of Mediterranean countries are more sticky than expected. Stickier than expected are also Scandinavian countries. Eastern countries are also much more attractive than expected according to the model (6). We did not found the explanation for these results in economic indicators.



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Regional level: NUTS 0
Source: Own calculation based on (EUROSTAT data), 2010
Origin of data: EUROSTAT and own calculation, 2010
© EuroGeographics Association for administrative boundaries

Deviation from expected stickiness of state

- much less sticky than expected
- less sticky than expected
- sticky as expected
- more sticky than expected
- much more sticky than expected

Figure 8: Deviation from expected stickiness of state for migrants on average in 2005-2007.

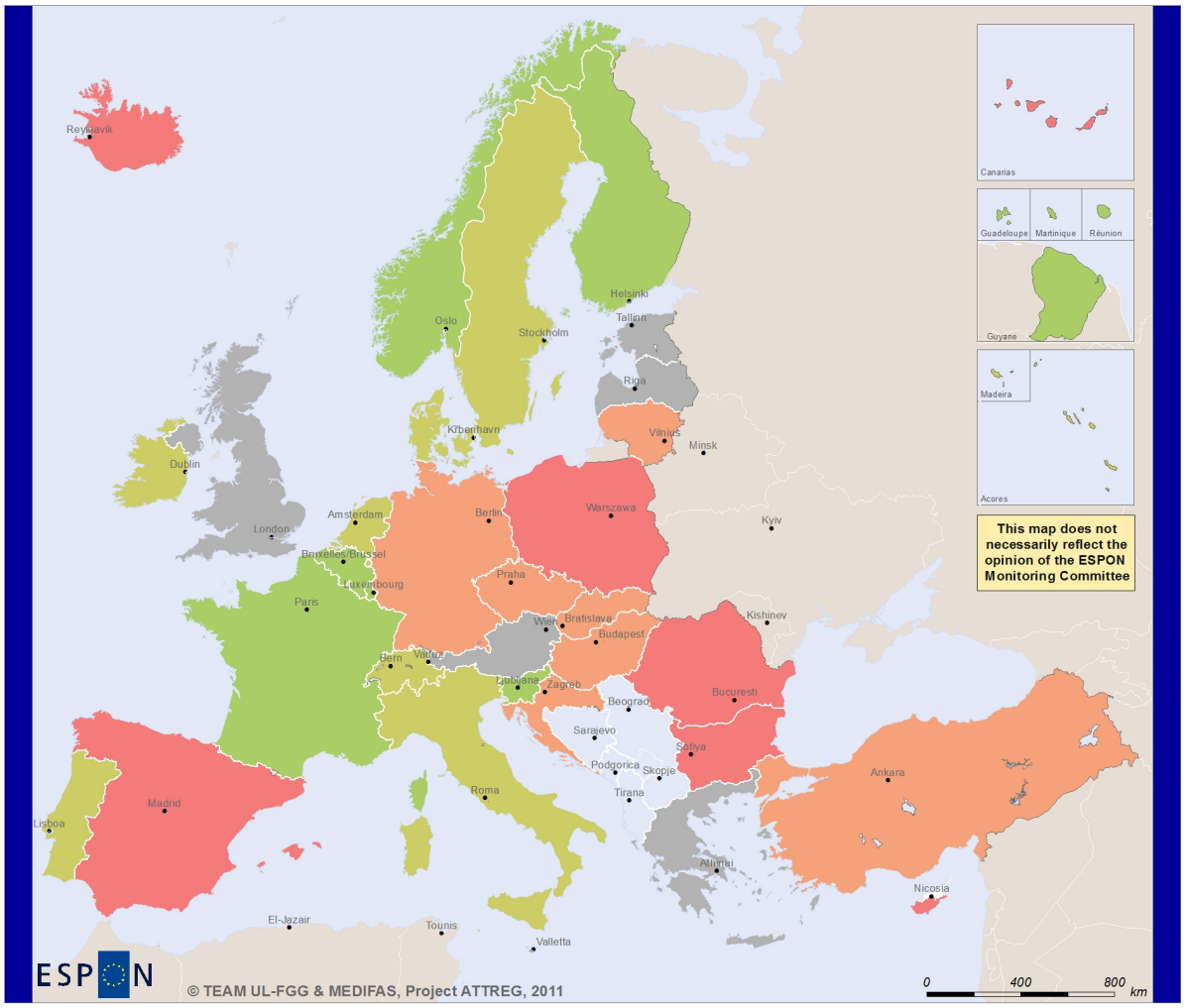


Figure 9: Deviation from expected attractiveness of state for migrants on average in 2005-2007.

3.1.2 Inter-regional migrations on NUTS 2 level in EU and candidate states

In this chapter, we analyse the distance function in inter-regional migration for twenty EU and candidate countries in 2006. Tab. 8 shows population size and number of internal inter-regional migrants on NUTS 2 level in the analysed countries. It is evident that the most active population in migration was in Turkey and United Kingdom, where more than 2 % of population migrated between NUTS 2 regions, followed by Denmark, Sweden, Germany, Hungary and The Netherlands with more than 1.5 %. However, Romania, Croatia, Poland and Slovakia are the least active countries with less than 0.5 % of population that migrated between NUTS 2 regions.

Table 8: Population and number of internal inter-regional migrants on NUTS 2 level in EU and candidate states in 2006 (source: EUROSTAT, 2010; and own calculation).

State	State code	Number of NUTS 2 regions	Population (in 1000)	Internal migrants	
				Number	Percentage
Austria	AT	9	8282	89,677	1.08%
Belgium	BE	11	10,548	147,469	1.40%
Bulgaria	BG	6	7699	49,999	0.65%
Croatia	HR	3	4442	17,684	0.40%
Czech Republic	CZ	7	10,269	73,985	0.72%
Denmark	DK	5	5437	107,518	1.98%
Finland	FI	5	5266	75,573	1.44%
France	FR	26	63,438	731,312	1.15%
Germany	DE	39	82,376	1,437,174	1.74%
Hungary	HU	7	10,071	166,713	1.66%
Italy	IT	21	58,942	335,643	0.57%
The Netherlands	NL	12	16,346	265,057	1.62%
Poland	PL	16	38,141	113,348	0.30%
Romania	RO	8	21,588	89,454	0.41%
Slovak Republic	SK	4	5391	16,110	0.03%
Slovenia*	SI	12	2007	8499	0.42%
Spain	ES	19	44,116	533,128	1.21%
Sweden	SE	8	9081	164,755	1.81%
Turkey	TR	26	71,553	2,099,033	2.93%
United Kingdom	UK	37	60,596	1,729,963	2.85%

* For Slovenia data are reported for NUTS 3 level.

The data for internal inter-region migrations in the twenty analysed EU and candidate countries in 2006 were obtained from EUROSTAT (2010). For those countries which did not report their internal inter-regional flows for the analysed year of 2006, the geometric mean of data for 2004, 2005 and 2007 was calculated. Note that for Slovenia the data are reported for NUTS 3 level.

In the regression analysis of the gravity model, traveling distance $d(t)_{ij}$ by car between regional centres on NUTS 2 level was used. Data on road network in 2005 were obtained from JRC-IPTS (2010). Using data on roads, we constructed network models, which were the basis for calculation of optimal (shortest) time-spending distances between regional centres on NUTS 2 level. Gravity models, based on classical physics, posit that the flow of migrants between two nodes will be proportional to the population at both nodes, and inversely proportional to the distance between them (Sen and Smith, 1998). In our previous work for case studies of Slovenia (Bogataj, Drobne and Bogataj, 1995; Bogataj and Drobne, 2005; Drobne, Bogataj and Bogataj, 2008) we proved that there is a correlation between gross migration and daily commuting.[1] For this reason, we used the time-spending distance between regional centres to analyse the impact of distance on migration flows. The gravity model that has been analysed for twenty countries is reduced equation (6) so that GDP per capita was not considered.

[1] The inter-regional gravity model of gross migration expressed by inter-regional daily commuting was very stable: P-values <<0.001 and the multiple R^2 was 0.77 for 132 relations between 12 Slovenian regions (Bogataj and Drobne, 2005; Drobne, Bogataj and Bogataj, 2008).

$$GM_{ij} = b \cdot P_i^{\beta_1} \cdot P_j^{\beta_2} \cdot d(t)_{ij}^{\beta_3} \quad (6a)$$

where we denote with i the region of origin and with j the region of destination, GM_{ij} is the number of inter-regional migrants, P_i and P_j are the population sizes in the region of origin or destination, respectively, $d(t)_{ij}$ is travel time between the region of origin and region of destination, b is the intercept, and β_1, β_2, β_3 are the powers. The intercept and the powers were estimated in the regression analysis. Tab. 9 shows the results of the regression analysis for the inter-regional migrating gravity model (6) between regions on NUTS 2 level by analysed state for 2006. The most reliable gravity models were estimated for those countries where adjusted R^2 is high and (intercept and) powers are significant; those countries are: Austria, Denmark, France, Germany, Hungary, Italy, The Netherlands, Poland, Spain, Sweden, Turkey and United Kingdom. For Belgium, Bulgaria, Croatia, Czech Republic, Finland, Romania and Slovakia the indicators do not influence flows significantly. Note that the regression analysis for Slovenia was done for NUTS 3 regions (while there were only two NUTS 2 regions in Slovenia), and that there are only three regions on NUTS 2 level in Croatia.

Table 9: Powers (exponents) of the inter-regional migrating gravity model (6a) between regions on NUTS 2 level by state in 2006 (parentheses denote intercept and/or powers whose significance is poor, P-value>0.1; in the most of other cases the significance is very good, 0.01<P-values; * denotes that the regression analysis for Slovenia was done for regions at NUTS 3 level).

State	State code	Number of relations	Adj. R^2 (%)	Intercept b	β_1 [P_i]	β_2 [P_j]	β_3 [$d(t)_{ij}$]
Austria	AT	72	82.9	0.01	0.99	0.96	-1.41
Belgium	BE	110	34.8	(0.09)	0.77	0.56	-2.32
Bulgaria	BG	30	39.3	1E-03	0.69	1.38	(-0.49)
Croatia	HR	6	69.4	(3E-08)	(0.37)	3.13	(-0.25)
Czech Republic	CZ	56	67.0	(0.32	1.03	(0.26)	-1.39
Denmark	DK	20	83.3	1E-03	1.12	1.24	-1.62
Finland	FI	20	92.7	1E-05	1.43	1.47	(-0.18)
France	FR	462	79.4	3E-03	0.93	0.87	-0.91
Germany	DE	1482	72.7	8E-04	0.94	1.05	-1.41
Hungary	HU	42	76.5	2E-04	1.22	1.33	-1.53
Italy	IT	418	83.9	1E-04	1.04	0.99	-0.38
The Netherlands	NL	132	85.0	(0.38)	0.65	0.64	-2.03
Poland	PL	240	71.0	2E-03	0.71	1.13	-1.49
Romania	RO	56	47.5	8E+04	(0.31)	(-0.65)	-1.05
Slovak Republic	SK	12	54.6	(992.41)	(0.54)	(-0.31)	-1.47
Slovenia*	SI	132	72.7	0.05	0.68	0.83	-2.38
Spain	ES	342	79.9	4E-03	0.84	0.84	-0.19
Sweden	SE	56	75.7	(2.92)	0.48	0.66	-0.61
Turkey	TR	650	63.3	9E-04	1.10	0.95	-0.59
United Kingdom	UK	1332	70.2	0.16	0.72	0.59	-1.04

The regression coefficients (powers) in Tab. 9 and in Fig. 10 show that travel distance by road between regions has significant influence on migration flows (the power is high and the estimator is significant) in Austria, Belgium, Czech Republic, Denmark, France, Germany, Hungary, The Netherlands, Poland, Romania, Slovakia and United Kingdom (conditionally in Sweden and Turkey). Travel distance does not play a significant role (powers are low) in decision on migration in Italy and Spain. For Bulgaria, Croatia and Finland estimators of the regression coefficient for travel distance are not significant. We can also conclude that the impact of population size on stickiness is the smallest in Finland and Hungary (where the size of population the most intensively influences growth of flows) and the impact of population size on

attractiveness is again highest in Croatia and Finland and Hungary. Slovenia is the country where intensity of flows is decreasing by distance the most intensively.

There is a group of analysed countries where the power of distance is high and significant but adjusted R^2 is low. Those countries are Belgium, Romania and Slovakia, where additional parameters should be studied. For example, in Belgium, the language probably plays a significant role in the decision about inter-regional migration.

Comparing the results on the map (Fig. 10), one can find more significant impact of time distance on migration flows for countries in the centre of Europe and less significant impact for the countries on the border of the analysed area – especially for Bulgaria, Croatia, Italy and Spain. The differentiation of the impact of travel distance on migration flows derived by regression analysis led us to investigate the role of travel distance by countries outside this case study deeper (see Drobne et al., 2011a).

The neuro-fuzzy logic was used as a complementary tool to determinate the distance perception in the decision on internal inter-regional migration between regions on NUTS 2 level in Europe; for details see (Bogataj, Drobne and Tuljak-Suban 2011) and (Drobne et al., 2011a).

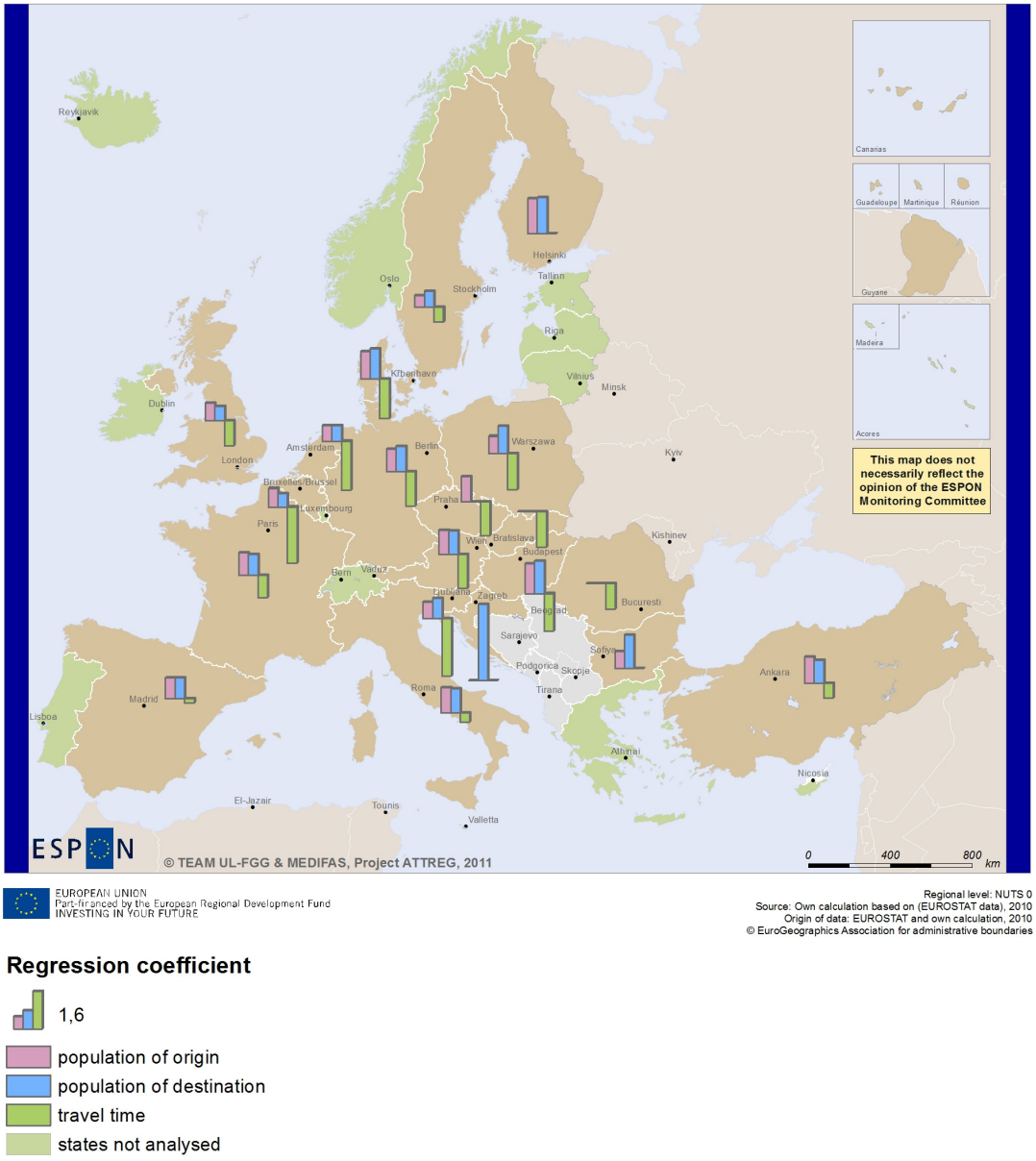


Figure 10: Statistically significant regression coefficients of internal inter-regional migration flows on NUTS 2 level in analysed EU and candidate countries in 2006.

3.2 Stickiness and attractiveness of Slovenian regions

3.2.1 Stickiness and attractiveness of NUTS 3 regions in Slovenia

3.2.1.1 Stickiness and attractiveness of NUTS 3 regions for migrations

Analysing international migrations by Slovenian NUTS 3 regions, immigrations increased each year from 2000 to 2009 with the average growth rate between 10 % in the Lower Sava (*Spodnjeposavska*) region and 24 % in the Southeast Slovenia region (*Jugovzhodna Slovenija*). The number of immigrants is highly correlated with the number of inhabitants in the region. It means that the regions having more inhabitants are more attractive for newcomers. The highest increase of immigrations was in 2004, when Slovenia entered the European Union and two years later in 2006, when joining the Schengen Agreement was anticipated (joined in 2007) and when Slovenia was expecting to join the EURO Area. In 2008 when Slovenia faced the economic crisis, the growth rate became negative as it follows from Tab. 10 and Tab. 12. The

least sticky was the Central Slovenia (*Osrednjeslovenska*) as the most populated region, and the stickiest was the smallest region Carinthia (*Koroška*) as expected. Tab. 10, 12 and 14 show international (net-)migrations in Slovenia NUTS 3 regions in 2000-2009, and Tab. 11, 13 and 15 show annual growth rate of international (net-)migration by statistical regions in Slovenia in 2000-2009.

Table 10: International immigration by NUTS 3 regions, Slovenia, annually 2000-2009 and average annual growth rate K 2000-2007.

Code	Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	K 2000-2007
SI0	**Slovenia *(Slovenija)***	6185	7803	9134	9279	10171	15041	20016	29193	30693	30296	0.248
SI011	Mura (*Pomurska*)	130	128	196	193	148	299	370	548	485	414	0.228
SI012	Drava (*Podravska*)	655	944	822	763	1035	1591	2419	4076	4033	3816	0.298
SI013	Carinthia (*Koroška*)	87	77	104	145	159	301	374	402	558	566	0.244
SI014	Savinja (*Savinjska*)	876	1189	1580	1492	1587	2446	3237	4356	4055	3966	0.258
SI015	Central Sava (*Zasavska*)	108	162	216	219	157	255	188	303	376	401	0.159
SI016	Lower Sava (*Spodnjeposavska*)	387	302	620	607	485	721	934	959	1092	944	0.138
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	282	427	572	599	635	917	1257	2073	2059	1986	0.330
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	161	195	274	336	307	360	551	968	906	950	0.292
SI021	Central Slovenia (*Osrednjeslovenska*)	2084	2633	2434	2548	3265	4530	6030	8661	9637	9990	0.226
SI022	Upper Carniola (*Gorenjska*)	388	546	672	722	772	1151	1377	2057	2469	2243	0.269
SI023	Gorizia (*Goriška*)	446	449	669	682	712	956	1326	2057	1916	1990	0.244
SI024	Coastal-Karst (*Obalno-kraška*)	581	751	975	973	909	1514	1953	2733	3107	3030	0.248

Source: Statistical Office of the Republic of Slovenia.

Table 11: Annual growth rate of international immigration by statistical regions, Slovenia, 2000-2009.

Code	Name	2001	2002	2003	2004	2005	2006	2007	2008	2009
SI0	**Slovenia *(Slovenija)***	0.262	0.171	0.016	0.096	0.479	0.331	0.458	0.051	-0.013
SI011	Mura (*Pomurska*)	-0.015	0.531	-0.015	-0.233	1.020	0.237	0.481	-0.115	-0.146
SI012	Drava (*Podravska*)	0.441	-0.129	-0.072	0.356	0.537	0.52	0.685	-0.011	-0.054
SI013	Carinthia (*Koroška*)	-0.115	0.351	0.394	0.097	0.893	0.243	0.075	0.388	0.014
SI014	Savinja (*Savinjska*)	0.357	0.329	-0.056	0.064	0.541	0.323	0.346	-0.069	-0.022
SI015	Central Sava (*Zasavska*)	0.500	0.333	0.014	-0.283	0.624	-0.263	0.612	0.241	0.066
SI016	Lower Sava (*Spodnjeposavska*)	-0.220	1.053	-0.021	-0.201	0.487	0.295	0.027	0.139	-0.136
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	0.514	0.340	0.047	0.060	0.444	0.371	0.649	-0.007	-0.035
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	0.211	0.405	0.226	-0.086	0.173	0.531	0.757	-0.064	0.049
SI021	Central Slovenia (*Osrednjeslovenska*)	0.263	-0.076	0.047	0.281	0.387	0.331	0.436	0.113	0.037
SI022	Upper Carniola (*Gorenjska*)	0.231	0.074	0.069	0.491	0.196	0.494	0.200	-0.092	0.407
SI023	Gorizia (*Goriška*)	0.490	0.019	0.044	0.343	0.387	0.551	-0.069	0.039	0.007
SI024	Coastal-Karst (*Obalno-kraška*)	0.298	-0.002	-0.066	0.666	0.290	0.399	0.137	-0.025	0.293

Table 12: International emigration by NUTS 3 regions, Slovenia, annually 2000-2009 and average annual growth rate K 2000-2007.

Code	Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	K 2000-2007
SI0	**Slovenia *(Slovenija)***	3570	4811	7269	5867	8269	8605	13749	14943	12109	18788	0.227
SI011	Mura (*Pomurska*)	254	152	227	215	187	176	361	463	426	450	0.090
SI012	Drava (*Podravska*)	280	326	662	546	785	886	1649	1939	3189	2768	0.318
SI013	Carinthia (*Koroška*)	86	113	165	135	134	151	278	211	270	397	0.137
SI014	Savinja (*Savinjska*)	537	888	1202	992	1393	1527	2147	2082	1538	2743	0.214
SI015	Central Sava (*Zasavska*)	79	92	217	177	183	159	178	201	134	223	0.143
SI016	Lower Sava (*Spodnjeposavska*)	177	202	468	337	408	485	705	607	381	685	0.193
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	212	385	445	403	487	437	852	1066	612	1258	0.260
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	73	86	206	168	233	233	329	432	400	512	0.289
SI021	Central Slovenia (*Osrednjeslovenska*)	1038	1352	1941	1453	2245	2376	4027	4780	2688	5228	0.244
SI022	Upper Carniola (*Gorenjska*)	420	370	645	609	781	757	1029	1087	806	1449	0.146
SI023	Gorizia (*Goriška*)	186	419	442	353	602	574	854	867	662	1253	0.246
SI024	Coastal-Karst (*Obalno-kraška*)	228	426	649	479	831	844	1340	1208	1003	1822	0.136

Source: Statistical Office of the Republic of Slovenia.

Table 13: Annual growth rate of international emigration by statistical regions, Slovenia, 2000-2009.

Code	Name	2001	2002	2003	2004	2005	2006	2007	2008	2009
SI0	**Slovenia *(Slovenija)***	0.348	0.511	-0.193	0.409	0.041	0.598	0.087	-0.190	0.552
SI011	Mura (*Pomurska*)	-0.402	0.493	-0.053	-0.130	-0.059	1.051	0.283	-0.080	0.056
SI012	Drava (*Podravska*)	0.164	1.031	-0.175	0.438	0.129	0.861	0.176	0.645	-0.132
SI013	Carinthia (*Koroška*)	0.314	0.460	-0.182	-0.007	0.127	0.841	-0.241	0.280	0.470
SI014	Savinja (*Savinjska*)	0.654	0.354	-0.175	0.404	0.096	0.406	-0.030	-0.261	0.783
SI015	Central Sava (*Zasavska*)	0.165	1.359	-0.184	0.034	-0.131	0.119	0.129	-0.333	0.664
SI016	Lower Sava (*Spodnjeposavska*)	0.141	1.317	-0.280	0.211	0.189	0.454	-0.139	-0.372	0.798
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	0.816	0.156	-0.094	0.208	-0.103	0.950	0.251	-0.426	1.056
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	0.178	1.395	-0.184	0.387	0	0.412	0.313	-0.074	0.280
SI021	Central Slovenia (*Osrednjeslovenska*)	0.303	0.436	-0.251	0.545	0.058	0.695	0.187	-0.438	0.945
SI022	Upper Carniola (*Gorenjska*)	-0.119	0.743	-0.056	0.282	-0.031	0.359	0.056	-0.259	0.798
SI023	Gorizia (*Goriška*)	1.253	0.055	-0.201	0.705	-0.047	0.488	0.015	-0.236	0.893
SI024	Coastal-Karst (*Obalno-kraška*)	0.868	0.523	-0.262	0.735	0.016	0.588	-0.099	-0.170	0.817

Table 14: International net-migration by NUTS 3 regions, Slovenia, annually 2000-2009 and average annual growth rate K 2000-2007.

Code	Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	K 2000-2007
SI0	**Slovenia *(Slovenija)***	2615	2992	1865	3412	1902	6436	6267	14,250	18,584	11,508	0.236
SI011	Mura (*Pomurska*)	-124	-24	-31	-22	-39	123	9	85	59	-36	-0.162
SI012	Drava (*Podravska*)	375	618	160	217	250	705	770	2137	844	1048	0.158
SI013	Carinthia (*Koroška*)	1	-36	-61	10	25	150	96	191	288	169	1.081
SI014	Savinja (*Savinjska*)	339	301	378	500	194	919	1090	2274	2517	1223	0.201
SI015	Central Sava (*Zasavska*)	29	70	-1	42	-26	96	10	102	242	178	0.296
SI016	Lower Sava (*Spodnjeposavska*)	210	100	152	270	77	236	229	352	711	259	0.030
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	70	42	127	196	148	480	405	1007	1447	728	0.397
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	88	109	68	168	74	127	222	536	506	438	0.258
SI021	Central Slovenia (*Osrednjeslovenska*)	1046	1281	493	1095	1020	2154	2003	3881	6949	4762	0.242
SI022	Upper Carniola (*Gorenjska*)	-32	176	27	113	-9	394	348	970	1663	794	-2.582
SI023	Gorizia (*Goriška*)	260	30	227	329	110	382	472	1190	1254	737	0.160
SI024	Coastal-Karst (*Obalno-kraška*)	353	325	326	494	78	670	613	1525	2104	1208	0.192

Source: Statistical Office of the Republic of Slovenia.

Table 15: Annual growth rate of international net-migration by statistical regions, Slovenia, 2000-2009.

Code	Name	2001	2002	2003	2004	2005	2006	2007	2008	2009
SI0	**Slovenia *(Slovenija)***	0.144	-0.377	0.829	-0.443	2.384	-0.026	1.274	0.304	-0.381
SI011	Mura (*Pomurska*)	-0.806	0.292	-0.290	0.773	-4.150	-0.927	8.444	-0.306	-1.610
SI012	Drava (*Podravska*)	0.648	-0.741	0.356	0.152	1.820	0.092	1.775	-0.605	0.242
SI013	Carinthia (*Koroška*)	-37.000	0.694	-1.160	1.500	5.000	-0.360	0.990	0.508	-0.413
SI014	Savinja (*Savinjska*)	-0.112	0.256	0.323	-0.612	3.737	0.186	1.086	0.107	-0.514
SI015	Central Sava (*Zasavska*)	1.414	-1.010	-43.000	-1.620	-4.690	-0.896	9.200	1.373	-0.264
SI016	Lower Sava (*Spodnjeposavska*)	-0.524	0.520	0.776	-0.715	2.065	-0.030	0.537	1.020	-0.636
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	-0.400	2.024	0.543	-0.245	2.243	-0.156	1.486	0.437	-0.497
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	0.239	-0.376	1.471	-0.560	0.716	0.748	1.414	-0.056	-0.134
SI021	Central Slovenia (*Osrednjeslovenska*)	0.225	-0.615	1.221	-0.068	1.112	-0.070	0.938	0.791	-0.315
SI022	Upper Carniola (*Gorenjska*)	-6.500	-0.847	3.185	-1.080	-44.800	-0.117	1.787	0.714	-0.523
SI023	Gorizia (*Goriška*)	-0.885	6.567	0.449	-0.666	2.473	0.236	1.521	0.054	-0.412
SI024	Coastal-Karst (*Obalno-kraška*)	-0.079	0.003	0.515	-0.842	7.590	-0.085	1.488	0.380	-0.426

The maximum international net migration dynamics was in 2005, a year after joining the European Union; furthermore the second highest increase of net migrations was in 2007 when Slovenia joined the Schengen Agreement and the EURO become our means of payment.

Tab. 16 and 18 show inter-regional migrations in Slovenia NUTS 3 regions in 2000-2009, and Tab. 17 and 19 show annual growth rate of Slovenian inter-regional (NUTS 3) migration dynamics in 2000-2009. Note, that data from 2008 are prepared according to the new definition: up to 2007, in data only migrations of citizens of the RS are shown, but in the data from 2008 and on migration of the whole population are shown. For this reason annual growth rate of inter-regional immigration and emigration dynamics for 2008 is not shown in Tab. 17 and 19.

Table 16: Inter-regional immigration by NUTS 3 regions, Slovenia, annually 2000-2009, and average annual growth rate K 2000-2007.

Code	Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	K 2000-2007
SI0	***Slovenia (Slovenija)***	*5881*	*6364*	*6575*	*6298*	*6595*	*7004*	*8499*	*8880*	*47,605*	*39,690*	*0.061*
SI011	Mura (*Pomurska*)	289	313	337	315	327	342	393	405	3213	2177	0.049
SI012	Drava (*Podravska*)	607	679	695	672	661	737	866	792	6370	4917	0.039
SI013	Carinthia (*Koroška*)	241	213	260	242	239	318	360	383	2103	1570	0.068
SI014	Savinja (*Savinjska*)	723	688	717	736	757	756	938	963	5739	5010	0.042
SI015	Central Sava (*Zasavska*)	243	288	265	278	268	261	364	381	1112	1060	0.066
SI016	Lower Sava (*Spodnjeposavska*)	277	275	269	300	317	240	305	344	2040	1585	0.031
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	426	483	513	479	494	534	646	713	3503	2929	0.076
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	1761	1765	1861	1677	1808	1900	2255	2287	11984	10365	0.038
SI021	Central Slovenia (*Osrednjeslovenska*)	547	776	746	724	740	829	1012	1123	3535	3353	0.108
SI022	Upper Carniola (*Gorenjska*)	170	217	212	239	212	248	302	342	1700	1387	0.105
SI023	Gorizia (*Goriška*)	283	322	331	293	359	390	529	554	3480	2756	0.101
SI024	Coastal-Karst (*Obalno-kraška*)	314	345	369	343	413	449	529	593	2826	2581	0.095

Source: Statistical Office of the Republic of Slovenia. Note: Data from 2008 are prepared according to the new definition (up to 2007, in data only migrations of citizens of the RS are shown; in the data from 2008 and on migration of the whole population are shown).

Table 17: Annual growth rate of inter-regional (NUTS 3) immigration dynamics, Slovenia, 2000-2009.

Code	Name	2001	2002	2003	2004	2005	2006	2007	2008	2009
SI0	***Slovenia (Slovenija)***	*0.082*	*0.033*	*-0.042*	*0.047*	*0.062*	*0.213*	*0.045*		*-0.166*
SI011	Mura (*Pomurska*)	0.083	0.077	-0.065	0.038	0.046	0.149	0.031		-0.322
SI012	Drava (*Podravska*)	0.119	0.024	-0.033	-0.016	0.115	0.175	-0.085		-0.228
SI013	Carinthia (*Koroška*)	-0.116	0.221	-0.069	-0.012	0.331	0.132	0.064		-0.253
SI014	Savinja (*Savinjska*)	-0.048	0.042	0.026	0.029	-0.001	0.241	0.027		-0.127
SI015	Central Sava (*Zasavska*)	0.185	-0.080	0.049	-0.036	-0.026	0.395	0.047		-0.047
SI016	Lower Sava (*Spodnjeposavska*)	-0.007	-0.022	0.115	0.057	-0.243	0.271	0.128		-0.223
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	0.134	0.062	-0.066	0.031	0.081	0.210	0.104		-0.164
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	0.002	0.054	-0.099	0.078	0.051	0.187	0.014		-0.135
SI021	Central Slovenia (*Osrednjeslovenska*)	0.419	-0.039	-0.029	0.022	0.120	0.221	0.110		-0.051
SI022	Upper Carniola (*Gorenjska*)	0.276	-0.023	0.127	-0.113	0.170	0.218	0.132		-0.184
SI023	Gorizia (*Goriška*)	0.138	0.028	-0.115	0.225	0.086	0.356	0.047		-0.208
SI024	Coastal-Karst (*Obalno-kraška*)	0.099	0.070	-0.070	0.204	0.087	0.178	0.121		-0.087

Note: Data from 2008 are prepared according to the new definition, for this reason dynamics for 2008 is not shown.

Table 18: Inter-regional emigration by NUTS 3 regions, Slovenia, annually 2000-2009, and average annual growth rate K 2000-2007.

Code	Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	K 2000-2007
SI0	***Slovenia (Slovenija)***	*5881*	*6364*	*6575*	*6298*	*6595*	*7004*	*8499*	*8880*	*47,605*	*39,690*	*0.061*
SI011	Mura (*Pomurska*)	243	258	314	263	278	291	387	346	2549	1814	0.052
SI012	Drava (*Podravska*)	637	641	697	703	728	766	887	956	6806	5218	0.060
SI013	Carinthia (*Koroška*)	156	150	155	171	153	168	185	165	1481	1198	0.008
SI014	Savinja (*Savinjska*)	600	679	655	590	610	651	818	898	4680	3993	0.059
SI015	Central Sava (*Zasavska*)	243	215	204	191	185	195	277	263	907	668	0.011
SI016	Lower Sava (*Spodnjeposavska*)	258	327	311	278	275	311	334	388	1592	1509	0.060
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	534	544	521	564	574	604	665	625	3356	2954	0.023
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	1585	1916	1973	1911	2062	2236	2846	2968	16,263	12,780	0.094
SI021	Central Slovenia (*Osrednjeslovenska*)	598	644	648	608	691	677	832	945	2996	2844	0.068
SI022	Upper Carniola (*Gorenjska*)	300	264	296	271	297	337	330	375	1636	1369	0.032
SI023	Gorizia (*Goriška*)	233	282	287	210	231	256	267	300	2398	1991	0.037
SI024	Coastal-Karst (*Obalno-kraška*)	494	444	514	538	511	512	671	651	2941	3352	0.040

Source: Statistical Office of the Republic of Slovenia. Note: Data from 2008 are prepared according to the new definition (up to 2007, in data only migrations of citizens of the RS are shown; in the data from 2008 and on migration of the whole population are shown).

Table 19: Annual growth rate of inter-regional (NUTS 3) emigration dynamics, Slovenia, 2000-2009.

Code	Name	2001	2002	2003	2004	2005	2006	2007	2008	2009
SI0	***Slovenia (Slovenija)***	*0,082*	*0,033*	*-0,042*	*0,047*	*0,062*	*0,213*	*0,045*		*-0,166*
SI011	Mura (*Pomurska*)	0,062	0,217	-0,162	0,057	0,047	0,330	-0,106		-0,288
SI012	Drava (*Podravska*)	0,006	0,087	0,009	0,036	0,052	0,158	0,078		-0,233
SI013	Carinthia (*Koroška*)	-0,038	0,033	0,103	-0,105	0,098	0,101	-0,108		-0,191
SI014	Savinja (*Savinjska*)	0,132	-0,035	-0,099	0,034	0,067	0,257	0,098		-0,147
SI015	Central Sava (*Zasavska*)	-0,115	-0,051	-0,064	-0,031	0,054	0,421	-0,051		-0,264
SI016	Lower Sava (*Spodnjeposavska*)	0,267	-0,049	-0,106	-0,011	0,131	0,074	0,162		-0,052
SI017	Southeast Slovenia (*Jugovzhodna Slovenija*)	0,019	-0,042	0,083	0,018	0,052	0,101	-0,060		-0,120
SI018	Inner Carniola-Karst (*Notranjsko-kraška*)	0,209	0,030	-0,031	0,079	0,084	0,273	0,043		-0,214
SI021	Central Slovenia (*Osrednjeslovenska*)	0,077	0,006	-0,062	0,137	-0,020	0,229	0,136		-0,051
SI022	Upper Carniola (*Gorenjska*)	-0,120	0,121	-0,084	0,096	0,135	-0,021	0,136		-0,163
SI023	Gorizia (*Goriška*)	0,210	0,018	-0,268	0,100	0,108	0,043	0,124		-0,170
SI024	Coastal-Karst (*Obalno-kraška*)	-0,101	0,158	0,047	-0,05	0,002	0,311	-0,030		0,140

Note: Data from 2008 are prepared according to the new definition, for this reason dynamics for 2008 is not shown.

The emigration flow was the highest from the most populated area with the highest population density. From this area also the annual growth rate (2000-2007) was highest. Central Sava (*Zasavska*) region, which is the smallest region, was also the stickiest and the dynamics of intensity of this flow was the lowest.

As it can be seen from the results (powers or exponents) of the inter-regional migrating gravity model between regions on NUTS 2 level by analysed EU countries in 2006 in Tab. 9 and for the Slovenian special case in 2006 in Tab. 20 the explanation is especially in the number of inhabitants in the regions, where β_1 explain the power of size (in inhabitants) of region of origin on the intensity of out-flows (stickiness) and β_2 explain the power of size of destination region on the intensity of in-flows (attractiveness).

Table 20: Powers (exponents) of the inter-regional migrating gravity model (6) between Slovenian regions on NUTS 3 level in 2006.

ID	Country	Country code	Number of relations	Adj. R^2 (%)	Intercept b	β_1 [P_i]	β_2 [P_j]	β_3 [$d(t)_{ij}$]
16	Slovenia	SI	132	72.7	0.05	0.68	0.83	-2.38

So, the basic gravity model (6) for Slovenian NUTS 3 regions in 2006 could be written as

$$GM_{ij} = 0.01 \cdot P_i^{0.68} \cdot P_j^{0.83} \cdot d(t)_{ij}^{-2.38} \qquad (7)$$

From (7) it follows that on average the gross migrations between two Slovenian regions increased by 70 % if the time spending distance decreased by 20 % (it follows from: $0.8^{-2.38} = 1.7$) in 2006. The out-migrations increase on average by 6.7 % if the region has 10 % more inhabitants ($1.1^{0.68} = 1.067$). This explains the influence of population size on the stickiness of a region. Furthermore, the in-migrations increase on average by 8.2 % if the region of destination has 10 % more inhabitants ($1.1^{0.83} = 1.082$). This explains the influence of population size on attractiveness of region of destination.

Lowry (1966) concluded that the labour market characteristics of an origin locality make little difference to an individual who is contemplating a move to another area. On the other hand, destination characteristics do influence the locality to which migrants may move, and employment growth and greater income growth tend to induce net in-migration. Like Miller (1973) and some others refuted the validity of these findings, stating that origin characteristics are important in explaining migration flow, we tried to confirm the importance of endowments in origin and their impact on migration. Thus, a thorough study was looking at both origin and destination endowments, but we found that Lowry's conclusion is valid also for Slovenia in the period 2000-2006 when we study inter-regional migrations on NUTS 3 level; from where the following regression output has been given for the period 2000-2006 (see Tab. 21).

Table 21: The regression output for Slovenian NUTS3 regions for the period 2000-2006.

Multiple R 0.9331		Adjusted R^2 0.8588		Observations 132	
R^2 0.8706		Standard Error 0.5373			
Variables	**Parameters**	**Values (power)**	**Standard error**	**t Stat**	**P-value**
(Constant)	b	0.0808		-0.6707	0.5037
P_i	β_1	0.8093	0.1169	6.9238	0.0000
P_j	β_2	0.6658	0.1167	5.7048	0.0000
$d_{ij}(t)$	β_3	-1.4706	0.1075	-13.6809	0.0000
$K_{GDPpc,i}$	γ_1	0.9844	1.0686	0.9212	0.3588
$K_{GDPpc,j}$	φ_1	0.1286	1.0688	0.1203	0.9045
$K_{GEAR,i}$	γ_2	-0.3072	1.6129	-0.1905	0.8493
$K_{GEAR,j}$	φ_2	4.9838	1.6124	3.0908	0.0025
$K_{EMP,i}$	γ_3	0.6766	1.3253	0.5105	0.6106
$K_{EMP,j}$	φ_3	3.9891	1.3222	3.0170	0.0031
$K_{DR,i}$	γ_4	0.0768	0.1654	0.4646	0.6431
$K_{DR,j}$	φ_4	0.5720	0.1644	3.4794	0.0007

Therefore the model (5) can be reduced to:

$$GM_{ij} = 0.08 P_i^{0.81} P_j^{0.67} \frac{K_{GEAR,j}^{4.98} K_{EMP,j}^{3.99} K_{DR,j}^{0.57}}{d_{ij}^{1.47}(t)} \tag{8}$$

The results show that neither employment nor the income in the origin location has been directly important determinants of migration flow, but they are important determinants in the destination. A key feature of this migration model is that it incorporates most of the determinant factors as rates of change over space.

The constant here is still very volatile and could include many other endowment influences which are not detected jet, though adjusted R^2 is nearly 0.86. Some numerical examples are given in Tab. 22.

If the attractiveness of region for migrations is described relatively with the higher or lower percentage of migrants in the flow relative to average, the parameters in exponents of gravity model (β, φ) describe the impact of individual indicators on attractiveness as the relative difference of flows which is able to be achieved by changing the value of indicators. From the migration flows in the period 2000-2006 we can see that the most powerful indicators are the coefficient of gross earnings $K_{GEAR,j}$ and coefficient of employment $K_{EMP,j}$, while other indicators are less powerful. The region which has 20 % higher employment rate attract 2 times ($(1+p)^{4.00}$ =2.069) more migrants than the region whose employment is average (see the value 2.069 in Tab. 22). In the region which has 20 % higher gross earnings than the average in Slovenia, the flows increase by 248 % (see the value 2.481 in Tab. 22). If the time spending distance on the road $d_{ij}(t)$ decreases by 10 %, the flow increases for 16.8 %; or it decreases for 23.5% ($p = 0.765 - 1 = 0.235$) if the indicator increases by 20 % (see the values 1.168 and 0.765 in Tab. 22).

Table 22: The increase of attractiveness at given increase p of indicators.

Variables	Parameters		Increase of flows at given increase p of indicators		
Indicators	Power	Increase of attractiveness	$p=-0.10$	$p=0.01$	$p=0.20$
P_j	β_2	$(1+p)^{0.67}$	0.932	1.007	1.129
$d_{ij}(t)$	β_3	$(1+p)^{-1.47}$	1.168	0.985	0.765
$K_{GEAR,j}$	φ_2	$(1+p)^{4.98}$	0.591	1.051	2.481
$K_{EMP,j}$	φ_3	$(1+p)^{4.00}$	0.657	1.040	2.069
$K_{DR,j}$	φ_4	$(1+p)^{0.57}$	0.942	1.006	1.110

3.2.1.2 Stickiness and attractiveness of NUTS 3 regions for labour commuters

At the end of 2010 there were 16.2 % of employed population who commuted between 12 statistical regions in Slovenia. The number of foreign daily migrants, who are citizens of the neighbouring countries (Italy, Austria, Hungary or Croatia) and work in Slovenia, but do not have a registered residence in Slovenia, was 2300 at the end of 2010, most of them were from Croatia (1770) and the fewest of them from Austria (57). According to the previous year (2009) the number of foreign daily migrants remained similar.

From our previous studies of migrations on NUTS 3 level for the period between two Censuses in 1991 and 2002 (Bogataj and Drobne, 2005) we concluded that where migration is high labour commuting is also expected to be high ($DC_{ij}=249+7.6GM_{ij}-128d_{ij}(t)$; here the multiple R is 0.78 for 131 observations).

The number and structure of inter-regional commuters were obtained from Census 2002 data and were $\sum_i\sum_j DC_{ij}^{REG}=DC^{REG}=59{,}819\ (i\neq j)$. Commuting coefficients between settlements, municipalities and regions in Slovenia in 2002 were:

$$k_{DC}^{REG}=DC^{REG}/P=0.030 \tag{9}$$

$$k_{DC}^{MUN}=DC^{MUN}/P=0.140 \tag{10}$$

$$k_{DC}^{SET}=DC^{SET}/P=0.214 \tag{11}$$

where $k_{DC}^{(\cdot)}$ is commuting coefficient per capita for statistical regions *(REG)*, municipalities *(MUN)* or settlements *(SET)* in Slovenia in 2002. However, for this case study of Slovenia coefficients (9) and (10) ($k_{DC}^{REG}=0.030$ and $k_{DC}^{MUN}=0.140$) are important, which shows that 3 % of population commuted between 12 statistical regions, and 14 % of population between 192 municipalities of Slovenia in 2002, respectively. Fig. 11 shows that the Central Slovenia (*Osrednjeslovenska*) region was the most attractive region in 2002, followed by Drava (*Podravska*) and Savinja (*Savinjska*) regions.

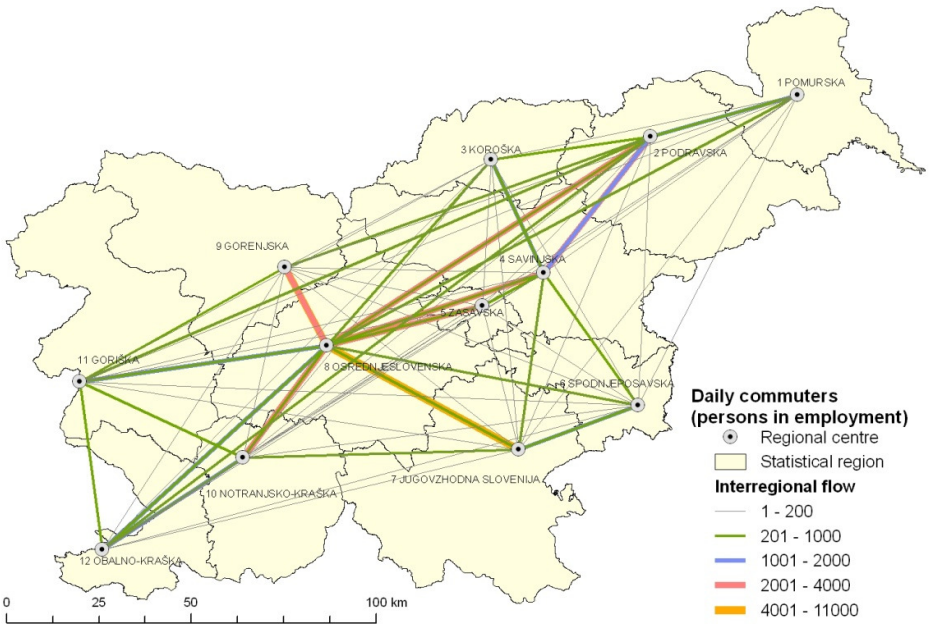


Figure 11: The intensity of daily commuting flows for persons in employment in Slovenia in 2002 (Bogataj and Drobne, 2005).

$$K_{GDPp,\circ}=\frac{GDPp(\circ)}{GDPp(SI)},\ K_{GEAR,\circ}=\frac{GEAR(\circ)}{GEAR(SI)},\ K_{EMP,\circ}=\frac{EMP(\circ)}{EMP(SI)},K_{UEMP,\circ}=\frac{UEMP(\circ)}{UEMP(SI)},$$

where $(\circ)$ denotes region of origin i or region of destination j ($i=1,2,...,12; j=1,2,...,12$), $GDPp$ 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 a region divided by the level of registered unemployment in the country, and $UEMP(SI)$ is the level of registered unemployment in Slovenia. The gravity model was tested for $d(\cdot)_{ij}$ being Euclidian distance, the shortest road distance, as well as for the quickest time-spending distances.

In the multiple regression analysis of inter-regional labour commuters only the time-spending distance and coefficient of average gross earning per person in region of destination $K_{GEAR,j}$ significantly influenced the flows (R2 was high and P-values also for the intercepts were the lowest). For inter-regional flows in Slovenia in 2002 the model is the following:

$$DC_{ij}^{REG}=\frac{2.13\cdot 10^{-5}P_i^{0.95}P_j^{1.28}}{d(t)_{ij}^{2.35}}K_{GEAR,j}^{5.48} \qquad (12)$$

We got the regression parameters for the inter-regional commuting flow equation, where R-square is 80 % for 132 observations and where $d(t)_{ij}$ is the road time-spending distance in minutes when travelling by car; see Tab. 1.

Table 23: Gravity model coefficients for Slovenian NUTS 3 inter-regional labour commuting DC_{ij}^{REG}.

Variable	Parameter	Values (power) in (4)	t Stat	P-value
(Constant)	$\ln a$	-10.7571	-4.1376	0.0001
P_i	α_1	0.9536	7.6792	0.0000
P_j	α_2	1.2795	8.6041	0.0000
$d_{ij}(t)$	α_3	-2.3548	-13.1222	0.0000
$K_{GEAR,j}$	λ_2	5.4843	4.2297	0.0000

From Tab. 23 we can see that all P-values for all coefficients are very low. The regression model of inter-regional commuters is very stable. The indicator P_i influences stickiness of region for labour commuting. If P_i increases by 20 % the out-flow will increase by 19 % ($=1.2^{0.95}$). The indicator P_j influences attractiveness. If P_j increases by 20 % the in-flow will increase by 26 % ($=1.2^{1.28}$). If the time spending distance decreases by 30 % by investments in infrastructure, the intensity of flows will increase by 54 %.

3.2.2 Stickiness and attractiveness of NUTS 5 regions (municipalities) in Slovenia

The profile of Slovenian NUTS 5 regions, i.e municipalities, for migrants and labour commuters in two analysed periods 2000-2006 and 2007-2009 is presented in Fig. 12-19 and in detail in Annexes D1-D8.

Fig. 12 and 13 show stickiness of Slovenian municipalities and Fig. 14 and 15 show attractiveness for migrants and for labour commuters in the first analysed period of 2000-2006. Fig. 16-19 show the same contents for the period 2007-2009.

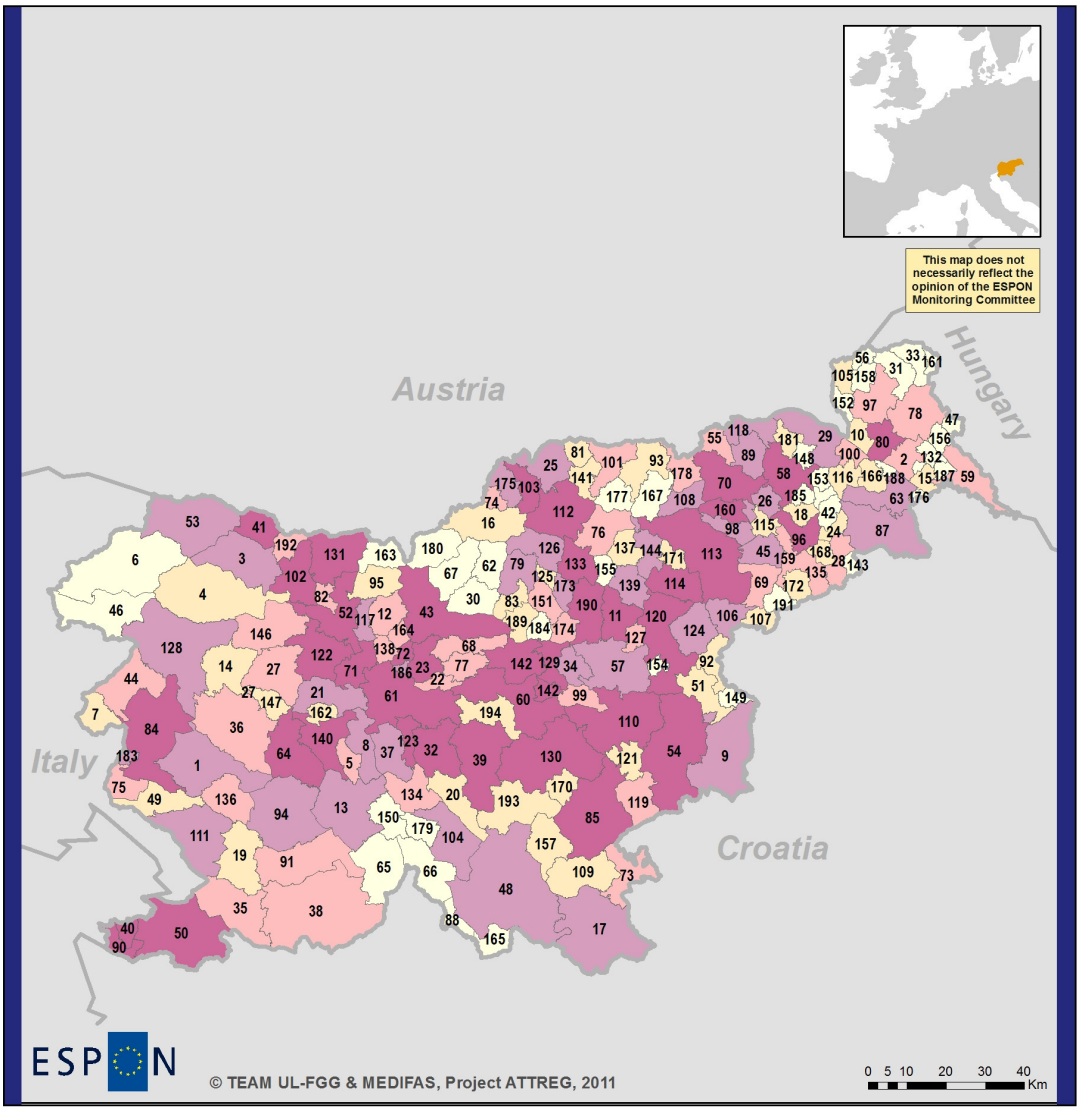
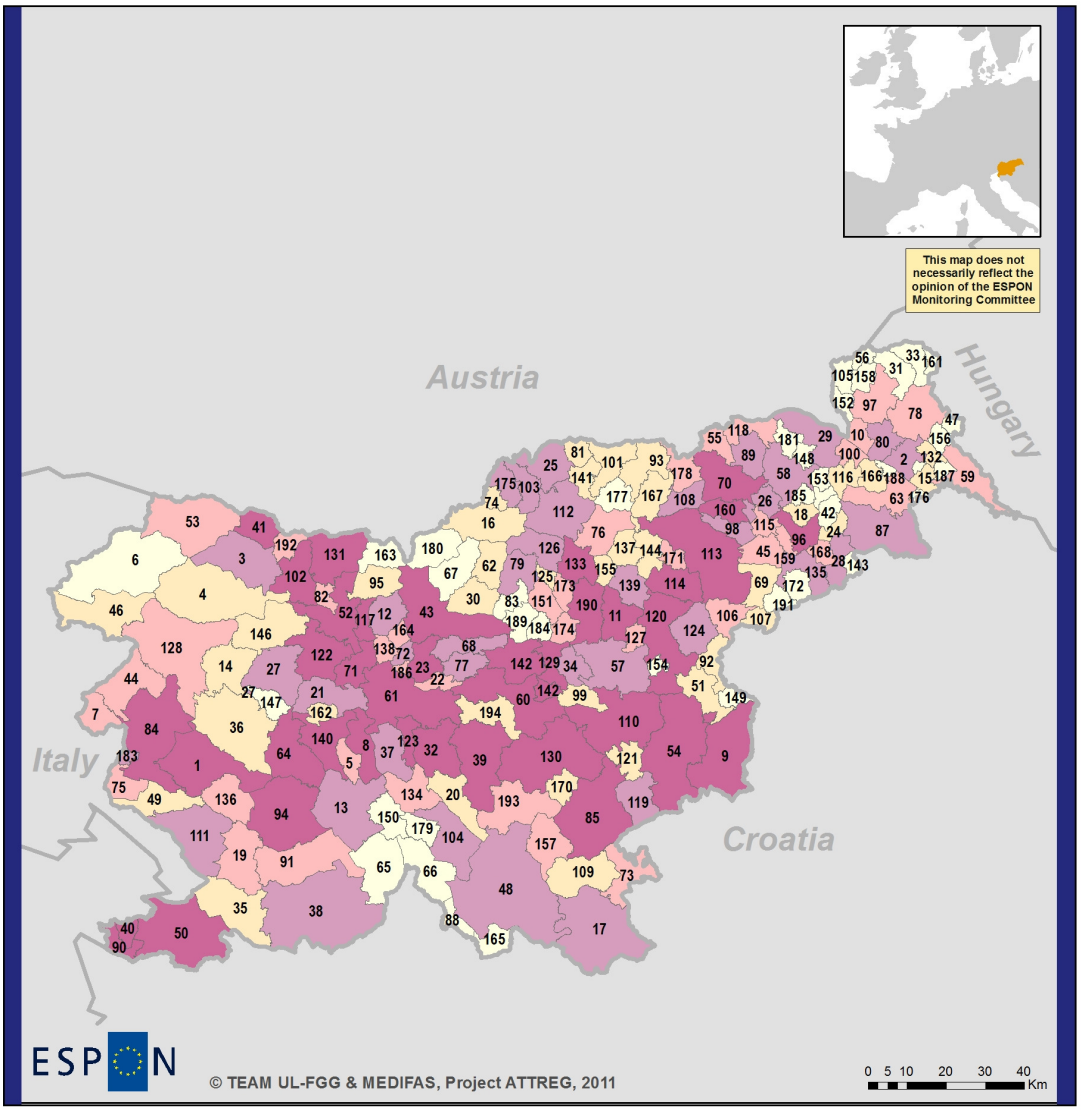


Figure 12: Stickiness of Slovenian municipalities (NUTS 5 regions) for migrants in the period 2000-2006 (rank-list of out-migrations is in Annex D1).



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Origin of data: Statistical Office of the Republic of Slovenia and own elaboration, 2010
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Stickiness of municipality for labour commuters in the period 2000-2006

- highly sticky
- very sticky
- sticky
- moderately sticky
- weakly sticky
- 61 municipality 2002-2006
- state border

Figure 13: Stickiness of Slovenian municipalities (NUTS 5 regions) for labour commuters in the period 2000-2006 (rank-list of out-commuters is in Annex D2).

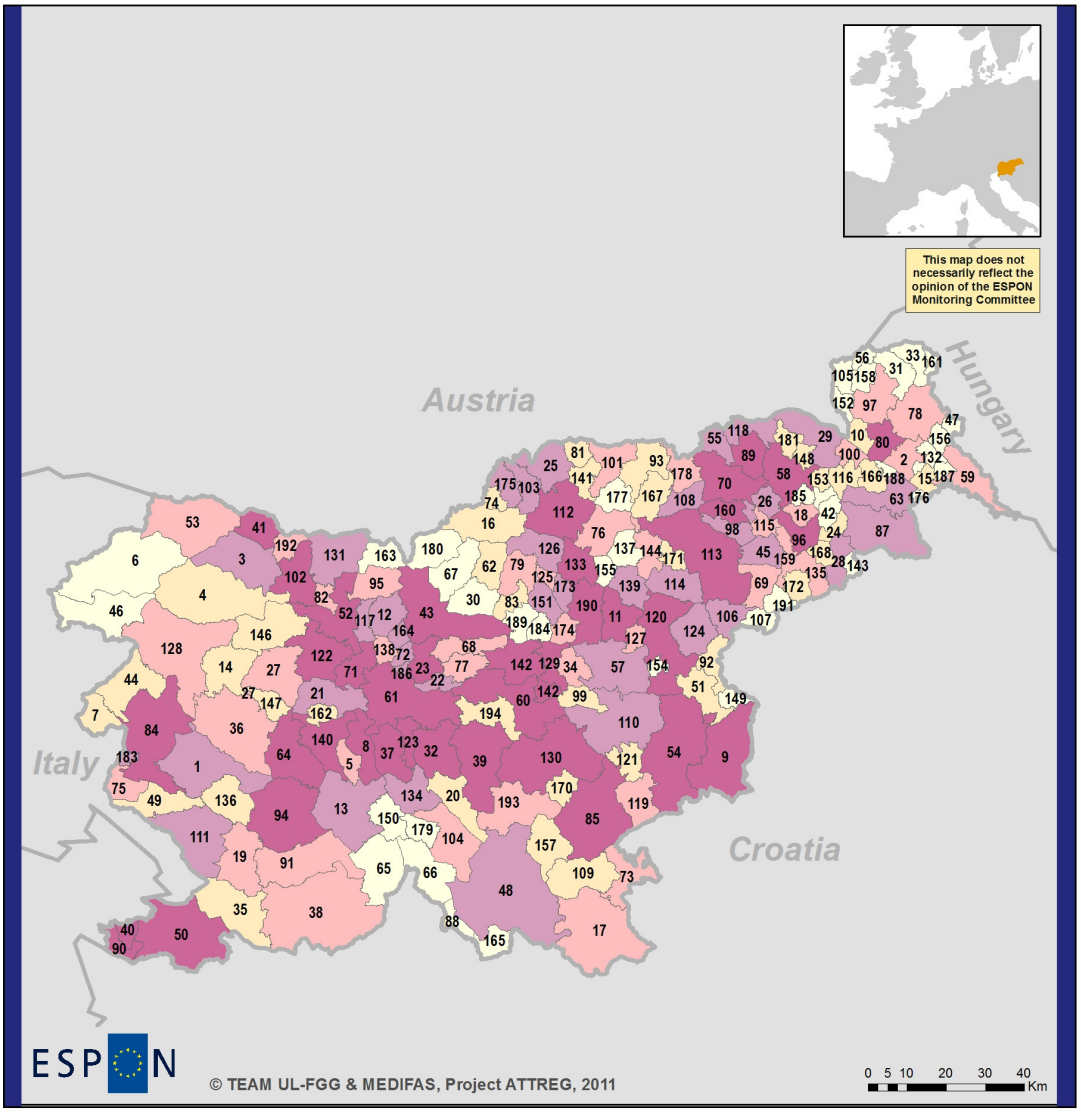
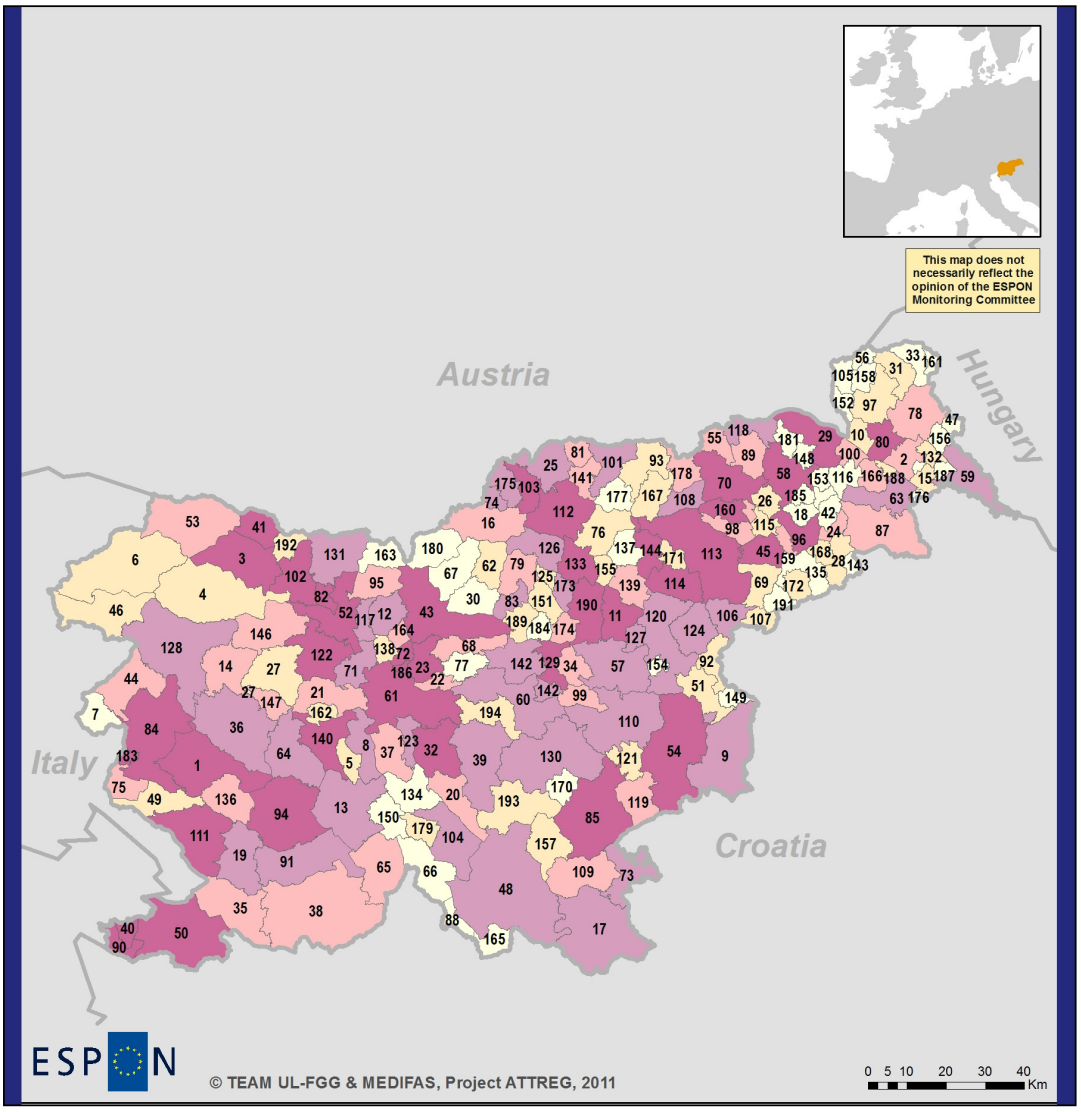


Figure 14: Attractiveness of Slovenian municipalities (NUTS 5 regions) for migrants in the period 2000-2006 (rank-list of in-migrations is in Annex D3).



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Attractiveness of municipality for labour commuters in the period 2000-2006

- highly attractive
- very attractive
- attractive
- moderately attractive
- weakly attractive
- 61 municipality 2002-2006
- state border

Figure 15: Attractiveness of Slovenian municipalities (NUTS 5 regions) for labour commuters in the period 2000-2006 (rank-list of in-commuters is in Annex D4).

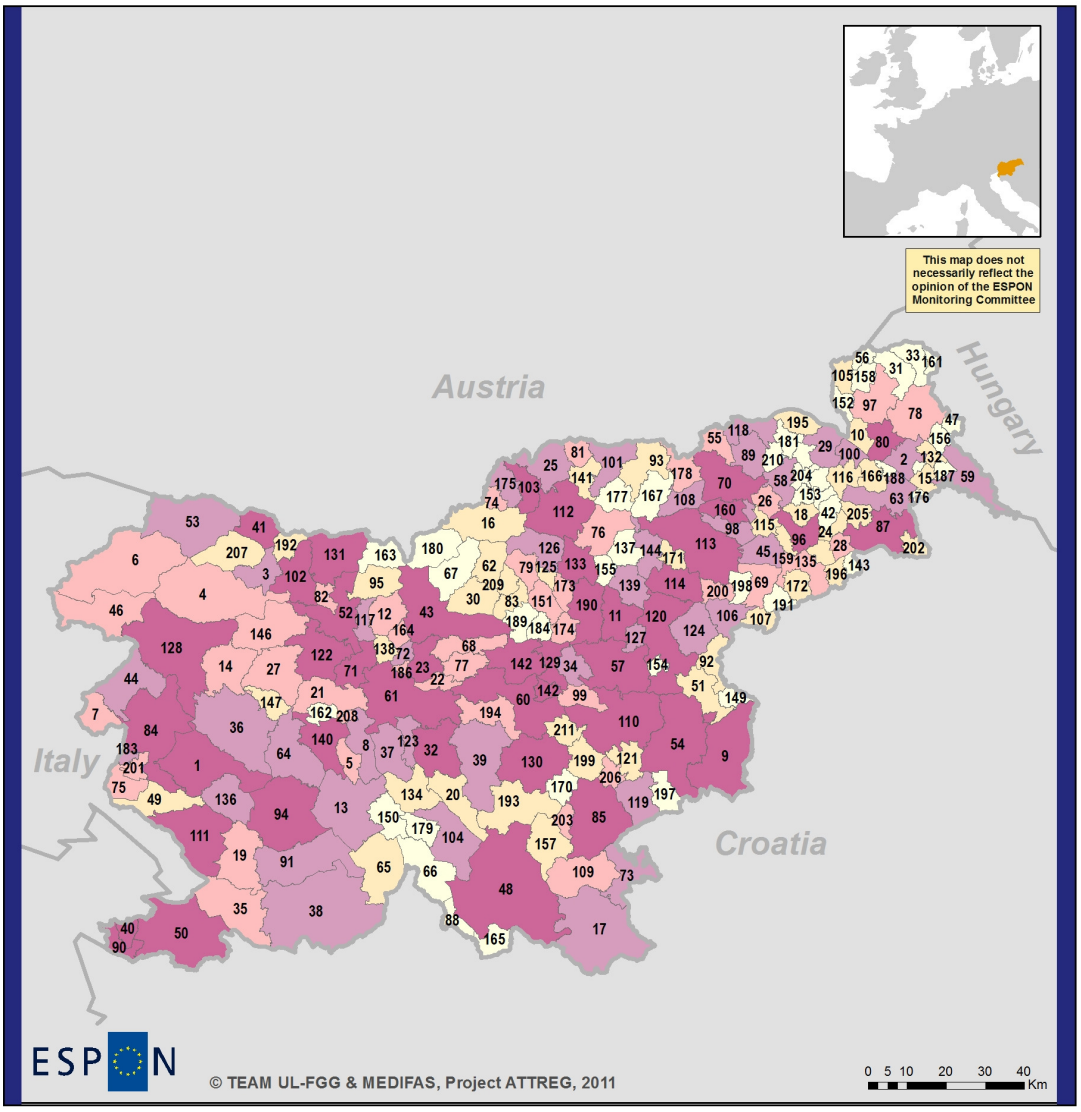


Figure 16: Stickiness of Slovenian municipalities (NUTS 5 regions) for migrants in the period 2007-2009 (rank-list of out-migrations is in Annex D5).

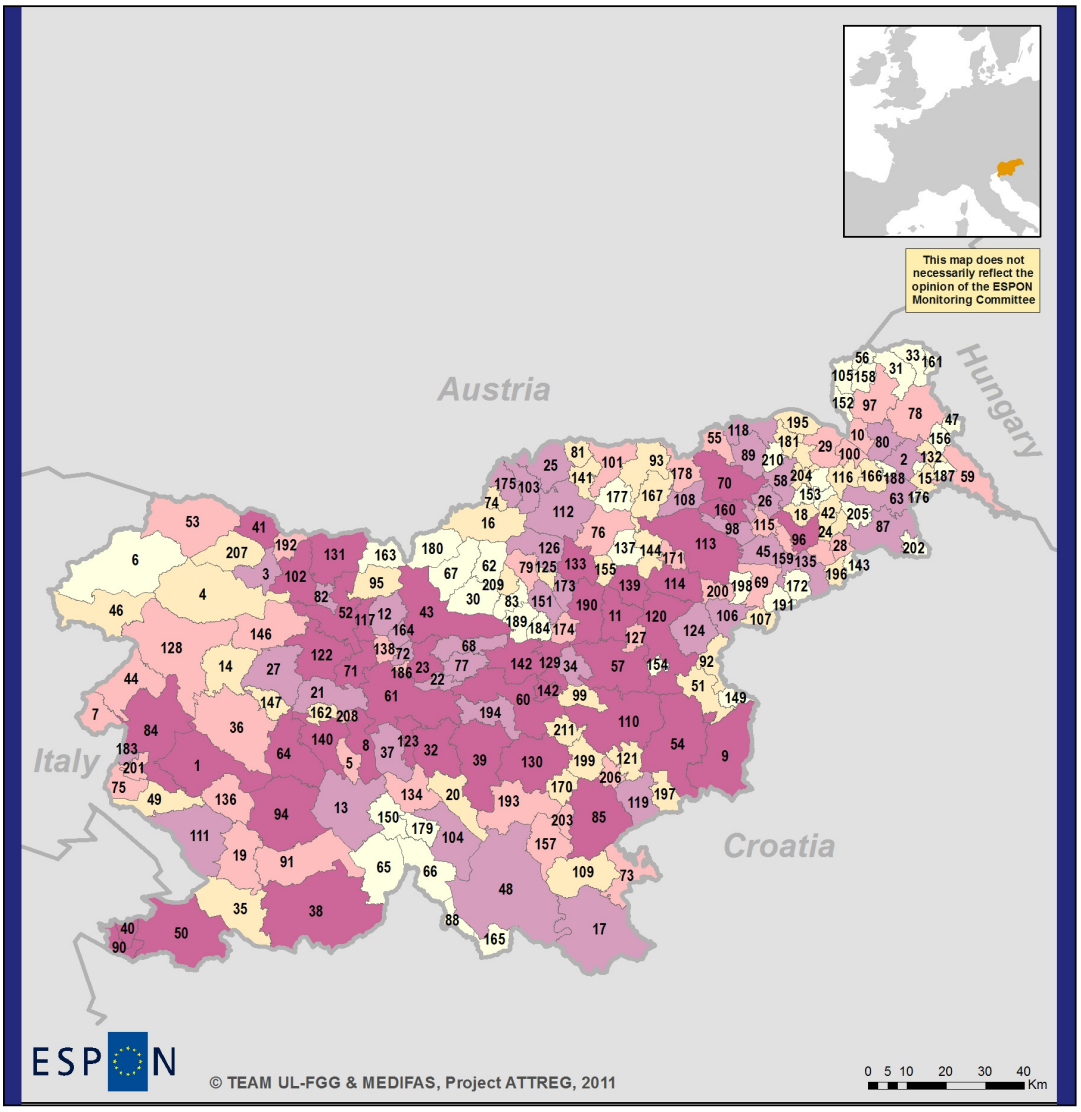


Figure 17: Stickiness of Slovenian municipalities (NUTS 5 regions) for labour commuters in the period 2007-2009 (rank-list of out-commuters is in Annex D6).

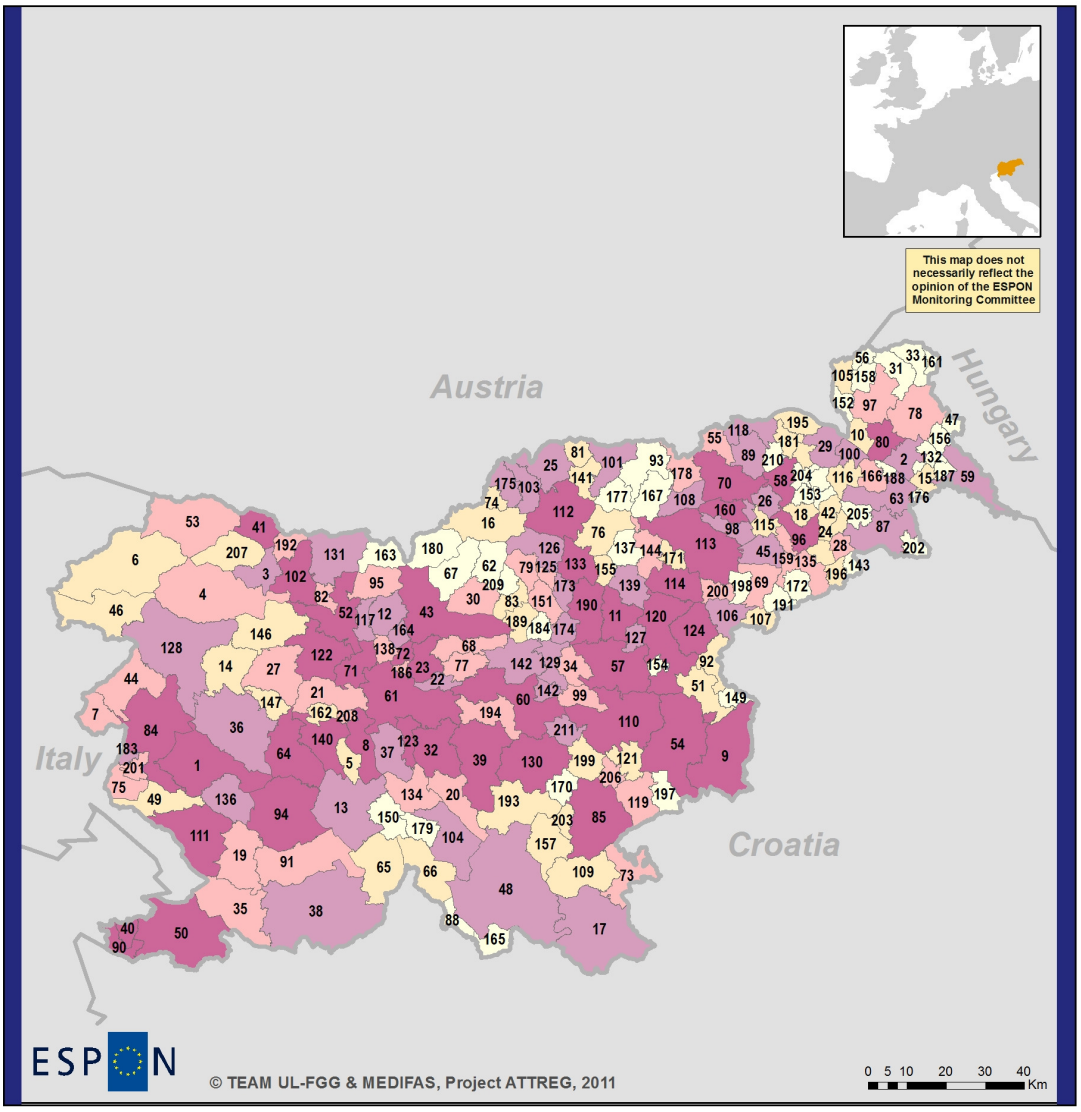


Figure 18: Attractiveness of Slovenian municipalities (NUTS 5 regions) for migrants in the period 2007-2009 (rank-list of in-migrations is in Annex D7).

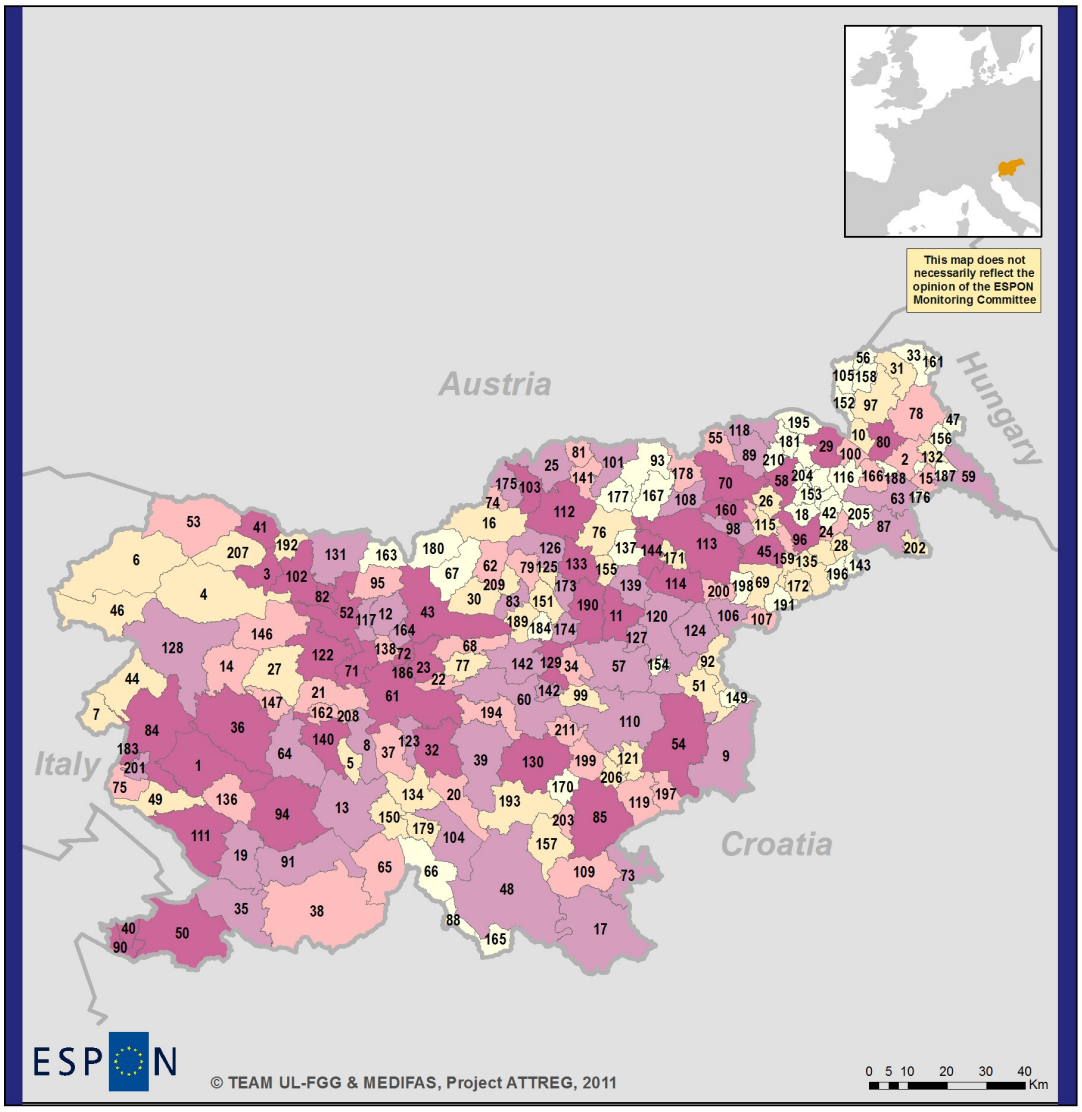


Figure 19: Attractiveness of Slovenian municipalities (NUTS 5 regions) for labour commuters in the period 2007-2009 (rank-list of in-commuters is in Annex D8).

The Fig. 12 to 19 show attractiveness and stickiness of Slovenian municipalities (NUTS 5 regions) in the period 2000-2006 and 2007-2009, respectively. There are different endowments which influence the attractiveness and stickiness, like presented in equations (2) (i.e.

$GM_{ij} = bP_i^{\beta_1} P_j^{\beta_2} d(t)_{ij}^{\beta_3} \prod_{s \in S} K_{s,i}^{\gamma_s} K_{s,j}^{\varphi_s}$) and similarly for labour commuting in (4) (i.e. $DC_{ij} = aP_i^{\alpha_1} P_j^{\alpha_2} d(t)_{ij}^{\alpha_3} \prod_{s \in S'} K_{s,i}^{\kappa_s} K_{s,j}^{\lambda_s}$) and listed in chapter 2.3, but one of also very important factors which influence intensity of migration and commuting flows is the distance between origin and destination.

3.2.2.1 Frequency distribution of distance for migrants and labour commuters

According to the Statistical office of the Republic of Slovenia (SORS, 2011), at the end of 2010, just above 392,000 labour commuters between municipalities were registered in Slovenia, or 49.6 % of persons in employment. Municipality Trzin (186) was the most attractive for commuters.

The share of persons in employment whose workplace is in the municipality of their residence is growing smaller in the last ten years. At the end of 2010 there were slightly more than 50 % of such persons among persons in employment. In 2010 the highest shares of persons in employment whose workplace was in the municipality of their residence were registered in Ljubljana (86 %), Maribor (77 %), Novo mesto (76 %) and Velenje (71 %). Others commuted to work to other municipalities. On the other hand, around 106,500 commuters (in employment and in education) commute to work in Ljubljana from other municipalities.

From neighbouring countries around 2300 foreigners were coming to work in Slovenia at the end of 2010.

Tab. 24 to 27 shows frequency distribution of migrants and labour commuters between Slovenian municipalities by (time spending) distances and by year in the analysed period of 2000-2009.

Table 24: Number of migrants between Slovenian municipalities by travel time (in minutes) and by year in the period 2000-2009 (source: (SORS, 2010) and own calculation).

Travel time (min)	Year									
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Slovenia	***19,674***	***20,450***	***22,259***	***19,201***	***20,657***	***22,156***	***26,460***	***27,204***	***87,279***	***77,334***
[0-15]	6685	6710	7502	5880	6365	6875	8158	8587	17,186	17,340
(15-30]	6985	7376	8145	6914	7476	8204	9696	9813	21,129	20,342
(30-45]	2162	2202	2369	2084	2389	2527	2923	2979	12,985	9990
(45-60]	1081	1184	1308	1221	1291	1366	1744	1733	11,866	9341
(60-75]	805	985	932	965	1167	1229	1553	1562	9886	7671
(75-90]	632	641	779	815	738	800	890	1009	5613	4932
(90-105]	429	524	400	422	425	402	504	509	3203	2851
(105-120]	263	242	243	298	241	301	340	407	3164	2609
(120-135]	203	188	211	224	198	197	295	239	1052	954
(135-150]	144	143	175	174	189	126	189	165	661	676
(150-165]	118	109	101	119	86	61	96	115	273	372
(165-180]	89	77	54	37	42	30	39	37	191	170
(180-195]	36	25	21	24	22	25	17	25	63	73
(195-210]	21	25	11	15	11	9	9	14	7	8
(210-225]	11	15	4	5	12	2	7	9	0	5
(225-240]	9	2	3	4	3	0	0	0	0	0
> 240	1	2	1	0	2	2	0	1	0	0

From Tab. 24, we can see that the number of migrants per year on the distance lower than 150 minutes was increasing each year and it was 22 % higher in 2006 regarding 2000 in the short distance of 0-15 minutes. The number of migrants doubled in the distance between 1 hour to 1 hour and a quarter. Number of migrations over 150 minutes was decreasing from 2000-2006.

Table 25: Number of labour commuters between Slovenian municipalities by travel time (in minutes) and by year in the period 2000-2009 (source: (SORS, 2010) and own calculation).

Travel time (min)	Year									
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Slovenia	***299,188***	***306,806***	***314,158***	***325,605***	***336,091***	***347,715***	***363,978***	***392,311***	***405,289***	***390,500***
[0-15]	116,116	117,047	116,655	117,959	118,086	118,441	120,803	130,243	135,905	127,374
(15-30]	115,058	119,197	122,806	126,535	131,871	136,433	141,973	150,024	152,615	151,006
(30-45]	31,114	31,097	32,453	34,658	35,805	39,624	41,345	44,380	46,514	46,693
(45-60]	12,159	13,805	16,143	17,598	17,936	19,497	21,547	24,229	26,489	25,972
(60-75]	8362	9213	9438	10,839	13,947	14,002	16,342	18,407	18,029	16,455
(75-90]	6028	5614	7618	8134	7662	8796	9824	10,867	11,685	10,422
(90-105]	3804	4590	3217	3515	4030	3887	4342	5041	5155	4766
(105-120]	2461	2105	1812	2050	2312	2392	2627	3267	5238	4581
(120-135]	1230	1195	1175	1285	1306	1966	2251	2525	1917	1331
(135-150]	905	1216	1345	1682	1841	1511	1685	1901	1066	1189
(150-165]	1109	1020	1080	892	834	754	830	922	325	444
(165-180]	571	454	192	203	210	174	161	194	276	220
(180-195]	125	116	115	118	130	127	129	179	61	43
(195-210]	69	62	59	84	81	85	90	104	12	3
(210-225]	46	48	29	40	30	23	25	25	2	1
(225-240]	23	18	18	12	9	2	3	2	0	0
> 240	8	9	3	1	1	1	1	1	0	0

Table 26: Number of migrants between Slovenian municipalities by distance (in kilometres) and by year in the period 2000-2009 (source: (SORS, 2010) and own calculation).

Distance (km)	Year									
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Slovenia	***19,674***	***20,450***	***22,259***	***19,201***	***20,657***	***22,156***	***26,460***	***27,204***	***87,279***	***77,334***
[0-20]	9822	9964	11,244	9032	9666	10,557	12,403	12,781	24,773	24,888
(20-40]	4954	5226	5581	4755	5314	5635	6700	6902	16,884	15,293
(40-60]	1687	1721	1742	1551	1844	1836	2229	2246	12,327	8769
(60-80]	723	963	1009	1009	968	1179	1466	1402	9804	7569
(80-100]	611	602	649	632	693	676	857	951	6205	5213
(100-120]	605	627	644	697	795	850	1023	1078	6962	5777
(120-140]	487	565	502	557	475	504	613	663	3872	3460
(140-160]	197	204	244	255	208	233	285	332	1427	1443
(160-180]	173	164	192	210	190	214	264	255	1366	1375
(180-200]	170	159	194	200	199	214	256	233	1891	1677
(200-220]	80	104	101	141	114	102	154	148	732	753
(220-240]	60	45	52	48	79	62	98	94	442	467
(240-260]	72	66	65	75	64	47	66	57	327	381
(260-280]	16	18	22	16	18	24	24	30	125	109
(280-300]	8	14	13	14	10	13	10	14	80	88
(300-320]	9	6	4	2	12	10	1	11	56	63
> 320	0	2	1	7	8	0	11	7	6	9

Table 27: Number of labour commuters between Slovenian municipalities by distance (in kilometres) and by year in the period 2000-2009 (source: (SORS, 2010) and own calculation).

Distance (km)	Year									
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Slovenia	***299,188***	***306,806***	***314,158***	***325,605***	***336,091***	***347,715***	***363,978***	***392,311***	***405,289***	***390,500***
[0-20]	166,544	168,616	169,974	172,454	173,616	175,549	179,637	193,823	197,234	187,596
(20-40]	82,287	84,966	87,178	89,969	93,684	97,331	102,353	107,110	109,974	107,314
(40-60]	20,313	21,027	21,230	23,618	25,897	27,678	28,771	31,317	35,198	35,998
(60-80]	8719	10,212	12,218	13,379	13,814	15,042	16,690	18,690	18,453	18,667
(80-100]	5573	5286	5618	6395	7062	7705	8715	10,060	10,862	10,072
(100-120]	5664	6134	6365	6978	8360	9625	11,020	12,103	12,903	12,198
(120-140]	4758	4924	5332	5916	6047	6543	7607	8424	9504	8161
(140-160]	1531	1597	1589	1797	1982	1925	2206	2620	2654	2546
(160-180]	1044	1158	1140	1275	1528	1579	1826	2280	2103	2223
(180-200]	1216	1231	1599	1629	1807	2121	2318	2738	3294	2866
(200-220]	605	561	718	902	953	1149	1243	1371	1292	1157
(220-240]	527	227	268	297	583	762	850	926	964	840
(240-260]	243	664	690	735	492	408	420	458	496	565
(260-280]	90	103	125	127	134	152	156	174	131	107
(280-300]	43	59	69	78	74	83	83	108	156	135
(300-320]	29	31	36	36	41	44	60	78	60	53
> 320	2	10	9	20	17	19	23	31	11	2

3.2.2.2 Bivariate correlation of analysed variables

Bivariate correlation analyses show that the following variables (explained in Tab. 3) are in high correlation, so one or more of them were omitted in the regression analysis:

- Travel time in minutes between the centres of municipalities d(t), and the distance by road in kilometres between the centres of municipalities d(k) are in high correlation, R=0.96, so d(k) is omitted from the analysis.[2]
- Coefficient of employment in municipality C(EMP) and labour migration index in municipality LMI are in high correlation , R=0.67, so LMI is omitted from the analysis.
- Coefficient of creative population in municipality C(CP) and labour migration index in municipality LMI are in correlation, R=0.37, so LMI is omitted from the analysis.
- Coefficients of average price for all kind of analysed real-estates in municipality are in correlation (varying from R=0.21 to R=0.65), so coefficient of average price per m^2 of flat in municipality, C(APF), was analysed, but all others were omitted.[3]

[2] Regarding our previous results (Bogataj et al., 2004, 2009; Bogataj and Drobne, 1997, 2005, 2011; Bogataj, Drobne and Bogataj, 1995, Bogataj, Drobne and Tuljak Suban, 2011; Drobne and Bogataj, 2005; Drobne, Bogataj and Bogataj, 2008; Drobne, Lisec and Bogataj, 2008), the time spending distance gives better results in the regression analysis of gravity models.

[3] The coefficient of average price per m^2 of building land in municipality C(APBL), coefficient of average price per m^2 of agricultural land in municipality C(APAL), coefficient of average price per m^2 of business premises in municipality C(APBP), and coefficient of average price per m^2 of house in municipality C(APH) were omitted in the analysis. The coefficient of average price per m^2 of flat in municipality C(APF) was chosen for analysis while there were the most data for transactions of flats in Slovenia available.

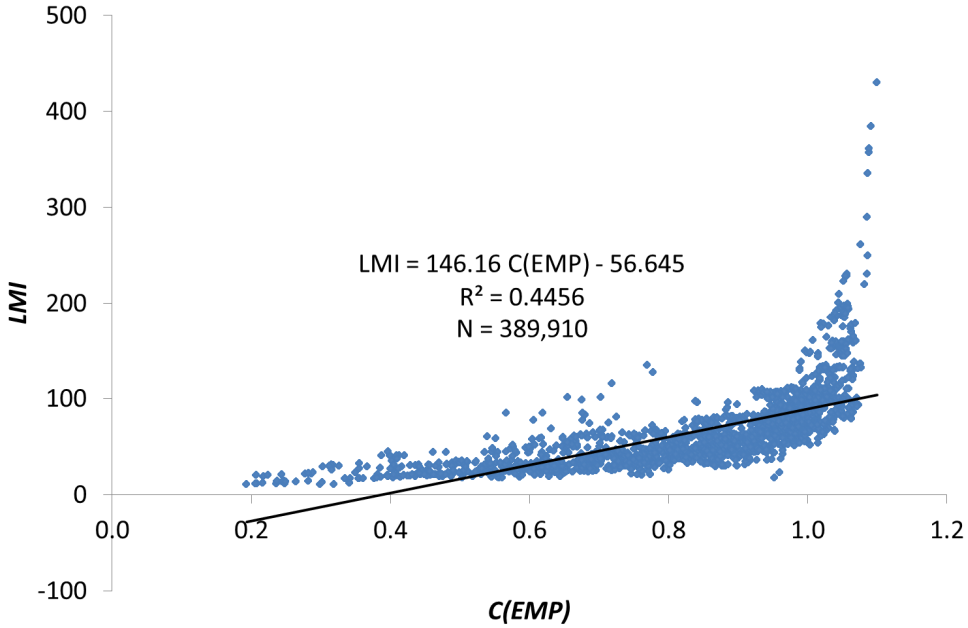


Figure 20: Correlation between coefficient of employment and labour mobility index in Slovenian municipality for 2000-2009 (see also Annex C).

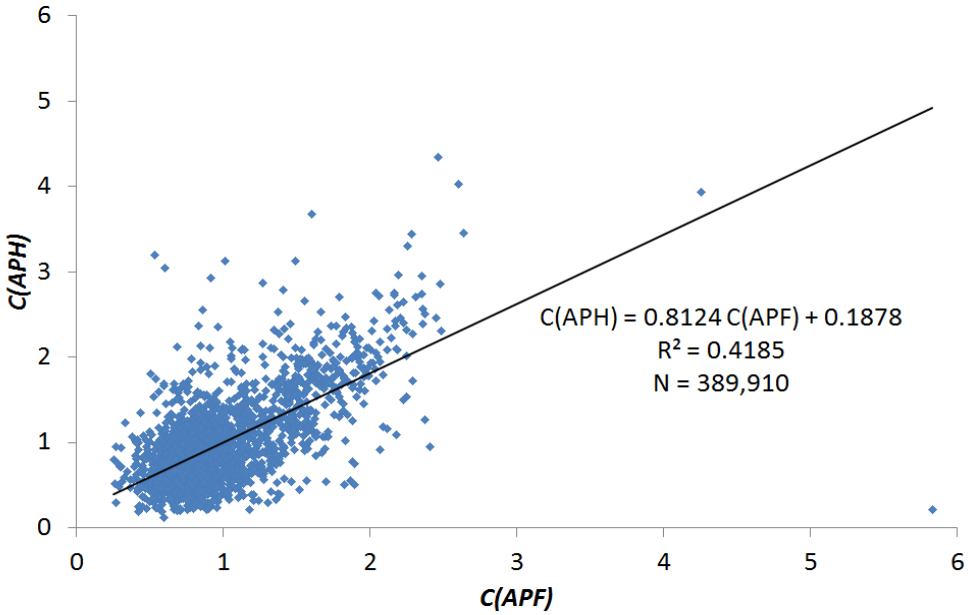


***Figure* 21: Correlation between coefficient of average price per m2 of flat and coefficient of average price per m2 of house in Slovenian municipality for 2000-2009 (see also Annex C).**

3.2.2.3 General and reduced gravity models of inter-municipal migration (GM) and labour commuting (DC) flows in 2000-2006

Tab. 28 gives parameters of general gravity model of inter-municipal migration flows in the period 2000-2006, which is reduced because of insignificancy or co-linearity of variables. A reduced model is given in equation (13) where the parameters from Tab. 29 are presented.

Table 28: Parameters of general gravity model of inter-municipal migration flows in 2000-2006 (the insignificant coefficient is in parentheses).

Model summary (Depended Variable: GM_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	258,240	0.578	0.334	0.334	0.873
Coefficients (Depended Variable: GM_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	1.369E-04	1.053		-8.448	0.000
P_i	0.387	0.052	0.365	7.510	0.000
P_j	0.441	0.052	0.416	8.562	0.000
$d(t)_{ij}$	-0.821	0.003	-0.470	-274.593	0.000
$C(EMP)_i$	-0.287	0.011	-0.073	-26.606	0.000
$C(EMP)_j$	-0.306	0.011	-0.078	-28.340	0.000
$C(GEAR)_i$	0.114	0.012	0.016	9.161	0.000
$C(GEAR)_j$	0.122	0.012	0.017	9.766	0.000
$C(UFSDPC)_i$	0.161	0.018	0.018	8.882	0.000
$C(UFSDPC)_j$	0.221	0.018	0.024	12.174	0.000
$C(GICPC)_i$	-0.016	0.001	-0.030	-16.218	0.000
$C(GICPC)_j$	-0.016	0.001	-0.030	-16.302	0.000
$C(APBL)_i$	0.010	0.002	0.009	4.929	0.000
$C(APBL)_j$	0.012	0.002	0.011	6.282	0.000
$C(APAL)_j$	-0.010	0.002	-0.008	-4.249	0.000
$C(APAL)_j$	(-0.003)	0.002	-0.003	-1.527	0.127
$C(APBP)_j$	0.008	0.004	0.003	1.916	0.055
$C(APBP)_j$	0.010	0.004	0.004	2.449	0.014
$C(APF)_j$	0.122	0.007	0.039	18.386	0.000
$C(APF)_j$	0.144	0.007	0.046	21.797	0.000
$C(APH)_i$	0.009	0.004	0.004	1.988	0.047
$C(APH)_j$	0.024	0.004	0.011	5.504	0.000
LMI_i	0.153	0.005	0.079	28.477	0.000
LMI_j	0.133	0.005	0.068	24.642	0.000
$C(A)_i$	0.454	0.009	0.106	50.844	0.000
$C(A)_j$	0.445	0.009	0.103	49.736	0.000
$C(CP)_i$	-0.148	0.051	-0.142	-2.923	0.003
$C(CP)_j$	-0.202	0.051	-0.193	-3.977	0.000

Table 29: Parameters of reduced gravity model of inter-municipal migration flows in 2000-2006.

Model summary (Depended Variable: GM_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	258,240	0.574	0.330	0.330	0.875
Coefficients (Depended Variable: GM_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	2.285E-04	1.054		-7.957	0.000
P_i	0.428	0.052	0.404	8.303	0.000
P_j	0.462	0.052	0.436	8.963	0.000
$d(t)_{ij}$	-0.815	0.003	-0.466	-272.339	0.000
$C(EMP)_i$	-0.090	0.008	-0.023	-11.630	0.000
$C(EMP)_j$	-0.128	0.008	-0.033	-16.640	0.000
$C(GEAR)_i$	0.114	0.012	0.016	9.182	0.000

$C(GEAR)_j$	0.132	0.012	0.018	10.715	0.000
$C(UFSDPC)_i$	0.159	0.018	0.017	8.760	0.000
$C(UFSDPC)_j$	0.220	0.018	0.024	12.121	0.000
$C(GICPC)_i$	-0.012	0.001	-0.022	-12.252	0.000
$C(GICPC)_j$	-0.012	0.001	-0.023	-12.729	0.000
$C(APF)_j$	0.125	0.006	0.040	21.652	0.000
$C(APF)_j$	0.165	0.006	0.053	28.617	0.000
$C(A)_i$	0.501	0.009	0.117	57.144	0.000
$C(A)_j$	0.480	0.009	0.112	54.705	0.000
$C(CP)_i$	-0.173	0.051	-0.166	-3.403	0.001
$C(CP)_j$	-0.206	0.051	-0.198	-4.060	0.000

$$GM_{ij}(2000-2006) = 2.28\cdot 10^{-4} P_i^{0.428} P_j^{0.462} \cdot \frac{K(GEAR)_i^{0.114} K(GEAR)_j^{0.132}}{d(t)_{ij}^{0.815}} \cdot$$
$$\cdot \frac{K(UFSDPC)_i^{0.159} K(UFSDPC)_j^{0.220} K(APF)_i^{0.125} K(APF)_j^{0.165} K(A)_i^{0.501} K(A)_j^{0.480}}{K(EMP)_i^{0090} K(EMP)_j^{0.128} K(GICPC)_i^{0.012} K(GICPC)_j^{0.012} K(CP)_i^{0.173} K(CP)_j^{0.206}} \quad (13)$$

From (13) and Tab. 29 and 30 it follows that in the inter-municipality model the reduction of the time spending distance by $p = -20\%$ increased the flow by 19.9 %. The increase of the time spending distance by $p = 30\%$ decreased the flow by 19.3 % (1-0.807). The influence on stickiness of origins is demonstrated in Tab. 30 by changing the indicators by $p = -20$ % of decrease and 30 % of increase of the value of indicators.

Table 30: The impact of changes of indicators by p % on relative change Δ of inter-municipal migration flows in 2000-2006.

Indicators of endowment (variable)	Power	Parameter	Δ stickiness for change of indicators by 1+p=0.8	Δ attractiveness for change of indicators by 1+p=0.8	Δ stickiness for change of indicators by 1+p=1.3	Δ attractiveness for change of indicators by 1+p=1.3
P_i	β_1	0.428	0.909		1.119	
P_j	β_2	0.462		0.902		1.129
$d(t)_{ij}$	β_3	-0.815	1.199	1.199	0.807	0.807
$K(EMP)_i$	γ_1	-0.090	1.020		0.977	
$K(EMP)_j$	φ_1	-0.128		1.029		0.967
$K(GEAR)_i$	γ_2	0.114	0.975		1.030	
$K(GEAR)_j$	φ_2	0.132		0.971		1.035
$K(UFSDPC)_i$	γ_3	0.159	0.965		1.043	
$K(UFSDPC)_j$	φ_3	0.220		0.952		1.059
$K(GICPC)_i$	γ_4	-0.012	1.003		0.997	
$K(GICPC)_j$	φ_4	-0.012		1.003		0.997
$K(APF)_j$	γ_8	0.125	0.972		1.033	
$K(APF)_j$	φ_8	0.165		0.964		1.044
$K(A)_i$	γ_{11}	0.501	0.894		1.140	
$K(A)_j$	φ_{11}	0.480		0.898		1.134
$K(CP)_i$	γ_{12}	-0.173	1.039		0.956	
$K(CP)_j$	φ_{12}	-0.206		1.047		0.947

From Tab. 30 it follows (see also underlined examples) that the reduction of population indicator (number of inhabitants in the region) by 20 % (1+p=0.8) in origin causes a 9.1 % more sticky region (=1- $\Delta = 1 - 0.909$) and 9.8 % (= 1-0.902) less attractive for the migration from other regions. If gross earnings in the region are increased by 30 % the region will become 3 % less sticky for the existing residents and 3.5 % more attractive for migrants from other regions. If the index of aging increases by 30 % in the region of origin, the region will become 14 % less sticky and 13.4 % more attractive for immigrants.

We shall make similar calculations for labour commuting. The parameters of the model are evaluated in Tab. 31 and 32.

Table 31: Parameters of general gravity model of inter-municipal labour commuting flows in 2000-2006 (insignificant coefficients are in parentheses).

Model summary (Depended Variable: DC_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	258,240	0.702	0.493	0.493	0.749
Coefficients (Depended Variable: DC_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	5.201E-03	0.903		-5.820	0.000
P_i	0.477	0.044	0.457	10.788	0.000
P_j	0.237	0.044	0.227	5.349	0.000
$d(t)_{ij}$	-1.016	0.003	-0.591	-396.036	0.000
$C(EMP)_i$	-0.216	0.009	-0.056	-23.330	0.000
$C(EMP)_j$	-0.582	0.009	-0.151	-62.785	0.000
$C(GEAR)_i$	0.040	0.011	0.006	3.760	0.000
$C(GEAR)_j$	0.334	0.011	0.047	31.143	0.000
$C(UFSDPC)_i$	0.351	0.016	0.039	22.565	0.000
$C(UFSDPC)_j$	0.192	0.016	0.021	12.310	0.000
$C(GICPC)_i$	-0.011	0.001	-0.022	-13.761	0.000
$C(GICPC)_j$	-0.024	0.001	-0.046	-28.702	0.000
$C(APBL)_i$	0.007	0.002	0.006	3.858	0.000
$C(APBL)_j$	0.033	0.002	0.029	19.387	0.000
$C(APAL)_j$	-0.017	0.002	-0.015	-8.662	0.000
$C(APAL)_j$	-0.005	0.002	-0.005	-2.806	0.005
$C(APBP)_j$	(0.004)	0.004	0.002	0.997	0.319
$C(APBP)_j$	0.024	0.004	0.011	6.686	0.000
$C(APF)_j$	0.044	0.006	0.014	7.820	0.000
$C(APF)_j$	0.208	0.006	0.067	36.697	0.000
$C(APH)_i$	-0.012	0.004	-0.006	-3.134	0.002
$C(APH)_j$	0.047	0.004	0.022	12.569	0.000
LMI_i	0.102	0.005	0.053	21.995	0.000
LMI_j	0.437	0.005	0.228	94.639	0.000
$C(A)_i$	0.446	0.008	0.105	58.171	0.000
$C(A)_j$	0.536	0.008	0.127	69.869	0.000
$C(CP)_i$	-0.286	0.044	-0.278	-6.567	0.000
$C(CP)_j$	(0.017)	0.044	0.017	0.398	0.691

Table 32: Parameters of reduced gravity model of inter-municipal labour commuting flows in 2000-2006 (insignificant coefficients are in parentheses).

Model summary (Depended Variable: DC_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	258,240	0.688	0.473	0.473	0.764
Coefficients (Depended Variable: DC_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	1.022E-02	0.919		-4.985	0.000
P_i	0.519	0.045	0.497	11.525	0.000
P_j	0.331	0.045	0.317	7.355	0.000
$d(t)_{ij}$	-1.003	0.003	-0.583	-384.503	0.000
$C(EMP)_i$	-0.097	0.007	-0.025	-14.390	0.000
$C(EMP)_j$	(0.004)	0.007	0.001	0.584	0.559
$C(GEAR)_i$	0.026	0.011	0.004	2.376	0.018
$C(GEAR)_j$	0.357	0.011	0.050	33.060	0.000
$C(UFSDPC)_i$	0.343	0.016	0.038	21.591	0.000
$C(UFSDPC)_j$	0.196	0.016	0.022	12.327	0.000
$C(GICPC)_i$	-0.009	0.001	-0.017	-10.607	0.000
$C(GICPC)_j$	-0.012	0.001	-0.024	-14.734	0.000
$C(APF)_j$	0.028	0.005	0.009	5.525	0.000
$C(APF)_i$	0.251	0.005	0.081	49.903	0.000
$C(A)_i$	0.481	0.008	0.114	62.876	0.000
$C(A)_j$	0.660	0.008	0.156	86.276	0.000
$C(CP)_i$	-0.319	0.044	-0.310	-7.187	0.000
$C(CP)_j$	(-0.025)	0.044	-0.025	-0.570	0.569

Note: Even if insignificant variables $C(EMP)_j$ and $C(CP)_j$ are omitted, other coefficients are not changed more than 1 %.

$$DC_{ij}(2000-2006) = 1.022 \cdot 10^{-2} P_i^{0.519} P_j^{0.331} \cdot \frac{K(GEAR)_i^{0.026} K(GEAR)_j^{0.357}}{d(t)_{ij}^{1.003}} \cdot \cdot \frac{K(UFSDPC)_i^{0.343} K(UFSDPC)_j^{0.196} K(APF)_i^{0.28} K(APF)_j^{0.251} K(A)_i^{0.481} K(A)_j^{0.660}}{K(EMP)_i^{0.097} K(GICPC)_i^{0.009} K(GICPC)_j^{0.012} K(CP)_i^{0.319}} \quad (14)$$

Table 33: The impact of changes of indicators by p % on relative change Δ of inter-municipal labour commuting flows in 2000-2006.

Indicators of endowment (variable)	**Power**	**Parameter**	**Δ stickiness for change of indicators for 1+p=0.8**	**Δ attractiveness for change of indicators for 1+p=0.8**	**Δ stickiness for change of indicators for 1+p=1.3**	**Δ attractiveness for change of indicators for 1+p=1.3**
P_i	α_1	0.519	0,891		1,146	
P_j	α_2	0.331		0,929		1,091
$d(t)_{ij}$	α_3	-1.003	1,251	1,199	0,769	0,807
$K(EMP)_i$	κ_1	-0.097	1,022		0,975	
$K(GEAR)_i$	κ_2	0.026	0,994		1,007	
$K(GEAR)_j$	λ_2	0.357		0,923		1,098

Indicators of endowment (variable)	Power	Parameter	Δ stickiness for change of indicators for 1+p=0.8	Δ attractiveness for change of indicators for 1+p=0.8	Δ stickiness for change of indicators for 1+p=1.3	Δ attractiveness for change of indicators for 1+p=1.3
$K(UFSDPC)_i$	κ_3	0.343	0,926		1,094	
$K(UFSDPC)_j$	λ_3	0.196		0,957		1,053
$K(GICPC)_i$	κ_4	-0.009	1,002		0,998	
$K(GICPC)_j$	λ_4	-0.012		1,003		0,997
$K(APF)_j$	κ_8	0.028	0,994		1,007	
$K(APF)_j$	λ_8	0.251		0,946		1,068
$K(A)_i$	κ_{11}	0.481	0,898		1,135	
$K(A)_j$	λ_{11}	0.660		0,863		1,189
$K(CP)_i$	κ_{12}	-0.319	1,074		0,920	

Similar conclusions could be made for other indicators; e.g.: where the average price for m^2 of flat increased so that the relative price to the other regions was 30 % higher (*K(APF*)=1.3) then the region was 0.7 % less sticky for its own inhabitants and 18.9 % more attractive for commuters; where the average price for m^2 of flat decreased so that the relative price to other regions was 20 % lower (*K(APF*)=0.8), the region was 10.2 % more sticky for its own inhabitants and 3.7 % less attractive for commuters.

Relatively 30 % higher spatial standard per capita in region *K(UFSDPC)* reduced the stickiness by 9.4 % and increases the attractiveness by 5.3 %. It means that the regions with high spatial standard are getting more and more daily commuters.

Some relationships between migrations and endowments and commuting and endowments could be easier understood if we are aware that there is high correlation between labour commuting and migration. It often happens that the family moves to the area with higher availability of houses or flats and one of the members in the family is commuting, while the others move there to work or even to work in some other community. The correlation between commuting and migration is presented in Tab. 34 and Fig. 22.

Table 34: Parameters of linear regression model between inter-municipal commuting and *migration flows in 2000-2006.*

Model summary (Depended Variable: GM_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	258,240	0.621	0.385	0.385	4.012
Coefficients (Depended Variable: GM_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	0.269	0.008		33.867	0.000
DC_{ij}	0.036	0.001		402.052	0.000

The reduced gravity model gives us the expected intensity of flows between two regions if we know the values of indicators and the values of parameters which tell us what is the power of the individual indicator with which the flow could be induced or reduced. Because many endowments have not been included in the model, because we had no data or we have not assumed that they could influence flows, the missing factor could be detected through the study of residuals.

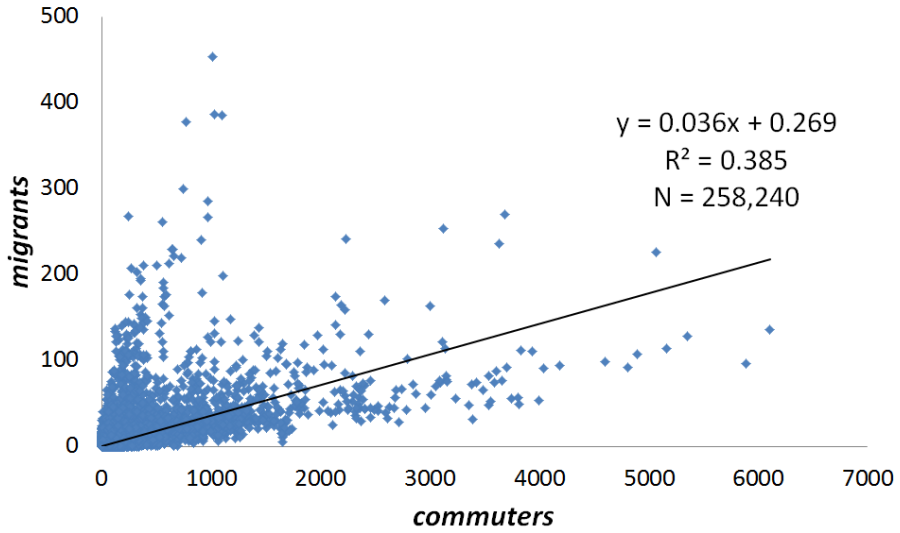


Figure 22: Correlation between inter-municipal labour commuters and migrants in Slovenia in 2000-2006.

From the residuals of the reduced gravity models in Tab. 29 and 32 we mapped the stickiness (Fig. 23 and 24) and attractiveness (Fig. 25 and 26) of Slovenian municipalities for migration and labour commuting in the period of 2000-2006.

The correlation coefficient for ranks of stickiness for migrants and labour commuters in municipalities in the period of 2000-2006 is R=0.914.

From Fig. 25 and Fig. 5 it follows that the municipalities along the motorway axes, European corridors V (municipalities: 183, 84, 1, 94, 64, 140, 8, 61, 186, 23, 43, 173, 190, 11, 120, 114, 113, 98, 160, 70, 89, 55, 118) and X (municipalities: 41, 102, 52, 122, 71, 61, 123, 32, 39, 130, 85, 119, 54, 9) were much more attractive than expected and much less sticky than expected, and the deviations from the expected value were higher than in other municipalities. There was also a strong anticipation of the third development axis planned to be constructed. Presently, there exists the Regional Spatial Development Plan for the Carinthia (*Koroška*) region. Its recently accepted part is the proposal of a new development axis III, which is based on one of the scenarios comprising the settlement system, infrastructure networks and cultural landscape, namely the balanced development scenario along the municipalities 103, 112, 133, 190 and 11. The backbone of the development axis would be an intermodal transportation infrastructure corridor, which would serve the development of the settlement system and regional economy, with emphasis on public passenger transport and goods being transported by up-to-date railway infrastructure. Meanwhile, this idea has been taken beyond the regional frame and has become one of priority national projects. The third development axis comprises five Slovenian statistical regions, characterised by low accessibility, and creates at the same time a link between Austria and Croatia. Less attractive and stickier for migrations are border regions especially if they are not close to motorways.

The pattern of deviations from expected stickiness and attractiveness of regions for commuters is similar. The transportation corridors and state border has the most powerful impact on the deviation from the model.

The more attractive than expected for commuting have been also some municipalities which are not exactly in the traffic corridors. It means that the municipalities where in-migrations are more intensive than expected are more concetrated along the axes than expected (see also Fig. 25) – but higher values of daily commuting than expected are less concentrated along the traffic axes in Slovenia (see Fig. 26).

The correlation coefficient for ranks of attractiveness for migrants and labour commuters in municipalities in the period of 2000-2006 is R=0.770.

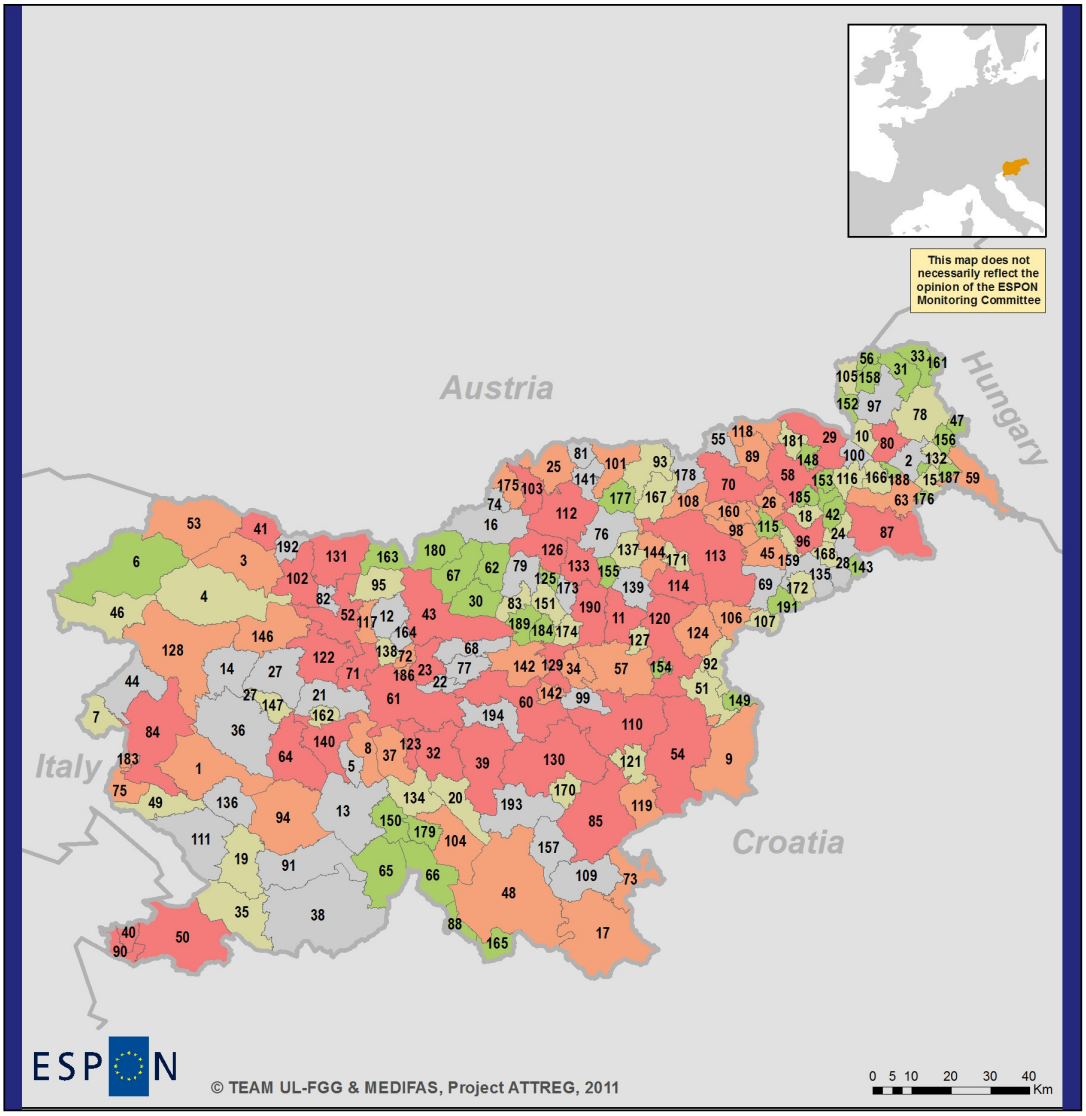
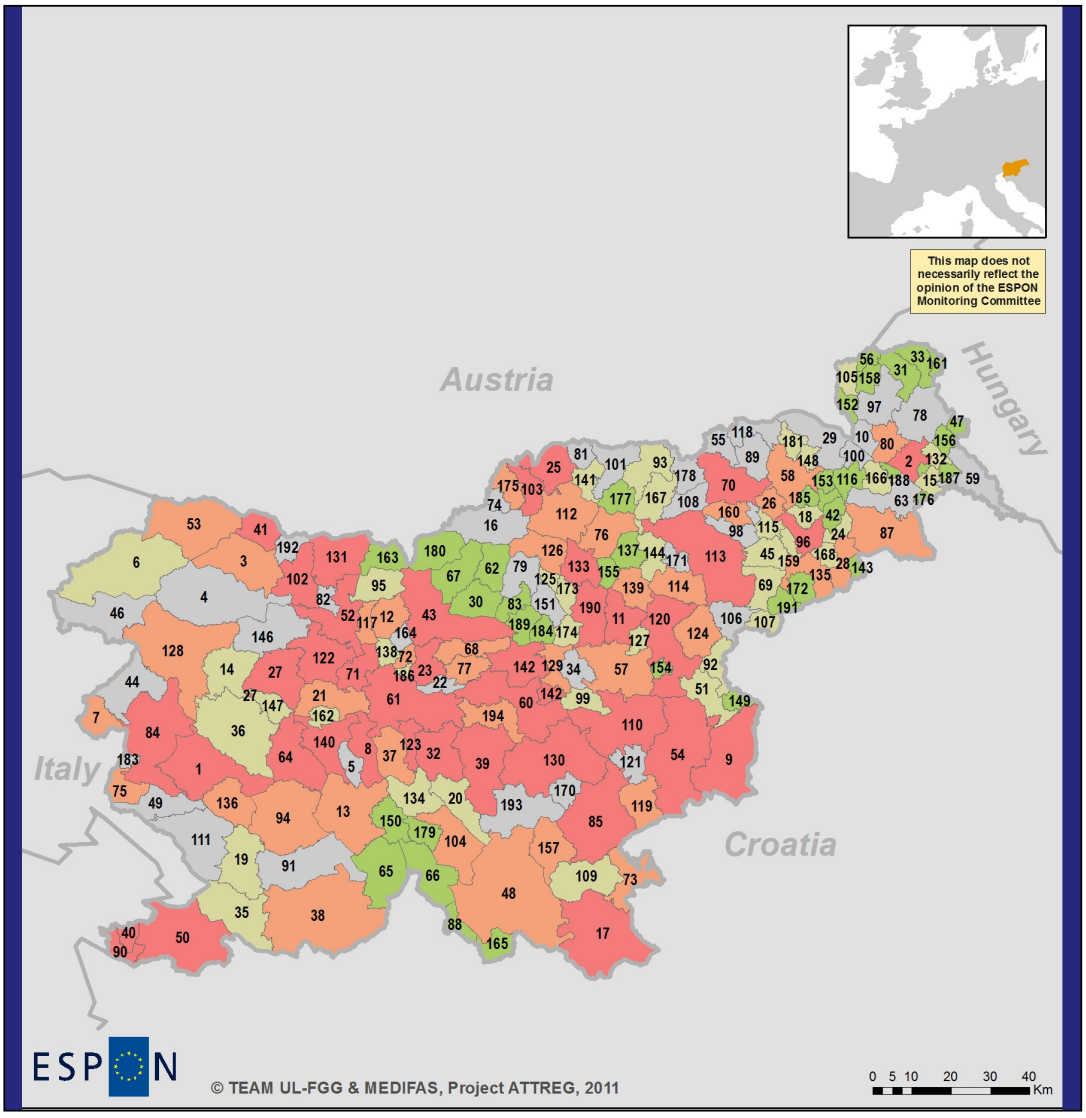


Figure 23: Deviation from expected stickiness of Slovenian municipality for migrants in the period 2000-2006 (rank-list is in Annex E1).



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Local level: NUTS 5
Source: Own calculation (based on SORS data), 2011
Origin of data: Statistical Office of the Republic of Slovenia and own elaboration, 2010
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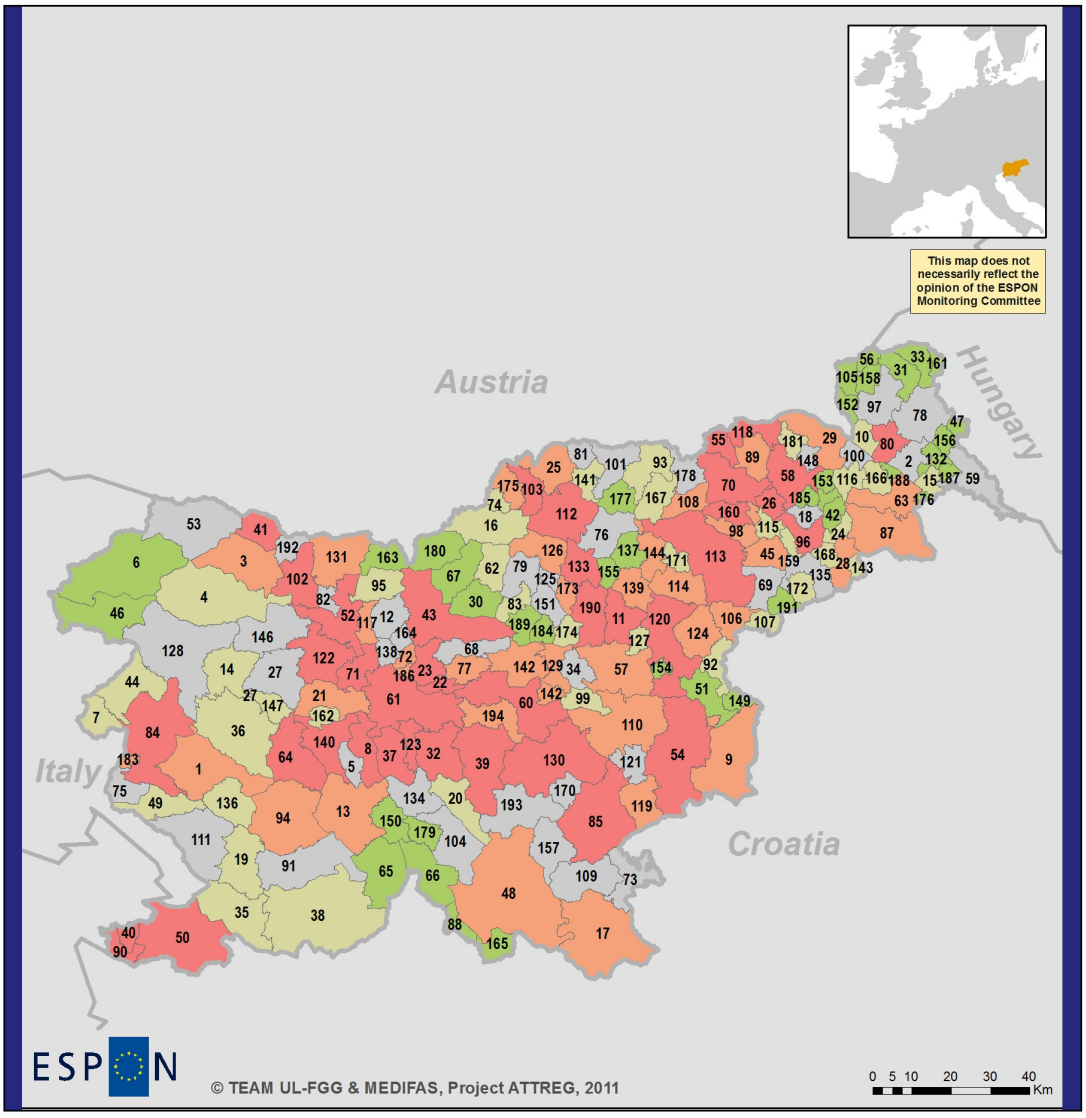
Deviation from expected stickiness of municipality for labour commuters in the period 2000-2006

- much less sticky than expected
- less sticky than expected
- sticky than expected
- more sticky than expected
- much more sticky than expected
- 61 municipality 2002-2006
- state border

Figure 24: Deviation from expected stickiness of Slovenian municipality for labour commuters in the period 2000-2006 (rank-list is in Annex D2).



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Local level: NUTS 5
Source: Own calculation (based on SORS data), 2011
Origin of data: Statistical Office of the Republic of Slovenia and own elaboration, 2010
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Deviation from expected attractiveness of municipality for migrants in the period 2000-2006

- much more attractive than expected
- more attractive than expected
- attractive as expected
- less attractive than expected
- much less attractive than expected
- 61 municipality 2002-2006
- state border

Figure 25: Deviation from expected attractiveness of Slovenian municipality for migrants in the period 2000-2006 (rank-list is available in Annex D3).

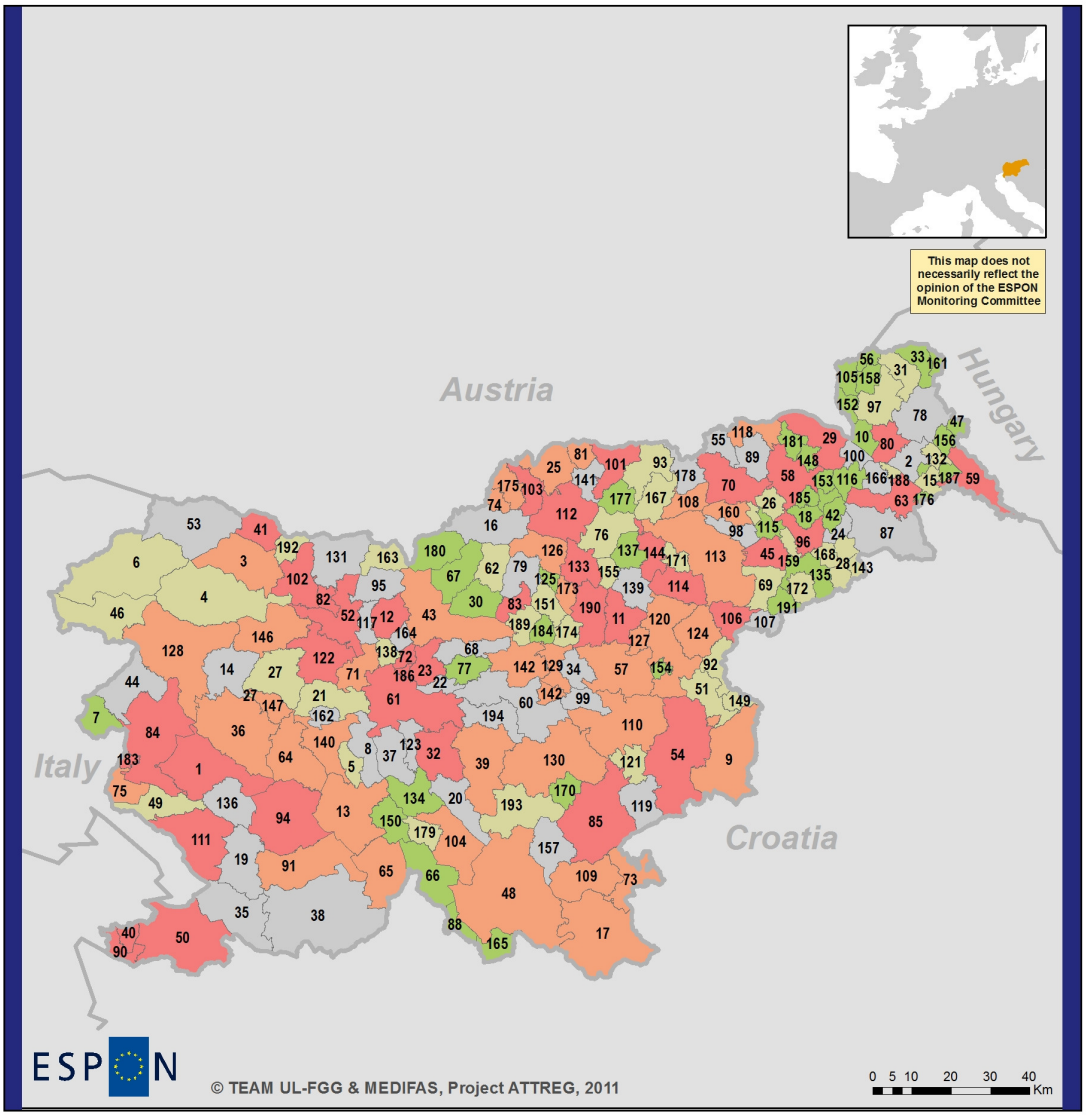


Figure 26: Deviation from expected attractiveness of Slovenian municipality for labour commuters in the period 2000-2006 (rank-list is available in Annex D4).

3.2.2.4 General and reduced gravity models of inter-municipal migration (GM) and labour commuting (DC) flows in 2007-2009

Tab. 35 and 36 show parameters of the (reduced) regression model of inter-municipal migration flows in 2007-2009. Here 131,670 interrelations have been analysed, and adjusted R^2 is 41 %.

Table 35: Parameters of general gravity model of inter-municipal migration flows in 2007-2009 (insignificant coefficients are in parentheses).

Model summary (Depended Variable: GM_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	131,670	0.640	0.410	0.410	1.090
Coefficients (Depended Variable: GM_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	1.117E-03	1.957		-3.473	0.001
P_i	0.694	0.096	0.482	7.232	0.000
P_j	0.207	0.096	0.144	2.156	0.031
$d(t)_{ij}$	-1.097	0.005	-0.455	-199.921	0.000
$C(EMP)_i$	-0.447	0.021	-0.081	-21.154	0.000
$C(EMP)_j$	-0.532	0.021	-0.096	-25.202	0.000
$C(GEAR)_i$	0.262	0.028	0.023	9.482	0.000
$C(GEAR)_j$	0.223	0.028	0.019	8.053	0.000
$C(UFSDPC)_i$	0.432	0.032	0.037	13.663	0.000
$C(UFSDPC)_j$	0.591	0.032	0.051	18.715	0.000
$C(GICPC)_i$	-0.023	0.002	-0.029	-11.383	0.000
$C(GICPC)_j$	-0.018	0.002	-0.024	-9.175	0.000
$C(APBL)_i$	-0.019	0.006	-0.012	-3.007	0.003
$C(APBL)_j$	(-0.003)	0.006	-0.002	-0.504	0.614
$C(APAL)_i$	0.057	0.006	0.025	8.934	0.000
$C(APAL)_j$	0.060	0.006	0.026	9.493	0.000
$C(APBP)_j$	-0.019	0.008	-0.006	-2.474	0.013
$C(APBP)_j$	-0.017	0.008	-0.005	-2.260	0.024
$C(APF)_j$	0.045	0.011	0.014	4.021	0.000
$C(APF)_j$	0.056	0.011	0.017	4.984	0.000
$C(APH)_i$	(-0.012)	0.009	-0.004	-1.395	0.163
$C(APH)_j$	0.016	0.009	0.006	1.832	0.067
LMI_i	0.219	0.010	0.082	21.928	0.000
LMI_j	0.232	0.010	0.087	23.219	0.000
$C(A)_i$	0.643	0.018	0.107	34.818	0.000
$C(A)_j$	0.613	0.018	0.102	33.239	0.000
$C(CP)_i$	-0.252	0.095	-0.177	-2.649	0.008
$C(CP)_j$	0.231	0.095	0.162	2.427	0.015

Table 36: Parameters of reduced gravity model of inter-municipal migration flows in 2007-2009 (the insignificant coefficient is in parentheses).

Model summary (Depended Variable: GM_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	131,670	0.636	0.404	0.404	1.095
Coefficients (Depended Variable: GM_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	1.257E-04	1.942		-4.624	0.000

P_i	0.808	0.095	0.562	8.496	0.000
P_j	0.395	0.095	0.274	4.147	0.000
$d(t)_{ij}$	-1.088	0.005	-0.451	-199.942	0.000
$C(EMP)_i$	-0.134	0.016	-0.024	-8.595	0.000
$C(EMP)_j$	-0.189	0.016	-0.034	-12.116	0.000
$C(GEAR)_i$	0.263	0.027	0.023	9.587	0.000
$C(GEAR)_j$	0.242	0.027	0.021	8.828	0.000
$C(UFSDPC)_i$	0.438	0.031	0.038	13.947	0.000
$C(UFSDPC)_j$	0.592	0.031	0.051	18.822	0.000
$C(GICPC)_i$	-0.017	0.002	-0.023	-8.807	0.000
$C(GICPC)_j$	-0.012	0.002	-0.016	-6.282	0.000
$C(APF)_j$	0.030	0.008	0.009	3.607	0.000
$C(APF)_j$	0.081	0.008	0.025	9.637	0.000
$C(A)_i$	0.700	0.018	0.116	38.505	0.000
$C(A)_j$	0.659	0.018	0.109	36.276	0.000
$C(CP)_i$	-0.345	0.094	-0.241	-3.652	0.000
$C(CP)_j$	(0.068)	0.094	0.048	0.722	0.471

Note: Even if insignificant variable $C(CP)_j$ is omitted in the reduced regression model of inter-municipal migration flows in 2007-2009 (parameters are in Tab. 36), other coefficients are not changed for two significant digits.

$$GM_{ij}(2007-2009) = 1.257 \cdot 10^{-4} P_i^{0.808} P_j^{0.395} \cdot \frac{K(GEAR)_i^{0.263} K(GEAR)_j^{0.242}}{d(t)_{ij}^{1.088}} \cdot \cdot \frac{K(UFSDPC)_i^{0.438} K(UFSDPC)_j^{0.592} K(APF)_i^{0.030} K(APF)_j^{0.081} K(A)_i^{0.7} K(A)_j^{0.659}}{K(EMP)_i^{1.34} K(EMP)_j^{1.89} K(GICPC)_i^{0.017} K(GICPC)_j^{0.012} K(CP)_i^{0.345}} \quad (15)$$

How the parameters describing impact of endowments on intensity of flows of migrants, which are measures for stickiness and attractiveness, have change from 2007 on is presented in Tab. 37, where also conclusions about this changes are given.

Table 37: The dynamics of stickiness and attractiveness of inter-municipal migration flows in Slovenia in 2000-2006 and 2007-2009.

Model variables (endowment indicators)	Power	Value of power 2000-2006	Value of power 2007-2009	Conclusions about changes in inter-municipal migration flows in the period 2007-2009 regarding 2000-2006
(Constant)		2.28E-04	1.26E-04	Changed methodology of data collection influenced changes of constants.
P_i	β_1	0.428	0.808	*More populated municipalities have more power on out-flow (for example: the flow from big cities like Ljubljana, Maribor and other central places of NUTS 3 level becomes more intensive).*
P_j	β_2	0.462	0.395	*More populated municipalities have slightly lower power over inflows after 2007, but still have a positive influence.*
$d(t)_{ij}$	β_3	-0.815	-1.088	*Time spending distance becomes more important for reducing migration.*
$K(EMP)_i$	γ_1	-0.090	-0.134	*Higher employment in origin and destination than Slovenian average creates now less flows than before, it becomes more retentive, though higher employment ratio was more retentive before also.*
$K(EMP)_j$	φ_1	-0.128	-0.189	
$K(GEAR)_i$	γ_2	0.114	0.263	*Higher gross earnings in origin and destination (more than average) create now more flows than before*
$K(GEAR)_j$	φ_2	0.132	0.242	

Model variables (endowment indicators)	Power	Value of power 2000-2006	Value of power 2007-2009	Conclusions about changes in inter-municipal migration flows in the period 2007-2009 regarding 2000-2006
				2007.
$K(UFSDPC)_i$	γ_3	0.159	0.438	*Higher spatial standard in origin creates more intensive flows from the origin and more intensively than before 2007. But this endowment influences attractiveness even more. The attractiveness of regions with higher spatial standards of dwellings increased.*
$K(UFSDPC)_j$	φ_3	0.220	0.592	
$K(GICPC)_i$	γ_4	-0.012	-0.017	*Coefficient of gross investments in construction work and land improvement per capita in municipality of origin and municipality of destination did not have (and still does not) an important impact on migration flows and they are staying on the same level of influence.*
$K(GICPC)_j$	φ_4	-0.012	-0.012	
$K(APF)_i$	γ_8	0.125	0.030	*Prices per m^2 of flat influenced the flows of migrants in 2000-2006 more significantly than in 2007-2009. But all the time, the prices in the destination have been more important than the prices in origin.*
$K(APF)_j$	φ_8	0.165	0.081	
$K(A)_i$	γ_{11}	0.501	0.700	*Higher index of aging decreases stickiness and increases attractiveness now even more than in the period 2000-2006.*
$K(A)_j$	φ_{11}	0.480	0.659	
$K(CP)_i$	γ_{12}	-0.173	-0.345	*In the region with higher percentage of creative (active) population, the stickiness of migration flows is higher and the influence of this social endowment in 2000-2006 was lower than after 2007.*
$K(CP)_j$	φ_{12}	0.094	(0.068)	*The inter-municipal migration flow was not sensitive on the percentage of creative population in the municipality of destination in period 2007-2009; even in 2000-2006 it had a very low positive influence.*

Tab. 38 and 39 show parameters of (reduced) regression model of inter-municipal labour commuting flows in 2007-2009, where adjusted R^2 is 51 % and 49 %. In Tab. 40 we compare inter-municipal labour commuting for two analysed periods, 2000-2006 and 2007-2009.

Table 38: Parameters of general gravity model of inter-municipal labour commuting flows in 2007-2009 (insignificant coefficients are in parentheses).

Model summary (Depended Variable: DC_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	131,670	0.716	0.513	0.513	0.751
Coefficients (Depended Variable: DC_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	7.028E-05	1.348		-7.094	0.000
P_i	0.680	0.066	0.623	10.290	0.000
P_j	0.370	0.066	0.339	5.594	0.000
$d(t)_{ij}$	-1.078	0.004	-0.589	-285.094	0.000
$C(EMP)_i$	-0.178	0.015	-0.043	-12.248	0.000
$C(EMP)_j$	-0.729	0.015	-0.174	-50.165	0.000
$C(GEAR)_i$	(0.022)	0.019	0.003	1.153	0.249
$C(GEAR)_j$	0.370	0.019	0.042	19.392	0.000
$C(UFSDPC)_i$	0.472	0.022	0.054	21.714	0.000
$C(UFSDPC)_j$	0.395	0.022	0.045	18.146	0.000

$C(GICPC)_i$	-0.023	0.001	-0.040	-16.954	0.000
$C(GICPC)_j$	-0.033	0.001	-0.056	-23.786	0.000
$C(APBL)_i$	-0.078	0.004	-0.065	-18.082	0.000
$C(APBL)_j$	-0.030	0.004	-0.025	-6.969	0.000
$C(APAL)_j$	0.060	0.004	0.034	13.573	0.000
$C(APAL)_j$	0.068	0.004	0.039	15.414	0.000
$C(APBP)_j$	(0.002)	0.005	0.001	0.407	0.684
$C(APBP)_j$	0.038	0.005	0.015	7.181	0.000
$C(APF)_j$	0.048	0.008	0.020	6.243	0.000
$C(APF)_j$	0.075	0.008	0.031	9.780	0.000
$C(APH)_i$	-0.013	0.006	-0.006	-2.141	0.032
$C(APH)_j$	0.036	0.006	0.017	5.971	0.000
LMI_i	0.077	0.007	0.038	11.158	0.000
LMI_j	0.517	0.007	0.257	75.223	0.000
$C(A)_i$	0.378	0.013	0.083	29.719	0.000
$C(A)_j$	0.453	0.013	0.099	35.625	0.000
$C(CP)_i$	-0.438	0.066	-0.405	-6.685	0.000
$C(CP)_j$	(-0.064)	0.066	-0.059	-0.982	0.326

From the basic analysis of indicators which could influence stickiness and attractiveness of Slovenian municipalities we got the following significant parameters in the reduced model, presented in Tab. 39.

Table 39: Parameters of reduced gravity model of inter-municipal labour commuting flows in 2007-2009 (insignificant coefficients are in parentheses).

Model summary (Depended Variable: DC_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	131,670	0.699	0.489	0.489	0.769
Coefficients (Depended Variable: DC_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	1.823E-04	1.365		-6.307	0.000
P_i	0.594	0.067	0.544	8.883	0.000
P_j	0.588	0.067	0.538	8.788	0.000
$d(t)_{ij}$	-1.060	0.004	-0.580	-277.154	0.000
$C(EMP)_i$	-0.100	0.011	-0.024	-9.124	0.000
$C(EMP)_j$	(-0.004)	0.011	-0.001	-0.325	0.745
$C(GEAR)_i$	(-0.006)	0.019	-0.001	-0.336	0.737
$C(GEAR)_j$	0.375	0.019	0.043	19.441	0.000
$C(UFSDPC)_i$	0.494	0.022	0.056	22.334	0.000
$C(UFSDPC)_j$	0.448	0.022	0.051	20.290	0.000
$C(GICPC)_i$	-0.021	0.001	-0.035	-14.806	0.000
$C(GICPC)_j$	-0.019	0.001	-0.033	-13.725	0.000
$C(APF)_j$	-0.025	0.006	-0.010	-4.161	0.000
$C(APF)_j$	0.087	0.006	0.036	14.664	0.000
$C(A)_i$	0.421	0.013	0.092	32.988	0.000
$C(A)_j$	0.576	0.013	0.126	45.056	0.000
$C(CP)_i$	-0.349	0.066	-0.322	-5.263	0.000
$C(CP)_j$	-0.226	0.066	-0.209	-3.411	0.001

Note: Even if insignificant variables ($K(EMP)_j$ and $K(GEAR)_i$) are omitted, other coefficients are not changed for two significant digits.

$$DC_{ij}(2007-2009) = 1.82 \cdot 10^{-4} P_i^{0.594} P_j^{0.588} \cdot \frac{K(GEAR)_j^{0.375}}{d(t)_{ij}^{1.06}} \cdot$$
$$\cdot \frac{K(UFSDPC)_i^{0.494} K(UFSDPC)_j^{0.448} K(APF)_j^{0.087} K(A)_i^{0.421} K(A)_j^{0.576}}{K(EMP)_i^{0.1} K(APF)_i^{0.025} K(GICPC)_i^{0.021} K(GICPC)_j^{0.019} K(CP)_i^{0.349} K(CP)_j^{0.226}} \quad (16)$$

In Tab. 40, the change of the parameters describing the impact of endowments on intensity of inter-municipal flows of labour commuters from 2000-2006 to 2007-2009 is presented, where also conclusions about these changes are given.

Table 40: The dynamics of stickiness and attractiveness of inter-municipal labour commuting flows in Slovenia in 2000-2006 and 2007-2009.

Model variables (endowment indicators)	Power	Value of power 2000-2006	Value of power 2007-2009	Conclusions about changes in commuting flows in the period 2007-2009 regarding 2000-2006
(Constant)	a	1.022E-02	1.823E-04	Changed methodology influenced constant changes.
P_i	α_1	0.519	0.594	*A more populated municipality has more power over out-flow now than before 2006 (for example: the flow from large cities like Ljubljana, Maribor and other central places of NUTS 3 level becomes slightly more intensive).*
P_j	α_2	0.331	0.588	*A more populated region has now slightly higher power over in-flows after 2007, and has always had positive influence.*
$d(t)_{ij}$	α_3	-1.003	-1.060	*Distance did not become significantly more important for reducing labour commuters.*
$K(EMP)_i$	κ_1	-0.097	-0.100	*Higher employment in origin and destination than the Slovenian average creates less flows. The intensity did not change much, but higher employment ratio at the destination is not more attractive for labour commuting.*
$K(EMP)_j$	λ_1	(0.004)	(-0.004)	
$K(GEAR)_i$	κ_2	0.026	(-0.006)	*Higher gross earnings in origin do not influence more intensive flows in the period 2007-2009, but they did before 2000-2006. But, higher gross earnings in destination constantly influence more intensive flows of labour commuting.*
$K(GEAR)_j$	λ_2	0.357	0.375	
$K(UFSDPC)_i$	κ_3	0.343	0.494	*Higher spatial standard (useful floor space of dwellings per capita) in the origin creates more intensive flows from the origin, and more intensively now than before 2007. But this endowment influences attractiveness now even with the same intensity what was not the case before. The influence of stickiness is the same as the influence of attractiveness therefore, on average, spatial standards do not create higher or lower net employment in a region.*
$K(UFSDPC)_j$	λ_3	0.196	0.448	
$K(GICPC)_i$	κ_4	-0.009	-0.021	*The coefficient of gross investments in construction work and land improvement per capita in municipality of origin and destination had small negative impact on commuting flows; this influence slightly increased in origin and in destination. Therefore, on average, investments do not create higher or lower net employment in a region.*
$K(GICPC)_j$	λ_4	-0.012	-0.019	

Model variables (endowment indicators)	Power	Value of power 2000-2006	Value of power 2007-2009	Conclusions about changes in commuting flows in the period 2007-2009 regarding 2000-2006
$K(APF)_i$	κ_8	0.028	-0.025	*While higher prices of real estate created even higher out-flow in the period 2000-2006, it is now the opposite, which could be the results of no shortage of empty flats and houses on the market.*
$K(APF)_j$	λ_8	0.251	0.087	*Commuters still commute more to the regions with higher prices of real estate, though this impact is now weaker.*
$K(A)_i$	κ_{11}	0.481	0.421	*Higher index of aging increases stickiness and attractiveness, but both influences are less intensive in the last period (2007-2009.*
$K(A)_j$	λ_{11}	0.660	0.576	
$K(CP)_i$	κ_{12}	-0.319	-0.349	*In the region with higher percentage of creative population the stickiness of migration flows is higher and the influence of this social endowment in 2000-2006 was lower than after 2006.*
$K(CP)_j$	λ_{12}	(-0.025)	-0.226	*The flow of labour commuters into the municipality was not sensitive to the percentage of creative classes in the municipality of destination in period 2000-2006 and also now the creative population has very low positive influence on the place of work for labour from outside the municipality.*

Comparing linear inter-municipal regression models between migration and labour commuting for the period 2000-2006 (see Tab. 34) and for the period 2007-2009 (see Tab. 41) we can see that R^2 did not change significantly, but the increase of daily commuting (regression coefficient) was in 2007-2009 twice higher than that in 2000-2006 (see also Fig. 27).

Table 41: Parameters of linear regression model between inter-municipal commuting and migration flows in 2007-2009.

Model summary (Depended Variable: GM_{ij})					
	N	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	131,670	0.630	0.396	0.396	8.422
Coefficients (Depended Variable: DC_{ij})					
Model	**Unstandardized Coefficients**	**Std. Error of Unstand. Coeff.**	**Standardized Coefficients**	**t**	**Significance**
(Constant)	0.792	0.023		33.945	0.000
C_{ij}	0.074	0.001		294.065	0.000

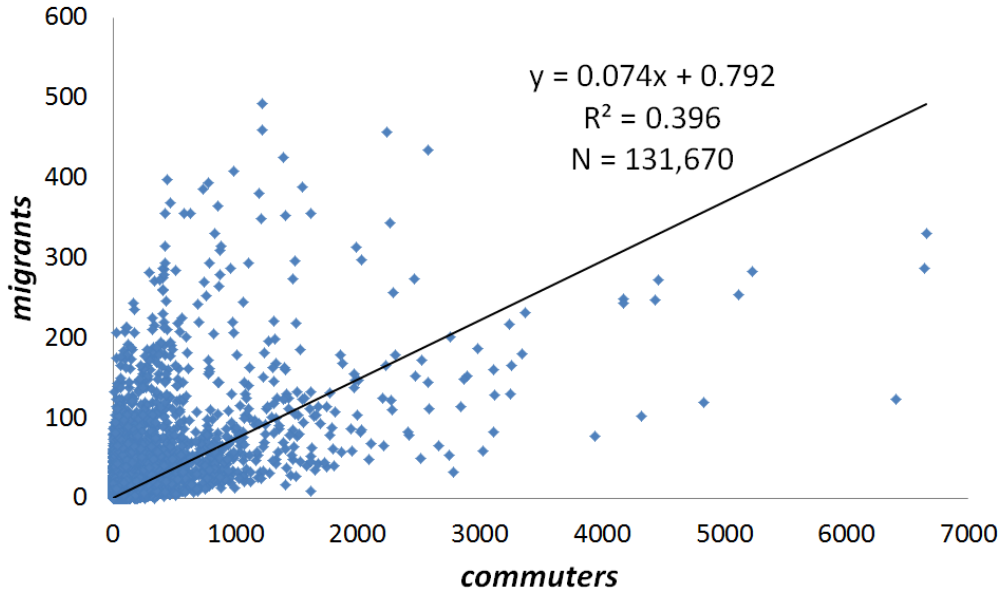


Figure 27: Correlation between inter-municipal labour commuters and migrants for 2007-2009.

Fig. 12-19 show the stickiness and attractiveness of Slovenian municipalities for in- and out-flows of migrants and labour commuters in the period 2000-2006 and 2007-2009, respectively. In Tab. 35-36 and 38-39 there are parameters of general and reduced gravity models of inter-municipal migration (*GM*) and labour commuting (*DC*) flows in the period 2007-2009. From the residuals of the reduced gravity models for 2007-2009 in Tab. 36 and 39 the deviation from the expected stickiness (Fig. 28 and 29) and the expected attractiveness (Fig. 30 and 31) for municipalities for migrants and labour commuters in the period of 2007-2009 are mapped.

The correlation coefficient for ranks of stickiness for migrants and labour commuters in municipalities in the period of 2007-2009 is R=0.844.

Looking at the stickiness of migrants (Fig. 28) we can see that all municipalities where central places of NUTS 3 level are located (municipalities: 80, 70, 112, 11, 110-54-9, 85, 61, 52, 94, 84, 50) belong to the group of regions being much less sticky than expected.

The correlation coefficient for ranks of deviation from expected attractiveness for migrants and labour commuters in municipalities in the period of 2007-2009 is R=0.822.

If we consider the number of graduates in the municipality as a proxy for increase of the number of members of creative class in the municipality then an interesting conclusion can be achieved. In Tab. 42, rank-list of central places on NUTS 3 level regarding stickiness or attractiveness of municipality 2000-2006 and regarding the number of graduates from higher undergraduate education are given. From Tab. 43, we can see that there exists a very high correlation of ranks between the deviation from the expected stickiness or expected attractiveness and the number of graduates from higher undergraduate education by statistical region on NUTS 3 level.

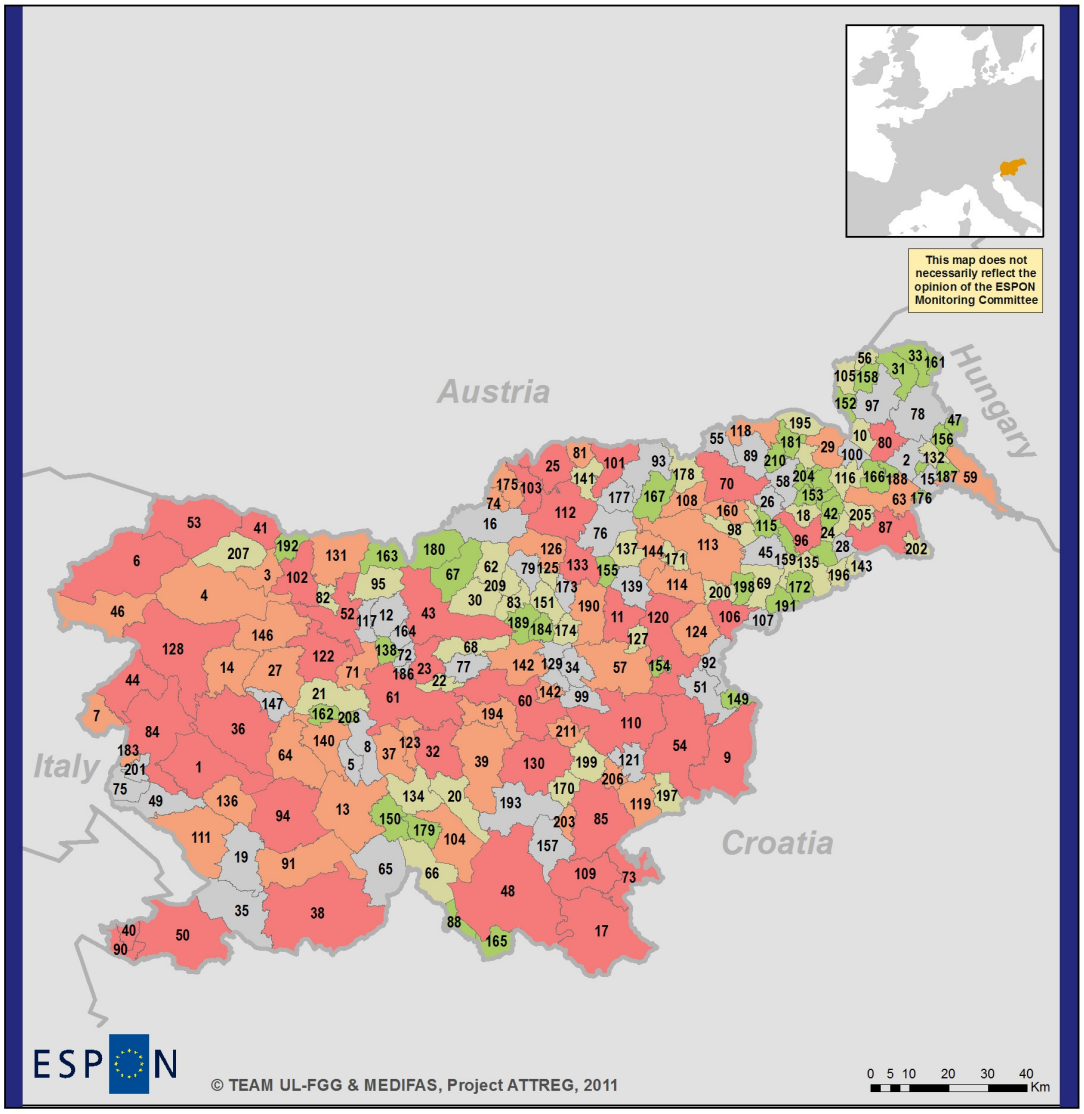


Figure 28: Deviation of expected stickiness of the Slovenian municipality for migrants in the period 2007-2009 (rank-list is in Annex E5).

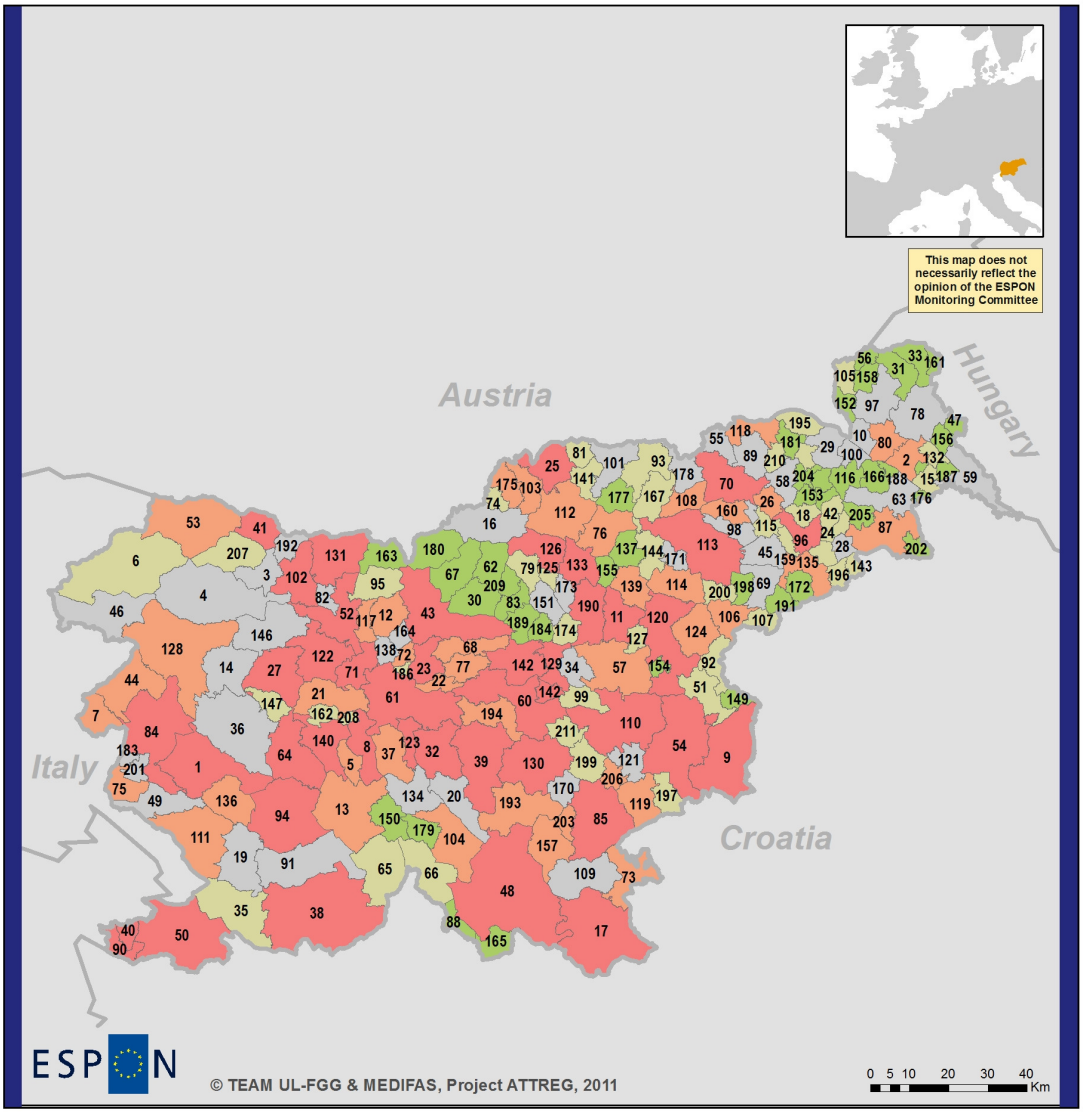


Figure 29: Deviation of expected stickiness of the Slovenian municipality for labour commuters in the period 2007-2009 (rank-list is in Annex E6).

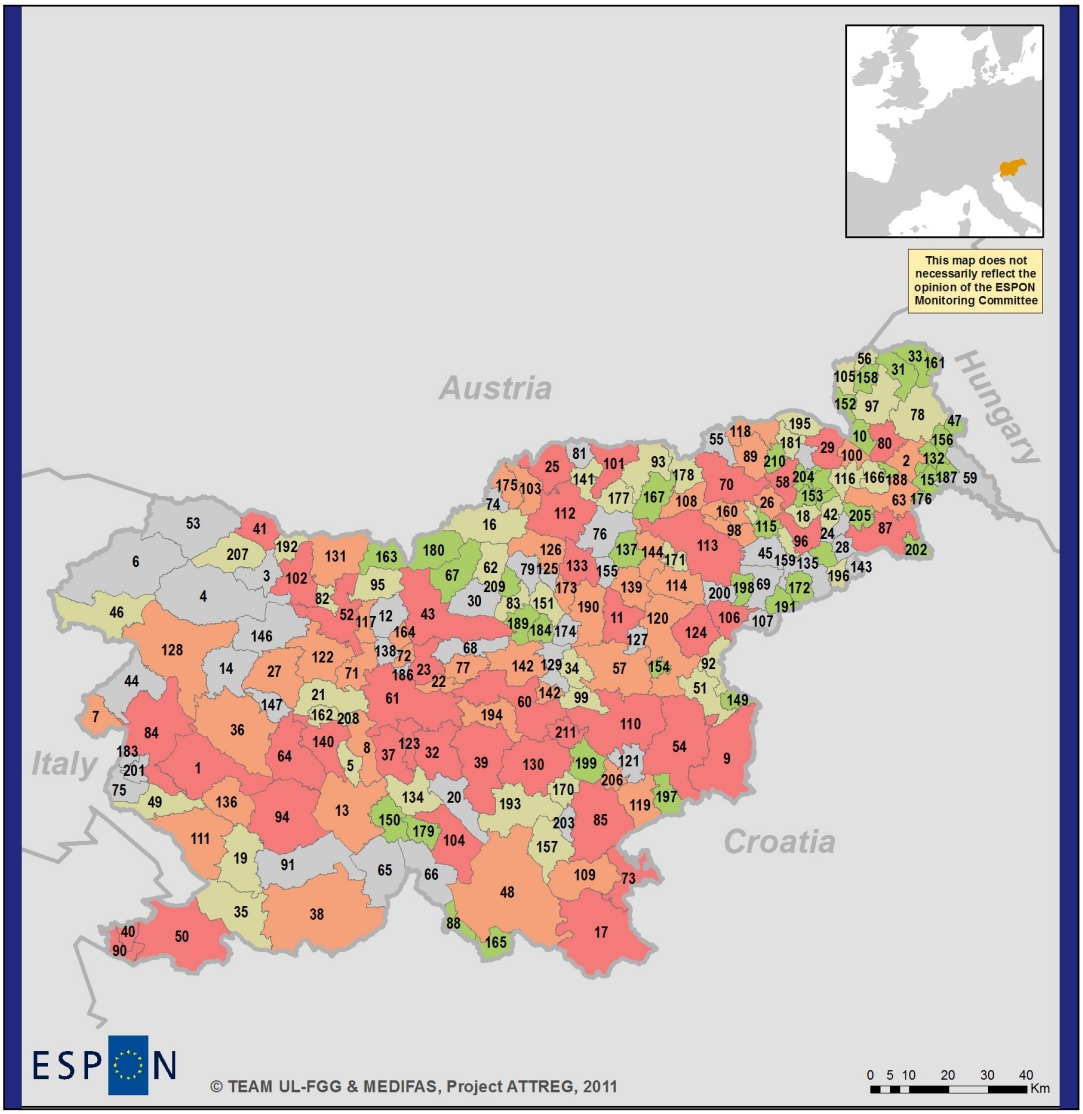


Figure 30: Deviation of expected attractiveness of the Slovenian municipality for migrants in the period 2007-2009 (rank-list is in Annex E7).

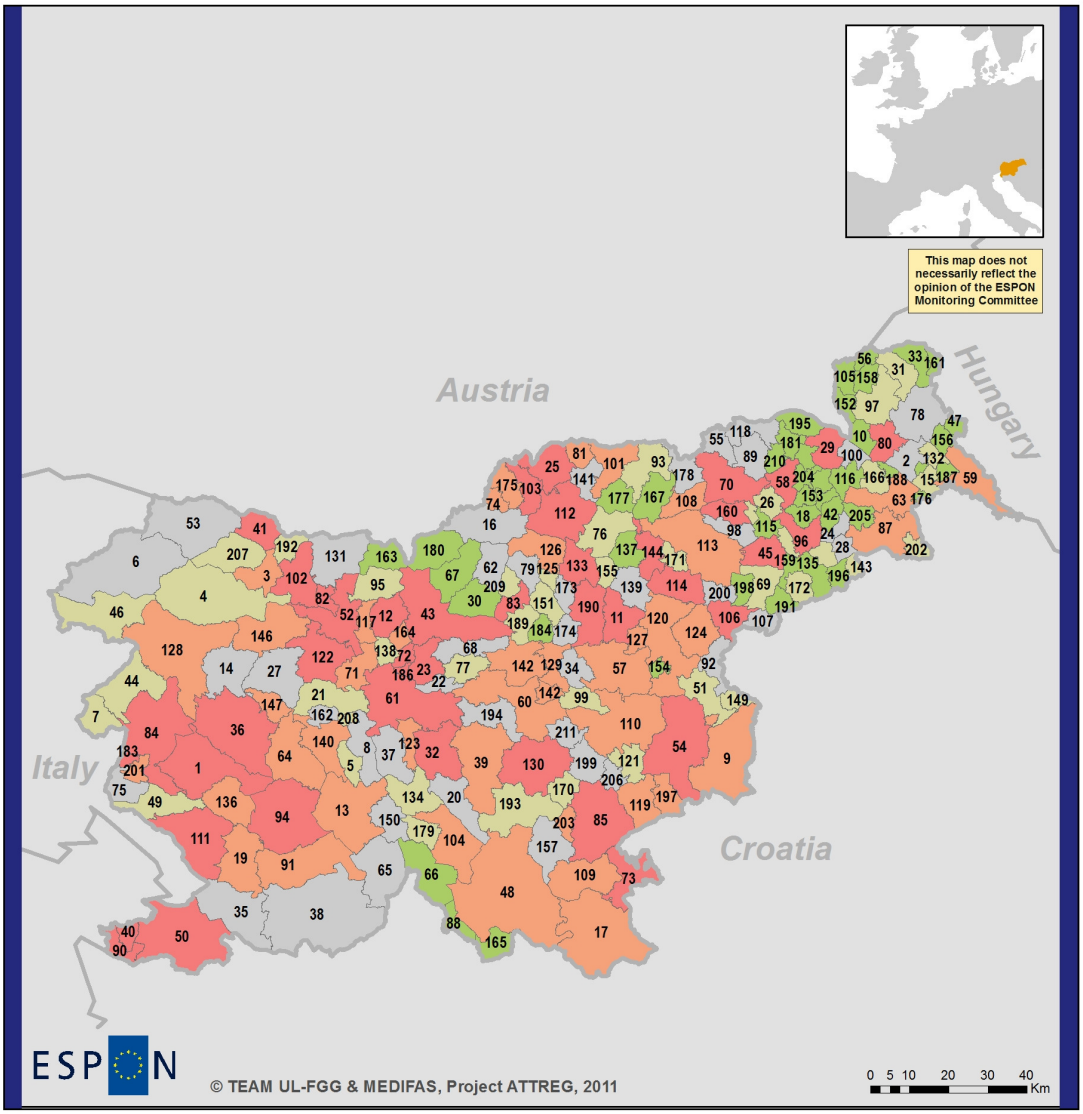


Figure 31: Deviation of expected attractiveness of the Slovenian municipality for labour commuters in the period 2007-2009 (rank-list is in Annex E8).

Table 42: Rank-list of central places on NUTS 3 level regarding stickiness or attractiveness of municipality 2000-2006 and regarding the number of graduates from higher undergraduate education.

Central places on NUTS 3 level	Rank-list of deviation from expected stickiness 2000-2006	Rank-list of deviation from expected attractiveness 2000-2006	Rank-list of No. of graduated in 2006	Rank-list of No. of graduated in 2007	Rank-list of No. of graduated in 2009
	RS	***RA***	***RG6***	***RG7***	***RG9***
Ljubljana	1	1	1	1	1
Maribor	2	2	2	2	2
Kranj	3	3	4	4	4
Celje	4	4	3	3	3
Novo mesto	5	5	5	5	5
Nova Gorica	6	6	6	6	6
Murska Sobota	7	7	8	8	8
Koper	8	8	7	7	7
Slovenj Gradec	9	9	9	10	10
Krško/Brežice	10	11	10	9	9
Trbovlje	11	12	12	12	12
Postojna	12	10	11	11	11

Table 43: Correlation of ranks of central places on NUTS 3 level regarding the stickiness or attractiveness of a municipality 2000-2006 and regarding the number of graduates from higher undergraduate education (codes are explained in Tab. 42).

	RS	RA	RG6	RG7	RG9
RS		0.979	0.979	0.972	0.972
RA	0.979		0.979	0.965	0.965
RG6	0.979	0.979		0.993	0.993
RG7	0.972	0.965	0.993		1.000
RG9	0.972	0.965	0.993	1.000	

3.2.3 The resume of interviewers' answers about attractiveness and stickiness of regions in Slovenia

According to the four answers to the inquiry about the ATTREG's results presented in Interim Report (Russo et al. 2010) and in First Dissemination Report (Russo et al. 2011), the resume of interviewers' answers about attractiveness and stickiness of regions in Slovenia is as follows:

1. *How attractive is the region and what specific groups are attracted? (visitors, residents, students, high or low educated, high or low income, where do they come from, etc.) How does this relate to the attractiveness of neighbouring regions and the country as a whole? What parts of the region are most attractive?*

   - The general view is that Slovenia is not a very attractive European region, although it has a rich and diverse natural and cultural heritage, and a rather large rate of satisfaction with the quality of life.
   - Western part of Slovenia (NUTS 2 West Slovenia with the capital city of Ljubljana) shows higher attraction for migrants, more educated population, as well as for tourists. This is also related to better economic situation of western Slovenia (especially before year 2008) as well as better accessibility and geographical proximity to Italy and Austria - especially the Alps and the Adriatic coast which are attractive to both visitors and residents.

- Attractiveness of Slovenia is also very heterogeneous for different social groups. Slovenia as a whole is potentially attractive for visitors and tourists especially the capital city of Ljubljana, small towns located at the Adriatic coast, Alpine and other mountain areas, thermal spa areas, and other attractive natural and cultural heritage locations. Due to the small size of Slovenia, and good transport infrastructure many attractive areas are accessible for visitors by day trips from Ljubljana. Due to geographical location of Slovenia – between the Alps and the Adriatic – and between two "global" cities of Venice and Vienna, - Slovenia is also attractive for foreign visitors (short stay tourists/congress, etc).
- As residents are concerned - internal migrations are more orientated towards larger job's centres and university centres (Ljubljana, Maribor, Coastal conurbation of Koper-Izola-Piran/Portorož) or towards suburban areas in the functional areas of regionally important cities (e.g. Ljubljana, Maribor, Celje, Kranj, Coastal conurbation, Novo mesto, Nova Gorica, Velenje, Krško-Brežice, etc) with higher job opportunities. In opposite – less accessible mountain and border regions with less job opportunities are facing depopulation of particularly highly educated younger population. The trend of aging is visible in Slovenia.
- Attractiveness for foreign students is relatively low due to language barriers, but the number of ERASMUS students has been increasing since year 2005. Students from Slovenia are also visiting other countries with ERASMUS universities and for post-graduate studies.
- Economic migration / labour force: Slovenia was facing a relatively high immigration of labour in the past 10 years (1999-2009) mainly of low educated labour force in the construction sector. In-migration has stopped due to economic and financial crisis with particular consequences on the construction sector causing out-migrations and even negative migratory balance in 2011. Slovenia is less attractive for highly educated migrants due to language barriers, but becoming attractive for medical doctors and nurses from some EU countries (i.e. Slovakia) or ex-Yugoslav countries (due to language similarities) and shortage of staff in the hospitals and health centres mainly in small towns and rural areas in Slovenia.
- *Interviewers' opinion:* According to official data collected by ATTREG (or EUROSTAT) – Slovenia is sometimes represented as NUTS 0/1, 2 NUTS 2 and only in few cases as 12 NUTS 3 regions. Slovenia is diversified and interpretation of data is needed in relation with policy implementation for the past 20 years, regional differences or specific life-style patterns.

2. *What explains the (lack of) attractiveness of (parts of) the region towards specific target groups? (economic opportunities, living environment, infrastructure, cultural amenities, geographic circumstances, restrictions on migration, etc.)*

- The lack of attractiveness of some regions or locations for visitors/tourists can be found in deferred European marketing activities, and specialisation in particular type of products (skiing, hiking, cycling, sailing, wellness, culinary, etc.) for "well-known" domestic visitors or tourists demands from the neighbouring countries (Austria, Italy, Croatia, Germany, and Serbia). Slovenia is not developing massive tourism due to lack of capacities and infrastructure (despite improvements in the past 10 years) but diversified type of tourist products. In many cases Slovenia is "discovered by chance" and revisited again due to its rich natural and cultural heritage and natural environment.
- Slovenia is also becoming interested for ERASMUS students since EU accession in year 2004.
- Slovenia is not very open for foreign labour force due to language barriers, high property prices vis-à-vis average incomes, and rather enclosed job market, especially in Ljubljana and western Slovenia. Regions lacking job opportunities and with lower accessibility are less attractive.
- Quality of living environment (natural and recreational possibilities) in the countryside is attracting young families where commuting possibilities to employment centres (towns) are relatively good (i.e. through the process of suburbanisation and lower property prices in suburban and rural areas near urban centres) especially along the motorway cross (see also Fig. 5). Second social group

attracted by the quality of living environment are (local) retired people moving to western Slovenia (Karst and Coastal area) - that is also becoming attractive for foreigners (mainly Italians), including some older (low-cost) farm houses in eastern Slovenia (mainly attractive for British citizens).

- *Interviewers' opinion:* More in-depth research is needed in different parts of Slovenia to explain the reasons of different short-term and long-term migration patterns of foreigners.

3. *What are the objectives of local, regional and/or national governments with regard to securing/improving the attractiveness of (parts of) the region? How do objectives on attractiveness (for specific groups) fit in the more general aim of securing sustainable wellbeing and prosperity for the region?)*

   - The Ministry of Economic Development, National Tourist Office, Regional Development Agencies and individual municipalities have been formulating and implementing different strategies, programmes and projects for different types of tourist products and infrastructure – but the emphasis is not on massive and global tourism, in order to secure sustainability of different regions and wellbeing of local areas.

   - The attractiveness of less accessible and remote (especially mountain) areas have been further subsidised by investments in local infrastructure (water supply, sewage system), jobs and municipal services (e.g. primary schools and health centres), tourist accommodation capacities with eco-farming facilities – in order to stop depopulation and improve wellbeing of local inhabitants in these areas while at the same time protecting the natural environment.

   - However, objectives on attractiveness don't fit in the aim of securing sustainable wellbeing and prosperity for the region.

4. *What are the main problems and challenges considering the attractiveness of the region for visitors and residents? Do the current flows of residents and visitors 'match' with the objectives of governments? Are there any conflicts between (specific groups of) residents and visitors?*

   - Slovenia is well known as the "green jewel of Europe" with the high quality of life for (local) population. Since 2008 economic and financial crisis has significant effects on the wellbeing of local population, causing more out-migration of young people to study or work abroad (especially in near-by regions in Italy, Austria, Germany, Switzerland, etc.). Lack of appropriate jobs may continue in future causing less in-migration of foreign citizens and higher numbers of out-migrations of Slovenian population. Economic crisis has also effects on the overall number of tourists, short-term visitors (weekend, congress) or foreigners buying property in less developed areas in Slovenia. Municipal governments are very locally oriented, with few international connections.

   - Until now no conflicts between residents and visitors are significant, but some tension do exist in the areas where foreigners are buying property for vacations or retirements (and not speaking the Slovene language). Conflicts between specific groups of residents are observed in some areas with a Roma population.

5. *What policies are developed to attract (or repel) particular groups? (e.g. marketing, investments in the living environment, investments in culture and tourism infrastructure, restrictions on migration, etc.)*

   - National, sectoral, regional and local policies do exist to retain local population especially in less accessible and remote areas. There are also policies to attract visitors and tourists both national and of foreign origin. Some locations of tourist attractions have developed specific programmes offering different products and price discounts especially in low seasons.

   - *Interviewer opinion:* Economic and financial crisis since 2008 in Slovenia have been motivating local communities to market their attractions and facilities with lower prices both in Slovenia and abroad in order to gain more revenues from tourism.

6. *How do different levels and segments of the government cooperate to optimize the attractiveness for specific groups? How do they involve citizens, businesses and knowledge institutions to that end? What is the role of the EU?*

   - The ATTREG maps and data showing the situation before 2008 do not show explicitly the situation in Slovenia regarding this question – especially at the NUTS 2 level taking in consideration diversity of Slovenia.

   - *Interviewer opinion:* Different policies (e.g. regional, spatial, social, transport, housing policy, etc) in Slovenia are not well integrated both horizontally and vertically, and more action is needed now at the times of economic austerity.

7. *What are the expectations for the future development of the region's attractiveness? What scenarios can be foreseen and what are the implications for policy makers?*

   - Strategies for (future) tourist development will need to be enhanced with better cooperation between different (especially local) actors and marketing activities in order to be more propulsive over the whole year and not only in high seasons (summer/winter).

   - The national economy and the flexibility of the labour market seem to be the main drivers of regional attractiveness and pull factors for domestic and international migration. Functional areas of larger urban centres are gaining and most probably will gain population in future on behalf of less accessible peripheral areas. Cities might improve their attractiveness with improvement of environmental conditions, and further investments in public transport and local services. Migrations of retired populations will be further directed towards better living environment as before due also to ownership of second homes and their accessibility from urban areas.

4 CONCLUSIONS AND SOME SIMULATIONS

The spatial interaction between Slovenian NUTS 3 and NUTS 5 regions (municipalities) could be studied through migration and (labour) commuting flows. We consider commuting as an alternative for migration. The inter-municipal flows in Slovenia in the period 2000-2009 are described in Tab. 24-27.

A significant challenge related to the usage of spatial interaction models in the Slovenian case study is related to their finding the value of each parameters of the model (exponents of individual indicators). Furthermore by comparing the estimated results with empirical evidence the findings on residuals and their association with some other a-posteriori analysed indicators of regions could be analysed. By altering the values of indicators we can forecast how they would influence the estimated spatial interactions. Furthermore, the value of the parameters can change in time due to the factors such as technological innovations, economic development and institutional changes, like those in the process of accessing to European Union. For instance, the consequence of improvements in transport efficiency is generally friction of distance. The economic development and crisis are likely to influence the values of exponents – powers of indicators, which describe stickiness and attractiveness of regions for different audiences.

Regarding the level of analysis of Slovenian intrastate migrations and labour commuting, in this study data on NUTS 3 and especially NUTS 5 level were studied. Once the spatial interaction models have been validated for NUTS 3 or NUTS 5 regions, they can then be used for simulation and prediction purposes, such as how many additional flows would be generated if the value of the indicator in consideration increased or if better transport infrastructure were provided, increasing the accessibility index. Some examples of simulations are given bellow.

Another feature of in this case study derived gravity models is its consideration of both in-flows and out-flows of migrants or commuters for each region of Slovenia. This is noteworthy since a majority of other studies attempts to explain net migration opposed to gross migration and allocation of these flows to other regions.

The migrations and daily commuting in Slovenia increased over time in distance and in time spending distance. On the municipal (NUTS 5) level the rate of increase of migrations and labour commuters per year from 2000 to 2006 is presented in Tab. 44.

There were 19,674 migrations between Slovenian NUTS 5 regions in 2000. The number of migrants increased in the period 2000-2006 with 5 % growth rate per year. The highest yearly growth rate was on the distance between 60 and 75 minutes of travel time (12 % yearly growth of flow), furthermore the distance between 45 and 60 minutes of travel time (average yearly growth of migrations being 8 %), while intensity of flows over 150 minutes of travel time between municipalities (NUTS 5 region) was decreasing over the analysed period. The growth decreased in 2003 and 2009. The latest decrease was probably because of the economic crisis, while nearly in all distances the growth of migration flow was the highest in 2006 (19.4 %; having the highest value on the distances between 120 minutes of travel to 165 minutes of travel, around 50 % of yearly growth).

The number of migrations increased more than the number of labour commuters. The increase of migrants and labour commuters was the highest (it nearly doubled) in the distance interval between 60 and 75 minutes. The next important increase of labour commuters was in the distance interval between 120 and 150 minutes.

Table 44: Increase of yearly flows of migrants and labour commuters in Slovenia from 2000 to 2006 on NUTS 5 level [coefficients GM(2006)/GM(2000) and DC(2006)/DC(2000)].

Travel time (min)	Increase of yearly flow	
	Migration	Commuting
[0-15]	1.22	1.04
(15-30]	1.39	1.23
(30-45]	1.35	1.33
(45-60]	1.61	1.77
(60-75]	1.93	1.95
(75-90]	1.41	1.63
(90-105]	1.17	1.14
(105-120]	1.29	1.07
(120-135]	1.45	1.83
(135-150]	1.31	1.86
(150-165]	0.81	0.75
(165-180]	0.44	0.28
(180-195]	0.47	1.03
(195-210]	0.43	1.30
(210-225]	0.64	0.54
(225-240]	0.00	0.13
> 240	0.00	0.13
Slovenia	1.34	1.22

There are many reasons for migrations and commuting between regions, mostly dependent on regional endowments. The endowments could be described by different numeric variables, which have been studied as variables in our gravity models. We attempted to include all theoretically significant variables in the gravity model or into the study of residuals to explain migrations and labour commuting. The model has been examined for possible multicollinearity. The variables represent the indicators of territorial capital. They have been grouped according to the classification in the Interim report (Russo et al., 2010) as follows: *environmental capital, anthropic capital, economic capital, social & cultural capital, human capital, and institutional capital.*

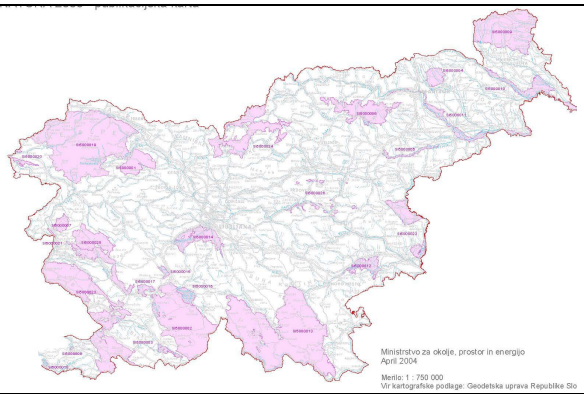
4.1 Environmental capital

Environmental capital relates to the natural environment (coastal area, the Alps, area of Natura 2000, and pollution in Slovenia). These factors have been considered in NUTS 3 level basic model considering the development risk indicator or in study of residuals on NUTS 5 level.

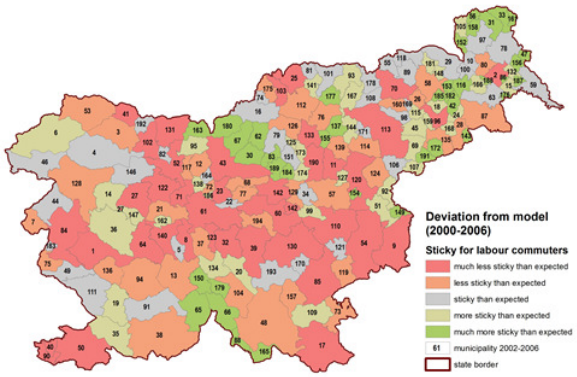
Regarding NUTS 5 level, we did not find any important environmental influence on stickiness or attractiveness of regions except

- coastal regions are less sticky and the most attractive according to the rank-list of deviations from expected values, even though they are border regions they behave opposite to the majority of other border cases;
- the most polluted municipality Trbovlje (129) and its centre Trbovlje (as central place on NUTS 3 level) is less attractive than other central places (with lower positive deviation from the expected value than other central places according to the model);
- the NUTS 3 region Central Sava (Zasavska), whose central place is Trbovlje and which is more polluted than others, gets less undergraduate (and graduate) diplomas each year than other municipalities having the role of central places on NUTS 3 level of Slovenia.

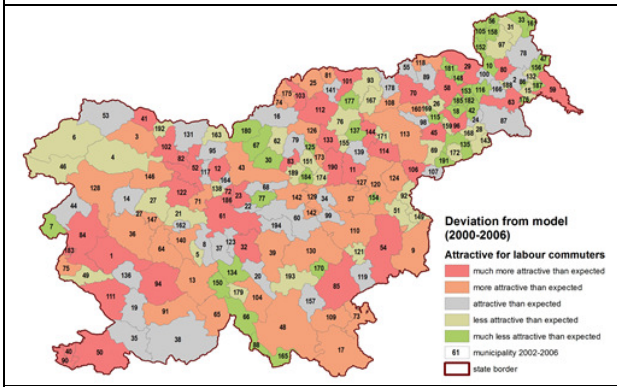
Natura 2000 is a comprehensive ecological network of areas designated by the European Union member states. The rare or endangered habitats are to be protected in Slovenia also. The main objective of the network is to conserve valuable biodiversity for future generations. After April 2004 there are 286 Natura 2000 sites in total, encompassing approximately 35 % of Slovenian area.



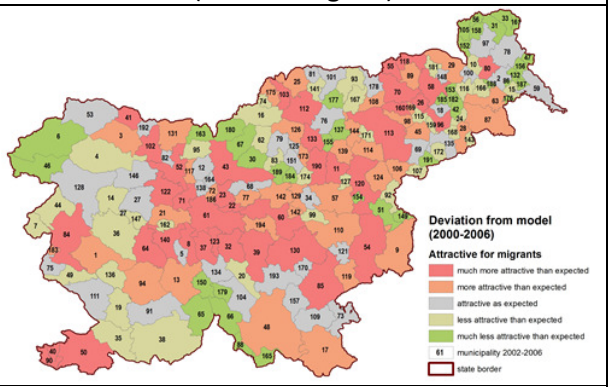
The area of Natura 2000 (in pink)



Much less sticky than expected regions for commuting are rarely under NATURA 2000. The lower stickiness is not much under the influence of NATURA 2000. These regions are often more sticky than expected or close to the expected value
(see also Fig. 24).



In general, NATURA 2000 does not influence higher attractiveness for labour commuters (see also Fig. 26).



In general, NATURA 2000 does not influence higher attractiveness for migrations (see Fig. 25).

Figure 32: Residuals of attractiveness and stickiness in relation to NATURA 2000.

From Fig. 32 we can conclude that the percentage of area under NATURA 2000 in a municipality (NUTS 5 region) does not influence positively the in-migrations (attractiveness for migration) or destination of labour commuters (attractiveness for labour commuting) neither does it influence labour commuters in a way that they would be willing to stay living under NATURA 2000 and commute to work.

4.2 Anthropic capital

Regarding anthropic capital we found the reduction of time spending distance $d_{ij}(t)$ as the most important indicator. Furthermore, we found the indicator of useful floor space of dwellings *K(UFSDPC*) and other kind of real-estate per capita indicators in municipality of origin and destination influencing flows, that is, indicator of investments *K(GICPC)* and indicator of price for the real-estate like K*(APBL*), as factors which influence flow of migrations and labour commuting.

4.2.1 Time spending distance

We can see that the number of migrants per year on the distance lower than 150 minutes is increasing each year and it is 22 % higher in 2006 compared to 2000 in the distance of 0-15 min, and it doubled in the distance between 1 hour to 1 hour and a quarter. Migrations over 150 min have decreasing from 2000 to 2006. We have found that investment in roads influence shorter time spending distance, which is an important factor influencing migration and labour commuting flows. This indicator of anthropic capital was studied also on NUTS 0 level between European states and inside each state on NUTS 2 level.

In case of the inter-state flows on NUTS 0 level we found that in the gravity model power β_3 has value equal to -0.24**.** In case of the inter-regional flows in the other European countries on NUTS 2 level we found that in the gravity model power β_3 has value between -0.19 in Spain and -2.32 in Belgium. It means, for example, that the investments in roads which would reduce the time spending distance by p = 20 % would increase the flows in Spain by 4 % ($0.8^{-0.19}=1.04$), in Italy where β_3=-0.38 the increase of migration flows would be nearly 9 % ($0.8^{-0.38}=1.09$), but in Belgium it would increase by 68 % ($0.8^{-2.32}=1.68$), if other parameters would not change (for other states see Tab. 10). The migration flows between Slovenian NUTS 3 regions would increase by 70 % and the flows of commuting by 69 %, if the time spending distance would decrease by 20 %. In general we have no such investments which would decrease the time spending distance by 20 %, but by much less. For migrations and commuting on NUTS 5 (municipal) level of Slovenia the reduction of time spending distance is less important. For migrations, parameter β_3 was equal -0.815 in the period 2000-2006. In this case the 20 % decrease of time spending distance would increase the flows by 20 %, but in the period 2007-2009 the parameter increase to -1.088, influencing the flows, is more than 27 %. For labour commuting the 20 % reduction of time spending distance induced 25 % of additional commuting $(\alpha_3=1.003)$ in the period 2000-2006, while in the period 2007-2009 it would be 27 % more commuters for 20 % of reduction of time spending distance $(\alpha_3=1.087)$.

4.2.2 Useful floor space of dwellings

Another important anthropic capital is the availability of flats and other real estate according to the spatial standard (in m^2 per capita): Coefficients of useful floor space of dwellings per capita *K(UFSDPC*) in municipality of origin and destination ([useful floor space of dwellings (or other kind of real estate) in m^2 in municipality of origin or destination / population in municipality of origin] / [useful floor space of dwellings (or other kind of real estate) in m^2 in Slovenia / population in Slovenia]).

The value of different kind of real estate indicators is highly correlated, therefore we have used only the coefficient of useful floor space of dwellings K*(UFSDPC).* This indicator influenced the migration and daily commuting significantly. The increase in value of the indicator is increasing attractiveness and decreasing stickiness.

For migrations the parameters have been the following:

If this indicator was lower by 20 %, attractiveness of the region for inflows of migrations in 2000-2006 would decrease by 4.8 % ($=0.8^{0.22}$ -1) and stickiness would increase by 3.5 % ($=0.8^{0.159}$ -1). In 2007 the decrease of attractiveness and increase of stickiness would be even higher: -12.4 % ($=0.8^{0.592}-1$) and -9.3 % ($=0.8^{0.438}-1$, respectively); see Tab. 45.

Table 45: The decrease of migration flows on NUTS 5 level if K(UFSDPC) decreased by 20 %.

p = -20%	2000-2006 increase of flows	2000-2006 migration power	2007-2009 increase of flows	2007-2009 migration power
Stickiness of origin	-3.5 %	0.159	-9.3 %	0.438
Attractiveness of destination	-4.8 %	0.220	-12.4 %	0.592

And for commuting the increase of flows would be the following: If this indicator became 20 % lower, attractiveness of the region for inflows of commuters in 2000-2006 would decrease by 4.3 % ($=0.8^{0.196}-1$) and stickiness would increase by 7.4 % ($=0.8^{0.343}-1$). In 2007 the decrease of attractiveness and increase of stickiness would be even higher 9.5 % ($=0.8^{0.448}-1$) and 10.4 ($=0.8^{0.494}-1$), respectively.

Table 46: The decrease of labour commuting flows on NUTS 5 level if K(UFSDPC) decreased by 20 %.

p = -20%	2000-2006 increase of flows	2000-2006 commuting power	2007-2009 increase of flows	2007-2009 commuting power
Stickiness of origin	-7.4 %	0.343	-10.4 %	0.494
Attractiveness of destination	-4.3 %	0.196	-9.5 %	0.448

4.2.3 Gross investments in construction work and land improvement per capita

Coefficient of gross investments in construction work and land improvement per capita K(GICPC) ([gross investments in construction work and land improvement per capita in municipality of origin or destination / gross investments in construction work and land improvement per capita in Slovenia]). This indicator is correlated with migration and daily commuting. When the value of the indicator increases, attractiveness decreases, thereby increasing stickiness of regions for labour commuting.

For migration, the parameters have been the following: If this indicator became 20 % lower, attractiveness of region for inflows of migrations in 2000-2006 would increase by 0.3 % and stickiness would decrease by 0.3 %. In 2007-2009 the increase of attractiveness would be the same and decrease of stickiness would be even higher; see Tab. 47.

Table 47: The decrease of migration flows on NUTS 5 level if K(GICPC) decreased by 20 %.

p=-20%	2000-2006 increase of flows	2000-2006 migration power	2007-2009 increase of flows	2007-2009 migration power
Stickiness of origin	0.3 %	-0.012	0.4 %	-0.017
Attractiveness of destination	0.3 %	-0.012	0.3 %	-0.012

For daily commuting, the increase of flows would be the following: If this indicator became 20 % lower, attractiveness of region for inflows of commuters in 2000-2006 would increase by 0.3 % and stickiness would decrease by 0.2 %. In 2007-2009 the increase of attractiveness and decrease of stickiness would be even higher: by 0.1 %

Table 48: The decrease of labour commuting flows on NUTS 5 level if K(GICPC) decreased by 20 %.

p=-20%	2000-2006 increase of flows	2000-2006 commuting power	2007-2009 increase of flows	2007-2009 commuting power
Stickiness of origin	0.2 %	-.009	0.5 %	-.021
Attractiveness of destination	0.3 %	-.012	0.4 %	-.019

4.2.4 Prices of real estate

Increasing of real estate prices is in correlation with increasing attractiveness and decreasing of stickiness of (migration and commuting) flows. The coefficient of average price per m^2 of building floor in municipality of origin or destination K(APBL) (average price per m^2 of building floor in municipality / average price per m^2 of building land in Slovenia) is correlated with stickiness and attractiveness for migrations and commuting as presented in Tab. 49 and 50. Because the prices for different real estates have been correlated and the coefficients are directly proportional, we further examined only the prices of building land. At a decrease of price coefficient K(APBL) by 20 %, the changes in migration flows would be the following.

Table 49: The decrease of migration flows on NUTS 5 level if K(APBL) decreased by 20 %.

p=-20%	2000-2006 decrease of flows	2000-2006 migration power	2007-2009 decrease of flows	2007-2009 migration power
Stickiness of origin	-2.8 %	0.125	-0.7 %	0.03
Attractiveness of destination	-3.6 %	0.165	-1.8 %	0.081

Commuters still commute more to the regions with higher prices of real estate – or, probably, they are creating the higher prices - though this impact is weaker in 2007-2009 than in 2000-2006. While higher prices of real estate were positively correlated with higher out-flow of labour commuters in the past, it is now the opposite. In the last 3 years supply of real estate increased in Slovenia like in many other countries. It means that the higher supply of real estate in the last 3 years caused commuting to reduce from the regions where the prices are higher. For the 20 % decrease of price coefficient K(APBL), the changes in migration flows would be the following.

Table 50: The decrease of labour commuting flows on NUTS 5 level if K(APBL) decreased by 20 %.

p=-20%	2000-2006 decrease of flows	2000-2006 commuting power	2007-2009 decrease of flows	2007-2009 commuting power
Stickiness of origin	-0.6 %	0.028	0.5 %	-0.025
Attractiveness of destination	-5.5 %	0.251	-2 %	0.087

4.3 Economic capital

Economic capital relates to the performance of the economy within the region. These groups of factors include gross earnings, unemployment or employment rate, and the generation of wealth, which can be measured through GDP per capita. For inter-state migrations in EU the regression analysis shows that coefficient of GDP per capita K_{BDPp} in states relative to the average in EU has power γ_1 equal to 0.67 as the measure of stickiness of European states according to this endowment and φ_1 is equal to 1.17 as the measure of attractiveness of European states regarding equation:

$$GM_{ij} = 3 \cdot 10^{-4} P_i^{0.76} P_j^{0.80} d(t)_{i,j}^{-0.24} K_{BDPp,i}^{0.67} K_{BDPp,j}^{1.17}.$$

It means that if the GDP per capita is 10 % higher on average, the out-flow from European state is on average 6.6 % ($=1.1^{0.67}-1$) higher and in-flow is 11 % ($=1.1^{1.17}-1$) higher, while if this indicator increase for 20 %, the out-flow from such European state is on average 13 % higher and inflow is 22.5 % higher.

Considering Slovenian NUTS 3 level, we have found out that this indicator could be mostly hidden in other economic indicators like gross earnings or employment and it does not influence stickiness at all. We got the following equation:

$$GM_{ij} = 0.08 P_i^{0.81} P_j^{0.67} d(t)_{ij}^{-1.47}(t) K_{GEAR,j}^{4.98} K_{EMP,j}^{3.99} K_{DR,j}^{0.57}$$

From this equation we can also conclude that economic indicators on NUTS 3 level do not influence stickiness at all, but they influence attractiveness of NUTS 3 regions. It means that on average if the coefficient of gross earning (as coefficient between gross earning per capita on the level of region and gross earnings per capita in Slovenia) is on average 10 % higher, the inflow to this region is on average 61 % ($=1.1^{4.98}-1$) higher, while if this indicator increase for 20 %, the out-flow from this flow is on average 148 % higher. The flow to the regions where employment is 10 % or 20 % higher than on average, the flow increase for 46 % or 107 % respectively to increase of employment. The last indicator is combination of GDP, environmental characteristics and unemployment and is measure of development risk in region. The flows are more intensive to the regions which are according to this measure more exposed to risk, which could be the result of investment policy.

On the NUTS 5 level the following indicators have been found as significant at least ones: *K(EMP) as c*oefficient of employment in municipality of origin or destination ([number of employed persons in municipality / active population in municipality] / [number of employed persons in Slovenia / active population in Slovenia]) and *K(GEAR) as c*oefficient of gross earning per capita in municipality (average gross earning in euro per capita in municipality / average gross earning in euro per capita in Slovenia). For gross migrations and labour commuting we got the following results presented in Tab. 51.

Table 51: The impact of economic indicators on migrations and commuting on NUTS 5 level in Slovenia.

Indicator	Migration			Commuting		
	Power	2007-2009	2000-2006	Power	2007-2009	2000-2006
$K(EMP)_i$	γ_1	-0.134	-0.090	κ_1	-0.100	-0.097
$K(EMP)_j$	φ_1	-0.189	-0.128	λ_1	(-0.004)	(0.004)
$K(GEAR)_i$	γ_2	0.263	0.114	κ_2	(-0.006)	0.026
$K(GEAR)_j$	φ_2	0.242	0.132	λ_2	0.375	0.357

Table 52: The impact of increase the economic indicators on NUTS 5 level for 10 %.

p= 10 %; K=1.1	Migration			Commuting		
Indicator		2007-09	2000-06		2007-09	2000-06
$K(EMP)_i$	stickiness	-1.3	-0.9	stickiness	-0.9	-0.9
$K(EMP)_j$	attractiveness	-1.8	-1.2	attractiveness	Not signif.	Not signif.
$K(GEAR)_i$	stickiness	2.5	1.1	stickiness	Not signif.	0.2
$K(GEAR)_j$	attractiveness	2.3	1.3	attractiveness	3.6	3.5

From the Tab. 52 it follows that in case that coefficient of employment in the region is 10 % higher the migrations and commuting have been reduced: the stickiness of migrations increased for 1.3 % in the period 2007-2009 and for 0.9 % in the period 2000-2006. The increase of stickiness for commuting was the same (0.9 %) all the time. Higher employment in region decreased attractiveness for migrations and did not influence inflows of commuters all the time (has not proven significant). In case that coefficient of employment in the region was 10 % higher the attractiveness of migrations decreased on average for 1.8 %

in the period 2007-2009 and for 1.2 % in the period 2000-2006. The attractiveness for commuting has not proven significant; it was all the time not sensitive on employment rate in the region on NUTS 5 level.

From the Tab. 52 it also follows that in case that coefficient of gross earnings in the region was 10 % higher the stickiness of migrations decreased for 1.3 % in the period 2007-2009 and for 1.1 % in the period 2000-2006. The increase of stickiness for commuting has not proven significant in the period 2007-2009 and it was only slightly more significant in 2000-2006, having the value only 0.2 %. In case that coefficient of gross earnings in the region was 10 % higher attractiveness of migrations increased for 2.3 % in the period 2007-2009 and for 1.3 % in the period 2000-2006. The attractiveness for commuting was all the time much more sensitive on gross earnings. It increased for 3.6% on average in 2007-2009 and for 3.5 % on average in 2000-2006.

In (Drobne et al., 2011b) we studied also the approach to the policy of commuting dynamics where $GEAR_i$ is compensated with the change of the others factors.

4.4 Social and cultural capital

Social and cultural capital capture characteristics of the people living within an area either in terms of demographic characteristics (from size of the population - number of inhabitants in region, to demographic structure explained by age - index of aging or the percentage of more educated population), well-being (wealth and health), availability of schools theatres and other amenities, availability of information - people are more likely to move to places where relatives and friends have previously migrated so as to reduce uncertainty. According to Anjomani (2002), gross migration is also considered as a proxy for the "availability of information". It is also widely accepted that the availability of information concerning alternative places plays a prominent role in the potential migrant's decision regarding a destination - especially if other social and cultural characteristics are acceptable for him. In our study, age index and the percentage of the most working active cohort was studied and correlation with daily commuting or migration on NUTS 5 level. A sharing a common language was not analysed here.

In our case study we have included the following indicator from the group of social and cultural capital into the model:

P	Population in municipality of origin and destination
K(A)	Coefficient of ageing index in municipality of origin or destination(100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in municipality of origin or destination) / (100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in Slovenia)

While in the inter-state migrations in EU the regression analysis show that population size of a state of origin has power 0.76 as the measure of stickiness of European states according to this endowment and 0.80 as the measure of attractiveness of European states regarding equation:

$$GM_{ij} = 3 \cdot 10^{-4} P_i^{0.76} P_j^{0.80} d(t)_{ij}^{-0.24} K_{BDPp,i}^{0.67} K_{BDPp,j}^{1.17}.$$

It means that on average if the population is 10 % higher, the out-flow from European state is on average 7.5 % ($=1.1^{0.76}-1$) higher and inflow is 7.9 % ($=1.1^{0.80}-1$) higher.

Considering Slovenian NUTS 3 level, we have found out that the exponents are equal to 0.81 and 0.67 respectively. It means that on average if the population is 10 % higher, the out-flow from Slovenian NUTS 3 region to another Slovenian NUTS 3 region is on average 8 % and 6.6 % higher, respectively.

For gross migrations and labour commuting on NUTS 5 level we got the following results in Tab. 53 and 54.

Table 53: The impact of social indicators on migrations and commuting on NUTS 5 level in Slovenia.

Indicator	Migrations			Commuting		
	Power	2007-2009	2000-2006	Power	2007-2009	2000-2006
P_i	β_1	0.808	0.428	α_1	0.594	0.519
P_j	β_2	0.395	0.462	α_2	0.588	0.331
$K(A)_i$	γ_{11}	0.700	0.501	κ_{11}	0.421	0.481
$K(A)_j$	φ_{11}	0.659	0.480	λ_{11}	0.576	0.660

Table 54: The impact of changes in social indicators on NUTS 5 level by 10 %.

p= 10 %; K=1.1	Migrations			Commuting		
Indicator		2007-09	2000-06		2007-09	2000-06
P_i	stickiness	8.0	4.2	stickiness	5.8	5.1
P_j	attractiveness	3.8	4.5	attractiveness	5.8	3.2
$K(A)_i$	stickiness	6.9	4.9	stickiness	4.1	4.7
$K(A)_j$	attractiveness	6.5	4.7	attractiveness	5.6	6.5

4.5 Human capital

Human capital is measured by the availability of labour within a region as well as the blend of skills and qualifications within the resident labour force. Here the influence of the most important working cohort is subject of investigation. The indicator is defined as:

$K(CP)_i$	Coefficient of creative population in municipality of origin or destination (creative population (aged 25-49 years) in municipality of origin or destination / creative population (aged 25-49 years) in Slovenia)

For gross migrations and labour commuting on NUTS 5 level we got the following results in Tab. 55 and 56.

Table 55: The impact of human capital on migrations and commuting on NUTS 5 level in Slovenia.

Indicator	Migrations			Commuting		
	Power	2007-2009	2000-2006	Power	2007-09	2000-06
$K(CP)_i$	γ_{12}	-0.345	-0.173	κ_{12}	-0.349	-0.319
$K(CP)_j$	φ_{12}	(0.068)	0.094	λ_{12}	-0.226	(-0.025)

The municipalities with higher human capital measured by relative availability of working population in age 25-49 are stickier for migrations and commuters. The stickiness increased after 2007.

Table 56: The impact of changes in human capital on NUTS 5 level by 10 %.

p= 10 %; K=1.1	Migrations			Commuting		
Indicator		2007-09	2000-06		2007-09	2000-06
$K(CP)_i$	stickiness	-3.2	-1.6	stickiness	-3.3	-3.0
$K(CP)_j$	attractiveness	Not signif.	0.9	attractiveness	-2.1	Not signif.

The stickiness of a region with 10 % higher percentage of active population in age 25-49 for migration flows is higher by 1.6 % in 2000-2006, but the influence of this social endowment was higher after 2007. For commuting flows the indicator higher by 10 % created 3 % higher stickiness in the period 2000-2006 and raised on 3.3 % in 2007-2009.

The immigration flow (attractiveness) on NUTS 5 level was not dependent on the percentage of creative classes in the region of immigration in the period 2007-2009; before it also had a very low positive influence (0.9). The flow of daily commuters into the region on NUTS 5 level was not sensitive to the percentage of creative classes in the region of destination in 2000-2006, while in the period 2007-2009 the creative class also had very low negative influence on the flow to the place of work for labour from outside the region.

From the study of residuals we have found that the rank of deviation from the expected stickiness in central places of NUTS 3 regions was highly correlated with the rank of central places according to the number of graduates in the region in 2006, 2007 and 2009. We can also see in Tab. 43 that the rank of attractiveness of central places is highly correlated with the number of graduates in the region in the same period.

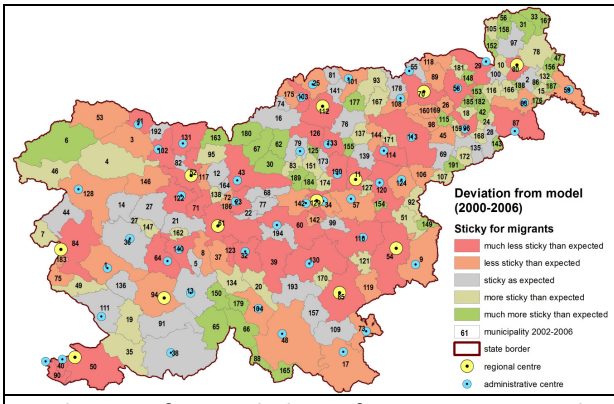
4.6 Institutional capital

The most important institutional capital for immigration to Slovenia or emigration from the state were accession of Slovenia to EU in 2004 and accession to the EURO zone and Schengen Area in 2007. We can see that the average annual growth rate of migration inflows in Slovenia in the period 2000-2006 was 24.8 %, while in the year after accession immigration flows increased to 47.9 %. In the most lagged behind Mura region (*Pomurska regija*) it increased by 102 % in 2005, while the average yearly growth in the period 2000-2006 in this region was 22.8 %. In some regions the highest migration growth was in 2007, when Slovenia joined the EURO zone and Schengen Area. The growth appeared to be negative in many regions in 2009, which was probably the result of economic crisis (details are available in Tab. 11).

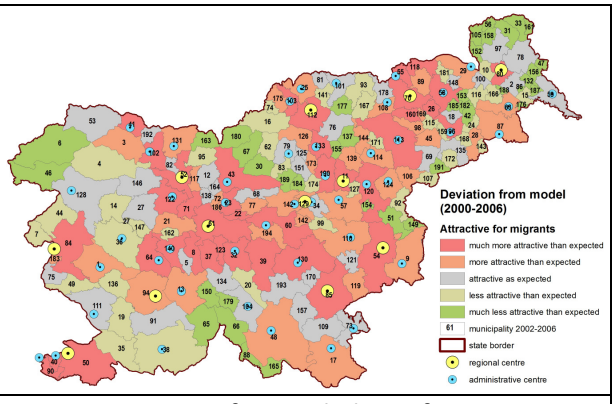
Annual emigration growth from Slovenia was negative in all regions on NUTS 3 level in the year before accession (2003). This was the only year of negative growth rate of emigration in Slovenia (see Tab. 13). In the year 2005, just after accession, the emigration growth was positive, but the lowest of all positive emigration rates. In the most lagged behind Mura region (*Pomurska regija*) emigration also increased in 2005 and it was higher than the immigration to the same region (105 %). Accession to EURO zone and Schengen area in 2007 also decreased the emigration flows from Slovenia to other states in nearly all NUTS 3 regions.

Labour commuting flows increased from 2000 to 2006 on yearly average 3.3 % from 299,188 commuters in 2000 to 363,978 commuters in 2006. But in 2007, after the accession to Schengen and EURO areas, it increased by 7.8 %. The economic crisis in 2008 decreased the labour commuting flow from 2008 to 2009 by nearly 4 %. In the time-spending distance between 45 min to 90 min, the yearly growth of flows was the highest from 2000 till 2006 (10-12 %). The next was the distance of 75-90 minutes of travel time to destination with the average yearly growth 8.5 % in the period 2000-2006. While in 2007 the intensity of labour commuting was even higher (10.6 %) on these distances, in 2009 the flow of labour commuters on this time spending distance had fallen by 11 %, probably due to the economic crisis, when many workers lost their jobs.

Cities and towns as regional and administrative centres are also important institutional capital. Fig. 33 shows residuals of attractiveness and stickiness in the municipality in relation to 12 regional and/or 54 administrative centres of Slovenia.



Stickiness of central places for migrants: Nearly all (except one) regional centres are much more sticky and all administrative centres are above or equal to median (see also Fig. 5 and Fig. 23).



Attractiveness of central places for migrants: Nearly all (except one) regional centres are much more attractive and all administrative centres are above or equal to median (see also

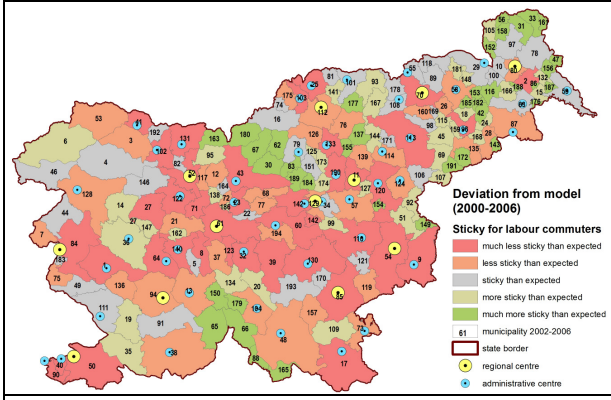
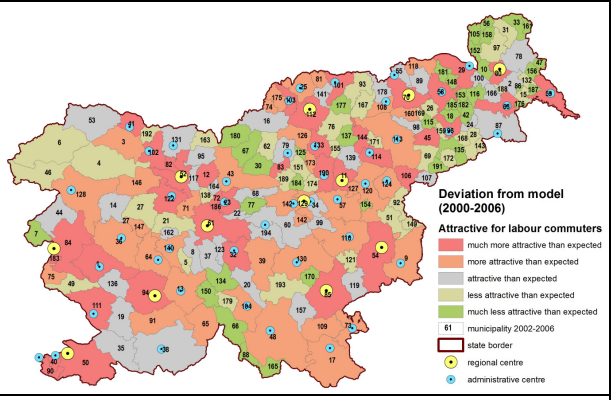
	Fig. 5 and Fig. 25).
	
Stickiness of central places for labour commuters: Nearly all (except two) regional centres are much more sticky and all administrative centres are above or equal to median (see also Fig. 5 and Fig. 24).	Attractiveness of central places for labour commuters: all regional centres are much more attractive and all administrative centres are above median (see also Fig. 5 and Fig. 26).

Figure 33: Residuals of attractiveness and stickiness of municipality for migrants and commuters in relation to regional and administrative centres.

From Fig. 33 we can see that nearly all regional centres were much more attractive and much less sticky for migrants and labour commuters in the period 2000-2006. The only exception was the regional centre Postojna for stickiness for migrants and labour commuters and for attractiveness for migrants – but it was much more attractive for labour commuters. Also administrative centres were above median according to the stickiness and attractiveness for migrants and labour commuters as well.

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Rank of deviation of expected stickiness of Slovenian municipalities for migrants in the period 2007-2009

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Rank of deviation of expected stickiness of Slovenian municipalities for labour commuters in the period 2007-2009

Annex E7:
Rank of deviation of expected attractiveness of Slovenian municipalities for migrants in the period 2007-2009

Annex E8:
Rank of deviation of expected attractiveness of Slovenian municipalities for labour commuters in the period 2007-2009

Annex A: List of Slovenian municipalities from 2000 to 2009.

Id	Municipality (NUTS 5)
1	Ajdovščina
2	Beltinci
3	Bled
4	Bohinj
5	Borovnica
6	Bovec
7	Brda
8	Brezovica
9	Brežice
10	Tišina
11	Celje
12	Cerklje na Gorenjskem
13	Cerknica
14	Cerkno
15	Črenšovci
16	Črna na Koroškem
17	Črnomelj
18	Destrnik
19	Divača
20	Dobrepolje
21	Dobrova - Polhov Gradec
22	Dol pri Ljubljani
23	Domžale
24	Dornava
25	Dravograd
26	Duplek
27	Gorenja vas - Poljane
28	Gorišnica
29	Gornja Radgona
30	Gornji Grad
31	Gornji Petrovci
32	Grosuplje
33	Šalovci/Šalovci
34	Hrastnik
35	Hrpelje - Kozina
36	Idrija
37	Ig
38	Ilirska Bistrica
39	Ivančna Gorica
40	Izola/Isola
41	Jesenice
42	Juršinci
43	Kamnik
44	Kanal
45	Kidričevo
46	Kobarid
47	Kobilje
48	Kočevje
49	Komen
50	Koper/Capodistria
51	Kozje
52	Kranj
53	Kranjska Gora
54	Krško
55	Kungota
56	Kuzma

Id	Municipality (NUTS 5)
57	Laško
58	Lenart
59	Lendava/Lendva
60	Litija
61	Ljubljana
62	Ljubno
63	Ljutomer
64	Logatec
65	Loška dolina
66	Loški Potok
67	Luče
68	Lukovica
69	Majšperk
70	Maribor
71	Medvode
72	Mengeš
73	Metlika
74	Mežica
75	Miren - Kostanjevica
76	Mislinja
77	Moravče
78	Moravske Toplice
79	Mozirje
80	Murska Sobota
81	Muta
82	Naklo
83	Nazarje
84	Nova Gorica
85	Novo mesto
86	Odranci
87	Ormož
88	Osilnica
89	Pesnica
90	Piran/Pirano
91	Pivka
92	Podčetrtek
93	Podvelka
94	Postojna
95	Preddvor
96	Ptuj
97	Puconci
98	Rače - Fram
99	Radeče
100	Radenci
101	Radlje ob Dravi
102	Radovljica
103	Ravne na Koroškem
104	Ribnica
105	Rogašovci
106	Rogaška Slatina
107	Rogatec
108	Ruše
109	Semič
110	Sevnica
111	Sežana
112	Slovenj Gradec

Id	Municipality (NUTS 5)
113	Slovenska Bistrica
114	Slovenske Konjice
115	Starše
116	Sveti Jurij
117	Šenčur
118	Šentilj
119	Šentjernej
120	Šentjur
121	Škocjan
122	Škofja Loka
123	Škofljica
124	Šmarje pri Jelšah
125	Šmartno ob Paki
126	Šoštanj
127	Štore
128	Tolmin
129	Trbovlje
130	Trebnje
131	Tržič
132	Turnišče
133	Velenje
134	Velike Lašče
135	Videm
136	Vipava
137	Vitanje
138	Vodice
139	Vojnik
140	Vrhnika
141	Vuzenica
142	Zagorje ob Savi
143	Zavrč
144	Zreče
146	Železniki
147	Žiri
148	Benedikt
149	Bistrica ob Sotli
150	Bloke
151	Braslovče
152	Cankova
153	Cerkvenjak
154	Dobje
155	Dobrna
156	Dobrovnik/Dobronak
157	Dolenjske Toplice
158	Grad
159	Hajdina
160	Hoče - Slivnica
161	Hodoš/Hodos
162	Horjul
163	Jezersko
164	Komenda
165	Kostel

Id	Municipality (NUTS 5)
166	Križevci
167	Lovrenc na Pohorju
168	Markovci
169	Miklavž na Dravskem polju
170	Mirna Peč
171	Oplotnica
172	Podlehnik
173	Polzela
174	Prebold
175	Prevalje
176	Razkrižje
177	Ribnica na Pohorju
178	Selnica ob Dravi
179	Sodražica
180	Solčava
181	Sveta Ana
182	Sveti Andraž v Slov. goricah
183	Šempeter - Vrtojba
184	Tabor
185	Trnovska vas
186	Trzin
187	Velika Polana
188	Veržej
189	Vransko
190	Žalec
191	Žetale
192	Žirovnica
193	Žužemberk
	From 2002
194	Šmartno pri Litiji
	From 2006
195	Apače
196	Cirkulane
197	Kostanjevica na Krki
198	Makole
199	Mokronog - Trebelno
200	Poljčane
201	Renče - Vogrsko
202	Središče ob Dravi
203	Straža
204	Sv. Trojica v Slov. goricah
205	Sveti Tomaž
206	Šmarješke Toplice
207	Gorje
208	Log - Dragomer
209	Rečica ob Savinji
210	Sv. Jurij v Slov. goricah
211	Šentrupert

Annex B: List of variables studied in inter-municipal migration and commuting gravity models of Slovenia in 2000 to 2009.

Varcode	Variable	Source	Data cover
M_{ij}	Migration flows from municipality of origin (i) to municipality of destination (j) in Slovenia	Statistical Office of the Republic of Slovenia, and own elaboration (Samo Drobne)	Flows between all municipalities, by years in 2000-2009
C_{ij}	Commuting flows from municipality of origin (i) to municipality of destination (j) in Slovenia	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	Flows between all municipalities, by years in 2000-2009
P_i	Population in municipality of origin	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
P_j	Population in municipality of destination	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$d(t)_{ij}$	Travel time in minutes between the centre of municipality of origin and the centre of municipality of destination (the fastest way by road for car considering speed limits for seven different state road categories and waiting time at toll)	Slovenian Road Agency and own elaboration in GIS (Samo Drobne)	All relations between centres of all municipalities, by years in 2000-2009
$d(k)_{ij}$	Distance in kilometres between the centre of municipality of origin and the centre of municipality of destination (the fastest way by road for car considering speed limits for seven different state road categories and waiting time at toll)	Slovenian Road Agency and own elaboration in GIS (Samo Drobne)	All relations between centres of all municipalities, by years in 2000-2009
$C(EMP)_i$	Coefficient of employment in municipality of origin ([number of employed persons in municipality of origin / active population in municipality of origin] / [number of employed persons in Slovenia / active population in Slovenia])	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009

Varcode	Variable	Source	Data cover
$C(EMP)_j$	Coefficient of employment in municipality of destination ([number of employed persons in municipality of destination / active population in municipality of destination] / [number of employed persons in Slovenia / active population in Slovenia])	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(GEAR)_i$	Coefficient of gross earning per capita in municipality of origin (average gross earning in euro per capita in municipality of origin / average gross earning in euro per capita in Slovenia)	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(GEAR)_j$	Coefficient of gross earning per capita in municipality of destination (average gross earning in euro per capita in municipality of destination / average gross earning in euro per capita in Slovenia)	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(UFSDPC)_i$	Coefficient of useful floor space of dwellings per capita in municipality of origin ([useful floor space of dwellings in m^2 in municipality of origin / population in municipality of origin] / [useful floor space of dwellings in m^2 in Slovenia / population in Slovenia])	Statistical Office of the Republic of Slovenia, Statistical Yearbook, Dwelling stock, dwellings by number of rooms and useful floor space) (http://www.stat.si/eng/pub_letopis_prva.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(UFSDPC)_j$	Coefficient of useful floor space of dwellings per capita in municipality of destination ([useful floor space of dwellings in m^2 in municipality of destination / population in municipality of destination] / [useful floor space of dwellings in m^2 in Slovenia / population in Slovenia])	Statistical Office of the Republic of Slovenia, Statistical Yearbook, Dwelling stock, dwellings by number of rooms and useful floor space) (http://www.stat.si/eng/pub_letopis_prva.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009

Varcode	Variable	Source	Data cover
$C(GICPC)_i$	Coefficient of gross investments in construction work and land improvement per capita in municipality of origin ([gross investments in construction work and land improvement in euro in municipality of origin / population in municipality of origin] / [gross investments in construction work and land improvement in euro in Slovenia / population in Slovenia])	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(GICPC)_j$	Coefficient of gross investments in construction work and land improvement per capita in municipality of destination ([gross investments in construction work and land improvement in euro in municipality of destination / population in municipality of destination] / [gross investments in construction work and land improvement in euro in Slovenia / population in Slovenia])	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(APBL)_i$	Coefficient of average price per m^2 of building land in municipality of origin (average price per m^2 of building land in municipality of origin / average price per m^2 of building land in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(APBL)_j$	Coefficient of average price per m^2 of building land in municipality of destination (average price per m^2 of building land in municipality of destination / average price per m^2 of building land in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(APAL)_i$	Coefficient of average price per m^2 of agricultural land in municipality of origin (average price per m^2 of agricultural land in municipality of origin / average price per m^2 of agricultural land in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009

Varcode	Variable	Source	Data cover
$C(APAL)_j$	Coefficient of average price per m^2 of agricultural land in municipality of destination (average price per m^2 of agricultural land in municipality of destination / average price per m^2 of agricultural land in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(APBP)_i$	Coefficient of average price per m^2 of business premises in municipality of origin (average price per m^2 of business premises in municipality of origin / average price per m^2 of business premises in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(APBP)_j$	Coefficient of average price per m^2 of business premises in municipality of destination (average price per m^2 of business premises in municipality of destination / average price per m^2 of business premises in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(APF)_i$	Coefficient of average price per m^2 of flat in municipality of origin (average price per m^2 of flat in municipality of origin / average price per m^2 of flat in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(APF)_j$	Coefficient of average price per m^2 of flat in municipality of destination (average price per m^2 of flat in municipality of destination / average price per m^2 of flat in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(APH)_i$	Coefficient of average price per m^2 of house in municipality of origin (average price per m^2 of house in municipality of origin / average price per m^2 of house in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(APH)_j$	Coefficient of average price per m^2 of house in municipality of destination (average price per m^2 of house in municipality of destination / average price per m^2 of house in Slovenia)	Tax Administration of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009

Varcode	Variable	Source	Data cover
LMI_i	Labour migration index in municipality of origin (100 x (persons in employment by territorial unit of workplace / persons in employment by territorial unit of residence))	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
LMI_j	Labour migration index in municipality of destination (100 x (persons in employment by territorial unit of workplace / persons in employment by territorial unit of residence))	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(A)_i$	Coefficient of ageing index in municipality of origin (100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in municipality of origin) / (100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in Slovenia)	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(A)_j$	Coefficient of ageing index in municipality of destination (100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in municipality of destination) / (100 x (the ratio between the old population (aged 65 years or more) and the young population (aged 0-14 years) in Slovenia)	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(CP)_i$	Coefficient of creative population in municipality of origin (creative population (aged 25-49 years) in municipality of origin / creative population (aged 25-49 years) in Slovenia)	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009
$C(CP)_j$	Coefficient of creative population in municipality of destination (creative population (aged 25-49 years) in municipality of destination / creative population (aged 25-49 years) in Slovenia)	Statistical Office of the Republic of Slovenia, SI-Stat Data Portal (http://pxweb.stat.si/pxweb/dialog/statfile1.asp) and own elaboration (Samo Drobne)	All municipalities, by years in 2000-2009

Annex C: Bivariate correlation of analysed variables in Slovenia for 2000-2009.

		M_{ij}	C_{ij}	P_i	P_j	$d(t)_{ij}$	$d(k)_{ij}$	$C(EMP)_i$	$C(EMP)_j$	$C(GEAR)_i$	$C(GEAR)_j$	$C(UFSDPC)_i$	$C(UFSDPC)_j$	$C(GICPC)_i$	$C(GICPC)_j$	$C(APBL)_i$	$C(APBL)_j$	$C(APAL)_i$	$C(APAL)_j$	$C(APBP)_i$	$C(APBP)_j$	$C(APF)_i$	$C(APF)_j$	$C(APH)_i$	$C(APH)_j$	LMI_i	LMI_j	$C(A)_i$	$C(A)_j$	$C(CP)_i$	$C(CP)_j$
M_{ij}	Pearson Correlation	1	,587**	,285**	,253**	-,145**	-,132**	,074**	,067**	,079**	,072**	-,024**	,023**	,038**	,035**	,081**	,080**	,055**	,054**	,050**	,046**	,082**	,084**	,080**	,079**	,103**	,088**	,014**	,005**	,282**	,250**
	Sig. (2-tailed)		,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,002	,000	,000
C_{ij}	Pearson Correlation	,587**	1	,076**	,368**	-,144**	-,134**	,040**	,087**	,028**	,102**	-,018**	-,026**	,013**	,050**	,029**	,092**	,029**	,076**	,026**	,074**	,041**	,102**	,039**	,106**	,033**	,147**	-,010**	,019**	,076**	,367**
	Sig. (2-tailed)	,000		,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
P_i	Pearson Correlation	,285**	,076**	1	-,005**	-,061**	-,038**	,282**	,040**	-,002	,244	-,093**	,000	,136**	,000	,240**	,451**	,225**	,471**	-,001	,215**	-,001	,289**	-,001	,292**	-,001	,371**	-,002	,041**	,000	-,005**
	Sig. (2-tailed)	,000	,000		,003	,000	,000	,000	,000	,000	,000	,000	,890	,000	,871	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,334	,000	,962	,000	,003
P_j	Pearson Correlation	,253**	,368**	-,005**	1	-,061**	-,038**	-,001	,282**	-,002	,286**	-,093**	,000	,000	,136**	-,001	,240**	-,001	,225**	-,001	,215**	-,001	,289**	-,001	,292**	-,002	,371**	,000	,041**	-,005**	1,000**
	Sig. (2-tailed)	,000	,000	,003		,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
$d(t)_{ij}$	Pearson Correlation	-,145**	-,144**	-,061**	-,061**	1	,961**	-,057**	-,057**	-,035**	,222**	,222**	,000	-,024**	,000	-,047**	-,047**	-,025**	-,025**	-,035**	-,035**	-,040**	-,040**	-,085**	-,086**	-,015**	-,015**	,258**	,258**	,063**	,063**
	Sig. (2-tailed)	,000	,000	,000	,000		,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
$d(k)_{ij}$	Pearson Correlation	-,132**	-,134**	-,038**	-,038**	,961**	1	-,018**	,010**	,010**	,010**	,218**	,218**	,001	,001	-,015**	-,015**	,019**	,019**	,003	,003	,017**	,017**	-,028**	-,028**	,004**	,004**	,215**	,215**	,039**	,039**
	Sig. (2-tailed)	,000	,000	,000	,000	,000		,000	,000	,000	,000	,000	,000	,416	,416	,000	,000	,000	,000	,065	,065	,000	,000	,000	,000	,019	,019	,000	,000	,000	,000
$C(EMP)_i$	Pearson Correlation	,074**	,040**	,282**	-,001	-,057**	-,018**	1	-,004**	,023**	,000	-,011**	,000	,129**	,000	,209**	-,001	,000	,260**	-,001	,192**	-,001	,259**	-,001	,255**	-,001	,668**	-,003**	-,031**	,000	,284**
	Sig. (2-tailed)	,000	,000	,000	,421	,000	,000		,006	,000	,938	,000	,920	,000	,768	,000	,502	,000	,410	,000	,540	,000	,414	,000	,419	,000	,042	,000	,979	,000	,428
$C(EMP)_j$	Pearson Correlation	,067**	,087**	-,001	,282**	-,057**	-,018**	-,004**	1	,000	,023**	,000	,000	,129**	,000	-,001	,209**	-,001	,260**	-,001	,192**	-,001	,259**	-,001	,255**	-,003**	,668**	,000	-,031**	-,001	,284**
	Sig. (2-tailed)	,000	,000	,421	,000	,000	,000	,006		,938	,000	,000	,920	,000	,768	,000	,502	,000	,410	,000	,540	,000	,414	,000	,419	,000	,042	,000	,979	,000	,428
$C(GEAR)_i$	Pearson Correlation	,079**	,028**	,286**	-,002	-,035**	,010**	,023**	,000	1	,001	,011**	,003	,109**	,112	-,002	,202**	-,001	,219**	-,001	,161**	-,001	,266**	-,001	,259**	-,001	,073**	-,002	,066**	-,002	,287**
	Sig. (2-tailed)	,000	,000	,000	,244	,000	,000	,000	,938		,713	,000	,112	,000	,160	,000	,537	,000	,485	,000	,608	,000	,391	,000	,416	,000	,196	,000	,166	,000	,203
$C(GEAR)_j$	Pearson Correlation	,072**	,102**	-,002	,286**	-,035**	,010**	,000	,023**	,001	1	,003	,011**	-,002	,109**	-,001	,202**	-,001	,219**	-,001	,161**	-,001	,266**	-,001	,259**	-,002	,073**	-,002	,066**	-,002	,287**
	Sig. (2-tailed)	,000	,000	,244	,000	,000	,000	,938	,000	,713		,112	,000	,160	,000	,537	,000	,485	,000	,608	,000	,391	,000	,416	,000	,196	,000	,166	,000	,203	,000
$C(UFSDPC)_i$	Pearson Correlation	-,024**	-,018**	-,093**	,000	,222**	,218**	-,011**	,000	,023**	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
	Sig. (2-tailed)	,000	,000	,000	,890	,000	,000	,000	,000	,000	,112		,920	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
$C(UFSDPC)_j$	Pearson Correlation	-,023**	-,026**	,000	,093**	,222**	,218**	,000	,011**	,003	,011**	-,001		,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
	Sig. (2-tailed)	,000	,000	,890	,000	,000	,000	,920	,000	,112	,000	,920		,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
$C(GICPC)_i$	Pearson Correlation	,038**	,013**	,136**	,000	,024**	,001	,129**	,000	,109**	,002**	-,001	1	-,002	,664	-,001	,743	-,001	,872	-,001	,872	-,001	,595	,000	,761	,000	,987	,000	,534	,000	,928
	Sig. (2-tailed)	,000	,000	,000	,871	,000	,416	,000	,768	,000	,160	,000		,179	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
$C(GICPC)_j$	Pearson Correlation	,035**	,050**	,000	,136**	,024**	,001	,000	,129**	-,002	,109**	-,001	,017**	-,002	,000	,001	,101**	-,001	,073**	-,001	,063**	-,001	,051**	-,001	,054**	-,001	,143**	-,001	,023**	,000	,136**
	Sig. (2-tailed)	,000	,000	,871	,000	,000	,000	,768	,000	,000	,000	,000	,000	,000	,179	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
$C(APBL)_i$	Pearson Correlation	,081**	,029**	,240**	-,001	-,047**	-,015**	-,001	,209**	-,001	,202**	,033**	,000	,101**	-,001	1	-,005**	,327**	-,002	,213**	-,001	,423**	-,002	,407**	-,002	,233**	-,001	,072**	,000	,240**	-,001
	Sig. (2-tailed)	,000	,000	,000	,451	,000	,000	,502	,000	,000	,537	,000	,918	,000	,743		,002	,000	,309	,000	,506	,000	,192	,000	,209	,000	,467	,000	,824	,000	,824
$C(APBL)_j$	Pearson Correlation	,080**	,092**	-,001	,240**	-,047**	-,015**	-,001	,209**	-,001	,202**	,033**	,000	-,001	,101**	-,005**	1	-,002	,327**	-,001	,213**	-,002	,423**	-,002	,407**	-,001	,233**	-,001	,072**	-,001	,240**
	Sig. (2-tailed)	,000	,000	,451	,000	,000	,000	,502	,000	,000	,537	,000	,918	,000	,743	,000		,000	,309	,000	,506	,000	,192	,000	,209	,000	,467	,000	,824	,000	,824
$C(APAL)_i$	Pearson Correlation	,055**	,029**	,225**	-,001	,025**	,019**	,260**	-,001	,219**	-,001	,047**	,000	,073**	,000	,327**	-,002	1	-,005**	,258**	-,001	,436**	-,002	,481**	-,002	,205**	-,001	,048**	,000	,227**	-,001
	Sig. (2-tailed)	,000	,000	,000	,471	,000	,000	,000	,410	,000	,485	,000	,816	,000	,880	,000	,309	,000	,001	,000	,410	,000	,169	,000	,128	,000	,516	,000	,877	,000	,468
$C(APAL)_j$	Pearson Correlation	,054**	,076**	-,001	,225**	-,025**	,019**	-,001	,260**	-,001	,219**	,000	,047**	,000	,073**	-,002	,327**	-,005**	1	-,001	,258**	-,002	,436**	-,002	,481**	-,001	,205**	,000	,048**	-,001	,227**
	Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000		,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000
$C(APBP)_i$	Pearson Correlation	,050**	,026**	-,001	-,001	-,035**	,003	,192**	-,001	,161**	-,001	,038**	,000	,051**	,000	,213**	-,001	,258**	-,001	1	-,005**	,379**	-,002	,345**	-,002	,179**	-,001	,073**	,000	,217**	-,001
	Sig. (2-tailed)	,000	,000	,492	,000	,000	,065	,000	,540	,000	,608	,000	,000	,000	,872	,000	,506	,000	,410	,000	,001	,000	,231	,000	,273	,000	,568	,000	,814	,000	,488
$C(APBP)_j$	Pearson Correlation	,046**	,074**	,001	,215**	-,035**	,003	-,001	,192**	-,001	,161**	,000	,038**	,000	,051**	-,001	,213**	-,001	,258**	,000	1	,002	,379**	,002	,345**	-,001	,179**	,000	,073**	-,001	,217**
	Sig. (2-tailed)	,000	,000	,492	,000	,000	,065	,000	,540	,000	,608	,000	,872	,000	,506	,000	,506	,000	,410	,000	,001	,000	,231	,000	,273	,000	,568	,000	,814	,000	,488
$C(APF)_i$	Pearson Correlation	,082**	,041**	,289**	-,001	,040**	,017**	,259**	-,001	,266**	-,001	,129**	-,001	,166**	-,001	,423**	-,002	,436**	-,002	,379**	-,002	1	,005**	,647**	-,003	,221**	-,001	,103**	-,001	,290**	-,001
	Sig. (2-tailed)	,000	,000	,000	,359	,000	,000	,414	,000	,391	,000	,683	,000	,595	,000	,192	,000	,169	,000	,231	,000		,002	,000	,042	,000	,488	,000	,744	,000	,358
$C(APF)_j$	Pearson Correlation	,084**	,102**	-,001	,289**	-,040**	,017**	-,001	,259**	-,001	,266**	-,001	,000	-,001	,166**	-,002	,423**	-,002	,436**	-,002	,379**	,005**	1	,003**	,647**	-,001	,221**	,001	,103**	-,001	,290**
	Sig. (2-tailed)	,000	,000	,359	,000	,000	,000	,414	,000	,391	,000	,683	,000	,595	,000	,192	,000	,169	,000	,231	,000	,002		,042	,000	,488	,000	,744	,000	,358	,000
$C(APH)_i$	Pearson Correlation	,080**	,039**	,292**	-,001	-,085**	-,028**	,255**	-,001	,259**	-,001	,033**	,000	,097**	,000	,407**	-,002	,481**	-,002	,345**	-,002	,647**	,003**	1	,005**	,204**	-,001	,165**	,001	,294**	-,001
	Sig. (2-tailed)	,000	,000	,000	,353	,000	,000	,419	,000	,416	,000	,921	,000	,761	,000	,209	,000	,128	,000	,273	,000	,042	,002	,042		,519	,000	,603	,000	,350	,000
$C(APH)_j$	Pearson Correlation	,079**	,106**	-,001	,292**	-,085**	-,028**	-,001	,255**	-,001	,259**	,000	,033**	,000	,097**	-,002	,407**	-,002	,481**	-,002	,345**	-,003**	,647**	-,005**	1	-,001	,204**	,001	,165**	-,001	,294**
	Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	,000	,419	,000	,000	,000	,000	,000	,761	,000	,209	,000	,128	,000	,273	,000	,042	,002		,519	,000	,603	,000	,350	,000
LMI_i	Pearson Correlation	,103**	,033**	,371**	-,002	,015**	,004**	,668**	-,003**	,073**	-,002	-,007**	-,001	,143**	,000	-,001	,233**	-,001	,205**	-,001	,179**	-,001	,221**	-,001	,204**	-,001	1	-,004**	,022**	,001	,373**
	Sig. (2-tailed)	,000	,000	,000	,334	,000	,019	,000	,042	,000	,196	,000	,400	,000	,987	,000	,467	,000	,516	,000	,568	,000	,488	,000	,519	,000		,000	,007	,610	,000
LMI_j	Pearson Correlation	,088**	,147**	-,002	,371**	-,015**	,004**	,668**	-,002	,073**	,196**	-,001	,400	-,007**	,000	,143**	,000	,205**	,000	,179**	,000	,221**	,000	,204**	,000	,204**	,000	1	,001	,022**	,000
	Sig. (2-tailed)	,000	,000	,334	,000	,000	,019	,042	,000	,196	,000	,400	,000	,987	,000	,467	,000	,516	,000	,568	,000	,488	,000	,519	,000	,519	,000		,007	,610	,000
$C(A)_i$	Pearson Correlation	,014**	,010**	,041**	,000	,000	,000	,031**	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	1	,000	,000
	Sig. (2-tailed)	,002	,000	,000	,962	,000	,000	,979	,000	,166	,000	,000	,000	,534	,000	,824	,000	,877	,000	,814	,000	,744	,000	,603	,000	,610	,000	,020		,904	,000
$C(CP)_i$	Pearson Correlation	,262**	,076**	1,000**	-,005**	-,063**	-,039**	,284**	-,001	,287**	-,002	,097**	,000	,136**	,000	,240**	-,001	,227**	-,001	,217**	-,001	,290**	-,001	,294**	-,001	,373**	-,001	,036**	,000	1	,005**
	Sig. (2-tailed)	,000	,000	,000	,003	,000	,000	,000	,428	,000	,203	,000	,798	,000	,928	,000	,451	,000	,468	,000	,488	,000	,358	,000	,350	,000	,360	,000	,904		,003
$C(CP)_j$	Pearson Correlation	,250**	,367**	-,005**	1,000**	-,063**	-,039**	-,001	,284**	-,002	,287**	,000	,000	,000	,928	,000	,451	,000	,468	,000	,488	,000	,358	,000	,350	,000	,360	,000	,904	,005**	
	Sig. (2-tailed)	,000	,000	,003	,000	,000	,000	,000	,000	,000	,000	,000	,798	,000	,928	,000	,451	,000	,468	,000	,488	,000	,358	,000	,350	,000	,360	,000	,904	,000	

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). Listwise N = 389910

Annex D1: Rank of stickiness of Slovenian municipalities for migrants in the period 2000-2006.

Id	Municipality (2000-2006)	Rank of stickiness for migrants
61	Ljubljana	1
70	Maribor	2
11	Celje	3
52	Kranj	4
23	Domžale	5
133	Velenje	6
43	Kamnik	7
84	Nova Gorica	8
50	Koper/Capodistria	9
96	Ptuj	10
85	Novo mesto	11
190	Žalec	12
140	Vrhnika	13
90	Piran/Pirano	14
80	Murska Sobota	15
122	Škofja Loka	16
113	Slovenska Bistrica	17
71	Medvode	18
40	Izola/Isola	19
41	Jesenice	20
32	Grosuplje	21
102	Radovljica	22
54	Krško	23
129	Trbovlje	24
60	Litija	25
120	Šentjur	26
103	Ravne na Koroškem	27
112	Slovenj Gradec	28
130	Trebnje	29
123	Škofljica	30
64	Logatec	31
58	Lenart	32
110	Sevnica	33
131	Tržič	34
160	Hoče - Slivnica	35
39	Ivančna Gorica	36
142	Zagorje ob Savi	37
114	Slovenske Konjice	38
72	Mengeš	39
3	Bled	40
8	Brezovica	41
94	Postojna	42
9	Brežice	43
126	Šoštanj	43
87	Ormož	45
29	Gornja Radgona	46
108	Ruše	47
89	Pesnica	48
57	Laško	49
63	Ljutomer	50
183	Šempeter - Vrtojba	51
1	Ajdovščina	52
169	Miklavž na Dravskem polju	53
124	Šmarje pri Jelšah	54
118	Šentilj	55
48	Kočevje	56
98	Rače - Fram	57
34	Hrastnik	58
45	Kidričevo	59
139	Vojnik	60
117	Šenčur	61
37	Ig	62
25	Dravograd	63
186	Trzin	64
111	Sežana	65
17	Črnomelj	66
175	Prevalje	67
13	Cerknica	68
128	Tolmin	69
21	Dobrova - Polhov Gradec	70
173	Polzela	71
106	Rogaška Slatina	72
26	Duplek	73
104	Ribnica	74
79	Mozirje	75
144	Zreče	76
53	Kranjska Gora	77
36	Idrija	78
59	Lendava/Lendva	79
12	Cerklje na Gorenjskem	80
38	Ilirska Bistrica	81
82	Naklo	82
68	Lukovica	83
119	Šentjernej	84
135	Videm	85
55	Kungota	86
164	Komenda	87
75	Miren - Kostanjevica	88
2	Beltinci	89
100	Radenci	90
22	Dol pri Ljubljani	91
178	Selnica ob Dravi	92
151	Braslovče	93
174	Prebold	93
101	Radlje ob Dravi	95
146	Železniki	96
159	Hajdina	96
97	Puconci	98
192	Žirovnica	98
27	Gorenja vas - Poljane	100
28	Gorišnica	101
77	Moravče	102
73	Metlika	103
44	Kanal	104
91	Pivka	104
127	Štore	106
74	Mežica	107
78	Moravske Toplice	108

Id	Municipality (2000-2006)	Rank of stickiness for migrants
5	Borovnica	109
69	Majšperk	110
134	Velike Lašče	111
76	Mislinja	112
99	Radeče	113
35	Hrpelje - Kozina	114
138	Vodice	114
136	Vipava	116
19	Divača	117
193	Žužemberk	118
81	Muta	119
16	Črna na Koroškem	120
168	Markovci	121
115	Starše	122
4	Bohinj	123
49	Komen	124
14	Cerkno	125
10	Tišina	126
147	Žiri	126
7	Brda	128
20	Dobrepolje	129
141	Vuzenica	130
93	Podvelka	131
166	Križevci	131
83	Nazarje	133
18	Destrnik	134
171	Oplotnica	134
95	Preddvor	136
157	Dolenjske Toplice	137
15	Črenšovci	138
116	Sveti Jurij	139
92	Podčetrtek	140
109	Semič	141
24	Dornava	142
107	Rogatec	143
125	Šmartno ob Paki	144
194	Šmartno pri Litiji	144
51	Kozje	146
181	Sveta Ana	147
189	Vransko	147
105	Rogašovci	149
121	Škocjan	150
172	Podlehnik	150
137	Vitanje	152

Id	Municipality (2000-2006)	Rank of stickiness for migrants
170	Mirna Peč	153
162	Horjul	154
167	Lovrenc na Pohorju	155
30	Gornji Grad	156
62	Ljubno	157
153	Cerkvenjak	157
46	Kobarid	159
132	Turnišče	160
65	Loška dolina	161
148	Benedikt	162
155	Dobrna	163
42	Juršinci	164
179	Sodražica	165
6	Bovec	166
31	Gornji Petrovci	166
185	Trnovska vas	168
158	Grad	169
152	Cankova	170
182	Sveti Andraž v Slov. goricah	171
188	Veržej	171
184	Tabor	173
143	Zavrč	174
150	Bloke	175
33	Šalovci/Šalovci	176
56	Kuzma	177
177	Ribnica na Pohorju	178
156	Dobrovnik/Dobronak	179
176	Razkrižje	180
187	Velika Polana	180
66	Loški Potok	182
149	Bistrica ob Sotli	183
191	Žetale	184
67	Luče	185
86	Odranci	186
154	Dobje	187
165	Kostel	188
47	Kobilje	189
163	Jezersko	189
180	Solčava	191
88	Osilnica	192
161	Hodoš/Hodos	193

Annex D2: Rank of stickiness of Slovenian municipalities for labour commuters in the period 2000-2006.

Id	Municipality (2000-2006)	Rank of stickiness for labour commuters
61	Ljubljana	1
52	Kranj	2
23	Domžale	3
70	Maribor	4
43	Kamnik	5
11	Celje	6
84	Nova Gorica	7
50	Koper/Capodistria	8
140	Vrhnika	9
113	Slovenska Bistrica	10
32	Grosuplje	11
71	Medvode	12
122	Škofja Loka	13
190	Žalec	14
120	Šentjur	15
60	Litija	16
102	Radovljica	17
39	Ivančna Gorica	18
96	Ptuj	19
41	Jesenice	20
40	Izola/Isola	21
54	Krško	22
131	Tržič	23
8	Brezovica	24
133	Velenje	25
130	Trebnje	26
142	Zagorje ob Savi	27
9	Brežice	28
160	Hoče - Slivnica	29
90	Piran/Pirano	30
64	Logatec	31
85	Novo mesto	32
1	Ajdovščina	33
117	Šenčur	34
123	Škofljica	35
129	Trbovlje	36
110	Sevnica	37
94	Postojna	38
114	Slovenske Konjice	39
3	Bled	40
139	Vojnik	41
2	Beltinci	42
57	Laško	43
124	Šmarje pri Jelšah	44
126	Šoštanj	45
103	Ravne na Koroškem	46
72	Mengeš	47
13	Cerknica	48
38	Ilirska Bistrica	49
87	Ormož	50
25	Dravograd	51
58	Lenart	52
21	Dobrova - Polhov Gradec	53

Id	Municipality (2000-2006)	Rank of stickiness for labour commuters
89	Pesnica	54
26	Duplek	55
37	Ig	56
169	Miklavž na Dravskem polju	57
12	Cerklje na Gorenjskem	58
27	Gorenja vas - Poljane	59
80	Murska Sobota	60
98	Rače - Fram	61
48	Kočevje	62
112	Slovenj Gradec	63
135	Videm	64
34	Hrastnik	65
108	Ruše	66
17	Črnomelj	67
175	Prevalje	68
111	Sežana	69
68	Lukovica	70
183	Šempeter - Vrtojba	71
79	Mozirje	72
77	Moravče	73
29	Gornja Radgona	74
104	Ribnica	75
119	Šentjernej	76
28	Gorišnica	77
151	Braslovče	78
22	Dol pri Ljubljani	79
97	Puconci	80
82	Naklo	81
118	Šentilj	82
76	Mislinja	83
78	Moravske Toplice	84
164	Komenda	85
128	Tolmin	86
45	Kidričevo	87
75	Miren - Kostanjevica	88
173	Polzela	89
5	Borovnica	90
192	Žirovnica	91
136	Vipava	92
63	Ljutomer	93
138	Vodice	94
7	Brda	95
106	Rogaška Slatina	96
53	Kranjska Gora	97
100	Radenci	98
10	Tišina	99
115	Starše	100
174	Prebold	101
178	Selnica ob Dravi	102
91	Pivka	103
55	Kungota	104
186	Trzin	105
134	Velike Lašče	106

Id	Municipality (2000-2006)	Rank of stickiness for labour commuters
193	Žužemberk	107
171	Oplotnica	108
44	Kanal	109
159	Hajdina	110
59	Lendava/Lendva	111
127	Štore	112
168	Markovci	113
19	Divača	114
73	Metlika	115
157	Dolenjske Toplice	116
69	Majšperk	117
36	Idrija	118
15	Črenšovci	119
101	Radlje ob Dravi	120
95	Preddvor	121
125	Šmartno ob Paki	122
99	Radeče	123
4	Bohinj	124
146	Železniki	125
170	Mirna Peč	126
35	Hrpelje - Kozina	127
16	Črna na Koroškem	128
20	Dobrepolje	129
49	Komen	130
81	Muta	131
74	Mežica	132
144	Zreče	133
194	Šmartno pri Litiji	134
121	Škocjan	135
46	Kobarid	136
166	Križevci	137
167	Lovrenc na Pohorju	138
18	Destrnik	139
141	Vuzenica	140
14	Cerkno	141
132	Turnišče	142
162	Horjul	143
107	Rogatec	144
24	Dornava	145
92	Podčetrtek	146
109	Semič	147
51	Kozje	148
93	Podvelka	149
116	Sveti Jurij	150
30	Gornji Grad	151
137	Vitanje	152
155	Dobrna	153
62	Ljubno	154
148	Benedikt	155
181	Sveta Ana	156
147	Žiri	157
189	Vransko	158
42	Juršinci	159
105	Rogašovci	160
153	Cerkvenjak	161
66	Loški Potok	162

Id	Municipality (2000-2006)	Rank of stickiness for labour commuters
172	Podlehnik	163
179	Sodražica	164
65	Loška dolina	165
83	Nazarje	166
158	Grad	167
86	Odranci	168
152	Cankova	169
184	Tabor	170
6	Bovec	171
31	Gornji Petrovci	172
143	Zavrč	173
187	Velika Polana	173
150	Bloke	175
188	Veržej	176
176	Razkrižje	176
191	Žetale	178
156	Dobrovnik/Dobronak	179
33	Šalovci/Šalovci	180
185	Trnovska vas	181
177	Ribnica na Pohorju	182
67	Luče	183
182	Sveti Andraž v Slov. goricah	184
154	Dobje	185
56	Kuzma	186
149	Bistrica ob Sotli	187
163	Jezersko	188
165	Kostel	189
47	Kobilje	190
180	Solčava	191
88	Osilnica	192
161	Hodoš/Hodos	193

Annex D3: Rank of attractiveness of Slovenian municipalities for migrants in the period 2000-2006.

Id	Municipality (2000-2006)	Rank of attractiveness for migrants
61	Ljubljana	1
70	Maribor	2
23	Domžale	3
52	Kranj	4
11	Celje	5
50	Koper/Capodistria	6
43	Kamnik	7
32	Grosuplje	8
140	Vrhnika	9
113	Slovenska Bistrica	10
71	Medvode	11
85	Novo mesto	12
96	Ptuj	13
190	Žalec	14
84	Nova Gorica	15
133	Velenje	16
123	Škofljica	17
40	Izola/Isola	18
102	Radovljica	19
39	Ivančna Gorica	20
160	Hoče - Slivnica	21
60	Litija	22
64	Logatec	23
90	Piran/Pirano	24
8	Brezovica	25
120	Šentjur	26
130	Trebnje	27
122	Škofja Loka	28
54	Krško	29
80	Murska Sobota	30
58	Lenart	31
41	Jesenice	32
9	Brežice	33
37	Ig	34
112	Slovenj Gradec	35
89	Pesnica	36
129	Trbovlje	37
142	Zagorje ob Savi	38
94	Postojna	39
3	Bled	40
98	Rače - Fram	41
118	Šentilj	42
72	Mengeš	43
22	Dol pri Ljubljani	44
169	Miklavž na Dravskem polju	45
114	Slovenske Konjice	46
131	Tržič	47
108	Ruše	48
1	Ajdovščina	49
117	Šenčur	50
26	Duplek	51
57	Laško	52
87	Ormož	52

Id	Municipality (2000-2006)	Rank of attractiveness for migrants
110	Sevnica	52
103	Ravne na Koroškem	55
124	Šmarje pri Jelšah	56
139	Vojnik	57
13	Cerknica	58
21	Dobrova - Polhov Gradec	59
186	Trzin	60
126	Šoštanj	61
55	Kungota	62
29	Gornja Radgona	63
173	Polzela	64
25	Dravograd	65
45	Kidričevo	66
151	Braslovče	67
63	Ljutomer	68
111	Sežana	69
175	Prevalje	70
183	Šempeter - Vrtojba	71
48	Kočevje	72
164	Komenda	73
28	Gorišnica	74
12	Cerklje na Gorenjskem	75
134	Velike Lašče	76
106	Rogaška Slatina	77
34	Hrastnik	78
138	Vodice	79
53	Kranjska Gora	80
135	Videm	81
144	Zreče	82
17	Črnomelj	83
68	Lukovica	84
82	Naklo	85
77	Moravče	86
97	Puconci	87
79	Mozirje	88
78	Moravske Toplice	89
2	Beltinci	90
192	Žirovnica	91
27	Gorenja vas - Poljane	92
119	Šentjernej	93
100	Radenci	94
104	Ribnica	95
5	Borovnica	96
174	Prebold	97
127	Štore	98
178	Selnica ob Dravi	99
101	Radlje ob Dravi	100
115	Starše	101
75	Miren - Kostanjevica	102
59	Lendava/Lendva	103
125	Šmartno ob Paki	104
159	Hajdina	105
193	Žužemberk	105

Id	Municipality (2000-2006)	Rank of attractiveness for migrants
91	Pivka	107
128	Tolmin	108
38	Ilirska Bistrica	109
73	Metlika	109
76	Mislinja	111
18	Destrnik	112
69	Majšperk	113
36	Idrija	114
19	Divača	115
95	Preddvor	116
136	Vipava	117
121	Škocjan	118
20	Dobrepolje	119
171	Oplotnica	119
10	Tišina	121
194	Šmartno pri Litiji	122
146	Železniki	123
92	Podčetrtek	124
166	Križevci	125
157	Dolenjske Toplice	126
148	Benedikt	127
35	Hrpelje - Kozina	128
7	Brda	129
24	Dornava	129
74	Mežica	131
168	Markovci	131
99	Radeče	133
170	Mirna Peč	133
44	Kanal	135
116	Sveti Jurij	136
49	Komen	137
81	Muta	138
4	Bohinj	139
147	Žiri	140
109	Semič	141
83	Nazarje	142
141	Vuzenica	143
15	Črenšovci	144
51	Kozje	145
181	Sveta Ana	145
167	Lovrenc na Pohorju	147
172	Podlehnik	148
93	Podvelka	149
16	Črna na Koroškem	150
62	Ljubno	150
14	Cerkno	152
153	Cerkvenjak	153
162	Horjul	154
65	Loška dolina	155
189	Vransko	155
42	Juršinci	157
179	Sodražica	157
46	Kobarid	159
105	Rogašovci	160
107	Rogatec	161
31	Gornji Petrovci	162
155	Dobrna	163

Id	Municipality (2000-2006)	Rank of attractiveness for migrants
6	Bovec	164
132	Turnišče	165
30	Gornji Grad	166
185	Trnovska vas	167
150	Bloke	168
184	Tabor	169
143	Zavrč	170
158	Grad	171
137	Vitanje	172
56	Kuzma	173
152	Cankova	173
156	Dobrovnik/Dobronak	175
149	Bistrica ob Sotli	176
67	Luče	177
191	Žetale	177
182	Sveti Andraž v Slov. goricah	179
66	Loški Potok	180
188	Veržej	181
177	Ribnica na Pohorju	182
176	Razkrižje	183
187	Velika Polana	184
86	Odranci	185
165	Kostel	186
154	Dobje	187
33	Šalovci/Šalovci	188
163	Jezersko	189
88	Osilnica	190
180	Solčava	191
47	Kobilje	192
161	Hodoš/Hodos	193

Annex D4: Rank of attractiveness of Slovenian municipalities for labour commuters in the period 2000-2006.

Id	Municipality (2000-2006)	Rank of attractiveness for labour commuters
61	Ljubljana	1
70	Maribor	2
11	Celje	3
52	Kranj	4
80	Murska Sobota	5
85	Novo mesto	6
133	Velenje	7
96	Ptuj	8
84	Nova Gorica	9
50	Koper/Capodistria	10
23	Domžale	11
186	Trzin	12
183	Šempeter - Vrtojba	13
122	Škofja Loka	14
112	Slovenj Gradec	15
190	Žalec	16
45	Kidričevo	17
102	Radovljica	18
94	Postojna	19
40	Izola/Isola	20
41	Jesenice	21
54	Krško	22
90	Piran/Pirano	23
43	Kamnik	24
32	Grosuplje	25
103	Ravne na Koroškem	26
144	Zreče	27
58	Lenart	28
140	Vrhnika	29
111	Sežana	30
1	Ajdovščina	31
160	Hoče - Slivnica	32
129	Trbovlje	33
72	Mengeš	34
82	Naklo	35
3	Bled	36
113	Slovenska Bistrica	37
29	Gornja Radgona	38
114	Slovenske Konjice	39
130	Trebnje	40
71	Medvode	41
83	Nazarje	42
63	Ljutomer	43
106	Rogaška Slatina	44
120	Šentjur	45
12	Cerklje na Gorenjskem	46
110	Sevnica	47
59	Lendava/Lendva	48
126	Šoštanj	49
9	Brežice	50
57	Laško	51
64	Logatec	52

Id	Municipality (2000-2006)	Rank of attractiveness for labour commuters
127	Štore	53
36	Idrija	54
39	Ivančna Gorica	55
142	Zagorje ob Savi	56
108	Ruše	57
25	Dravograd	58
101	Radlje ob Dravi	59
124	Šmarje pri Jelšah	60
175	Prevalje	61
60	Litija	62
128	Tolmin	63
104	Ribnica	64
13	Cerknica	65
173	Polzela	65
17	Črnomelj	67
91	Pivka	68
118	Šentilj	69
123	Škofljica	70
74	Mežica	71
48	Kočevje	72
8	Brezovica	73
117	Šenčur	74
131	Tržič	75
19	Divača	76
73	Metlika	77
87	Ormož	78
34	Hrastnik	79
79	Mozirje	80
89	Pesnica	81
78	Moravske Toplice	82
75	Miren - Kostanjevica	83
37	Ig	84
109	Semič	85
35	Hrpelje - Kozina	86
100	Radenci	87
146	Železniki	88
139	Vojnik	89
178	Selnica ob Dravi	90
53	Kranjska Gora	91
81	Muta	92
98	Rače - Fram	93
2	Beltinci	94
136	Vipava	95
147	Žiri	96
65	Loška dolina	97
169	Miklavž na Dravskem polju	98
22	Dol pri Ljubljani	99
119	Šentjernej	100
174	Prebold	101
38	Ilirska Bistrica	102
164	Komenda	103

Id	Municipality (2000-2006)	Rank of attractiveness for labour commuters
55	Kungota	104
166	Križevci	105
14	Cerkno	106
68	Lukovica	107
21	Dobrova - Polhov Gradec	108
24	Dornava	109
141	Vuzenica	110
159	Hajdina	111
99	Radeče	112
95	Preddvor	113
20	Dobrepolje	114
44	Kanal	115
16	Črna na Koroškem	116
151	Braslovče	117
107	Rogatec	118
162	Horjul	119
28	Gorišnica	120
172	Podlehnik	121
27	Gorenja vas - Poljane	122
157	Dolenjske Toplice	123
76	Mislinja	124
192	Žirovnica	125
132	Turnišče	126
194	Šmartno pri Litiji	127
62	Ljubno	128
138	Vodice	129
92	Podčetrtek	130
189	Vransko	131
51	Kozje	132
49	Komen	133
15	Črenšovci	134
46	Kobarid	135
155	Dobrna	136
26	Duplek	137
97	Puconci	138
179	Sodražica	139
5	Borovnica	140
6	Bovec	141
168	Markovci	142
121	Škocjan	143
193	Žužemberk	144
31	Gornji Petrovci	145
69	Majšperk	146
4	Bohinj	147
125	Šmartno ob Paki	148
171	Oplotnica	149
167	Lovrenc na Pohorju	150
115	Starše	151
10	Tišina	152
93	Podvelka	153
188	Veržej	154
134	Velike Lašče	155
77	Moravče	156
135	Videm	157
149	Bistrica ob Sotli	158

Id	Municipality (2000-2006)	Rank of attractiveness for labour commuters
137	Vitanje	159
152	Cankova	160
7	Brda	161
150	Bloke	161
30	Gornji Grad	163
105	Rogašovci	164
18	Destrnik	165
143	Zavrč	166
187	Velika Polana	167
163	Jezersko	168
116	Sveti Jurij	169
148	Benedikt	170
170	Mirna Peč	171
153	Cerkvenjak	172
158	Grad	173
154	Dobje	174
47	Kobilje	175
181	Sveta Ana	176
86	Odranci	177
156	Dobrovnik/Dobronak	178
67	Luče	179
161	Hodoš/Hodos	180
176	Razkrižje	181
66	Loški Potok	182
42	Juršinci	183
177	Ribnica na Pohorju	184
191	Žetale	185
56	Kuzma	186
184	Tabor	187
165	Kostel	188
180	Solčava	189
182	Sveti Andraž v Slov. goricah	190
33	Šalovci/Šalovci	191
185	Trnovska vas	192
88	Osilnica	193

Annex D5: Rank of stickiness of Slovenian municipalities for migrants in the period 2007-2009.

Id	Municipality (2007-2009)	Rank of stickiness for migrants
61	Ljubljana	1
70	Maribor	2
11	Celje	3
52	Kranj	4
50	Koper/Capodistria	5
133	Velenje	6
84	Nova Gorica	7
85	Novo mesto	8
23	Domžale	9
96	Ptuj	10
90	Piran/Pirano	11
54	Krško	12
43	Kamnik	13
80	Murska Sobota	14
40	Izola/Isola	15
41	Jesenice	16
190	Žalec	17
122	Škofja Loka	18
1	Ajdovščina	19
120	Šentjur	20
32	Grosuplje	21
102	Radovljica	22
110	Sevnica	23
113	Slovenska Bistrica	24
71	Medvode	25
94	Postojna	26
9	Brežice	27
112	Slovenj Gradec	28
140	Vrhnika	29
130	Trebnje	30
103	Ravne na Koroškem	31
60	Litija	32
129	Trbovlje	33
160	Hoče - Slivnica	34
57	Laško	35
131	Tržič	36
114	Slovenske Konjice	37
142	Zagorje ob Savi	38
128	Tolmin	39
87	Ormož	40
111	Sežana	41
48	Kočevje	42
39	Ivančna Gorica	43
17	Črnomelj	44
63	Ljutomer	45
36	Idrija	46
38	Ilirska Bistrica	46
106	Rogaška Slatina	48
3	Bled	49
25	Dravograd	50
124	Šmarje pri Jelšah	51
108	Ruše	52
29	Gornja Radgona	53
64	Logatec	53

Id	Municipality (2007-2009)	Rank of stickiness for migrants
13	Cerknica	55
126	Šoštanj	56
123	Škofljica	57
59	Lendava/Lendva	58
8	Brezovica	59
139	Vojnik	60
72	Mengeš	61
34	Hrastnik	62
183	Šempeter - Vrtojba	62
89	Pesnica	64
37	Ig	65
58	Lenart	66
104	Ribnica	67
44	Kanal	68
118	Šentilj	69
117	Šenčur	70
45	Kidričevo	71
175	Prevalje	72
2	Beltinci	73
144	Zreče	74
53	Kranjska Gora	75
101	Radlje ob Dravi	76
73	Metlika	77
136	Vipava	78
169	Miklavž na Dravskem polju	79
91	Pivka	80
100	Radenci	81
98	Rače - Fram	82
119	Šentjernej	83
127	Štore	84
19	Divača	85
78	Moravske Toplice	86
173	Polzela	87
146	Železniki	88
12	Cerklje na Gorenjskem	89
97	Puconci	90
99	Radeče	91
194	Šmartno pri Litiji	92
174	Prebold	93
27	Gorenja vas - Poljane	94
79	Mozirje	95
14	Cerkno	96
186	Trzin	97
75	Miren - Kostanjevica	98
21	Dobrova - Polhov Gradec	99
74	Mežica	99
151	Braslovče	101
35	Hrpelje - Kozina	102
7	Brda	103
26	Duplek	104
4	Bohinj	105
68	Lukovica	106
22	Dol pri Ljubljani	107

Id	Municipality (2007-2009)	Rank of stickiness for migrants
135	Videm	108
164	Komenda	109
201	Renče - Vogrsko	109
200	Poljčane	111
82	Naklo	112
46	Kobarid	113
109	Semič	114
55	Kungota	115
76	Mislinja	116
203	Straža	117
28	Gorišnica	118
208	Log - Dragomer	119
206	Šmarješke Toplice	120
81	Muta	121
178	Selnica ob Dravi	122
69	Majšperk	123
6	Bovec	124
5	Borovnica	125
77	Moravče	126
15	Črenšovci	127
166	Križevci	128
134	Velike Lašče	129
49	Komen	130
159	Hajdina	130
211	Šentrupert	132
16	Črna na Koroškem	133
192	Žirovnica	134
193	Žužemberk	135
51	Kozje	136
95	Preddvor	137
116	Sveti Jurij	138
10	Tišina	139
195	Apače	140
92	Podčetrtek	141
125	Šmartno ob Paki	142
171	Oplotnica	143
65	Loška dolina	144
115	Starše	145
30	Gornji Grad	146
93	Podvelka	147
147	Žiri	148
107	Rogatec	149
20	Dobrepolje	150
138	Vodice	150
168	Markovci	152
207	Gorje	153
199	Mokronog - Trebelno	154
83	Nazarje	155
18	Destrnik	156
132	Turnišče	157
157	Dolenjske Toplice	157
24	Dornava	159
196	Cirkulane	160
121	Škocjan	161

Id	Municipality (2007-2009)	Rank of stickiness for migrants
62	Ljubno	162
141	Vuzenica	162
202	Središče ob Dravi	164
209	Rečica ob Savinji	165
205	Sveti Tomaž	166
172	Podlehnik	167
105	Rogašovci	168
42	Juršinci	169
189	Vransko	170
137	Vitanje	171
204	Sv. Trojica v Slov. goricah	172
148	Benedikt	173
179	Sodražica	173
170	Mirna Peč	175
153	Cerkvenjak	176
155	Dobrna	176
197	Kostanjevica na Krki	178
31	Gornji Petrovci	179
66	Loški Potok	180
150	Bloke	181
167	Lovrenc na Pohorju	182
181	Sveta Ana	182
152	Cankova	184
198	Makole	185
210	Sv. Jurij v Slov. goricah	186
162	Horjul	187
188	Veržej	188
177	Ribnica na Pohorju	189
158	Grad	190
56	Kuzma	191
143	Zavrč	192
67	Luče	193
149	Bistrica ob Sotli	193
191	Žetale	195
33	Šalovci/Šalovci	196
184	Tabor	196
156	Dobrovnik/Dobronak	198
176	Razkrižje	199
86	Odranci	200
187	Velika Polana	201
185	Trnovska vas	202
182	Sveti Andraž v Slov. goricah	203
163	Jezersko	204
165	Kostel	204
154	Dobje	206
88	Osilnica	207
180	Solčava	208
47	Kobilje	209
161	Hodoš/Hodos	210

Annex D6: Rank of stickiness of Slovenian municipalities for labour commuters in the period 2007-2009.

Id	Municipality (2007-2009)	Rank of stickiness for labour commuters
61	Ljubljana	1
52	Kranj	2
70	Maribor	3
23	Domžale	4
43	Kamnik	5
11	Celje	6
50	Koper/Capodistria	7
32	Grosuplje	8
122	Škofja Loka	9
84	Nova Gorica	10
113	Slovenska Bistrica	11
190	Žalec	12
71	Medvode	13
120	Šentjur	14
140	Vrhnika	15
39	Ivančna Gorica	16
41	Jesenice	17
60	Litija	18
96	Ptuj	19
102	Radovljica	20
54	Krško	21
40	Izola/Isola	22
133	Velenje	23
131	Tržič	24
9	Brežice	25
85	Novo mesto	26
160	Hoče - Slivnica	27
8	Brezovica	28
129	Trbovlje	29
142	Zagorje ob Savi	30
64	Logatec	31
94	Postojna	32
1	Ajdovščina	33
130	Trebnje	34
110	Sevnica	35
90	Piran/Pirano	36
123	Škofljica	37
114	Slovenske Konjice	38
117	Šenčur	39
57	Laško	40
38	Ilirska Bistrica	41
139	Vojnik	42
126	Šoštanj	43
13	Cerknica	44
124	Šmarje pri Jelšah	45
48	Kočevje	46
72	Mengeš	47
2	Beltinci	48
80	Murska Sobota	49
103	Ravne na Koroškem	50
21	Dobrova - Polhov Gradec	51
37	Ig	52
26	Duplek	53
89	Pesnica	54
87	Ormož	55
25	Dravograd	56
17	Črnomelj	57
34	Hrastnik	58
112	Slovenj Gradec	59
111	Sežana	60
98	Rače - Fram	61
169	Miklavž na Dravskem polju	62
27	Gorenja vas - Poljane	63
12	Cerklje na Gorenjskem	64
3	Bled	65
118	Šentilj	66
135	Videm	67
108	Ruše	68
22	Dol pri Ljubljani	69
68	Lukovica	70
175	Prevalje	71
104	Ribnica	72
106	Rogaška Slatina	73
119	Šentjernej	74
183	Šempeter - Vrtojba	75
164	Komenda	76
151	Braslovče	77
77	Moravče	78
173	Polzela	79
45	Kidričevo	80
63	Ljutomer	81
58	Lenart	82
194	Šmartno pri Litiji	83
82	Naklo	84
76	Mislinja	85
138	Vodice	86
128	Tolmin	87
97	Puconci	88
136	Vipava	89
78	Moravske Toplice	90
75	Miren - Kostanjevica	91
91	Pivka	92
174	Prebold	93
192	Žirovnica	94
5	Borovnica	95
59	Lendava/Lendva	96
7	Brda	97
55	Kungota	98
134	Velike Lašče	99
115	Starše	100
100	Radenci	101
29	Gornja Radgona	102
178	Selnica ob Dravi	103
73	Metlika	104
53	Kranjska Gora	105
44	Kanal	106

Id	Municipality (2007-2009)	Rank of stickiness for labour commuters
127	Štore	107
201	Renče - Vogrsko	108
36	Idrija	109
193	Žužemberk	110
159	Hajdina	111
186	Trzin	112
10	Tišina	113
171	Oplotnica	114
203	Straža	115
208	Log - Dragomer	116
168	Markovci	117
19	Divača	118
200	Poljčane	119
69	Majšperk	120
146	Železniki	121
101	Radlje ob Dravi	122
28	Gorišnica	122
79	Mozirje	124
206	Šmarješke Toplice	125
157	Dolenjske Toplice	126
125	Šmartno ob Paki	127
99	Radeče	128
144	Zreče	129
95	Preddvor	130
20	Dobrepolje	131
35	Hrpelje - Kozina	132
15	Črenšovci	133
4	Bohinj	134
170	Mirna Peč	135
121	Škocjan	136
49	Komen	137
81	Muta	138
14	Cerkno	139
207	Gorje	140
74	Mežica	141
195	Apače	142
166	Križevci	143
16	Črna na Koroškem	144
18	Destrnik	145
199	Mokronog - Trebelno	146
132	Turnišče	147
46	Kobarid	148
167	Lovrenc na Pohorju	149
109	Semič	150
141	Vuzenica	151
107	Rogatec	152
24	Dornava	153
51	Kozje	154
162	Horjul	155
92	Podčetrtek	156
147	Žiri	157
93	Podvelka	158
116	Sveti Jurij	159
148	Benedikt	160
211	Šentrupert	161

Id	Municipality (2007-2009)	Rank of stickiness for labour commuters
204	Sv. Trojica v Slov. goricah	162
197	Kostanjevica na Krki	163
42	Juršinci	164
155	Dobrna	165
196	Cirkulane	166
181	Sveta Ana	167
209	Rečica ob Savinji	168
189	Vransko	169
198	Makole	170
210	Sv. Jurij v Slov. goricah	171
137	Vitanje	172
65	Loška dolina	173
202	Središče ob Dravi	174
62	Ljubno	175
30	Gornji Grad	176
205	Sveti Tomaž	177
179	Sodražica	178
153	Cerkvenjak	179
172	Podlehnik	180
105	Rogašovci	181
66	Loški Potok	182
83	Nazarje	183
158	Grad	184
143	Završč	185
31	Gornji Petrovci	186
184	Tabor	187
86	Odranci	188
6	Bovec	189
187	Velika Polana	190
152	Cankova	191
185	Trnovska vas	192
191	Žetale	193
150	Bloke	194
176	Razkrižje	195
188	Veržej	196
177	Ribnica na Pohorju	197
156	Dobrovnik/Dobronak	198
182	Sveti Andraž v Slov. goricah	199
33	Šalovci/Šalovci	200
149	Bistrica ob Sotli	201
67	Luče	202
154	Dobje	203
56	Kuzma	204
163	Jezersko	205
47	Kobilje	206
165	Kostel	207
180	Solčava	208
88	Osilnica	209
161	Hodoš/Hodos	210

Annex D7: Rank of attractiveness of Slovenian municipalities for migrants in the period 2007-2009.

Id	Municipality (2007-2009)	Rank of attractiveness for migrants
61	Ljubljana	1
70	Maribor	2
50	Koper/Capodistria	3
11	Celje	4
52	Kranj	5
23	Domžale	6
84	Nova Gorica	7
85	Novo mesto	8
43	Kamnik	9
90	Piran/Pirano	10
133	Velenje	11
32	Grosuplje	12
40	Izola/Isola	13
96	Ptuj	14
113	Slovenska Bistrica	15
190	Žalec	16
140	Vrhnika	17
71	Medvode	18
80	Murska Sobota	19
54	Krško	20
94	Postojna	21
102	Radovljica	22
130	Trebnje	23
39	Ivančna Gorica	24
120	Šentjur	25
122	Škofja Loka	26
9	Brežice	27
160	Hoče - Slivnica	28
110	Sevnica	29
60	Litija	30
1	Ajdovščina	31
64	Logatec	32
123	Škofljica	33
41	Jesenice	34
57	Laško	35
111	Sežana	36
8	Brezovica	37
58	Lenart	38
112	Slovenj Gradec	39
114	Slovenske Konjice	40
72	Mengeš	41
124	Šmarje pri Jelšah	42
37	Ig	43
29	Gornja Radgona	44
139	Vojnik	45
87	Ormož	46
142	Zagorje ob Savi	47
131	Tržič	48
13	Cerknica	49
129	Trbovlje	50
106	Rogaška Slatina	51
89	Pesnica	52
98	Rače - Fram	53
25	Dravograd	54

Id	Municipality (2007-2009)	Rank of attractiveness for migrants
126	Šoštanj	55
117	Šenčur	56
3	Bled	57
48	Kočevje	58
103	Ravne na Koroškem	59
104	Ribnica	60
63	Ljutomer	61
128	Tolmin	62
36	Idrija	63
211	Šentrupert	63
175	Prevalje	65
173	Polzela	66
108	Ruše	67
38	Ilirska Bistrica	68
164	Komenda	69
26	Duplek	70
17	Črnomelj	71
100	Radenci	72
101	Radlje ob Dravi	73
169	Miklavž na Dravskem polju	74
22	Dol pri Ljubljani	75
118	Šentilj	76
45	Kidričevo	77
2	Beltinci	78
59	Lendava/Lendva	78
127	Štore	80
12	Cerklje na Gorenjskem	81
136	Vipava	82
183	Šempeter - Vrtojba	83
174	Prebold	84
73	Metlika	85
135	Videm	86
34	Hrastnik	87
21	Dobrova - Polhov Gradec	88
144	Zreče	89
151	Braslovče	89
68	Lukovica	91
200	Poljčane	92
53	Kranjska Gora	93
194	Šmartno pri Litiji	94
7	Brda	95
138	Vodice	95
55	Kungota	97
206	Šmarješke Toplice	98
119	Šentjernej	99
91	Pivka	100
186	Trzin	101
4	Bohinj	102
44	Kanal	103
19	Divača	104
78	Moravske Toplice	105
20	Dobrepolje	106
27	Gorenja vas - Poljane	107

Id	Municipality (2007-2009)	Rank of attractiveness for migrants
77	Moravče	108
79	Mozirje	109
97	Puconci	110
75	Miren - Kostanjevica	111
208	Log - Dragomer	111
35	Hrpelje - Kozina	113
82	Naklo	114
192	Žirovnica	115
28	Gorišnica	116
201	Renče - Vogrsko	116
99	Radeče	118
159	Hajdina	119
30	Gornji Grad	120
95	Preddvor	121
69	Majšperk	122
134	Velike Lašče	123
125	Šmartno ob Paki	124
178	Selnica ob Dravi	125
166	Križevci	126
76	Mislinja	127
65	Loška dolina	128
203	Straža	129
49	Komen	130
115	Starše	131
92	Podčetrtek	132
109	Semič	132
81	Muta	134
148	Benedikt	135
155	Dobrna	135
18	Destrnik	137
147	Žiri	138
14	Cerkno	139
121	Škocjan	140
193	Žužemberk	140
146	Železniki	142
51	Kozje	143
168	Markovci	143
171	Oplotnica	143
5	Borovnica	146
116	Sveti Jurij	146
6	Bovec	148
46	Kobarid	149
207	Gorje	150
74	Mežica	151
195	Apače	151
24	Dornava	153
189	Vransko	154
196	Cirkulane	155
157	Dolenjske Toplice	156
83	Nazarje	157
10	Tišina	158
15	Črenšovci	158
199	Mokronog - Trebelno	160
181	Sveta Ana	161

Id	Municipality (2007-2009)	Rank of attractiveness for migrants
162	Horjul	162
141	Vuzenica	163
66	Loški Potok	164
42	Juršinci	165
107	Rogatec	166
16	Črna na Koroškem	167
105	Rogašovci	168
170	Mirna Peč	169
204	Sv. Trojica v Slov. goricah	169
179	Sodražica	171
62	Ljubno	172
209	Rečica ob Savinji	172
93	Podvelka	174
132	Turnišče	175
210	Sv. Jurij v Slov. goricah	176
172	Podlehnik	177
150	Bloke	178
205	Sveti Tomaž	179
143	Zavrč	180
198	Makole	181
197	Kostanjevica na Krki	182
56	Kuzma	183
202	Središče ob Dravi	183
188	Veržej	185
153	Cerkvenjak	186
31	Gornji Petrovci	187
167	Lovrenc na Pohorju	188
137	Vitanje	189
184	Tabor	190
149	Bistrica ob Sotli	191
177	Ribnica na Pohorju	192
185	Trnovska vas	193
158	Grad	194
191	Žetale	195
152	Cankova	196
67	Luče	197
176	Razkrižje	197
33	Šalovci/Šalovci	199
86	Odranci	200
182	Sveti Andraž v Slov. goricah	201
156	Dobrovnik/Dobronak	202
165	Kostel	202
163	Jezersko	204
154	Dobje	205
187	Velika Polana	206
47	Kobilje	207
180	Solčava	208
88	Osilnica	209
161	Hodoš/Hodos	210

Annex D8: Rank of attractiveness of Slovenian municipalities for labour commuters in the period 2007-2009.

Id	Municipality (2007-2009)	Rank of attractiveness for labour commuters
61	Ljubljana	1
70	Maribor	2
11	Celje	3
52	Kranj	4
85	Novo mesto	5
80	Murska Sobota	6
133	Velenje	7
50	Koper/Capodistria	8
84	Nova Gorica	9
96	Ptuj	10
186	Trzin	11
23	Domžale	12
190	Žalec	13
112	Slovenj Gradec	14
122	Škofja Loka	15
183	Šempeter - Vrtojba	16
102	Radovljica	17
32	Grosuplje	18
40	Izola/Isola	19
58	Lenart	20
90	Piran/Pirano	21
54	Krško	22
45	Kidričevo	23
160	Hoče - Slivnica	24
41	Jesenice	25
103	Ravne na Koroškem	26
43	Kamnik	27
144	Zreče	28
113	Slovenska Bistrica	29
29	Gornja Radgona	30
111	Sežana	31
1	Ajdovščina	32
130	Trebnje	33
94	Postojna	34
3	Bled	35
114	Slovenske Konjice	36
140	Vrhnika	37
72	Mengeš	37
71	Medvode	39
129	Trbovlje	40
82	Naklo	41
36	Idrija	42
12	Cerklje na Gorenjskem	43
39	Ivančna Gorica	44
63	Ljutomer	45
110	Sevnica	46
120	Šentjur	47
9	Brežice	48
57	Laško	49
83	Nazarje	50
64	Logatec	51
142	Zagorje ob Savi	52

Id	Municipality (2007-2009)	Rank of attractiveness for labour commuters
106	Rogaška Slatina	52
87	Ormož	54
127	Štore	55
25	Dravograd	56
126	Šoštanj	57
59	Lendava/Lendva	58
60	Litija	59
117	Šenčur	60
124	Šmarje pri Jelšah	61
13	Cerknica	62
8	Brezovica	63
91	Pivka	64
108	Ruše	65
104	Ribnica	66
123	Škofljica	67
128	Tolmin	68
101	Radlje ob Dravi	69
73	Metlika	70
17	Črnomelj	71
201	Renče - Vogrsko	72
164	Komenda	73
131	Tržič	74
19	Divača	75
139	Vojnik	76
48	Kočevje	77
35	Hrpelje - Kozina	78
173	Polzela	79
175	Prevalje	80
89	Pesnica	81
118	Šentilj	82
98	Rače - Fram	83
174	Prebold	84
37	Ig	85
78	Moravske Toplice	86
146	Železniki	87
74	Mežica	88
203	Straža	89
169	Miklavž na Dravskem polju	90
34	Hrastnik	91
22	Dol pri Ljubljani	92
136	Vipava	93
2	Beltinci	94
75	Miren - Kostanjevica	95
119	Šentjernej	96
147	Žiri	97
53	Kranjska Gora	98
68	Lukovica	99
38	Ilirska Bistrica	100
55	Kungota	101
100	Radenci	102
81	Muta	103

Id	Municipality (2007-2009)	Rank of attractiveness for labour commuters
79	Mozirje	104
197	Kostanjevica na Krki	105
109	Semič	106
178	Selnica ob Dravi	107
194	Šmartno pri Litiji	108
65	Loška dolina	109
200	Poljčane	110
21	Dobrova - Polhov Gradec	111
24	Dornava	112
211	Šentrupert	113
162	Horjul	114
159	Hajdina	115
62	Ljubno	116
199	Mokronog - Trebelno	117
20	Dobrepolje	118
166	Križevci	119
141	Vuzenica	120
14	Cerkno	121
107	Rogatec	122
208	Log - Dragomer	123
95	Preddvor	124
138	Vodice	125
15	Črenšovci	126
99	Radeče	127
192	Žirovnica	128
28	Gorišnica	129
151	Braslovče	130
92	Podčetrtek	131
44	Kanal	132
5	Borovnica	133
27	Gorenja vas - Poljane	134
206	Šmarješke Toplice	135
26	Duplek	136
157	Dolenjske Toplice	137
150	Bloke	138
172	Podlehnik	139
189	Vransko	140
97	Puconci	141
69	Majšperk	142
168	Markovci	143
155	Dobrna	144
16	Črna na Koroškem	145
209	Rečica ob Savinji	145
76	Mislinja	147
46	Kobarid	148
49	Komen	149
6	Bovec	150
77	Moravče	151
121	Škocjan	152
193	Žužemberk	153
51	Kozje	153
207	Gorje	155
125	Šmartno ob Paki	156
115	Starše	157
4	Bohinj	158
171	Oplotnica	159
134	Velike Lašče	160
132	Turnišče	161
135	Videm	162
7	Brda	163
31	Gornji Petrovci	164
10	Tišina	165
179	Sodražica	166
202	Središče ob Dravi	167
30	Gornji Grad	168
93	Podvelka	169
188	Veržej	170
137	Vitanje	170
116	Sveti Jurij	172
149	Bistrica ob Sotli	173
195	Apače	174
170	Mirna Peč	175
167	Lovrenc na Pohorju	176
198	Makole	177
153	Cerkvenjak	178
148	Benedikt	179
152	Cankova	180
18	Destrnik	181
143	Zavrč	182
196	Cirkulane	183
105	Rogašovci	183
204	Sv. Trojica v Slov. goricah	185
86	Odranci	186
156	Dobrovnik/Dobronak	187
210	Sv. Jurij v Slov. goricah	188
67	Luče	189
42	Juršinci	190
176	Razkrižje	190
56	Kuzma	192
165	Kostel	193
163	Jezersko	194
187	Velika Polana	195
158	Grad	196
66	Loški Potok	197
181	Sveta Ana	198
154	Dobje	199
185	Trnovska vas	200
191	Žetale	201
184	Tabor	202
161	Hodoš/Hodos	203
33	Šalovci/Šalovci	204
177	Ribnica na Pohorju	205
180	Solčava	206
47	Kobilje	207
88	Osilnica	208
205	Sveti Tomaž	209
182	Sveti Andraž v Slov. goricah	210

Annex E1: Rank of deviation of expected stickiness of Slovenian municipalities for migrants in the period 2000-2006.

Id	Municipality (2000-2006)	Rank of deviation of expected stickiness for migrants
61	Ljubljana	1
70	Maribor	2
133	Velenje	3
52	Kranj	4
23	Domžale	5
11	Celje	6
85	Novo mesto	7
90	Piran/Pirano	8
84	Nova Gorica	9
80	Murska Sobota	10
96	Ptuj	11
43	Kamnik	12
103	Ravne na Koroškem	13
50	Koper/Capodistria	14
40	Izola/Isola	15
140	Vrhnika	16
41	Jesenice	17
122	Škofja Loka	18
112	Slovenj Gradec	19
190	Žalec	20
102	Radovljica	21
32	Grosuplje	22
54	Krško	23
71	Medvode	24
60	Litija	25
64	Logatec	26
113	Slovenska Bistrica	27
110	Sevnica	28
123	Škofljica	29
58	Lenart	30
130	Trebnje	31
129	Trbovlje	32
120	Šentjur	33
131	Tržič	34
126	Šoštanj	35
114	Slovenske Konjice	36
39	Ivančna Gorica	37
29	Gornja Radgona	38
87	Ormož	39
72	Mengeš	40
108	Ruše	41
3	Bled	42
183	Šempeter - Vrtojba	43
25	Dravograd	44
142	Zagorje ob Savi	45
17	Črnomelj	46
94	Postojna	47
63	Ljutomer	48
175	Prevalje	49
48	Kočevje	50
8	Brezovica	51
89	Pesnica	52
160	Hoče - Slivnica	53
118	Šentilj	54
9	Brežice	55
1	Ajdovščina	56
124	Šmarje pri Jelšah	57
119	Šentjernej	58
128	Tolmin	59
144	Zreče	60
186	Trzin	61
104	Ribnica	62
106	Rogaška Slatina	63
73	Metlika	64
57	Laško	65
45	Kidričevo	66
53	Kranjska Gora	67
37	Ig	68
169	Miklavž na Dravskem polju	69
26	Duplek	70
98	Rače - Fram	71
75	Miren - Kostanjevica	72
146	Železniki	73
34	Hrastnik	74
101	Radlje ob Dravi	75
59	Lendava/Lendva	76
117	Šenčur	77
13	Cerknica	78
139	Vojnik	79
173	Polzela	80
74	Mežica	81
111	Sežana	82
27	Gorenja vas - Poljane	83
55	Kungota	84
79	Mozirje	85
44	Kanal	86
21	Dobrova - Polhov Gradec	87
36	Idrija	88
178	Selnica ob Dravi	89
194	Šmartno pri Litiji	90
100	Radenci	91
82	Naklo	92
68	Lukovica	93
81	Muta	94
135	Videm	95
2	Beltinci	96
164	Komenda	97
77	Moravče	98
12	Cerklje na Gorenjskem	99
76	Mislinja	100
38	Ilirska Bistrica	101
192	Žirovnica	102
91	Pivka	103
16	Črna na Koroškem	104

Id	Municipality (2000-2006)	Rank of deviation of expected stickiness for migrants
22	Dol pri Ljubljani	105
193	Žužemberk	106
141	Vuzenica	107
109	Semič	108
14	Cerkno	109
5	Borovnica	110
69	Majšperk	111
97	Puconci	112
28	Gorišnica	113
157	Dolenjske Toplice	114
136	Vipava	115
99	Radeče	116
159	Hajdina	117
49	Komen	118
147	Žiri	119
151	Braslovče	120
93	Podvelka	121
4	Bohinj	122
35	Hrpelje - Kozina	123
7	Brda	124
107	Rogatec	125
174	Prebold	126
134	Velike Lašče	127
127	Štore	128
78	Moravske Toplice	129
83	Nazarje	130
20	Dobrepolje	131
18	Destrnik	132
171	Oplotnica	133
166	Križevci	134
19	Divača	135
24	Dornava	136
10	Tišina	137
168	Markovci	138
95	Preddvor	139
138	Vodice	140
121	Škocjan	141
170	Mirna Peč	142
92	Podčetrtek	143
15	Črenšovci	144
116	Sveti Jurij	145
105	Rogašovci	146
167	Lovrenc na Pohorju	147
181	Sveta Ana	148
162	Horjul	149
46	Kobarid	150

Id	Municipality (2000-2006)	Rank of deviation of expected stickiness for migrants
172	Podlehnik	151
137	Vitanje	152
51	Kozje	153
132	Turnišče	154
148	Benedikt	155
115	Starše	156
62	Ljubno	157
125	Šmartno ob Paki	158
153	Cerkvenjak	159
30	Gornji Grad	160
65	Loška dolina	161
143	Zavrč	162
6	Bovec	163
189	Vransko	164
42	Juršinci	165
155	Dobrna	166
179	Sodražica	167
182	Sveti Andraž v Slov. goricah	168
177	Ribnica na Pohorju	169
56	Kuzma	170
185	Trnovska vas	171
158	Grad	172
188	Veržej	173
152	Cankova	174
31	Gornji Petrovci	175
150	Bloke	176
187	Velika Polana	177
176	Razkrižje	178
184	Tabor	179
156	Dobrovnik/Dobronak	180
33	Šalovci	181
66	Loški Potok	182
67	Luče	183
149	Bistrica ob Sotli	184
191	Žetale	185
86	Odranci	186
154	Dobje	187
165	Kostel	188
47	Kobilje	189
163	Jezersko	190
180	Solčava	191
88	Osilnica	192
161	Hodoš/Hodos	193

Annex E2: Rank of deviation of expected stickiness of Slovenian municipalities for labour commuters in the period 2000-2006.

Id	Municipality (2000-2006)	Rank of deviation of expected stickiness for commuters
23	Domžale	1
52	Kranj	2
61	Ljubljana	3
43	Kamnik	4
84	Nova Gorica	5
50	Koper/Capodistria	6
60	Litija	7
32	Grosuplje	8
140	Vrhnika	9
122	Škofja Loka	10
41	Jesenice	11
70	Maribor	12
102	Radovljica	13
39	Ivančna Gorica	14
90	Piran/Pirano	15
40	Izola/Isola	16
71	Medvode	17
54	Krško	18
120	Šentjur	19
113	Slovenska Bistrica	20
1	Ajdovščina	21
131	Tržič	22
9	Brežice	23
130	Trebnje	24
64	Logatec	25
133	Velenje	26
190	Žalec	27
96	Ptuj	28
103	Ravne na Koroškem	29
25	Dravograd	30
85	Novo mesto	31
110	Sevnica	32
2	Beltinci	33
11	Celje	34
27	Gorenja vas - Poljane	35
17	Črnomelj	36
142	Zagorje ob Savi	37
8	Brezovica	38
123	Škofljica	39
38	Ilirska Bistrica	40
119	Šentjernej	41
126	Šoštanj	42
94	Postojna	43
117	Šenčur	44
87	Ormož	45
3	Bled	46
114	Slovenske Konjice	47
175	Prevalje	48
26	Duplek	49
48	Kočevje	50
124	Šmarje pri Jelšah	51
13	Cerknica	52

Id	Municipality (2000-2006)	Rank of deviation of expected stickiness for commuters
112	Slovenj Gradec	53
104	Ribnica	54
76	Mislinja	55
160	Hoče - Slivnica	56
58	Lenart	57
139	Vojnik	58
7	Brda	59
129	Trbovlje	60
77	Moravče	61
12	Cerklje na Gorenjskem	62
128	Tolmin	63
53	Kranjska Gora	64
75	Miren - Kostanjevica	65
135	Videm	66
37	Ig	67
73	Metlika	68
157	Dolenjske Toplice	69
57	Laško	70
21	Dobrova - Polhov Gradec	71
72	Mengeš	72
194	Šmartno pri Litiji	73
68	Lukovica	74
80	Murska Sobota	75
136	Vipava	76
28	Gorišnica	77
89	Pesnica	78
183	Šempeter - Vrtojba	79
108	Ruše	80
193	Žužemberk	81
5	Borovnica	82
106	Rogaška Slatina	83
29	Gornja Radgona	84
111	Sežana	85
97	Puconci	86
44	Kanal	87
78	Moravske Toplice	88
79	Mozirje	89
34	Hrastnik	90
22	Dol pri Ljubljani	91
118	Šentilj	92
59	Lendava/Lendva	93
98	Rače - Fram	94
10	Tišina	95
192	Žirovnica	96
169	Miklavž na Dravskem polju	97
171	Oplotnica	98
63	Ljutomer	99
170	Mirna Peč	100
100	Radenci	101
164	Komenda	102
82	Naklo	103
91	Pivka	104

Id	Municipality (2000-2006)	Rank of deviation of expected stickiness for commuters
46	Kobarid	105
101	Radlje ob Dravi	106
146	Železniki	107
16	Črna na Koroškem	108
178	Selnica ob Dravi	109
55	Kungota	110
151	Braslovče	111
4	Bohinj	112
81	Muta	113
49	Komen	114
74	Mežica	115
121	Škocjan	116
173	Polzela	117
134	Velike Lašče	118
95	Preddvor	119
45	Kidričevo	120
69	Majšperk	121
15	Črenšovci	122
138	Vodice	123
109	Semič	124
167	Lovrenc na Pohorju	125
168	Markovci	126
14	Cerkno	127
20	Dobrepolje	128
36	Idrija	129
19	Divača	130
186	Trzin	131
107	Rogatec	132
141	Vuzenica	133
125	Šmartno ob Paki	134
115	Starše	135
144	Zreče	136
132	Turnišče	137
99	Radeče	138
174	Prebold	139
35	Hrpelje - Kozina	140
162	Horjul	141
159	Hajdina	142
166	Križevci	143
18	Destrnik	144
127	Štore	145
24	Dornava	146
93	Podvelka	147
148	Benedikt	148
92	Podčetrtek	149
6	Bovec	150
51	Kozje	151
105	Rogašovci	152
181	Sveta Ana	153
147	Žiri	154
143	Zavrč	155
66	Loški Potok	156
137	Vitanje	157
30	Gornji Grad	158
116	Sveti Jurij	159

Id	Municipality (2000-2006)	Rank of deviation of expected stickiness for commuters
62	Ljubno	160
42	Juršinci	161
155	Dobrna	162
153	Cerkvenjak	163
158	Grad	164
179	Sodražica	165
177	Ribnica na Pohorju	166
187	Velika Polana	167
172	Podlehnik	168
65	Loška dolina	169
152	Cankova	170
86	Odranci	171
189	Vransko	172
31	Gornji Petrovci	173
176	Razkrižje	174
83	Nazarje	175
188	Veržej	176
191	Žetale	177
150	Bloke	178
56	Kuzma	179
156	Dobrovnik/Dobronak	180
185	Trnovska vas	181
67	Luče	182
182	Sveti Andraž v Slov. goricah	183
184	Tabor	184
33	Šalovci	185
163	Jezersko	186
154	Dobje	187
149	Bistrica ob Sotli	188
47	Kobilje	189
165	Kostel	190
180	Solčava	191
88	Osilnica	192
161	Hodoš/Hodos	193

Annex E3: Rank of deviation of expected attractiveness of Slovenian municipalities for migrants in the period 2000-2006.

Id	Municipality (2000-2006)	Rank of deviation of expected attractiveness for migrants
61	Ljubljana	1
70	Maribor	2
133	Velenje	3
52	Kranj	4
23	Domžale	5
11	Celje	6
85	Novo mesto	7
90	Piran/Pirano	8
84	Nova Gorica	9
80	Murska Sobota	10
96	Ptuj	11
43	Kamnik	12
103	Ravne na Koroškem	13
50	Koper/Capodistria	14
40	Izola/Isola	15
140	Vrhnika	16
41	Jesenice	17
122	Škofja Loka	18
112	Slovenj Gradec	19
190	Žalec	20
102	Radovljica	21
32	Grosuplje	22
54	Krško	23
71	Medvode	24
60	Litija	25
64	Logatec	26
113	Slovenska Bistrica	27
110	Sevnica	28
123	Škofljica	29
58	Lenart	30
130	Trebnje	31
129	Trbovlje	32
120	Šentjur	33
131	Tržič	34
126	Šoštanj	35
114	Slovenske Konjice	36
39	Ivančna Gorica	37
29	Gornja Radgona	38
87	Ormož	39
72	Mengeš	40
108	Ruše	41
3	Bled	42
183	Šempeter - Vrtojba	43
25	Dravograd	44
142	Zagorje ob Savi	45
17	Črnomelj	46
94	Postojna	47
63	Ljutomer	48
175	Prevalje	49
48	Kočevje	50
8	Brezovica	51
89	Pesnica	52
160	Hoče - Slivnica	53
118	Šentilj	54
9	Brežice	55
1	Ajdovščina	56
124	Šmarje pri Jelšah	57
119	Šentjernej	58
128	Tolmin	59
144	Zreče	60
186	Trzin	61
104	Ribnica	62
106	Rogaška Slatina	63
73	Metlika	64
57	Laško	65
45	Kidričevo	66
53	Kranjska Gora	67
37	Ig	68
169	Miklavž na Dravskem polju	69
26	Duplek	70
98	Rače - Fram	71
75	Miren - Kostanjevica	72
146	Železniki	73
34	Hrastnik	74
101	Radlje ob Dravi	75
59	Lendava/Lendva	76
117	Šenčur	77
13	Cerknica	78
139	Vojnik	79
173	Polzela	80
74	Mežica	81
111	Sežana	82
27	Gorenja vas - Poljane	83
55	Kungota	84
79	Mozirje	85
44	Kanal	86
21	Dobrova - Polhov Gradec	87
36	Idrija	88
178	Selnica ob Dravi	89
194	Šmartno pri Litiji	90
100	Radenci	91
82	Naklo	92
68	Lukovica	93
81	Muta	94
135	Videm	95
2	Beltinci	96
164	Komenda	97
77	Moravče	98
12	Cerklje na Gorenjskem	99
76	Mislinja	100
38	Ilirska Bistrica	101
192	Žirovnica	102
91	Pivka	103
16	Črna na Koroškem	104

Id	Municipality (2000-2006)	Rank of deviation of expected attractiveness for migrants
22	Dol pri Ljubljani	105
193	Žužemberk	106
141	Vuzenica	107
109	Semič	108
14	Cerkno	109
5	Borovnica	110
69	Majšperk	111
97	Puconci	112
28	Gorišnica	113
157	Dolenjske Toplice	114
136	Vipava	115
99	Radeče	116
159	Hajdina	117
49	Komen	118
147	Žiri	119
151	Braslovče	120
93	Podvelka	121
4	Bohinj	122
35	Hrpelje - Kozina	123
7	Brda	124
107	Rogatec	125
174	Prebold	126
134	Velike Lašče	127
127	Štore	128
78	Moravske Toplice	129
83	Nazarje	130
20	Dobrepolje	131
18	Destrnik	132
171	Oplotnica	133
166	Križevci	134
19	Divača	135
24	Dornava	136
10	Tišina	137
168	Markovci	138
95	Preddvor	139
138	Vodice	140
121	Škocjan	141
170	Mirna Peč	142
92	Podčetrtek	143
15	Črenšovci	144
116	Sveti Jurij	145
105	Rogašovci	146
167	Lovrenc na Pohorju	147
181	Sveta Ana	148
162	Horjul	149
46	Kobarid	150
172	Podlehnik	151
137	Vitanje	152
51	Kozje	153
132	Turnišče	154
148	Benedikt	155
115	Starše	156
62	Ljubno	157
125	Šmartno ob Paki	158
153	Cerkvenjak	159
30	Gornji Grad	160

Id	Municipality (2000-2006)	Rank of deviation of expected attractiveness for migrants
65	Loška dolina	161
143	Zavrč	162
6	Bovec	163
189	Vransko	164
42	Juršinci	165
155	Dobrna	166
179	Sodražica	167
182	Sveti Andraž v Slov. goricah	168
177	Ribnica na Pohorju	169
56	Kuzma	170
185	Trnovska vas	171
158	Grad	172
188	Veržej	173
152	Cankova	174
31	Gornji Petrovci	175
150	Bloke	176
187	Velika Polana	177
176	Razkrižje	178
184	Tabor	179
156	Dobrovnik/Dobronak	180
33	Šalovci	181
66	Loški Potok	182
67	Luče	183
149	Bistrica ob Sotli	184
191	Žetale	185
86	Odranci	186
154	Dobje	187
165	Kostel	188
47	Kobilje	189
163	Jezersko	190
180	Solčava	191
88	Osilnica	192
161	Hodoš/Hodos	193

Annex E4: Rank of deviation of expected attractiveness of Slovenian municipalities for labour commuters in the period 2000-2006.

Id	Municipality (2000-2006)	Rank of deviation of expected attractiveness for commuters
61	Ljubljana	1
80	Murska Sobota	2
70	Maribor	3
85	Novo mesto	4
133	Velenje	5
11	Celje	6
52	Kranj	7
112	Slovenj Gradec	8
183	Šempeter - Vrtojba	9
84	Nova Gorica	10
186	Trzin	11
96	Ptuj	12
50	Koper/Capodistria	13
144	Zreče	14
103	Ravne na Koroškem	15
23	Domžale	16
122	Škofja Loka	17
45	Kidričevo	18
41	Jesenice	19
83	Nazarje	20
94	Postojna	21
102	Radovljica	22
90	Piran/Pirano	23
54	Krško	24
82	Naklo	25
190	Žalec	26
1	Ajdovščina	27
58	Lenart	28
40	Izola/Isola	29
32	Grosuplje	30
106	Rogaška Slatina	31
111	Sežana	32
29	Gornja Radgona	33
63	Ljutomer	34
59	Lendava/Lendva	35
12	Cerklje na Gorenjskem	36
72	Mengeš	37
101	Radlje ob Dravi	38
114	Slovenske Konjice	39
140	Vrhnika	40
43	Kamnik	41
3	Bled	42
129	Trbovlje	43
25	Dravograd	44
110	Sevnica	45
130	Trebnje	46
126	Šoštanj	47
73	Metlika	48
160	Hoče - Slivnica	49
74	Mežica	50
109	Semič	51
36	Idrija	52

Id	Municipality (2000-2006)	Rank of deviation of expected attractiveness for commuters
175	Prevalje	53
17	Črnomelj	54
127	Štore	55
104	Ribnica	56
64	Logatec	57
128	Tolmin	58
91	Pivka	59
71	Medvode	60
9	Brežice	61
108	Ruše	62
81	Muta	63
120	Šentjur	64
113	Slovenska Bistrica	65
146	Železniki	66
124	Šmarje pri Jelšah	67
57	Laško	68
48	Kočevje	69
173	Polzela	70
118	Šentilj	71
39	Ivančna Gorica	72
13	Cerknica	73
75	Miren - Kostanjevica	74
147	Žiri	75
142	Zagorje ob Savi	76
65	Loška dolina	77
19	Divača	78
60	Litija	79
119	Šentjernej	80
136	Vipava	81
123	Škofljica	82
14	Cerkno	83
178	Selnica ob Dravi	84
35	Hrpelje - Kozina	85
87	Ormož	86
100	Radenci	87
53	Kranjska Gora	88
141	Vuzenica	89
194	Šmartno pri Litiji	90
24	Dornava	91
131	Tržič	92
79	Mozirje	93
117	Šenčur	94
107	Rogatec	95
34	Hrastnik	96
37	Ig	97
2	Beltinci	98
8	Brezovica	99
89	Pesnica	100
22	Dol pri Ljubljani	101
166	Križevci	102
55	Kungota	103
16	Črna na Koroškem	104

Id	Municipality (2000-2006)	Rank of deviation of expected attractiveness for commuters
157	Dolenjske Toplice	105
162	Horjul	106
78	Moravske Toplice	107
139	Vojnik	108
164	Komenda	109
44	Kanal	110
98	Rače - Fram	111
20	Dobrepolje	112
38	Ilirska Bistrica	113
95	Preddvor	114
68	Lukovica	115
99	Radeče	116
172	Podlehnik	117
76	Mislinja	118
27	Gorenja vas - Poljane	119
174	Prebold	120
132	Turnišče	121
62	Ljubno	122
6	Bovec	123
169	Miklavž na Dravskem polju	124
21	Dobrova - Polhov Gradec	125
46	Kobarid	126
159	Hajdina	127
92	Podčetrtek	128
121	Škocjan	129
49	Komen	130
51	Kozje	131
155	Dobrna	132
179	Sodražica	133
28	Gorišnica	134
189	Vransko	135
192	Žirovnica	136
193	Žužemberk	137
15	Črenšovci	138
167	Lovrenc na Pohorju	139
151	Braslovče	140
26	Duplek	141
5	Borovnica	142
138	Vodice	143
171	Oplotnica	144
188	Veržej	145
143	Zavrč	146
163	Jezersko	147
31	Gornji Petrovci	148
97	Puconci	149
93	Podvelka	150
149	Bistrica ob Sotli	151
168	Markovci	152
69	Majšperk	153
4	Bohinj	154
125	Šmartno ob Paki	155
137	Vitanje	156
77	Moravče	157
10	Tišina	158
152	Cankova	159

Id	Municipality (2000-2006)	Rank of deviation of expected attractiveness for commuters
150	Bloke	160
47	Kobilje	161
105	Rogašovci	162
187	Velika Polana	163
7	Brda	164
170	Mirna Peč	165
30	Gornji Grad	166
134	Velike Lašče	167
135	Videm	168
148	Benedikt	169
115	Starše	170
18	Destrnik	171
154	Dobje	172
116	Sveti Jurij	173
158	Grad	174
153	Cerkvenjak	175
161	Hodoš/Hodos	176
181	Sveta Ana	177
86	Odranci	178
67	Luče	179
177	Ribnica na Pohorju	180
156	Dobrovnik/Dobronak	181
176	Razkrižje	182
66	Loški Potok	183
180	Solčava	184
42	Juršinci	185
56	Kuzma	186
191	Žetale	187
182	Sveti Andraž v Slov. goricah	188
165	Kostel	189
88	Osilnica	190
184	Tabor	191
185	Trnovska vas	192
33	Šalovci	193

Annex E5: Rank of deviation of expected stickiness of Slovenian municipalities for migrants in the period 2007-2009.

Id	Municipality (2007-2009)	Rank of deviation of expected stickiness for migrants
61	Ljubljana	1
70	Maribor	2
133	Velenje	3
90	Piran/Pirano	4
85	Novo mesto	5
50	Koper/Capodistria	6
84	Nova Gorica	7
11	Celje	8
52	Kranj	9
1	Ajdovščina	10
112	Slovenj Gradec	11
54	Krško	12
17	Črnomelj	13
103	Ravne na Koroškem	14
40	Izola/Isola	15
41	Jesenice	16
23	Domžale	17
128	Tolmin	18
80	Murska Sobota	19
110	Sevnica	20
130	Trebnje	21
106	Rogaška Slatina	22
94	Postojna	23
25	Dravograd	24
96	Ptuj	25
73	Metlika	26
60	Litija	27
43	Kamnik	28
87	Ormož	29
122	Škofja Loka	30
48	Kočevje	31
32	Grosuplje	32
44	Kanal	33
102	Radovljica	34
9	Brežice	35
6	Bovec	36
36	Idrija	37
109	Semič	38
101	Radlje ob Dravi	39
120	Šentjur	40
38	Ilirska Bistrica	41
53	Kranjska Gora	42
14	Cerkno	43
140	Vrhnika	44
29	Gornja Radgona	45
126	Šoštanj	46
63	Ljutomer	47
104	Ribnica	48
136	Vipava	49
146	Železniki	50
190	Žalec	51
144	Zreče	52
124	Šmarje pri Jelšah	53
114	Slovenske Konjice	54
64	Logatec	55
111	Sežana	56
108	Ruše	57
203	Straža	58
119	Šentjernej	59
123	Škofljica	60
131	Tržič	61
27	Gorenja vas - Poljane	62
13	Cerknica	63
175	Prevalje	64
37	Ig	65
46	Kobarid	66
206	Šmarješke Toplice	67
59	Lendava/Lendva	68
71	Medvode	69
74	Mežica	70
91	Pivka	71
39	Ivančna Gorica	72
57	Laško	73
3	Bled	74
183	Šempeter - Vrtojba	75
113	Slovenska Bistrica	76
7	Brda	77
4	Bohinj	78
81	Muta	79
142	Zagorje ob Savi	80
211	Šentrupert	81
160	Hoče - Slivnica	82
194	Šmartno pri Litiji	83
118	Šentilj	84
107	Rogatec	85
129	Trbovlje	86
58	Lenart	87
2	Beltinci	88
28	Gorišnica	89
75	Miren - Kostanjevica	90
72	Mengeš	91
139	Vojnik	92
19	Divača	93
99	Radeče	94
16	Črna na Koroškem	95
76	Mislinja	96
49	Komen	97
79	Mozirje	98
93	Podvelka	99
34	Hrastnik	100
100	Radenci	101
117	Šenčur	102
193	Žužemberk	103
157	Dolenjske Toplice	104

Id	Municipality (2007-2009)	Rank of deviation of expected stickiness for migrants
89	Pesnica	105
186	Trzin	106
92	Podčetrtek	107
45	Kidričevo	108
78	Moravske Toplice	109
201	Renče - Vogrsko	110
35	Hrpelje - Kozina	111
8	Brezovica	112
65	Loška dolina	113
121	Škocjan	114
15	Črenšovci	115
5	Borovnica	116
77	Moravče	117
147	Žiri	118
55	Kungota	119
51	Kozje	120
177	Ribnica na Pohorju	121
12	Cerklje na Gorenjskem	122
164	Komenda	123
97	Puconci	124
173	Polzela	125
26	Duplek	126
199	Mokronog - Trebelno	127
69	Majšperk	128
62	Ljubno	129
196	Cirkulane	130
68	Lukovica	131
141	Vuzenica	132
22	Dol pri Ljubljani	133
127	Štore	134
195	Apače	135
24	Dornava	136
30	Gornji Grad	137
135	Videm	138
98	Rače - Fram	139
125	Šmartno ob Paki	140
171	Oplotnica	141
197	Kostanjevica na Krki	142
116	Sveti Jurij	143
134	Velike Lašče	144
132	Turnišče	145
148	Benedikt	146
174	Prebold	147
207	Gorje	148
20	Dobrepolje	149
18	Destrnik	150
56	Kuzma	151
170	Mirna Peč	152
105	Rogašovci	153
95	Preddvor	154
200	Poljčane	155
83	Nazarje	156
10	Tišina	157
169	Miklavž na Dravskem polju	158
202	Središče ob Dravi	159

Id	Municipality (2007-2009)	Rank of deviation of expected stickiness for migrants
151	Braslovče	160
137	Vitanje	161
82	Naklo	162
209	Rečica ob Savinji	163
21	Dobrova - Polhov Gradec	164
178	Selnica ob Dravi	165
143	Zavrč	166
66	Loški Potok	167
205	Sveti Tomaž	168
42	Juršinci	169
166	Križevci	170
208	Log - Dragomer	171
179	Sodražica	172
172	Podlehnik	173
150	Bloke	174
192	Žirovnica	175
159	Hajdina	176
149	Bistrica ob Sotli	177
67	Luče	178
138	Vodice	179
204	Sv. Trojica v Slov. goricah	180
153	Cerkvenjak	181
163	Jezersko	182
155	Dobrna	183
31	Gornji Petrovci	184
167	Lovrenc na Pohorju	185
168	Markovci	186
115	Starše	187
152	Cankova	188
188	Veržej	189
189	Vransko	190
181	Sveta Ana	191
210	Sv. Jurij v Slov. goricah	192
88	Osilnica	193
198	Makole	194
191	Žetale	195
158	Grad	196
162	Horjul	197
165	Kostel	198
180	Solčava	199
176	Razkrižje	200
156	Dobrovnik/Dobronak	201
187	Velika Polana	202
185	Trnovska vas	203
154	Dobje	204
182	Sveti Andraž v Slov. goricah	205
47	Kobilje	206
86	Odranci	207
33	Šalovci/Šalovci	208
184	Tabor	209
161	Hodoš/Hodos	210

Annex E6: Rank of deviation of expected stickiness of Slovenian municipalities for labour commuters in the period 2007-2009.

Id	Municipality (2007-2009)	Rank of deviation of expected stickiness for commuters
52	Kranj	1
23	Domžale	2
61	Ljubljana	3
43	Kamnik	4
50	Koper/Capodistria	5
32	Grosuplje	6
84	Nova Gorica	7
122	Škofja Loka	8
60	Litija	9
41	Jesenice	10
70	Maribor	11
39	Ivančna Gorica	12
40	Izola/Isola	13
54	Krško	14
90	Piran/Pirano	15
1	Ajdovščina	16
102	Radovljica	17
140	Vrhnika	18
64	Logatec	19
9	Brežice	20
131	Tržič	21
130	Trebnje	22
120	Šentjur	23
94	Postojna	24
17	Črnomelj	25
85	Novo mesto	26
71	Medvode	27
133	Velenje	28
110	Sevnica	29
11	Celje	30
38	Ilirska Bistrica	31
113	Slovenska Bistrica	32
48	Kočevje	33
190	Žalec	34
27	Gorenja vas - Poljane	35
126	Šoštanj	36
96	Ptuj	37
142	Zagorje ob Savi	38
123	Škofljica	39
25	Dravograd	40
129	Trbovlje	41
8	Brezovica	42
103	Ravne na Koroškem	43
13	Cerknica	44
119	Šentjernej	45
26	Duplek	46
124	Šmarje pri Jelšah	47
114	Slovenske Konjice	48
160	Hoče - Slivnica	49
87	Ormož	50
112	Slovenj Gradec	51
2	Beltinci	52

Id	Municipality (2007-2009)	Rank of deviation of expected stickiness for commuters
117	Šenčur	53
7	Brda	54
104	Ribnica	55
73	Metlika	56
175	Prevalje	57
37	Ig	58
12	Cerklje na Gorenjskem	59
53	Kranjska Gora	60
111	Sežana	61
139	Vojnik	62
44	Kanal	63
57	Laško	64
106	Rogaška Slatina	65
128	Tolmin	66
75	Miren - Kostanjevica	67
135	Videm	68
77	Moravče	69
21	Dobrova - Polhov Gradec	70
136	Vipava	71
157	Dolenjske Toplice	72
203	Straža	73
22	Dol pri Ljubljani	74
68	Lukovica	75
76	Mislinja	76
72	Mengeš	77
118	Šentilj	78
193	Žužemberk	79
108	Ruše	80
80	Murska Sobota	81
206	Šmarješke Toplice	82
194	Šmartno pri Litiji	83
5	Borovnica	84
34	Hrastnik	85
183	Šempeter - Vrtojba	86
3	Bled	87
146	Železniki	88
91	Pivka	89
164	Komenda	90
98	Rače - Fram	91
89	Pesnica	92
170	Mirna Peč	93
201	Renče - Vogrsko	94
78	Moravske Toplice	95
134	Velike Lašče	96
4	Bohinj	97
97	Puconci	98
55	Kungota	99
63	Ljutomer	100
192	Žirovnica	101
46	Kobarid	102
49	Komen	103
121	Škocjan	104

Id	Municipality (2007-2009)	Rank of deviation of expected stickiness for commuters
101	Radlje ob Dravi	105
14	Cerkno	106
28	Gorišnica	107
169	Miklavž na Dravskem polju	108
59	Lendava/Lendva	109
151	Braslovče	110
171	Oplotnica	111
10	Tišina	112
58	Lenart	113
138	Vodice	114
36	Idrija	115
100	Radenci	116
20	Dobrepolje	117
16	Črna na Koroškem	118
173	Polzela	119
109	Semič	120
82	Naklo	121
29	Gornja Radgona	122
19	Divača	123
45	Kidričevo	124
178	Selnica ob Dravi	125
69	Majšperk	126
167	Lovrenc na Pohorju	127
74	Mežica	128
81	Muta	129
35	Hrpelje - Kozina	130
15	Črenšovci	131
115	Starše	132
144	Zreče	133
99	Radeče	134
125	Šmartno ob Paki	135
174	Prebold	136
186	Trzin	137
95	Preddvor	138
199	Mokronog - Trebelno	139
168	Markovci	140
79	Mozirje	141
107	Rogatec	142
207	Gorje	143
132	Turnišče	144
159	Hajdina	145
195	Apače	146
18	Destrnik	147
127	Štore	148
197	Kostanjevica na Krki	149
141	Vuzenica	150
148	Benedikt	151
200	Poljčane	152
147	Žiri	153
92	Podčetrtek	154
93	Podvelka	155
24	Dornava	156
211	Šentrupert	157
208	Log - Dragomer	158
143	Zavrč	159

Id	Municipality (2007-2009)	Rank of deviation of expected stickiness for commuters
162	Horjul	160
51	Kozje	161
6	Bovec	162
105	Rogašovci	163
196	Cirkulane	164
42	Juršinci	165
66	Loški Potok	166
210	Sv. Jurij v Slov. goricah	167
65	Loška dolina	168
62	Ljubno	169
166	Križevci	170
179	Sodražica	171
181	Sveta Ana	172
204	Sv. Trojica v Slov. goricah	173
202	Središče ob Dravi	174
137	Vitanje	175
205	Sveti Tomaž	176
155	Dobrna	177
198	Makole	178
209	Rečica ob Savinji	179
30	Gornji Grad	180
172	Podlehnik	181
116	Sveti Jurij	182
153	Cerkvenjak	183
158	Grad	184
177	Ribnica na Pohorju	185
187	Velika Polana	186
189	Vransko	187
31	Gornji Petrovci	188
83	Nazarje	189
191	Žetale	190
152	Cankova	191
86	Odranci	192
149	Bistrica ob Sotli	193
176	Razkrižje	194
56	Kuzma	195
185	Trnovska vas	196
150	Bloke	197
156	Dobrovnik/Dobronak	198
67	Luče	199
163	Jezersko	200
188	Veržej	201
182	Sveti Andraž v Slov. goricah	202
154	Dobje	203
184	Tabor	204
33	Šalovci/Šalovci	205
47	Kobilje	206
165	Kostel	207
88	Osilnica	208
180	Solčava	209
161	Hodoš/Hodos	210

Annex E7: Rank of deviation of expected attractiveness of Slovenian municipalities for migrants in the period 2007-2009.

Id	Municipality (2007-2009)	Rank of deviation of expected attractiveness for migrants
61	Ljubljana	1
70	Maribor	2
50	Koper/Capodistria	3
85	Novo mesto	4
90	Piran/Pirano	5
52	Kranj	6
23	Domžale	7
84	Nova Gorica	8
11	Celje	9
133	Velenje	10
211	Šentrupert	11
32	Grosuplje	12
43	Kamnik	13
40	Izola/Isola	14
54	Krško	15
94	Postojna	16
130	Trebnje	17
112	Slovenj Gradec	18
1	Ajdovščina	19
140	Vrhnika	20
64	Logatec	21
60	Litija	22
110	Sevnica	23
80	Murska Sobota	24
39	Ivančna Gorica	25
41	Jesenice	26
25	Dravograd	27
102	Radovljica	28
106	Rogaška Slatina	29
101	Radlje ob Dravi	30
58	Lenart	31
17	Črnomelj	32
73	Metlika	33
96	Ptuj	34
123	Škofljica	35
29	Gornja Radgona	36
87	Ormož	37
113	Slovenska Bistrica	38
37	Ig	39
9	Brežice	40
124	Šmarje pri Jelšah	41
104	Ribnica	42
122	Škofja Loka	43
120	Šentjur	44
175	Prevalje	45
190	Žalec	46
111	Sežana	47
48	Kočevje	48
103	Ravne na Koroškem	49
126	Šoštanj	50
71	Medvode	51
72	Mengeš	52
139	Vojnik	53
128	Tolmin	54
57	Laško	55
206	Šmarješke Toplice	56
114	Slovenske Konjice	57
36	Idrija	58
160	Hoče - Slivnica	59
13	Cerknica	60
164	Komenda	61
136	Vipava	62
22	Dol pri Ljubljani	63
26	Duplek	64
63	Ljutomer	65
8	Brezovica	66
131	Tržič	67
38	Ilirska Bistrica	68
117	Šenčur	69
173	Polzela	70
27	Gorenja vas - Poljane	71
119	Šentjernej	72
108	Ruše	73
142	Zagorje ob Savi	74
144	Zreče	75
7	Brda	76
194	Šmartno pri Litiji	77
109	Semič	78
89	Pesnica	79
98	Rače - Fram	80
100	Radenci	81
118	Šentilj	82
77	Moravče	83
2	Beltinci	84
12	Cerklje na Gorenjskem	85
28	Gorišnica	86
127	Štore	87
44	Kanal	88
68	Lukovica	89
20	Dobrepolje	90
203	Straža	91
148	Benedikt	92
135	Videm	93
91	Pivka	94
81	Muta	95
129	Trbovlje	96
59	Lendava/Lendva	97
121	Škocjan	98
53	Kranjska Gora	99
3	Bled	100
55	Kungota	101
4	Bohinj	102
6	Bovec	103
200	Poljčane	104

Id	Municipality (2007-2009)	Rank of deviation of expected attractiveness for migrants
65	Loška dolina	105
14	Cerkno	106
45	Kidričevo	107
75	Miren - Kostanjevica	108
183	Šempeter - Vrtojba	109
76	Mislinja	110
146	Železniki	111
30	Gornji Grad	112
174	Prebold	113
147	Žiri	114
107	Rogatec	115
155	Dobrna	116
138	Vodice	117
79	Mozirje	118
143	Zavrč	119
201	Renče - Vogrsko	120
24	Dornava	121
66	Loški Potok	122
125	Šmartno ob Paki	123
186	Trzin	124
74	Mežica	125
69	Majšperk	126
56	Kuzma	127
34	Hrastnik	128
157	Dolenjske Toplice	129
49	Komen	130
18	Destrnik	131
19	Divača	132
99	Radeče	133
21	Dobrova - Polhov Gradec	134
92	Podčetrtek	135
193	Žužemberk	136
16	Črna na Koroškem	137
151	Braslovče	138
51	Kozje	139
95	Preddvor	140
46	Kobarid	141
170	Mirna Peč	142
97	Puconci	143
169	Miklavž na Dravskem polju	144
141	Vuzenica	145
171	Oplotnica	146
78	Moravske Toplice	147
134	Velike Lašče	148
196	Cirkulane	149
166	Križevci	150
105	Rogašovci	151
5	Borovnica	152
181	Sveta Ana	153
93	Podvelka	154
35	Hrpelje - Kozina	155
195	Apače	156
207	Gorje	157
192	Žirovnica	158
42	Juršinci	159

Id	Municipality (2007-2009)	Rank of deviation of expected attractiveness for migrants
178	Selnica ob Dravi	160
162	Horjul	161
177	Ribnica na Pohorju	162
82	Naklo	163
159	Hajdina	164
116	Sveti Jurij	165
62	Ljubno	166
83	Nazarje	167
208	Log - Dragomer	168
210	Sv. Jurij v Slov. goricah	169
199	Mokronog - Trebelno	170
197	Kostanjevica na Krki	171
15	Črenšovci	172
179	Sodražica	173
189	Vransko	174
168	Markovci	175
115	Starše	176
204	Sv. Trojica v Slov. goricah	177
205	Sveti Tomaž	178
188	Veržej	179
132	Turnišče	180
150	Bloke	181
10	Tišina	182
209	Rečica ob Savinji	183
149	Bistrica ob Sotli	184
167	Lovrenc na Pohorju	185
202	Središče ob Dravi	186
198	Makole	187
137	Vitanje	188
172	Podlehnik	189
191	Žetale	190
185	Trnovska vas	191
176	Razkrižje	192
153	Cerkvenjak	193
31	Gornji Petrovci	194
163	Jezersko	195
67	Luče	196
152	Cankova	197
184	Tabor	198
158	Grad	199
182	Sveti Andraž v Slov. goricah	200
165	Kostel	201
156	Dobrovnik/Dobronak	202
86	Odranci	203
33	Šalovci/Šalovci	204
154	Dobje	205
47	Kobilje	206
180	Solčava	207
187	Velika Polana	208
88	Osilnica	209
161	Hodoš/Hodos	210

Annex E8: Rank of deviation of expected attractiveness of Slovenian municipalities for labour commuters in the period 2007-2009.

Id	Municipality (2007-2009)	Rank of deviation of expected attractiveness for commuters
61	Ljubljana	1
70	Maribor	2
85	Novo mesto	3
186	Trzin	4
11	Celje	5
133	Velenje	6
80	Murska Sobota	7
52	Kranj	8
84	Nova Gorica	9
50	Koper/Capodistria	10
112	Slovenj Gradec	11
183	Šempeter - Vrtojba	12
96	Ptuj	13
144	Zreče	14
23	Domžale	15
122	Škofja Loka	16
103	Ravne na Koroškem	17
90	Piran/Pirano	18
102	Radovljica	19
40	Izola/Isola	20
58	Lenart	21
54	Krško	22
1	Ajdovščina	23
41	Jesenice	24
45	Kidričevo	25
29	Gornja Radgona	26
190	Žalec	27
32	Grosuplje	28
130	Trebnje	29
111	Sežana	30
83	Nazarje	31
94	Postojna	32
36	Idrija	33
82	Naklo	34
12	Cerklje na Gorenjskem	35
72	Mengeš	36
73	Metlika	37
106	Rogaška Slatina	38
160	Hoče - Slivnica	39
43	Kamnik	40
25	Dravograd	41
114	Slovenske Konjice	42
63	Ljutomer	43
3	Bled	44
91	Pivka	45
110	Sevnica	46
64	Logatec	47
140	Vrhnika	48
101	Radlje ob Dravi	49
127	Štore	50
126	Šoštanj	51
104	Ribnica	52

Id	Municipality (2007-2009)	Rank of deviation of expected attractiveness for commuters
87	Ormož	53
39	Ivančna Gorica	54
113	Slovenska Bistrica	55
17	Črnomelj	56
129	Trbovlje	57
203	Straža	58
201	Renče - Vogrsko	59
128	Tolmin	60
146	Železniki	61
9	Brežice	62
124	Šmarje pri Jelšah	63
74	Mežica	64
71	Medvode	65
59	Lendava/Lendva	66
57	Laško	67
60	Litija	68
13	Cerknica	69
117	Šenčur	70
147	Žiri	71
120	Šentjur	72
108	Ruše	73
197	Kostanjevica na Krki	74
142	Zagorje ob Savi	75
109	Semič	76
164	Komenda	77
175	Prevalje	78
19	Divača	79
119	Šentjernej	80
136	Vipava	81
48	Kočevje	82
123	Škofljica	83
81	Muta	84
75	Miren - Kostanjevica	85
35	Hrpelje - Kozina	86
211	Šentrupert	87
118	Šentilj	88
24	Dornava	89
22	Dol pri Ljubljani	90
65	Loška dolina	91
8	Brezovica	92
107	Rogatec	93
139	Vojnik	94
173	Polzela	95
53	Kranjska Gora	96
14	Cerkno	97
131	Tržič	98
62	Ljubno	99
37	Ig	100
162	Horjul	101
68	Lukovica	102
194	Šmartno pri Litiji	103
78	Moravske Toplice	104

Id	Municipality (2007-2009)	Rank of deviation of expected attractiveness for commuters
141	Vuzenica	105
55	Kungota	106
199	Mokronog - Trebelno	107
89	Pesnica	108
174	Prebold	109
2	Beltinci	110
38	Ilirska Bistrica	111
34	Hrastnik	112
98	Rače - Fram	113
178	Selnica ob Dravi	114
79	Mozirje	115
157	Dolenjske Toplice	116
20	Dobrepolje	117
206	Šmarješke Toplice	118
100	Radenci	119
28	Gorišnica	120
200	Poljčane	121
92	Podčetrtek	122
27	Gorenja vas - Poljane	123
16	Črna na Koroškem	124
150	Bloke	125
6	Bovec	126
44	Kanal	127
15	Črenšovci	128
169	Miklavž na Dravskem polju	129
166	Križevci	130
95	Preddvor	131
21	Dobrova - Polhov Gradec	132
5	Borovnica	133
99	Radeče	134
172	Podlehnik	135
121	Škocjan	136
155	Dobrna	137
46	Kobarid	138
159	Hajdina	139
76	Mislinja	140
49	Komen	141
138	Vodice	142
189	Vransko	143
209	Rečica ob Savinji	144
192	Žirovnica	145
51	Kozje	146
193	Žužemberk	147
69	Majšperk	148
26	Duplek	149
77	Moravče	150
208	Log - Dragomer	151
97	Puconci	152
151	Braslovče	153
168	Markovci	154
207	Gorje	155
132	Turnišče	156
149	Bistrica ob Sotli	157
93	Podvelka	158
171	Oplotnica	159

Id	Municipality (2007-2009)	Rank of deviation of expected attractiveness for commuters
7	Brda	160
125	Šmartno ob Paki	161
179	Sodražica	162
170	Mirna Peč	163
4	Bohinj	164
202	Središče ob Dravi	165
31	Gornji Petrovci	166
143	Zavrč	167
134	Velike Lašče	168
137	Vitanje	169
148	Benedikt	170
10	Tišina	171
188	Veržej	172
167	Lovrenc na Pohorju	173
152	Cankova	174
30	Gornji Grad	175
115	Starše	176
135	Videm	177
163	Jezersko	178
198	Makole	179
195	Apače	180
153	Cerkvenjak	181
18	Destrnik	182
105	Rogašovci	183
116	Sveti Jurij	184
56	Kuzma	185
196	Cirkulane	186
176	Razkrižje	187
210	Sv. Jurij v Slov. goricah	188
156	Dobrovnik/Dobronak	189
204	Sv. Trojica v Slov. goricah	190
67	Luče	191
86	Odranci	192
165	Kostel	193
154	Dobje	194
42	Juršinci	195
66	Loški Potok	196
187	Velika Polana	197
158	Grad	198
161	Hodoš/Hodos	199
181	Sveta Ana	200
185	Trnovska vas	201
180	Solčava	202
177	Ribnica na Pohorju	203
191	Žetale	204
88	Osilnica	205
47	Kobilje	206
184	Tabor	207
33	Šalovci/Šalovci	208
205	Sveti Tomaž	209
182	Sveti Andraž v Slov. goricah	210

December 2010

The ESPON 2013 Programme

ATTREG
The Attractiveness of European regions and cities for residents and visitors

Applied Research Project 2013/1/3

Annex 4/8
ATTREG Case Studies

Trento

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EUROPEAN UNION
Part-financed by the European Regional Development Fund
INVESTING IN YOUR FUTURE

This report presents the draft final results of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

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This basic report exists only in an electronic version.

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1 Introduction of the case of Trento

1.1 Relevance of case study

NUTS0	**IT**
NUTS106	**ITD**
Name_asci	**Provincia Autonoma di Trento**
NUTS206	**ITD2**
region that attracts lower flows than predicted	**1**
STICKY/FLOW OUTLIERS	**1**

First of all, the choice of Trento as Italian case study has been the decision of the ATTREG Board in choosing this area as to be a case study: "*this mountain region, moderately oriented to tourism, shows to be as a mostly "sticky" region for all age groups considered in our analysis (positive net migration rated) but overall a region with lower dimensions than predicted by our model in terms of flows in and out for all audience".*

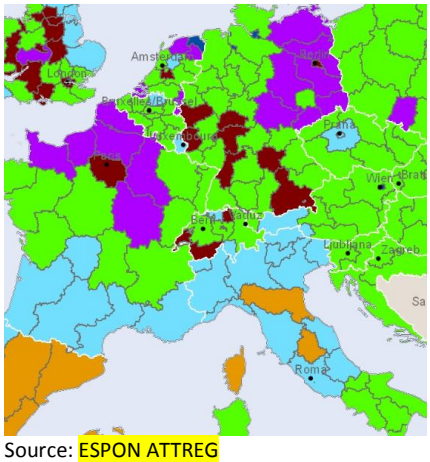
We decided to go further in analyzing this case also considering that it has a peculiar administrative status among the Italian Regions as it is a so-called "autonomous province".

Trento is situated on the southern side of the Alps and the NUTS2 follows the boundaries of the Autonomous Province of Trento. It is one of two autonomous provinces that make up the region of Trentino-Alto Adige/Südtirol as can be seen from from Fig. 2.

A Region that is politically autonomous is a very interesting case in terms of governance and policies.

In fact, according to the Italian Constitution there are 5 peripheral regions with a special statute, all situated at the borders of the country (including the two biggest islands Sardegna e Sicilia).

It would be of particular interest considering the fact that its political autonomy it is strictly connected to its available financial resources (as well as the Alto Adige, a region bordering Austria in the North) with which the Province may better support different sectors of the economy compared and regional capital with respect to the nearby regions Lombardia and Veneto in part compensating for its morphological limits.



Source: ESPON ATTREG

Figure 1: Stickiness Typology Map

Figure 2: Italy NUTS2 - ITD2

The territory of the NUTS2 is almost entirely mountainous and mostly covered in forest. The area is characterized by the presence various protected areas and therefore the overall population density is relatively low (a total of just over 500,000 inhabitants). About one-fifth of the population lives in the main city (Trento), while others are parceled out among more than 200 municipalities.

Briefly resuming these are the main ITD2 NUTS2 characteristics:

- autonomous province;
- higher financial resources;
- most of the territory is covered in forest;
- agriculture and tourism are the two principal economic sectors;
- population density is relatively low.

1.2 Case study questions and method of research

Concerning our case and starting from the RA4 case study protocol, we have identified two main questions:

- *Why is this region less able to attract?*
- *Why does it seem to be underperforming?*

These issues have been addressed both by *desk research* and through *interviews with Trento stakeholders.*

Concerning the desk research, we have tried to explore the ATTREG database analyzing if this region could benefit from a relevant (financial) autonomy with respect to other, nearby Italian regions. In the next chapter it will be shows by presenting a number of relevant variables in comparison with other spatial levels in order to see if the province's characteristics influence its ability to attract.

With the stakeholders that have been interviewed in Trento we have tried to address some question like:

- are our typologies (identified in RA3) considered valid for practitioners/stakeholders in Trento?
- how do stakeholders perceive the regional capacity to attract residents and visitors of the Trento NUTS2 (both in the national and cross-border contexts)?
- is there any differences between objective indicators and determinants of attractiveness and subjective perceptions by various groups?
- which are the expectations concerning the future development of a region's attractiveness, considering possible political, environmental, demographic and socio-cultural changes?
- Which is the way different forms of mobile populations are managed? Is there any identified specific thresholds or related critical aspects?

Since one of our focuses has been the attractiveness for visitor population we stressed in the interviews with these on the following three issues:

- is there any selective strategy toward specific types of resident or visitors?
- which are its mobilization strategies for the future?

- do the interviewed think we need to consider some other variables that are not yet included in ATTREG data base)?

In order to define the list of interviewees, we need to keep in mind that the objective of the case studies is to gain deeper understanding of what assets make regions attractive for particular groups of users and how governments on various levels and other stakeholders are able to influence attractiveness (mobilization).

For this reason we had firstly involved the following organizations:

- *Università di Trento;*
- *Trento School of Management;*
- *Mart;*
- *Festival Economia;*
- *BIC (Business Innovation Center);*
- *Provincia Autonoma di Trento;*
- *Consorzio dei Comuni della Provincia di Trento;*
- *Comune di Trento;*
- *Camera di Commercio di Trento;*
- *Visit Trentino;*
- *Trentino trasporti S.p.A.*

Each of the referents had been informed about the project and its aims. We had followed up all of them in order to achieve documents, information and thereafter have personal interviews with their directors.

1.3 Structure of the report

Following RA4 Case Study protocol after this first introduction chapter in the next some data coming from RA2 and other reports information concerning this case. The third chapter will resume some issues and topics emerged from the interviews from the stakeholders and in the conclusion the principal consequences of the case for the ATTREG research will be discussed.

2 Data Analyis

Some first ideas concerning the Province of Trento have already been given in the previous chapter. In this one, it will be included some data of the ATTREG database, used for the model. First of all, some tables in which the province of Trento is compared with other areas follow; then several other tables will try to provide some evidence of what the concept of "autonomy" actually means.

The following tables show the data of Trento and the neighbors Italian NUTS2 (Bolzano, Veneto and Lombardia) as well as the average of other Italian and EU regions. The following lines compare the values of Trento with other regions within the same typology and the average of the same type of outlier of the Province of Trento. Last line of the tables includes the value of regions that attracts lower flows than predicted by the ATTREG model.

It should be clear by now that the median Italian region's value, is not constructed as the value of NUTS0 ITA, but as the average of the NUTS2 Italian regions, mostly because the raw data for the

calculation are not included in the actual version of the ATTREG Database. This is the general basis of valid cases included in the averages.

Table 1: Number of valid cases included in the averages

Italian regions	EU Regions	EU NUTS2 region in Typology 1	EU NUTS2 lower flow regions
21	278	112	34

In this analysis we have included a number of variables that were used in the RA3 phase to determine the outliers, of which Trento was one.

Table 2: Arrivals of ITALIANS in all types of accommodation (AVERAGE 2004-2001)/population (average 2004-2001)

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	3,52	.	3,52	3,52
Prov. Autonoma di Bolzano	3,55	.	3,55	3,55
Lombardia	0,52	.	0,52	0,52
Veneto	1,03	.	1,03	1,03
Average of Italian regions	1,31	1,19	0,38	4,76
Average of EU Regions	1,07	0,90	0,07	6,35
Average of EU NUTS2 region in Typology 1	0,69	0,63	0,07	3,55
Average of EU NUTS2 lower flow regions	1,04	0,80	0,07	3,52

Source: ATTREG Database, Variable: mt2_41

Table 3: Arrival of FOREIGNERS in all types of accommodation (AVERAGE 2004-2001) /population (average 2004-2001)

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	2,12	.	2,12	2,12
Prov. Autonoma di Bolzano	6,19	.	6,19	6,19
Lombardia	0,43	.	0,43	0,43
Veneto	1,57	.	1,57	1,57
Average of Italian regions	0,91	1,36	0,05	6,19
Average of EU Regions	0,65	1,10	0,01	8,57
Average of EU NUTS2 region in Typology 1	0,69	1,24	0,01	8,57
Average of EU NUTS2 lower flow regions	0,60	0,99	0,03	5,58

Source: ATTREG Database, Variable: mt2_42

Table 4: Average annual internal inter-NUTS2 in-migration flow rate (per 1,000 residents)

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	7,08	.	7,08	7,08
Prov. Autonoma di Bolzano	3,87	.	3,87	3,87
Lombardia	5,87	.	5,87	5,87
Veneto	5,17	.	5,17	5,17
Average of Italian regions	6,35	2,14	3,55	12,01
Average of EU Regions	14,98	9,80	0,92	60,90
Average of EU NUTS2 region in Typology 1	6,31	3,13	0,92	11,56
Average of EU NUTS2 lower flow regions	9,83	4,35	3,68	26,13

Source: ATTREG Database, Variable: mm2_61

Table 5: Average GDP per capita 2001-03

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	27100,00	.	27100,00	27100,00
Prov. Autonoma di Bolzano	28866,67	.	28866,67	28866,67
Lombardia	30133,33	.	30133,33	30133,33
Veneto	26500,00	.	26500	26500
Average of Italian regions	21998,41	5484,42	14133,33	30133,33
Average of EU Regions	19123,02	11826,60	1100,00	75300,00
Average of EU NUTS2 region in Typology 1	13910,67	11592,35	1200,00	54033,33
Average of EU NUTS2 lower flow regions	21318,52	8321,59	2300,00	43633,33

Source: ATTREG Database, Variable: eh2_27

The first five tables confirm the regions position with respect to the rest of Italy. It is attractive for tourists and migrants, although less than the other EU Nuts 2 regions. GDP per capita is above the Italian and EU average, but slightly lower than in the richest region of Italia Lombardia.

Table 6: Average proportion of people aged 15 and above educated to ISCED level 5-6 as highest level 2001-03 ('000s)

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	0,08	.	0,08	0,08
Prov. Autonoma di Bolzano	0,06	.	0,06	0,06
Lombardia	0,08	.	0,08	0,08
Veneto	0,07	.	0,07	0,07
Average of Italian regions	0,07	0,01	0,05	0,10
Average of EU Regions	0,16	0,07	0,04	0,43
Average of EU NUTS2 region in Typology 1	0,12	0,06	0,04	0,29
Average of EU NUTS2 lower flow regions	0,18	0,06	0,06	0,28

Source: ATTREG Database, Variable: eh2_40

Table 7: Average % of public sector employment 2001-03

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	0,29	.	0,29	0,29
Prov. Autonoma di Bolzano	0,26	.	0,26	0,26
Lombardia	0,21	.	0,21	0,21
Veneto	0,21	.	0,21	0,21
Average of Italian regions	0,29	0,05	0,21	0,38
Average of EU Regions	0,29	0,07	0,08	0,56
Average of EU NUTS2 region in Typology 1	0,26	0,06	0,08	0,41
Average of EU NUTS2 lower flow regions	0,31	0,04	0,22	0,41

Source: ATTREG Database, Variable: eh2_14

Table 8: Average % of consumption-related employment 2001-03

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	0,28	.	0,28	0,28
Prov. Autonoma di Bolzano	0,30	.	0,3	0,3
Lombardia	0,24	.	0,24	0,24
Veneto	0,24	.	0,24	0,24
Average of Italian regions	0,26	0,03	0,20	0,33
Average of EU Regions	0,25	0,04	0,10	0,45
Average of EU NUTS2 region in Typology 1	0,24	0,04	0,10	0,34
Average of EU NUTS2 lower flow regions	0,25	0,03	0,20	0,34

Source: ATTREG Database, Variable: eh2_18

Table 9: Difference between WARM and COLD

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	17,20	.	17,20	17,20
Prov. Autonoma di Bolzano	13,9	.	13,9	13,9
Lombardia	15,9	.	15,9	15,9
Veneto	15,7	.	15,7	15,7
Average of Italian regions	17,80	2,94	10,90	24,20
Average of EU Regions	22,55	5,75	-2,00	35,30
Average of EU NUTS2 region in Typology 1	22,19	6,02	-1,20	35,30
Average of EU NUTS2 lower flow regions	22,61	4,61	10,10	31,60

Source: ATTREG Database, Variable: en2_23

Table 10: The percent share of the Natura 2000 sites within the NUTS

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	44,04	.	44,04	44,04
Prov. Autonoma di Bolzano	19,9	.	19,9	19,9
Lombardia	20,84	.	20,84	20,84
Veneto	29,9	.	29,9	29,9
Average of Italian regions	25,51	9,64	11,19	49,96
Average of EU Regions	18,86	16,97	0,00	100,00
Average of EU NUTS2 region in Typology 1	18,97	15,62	0,00	67,75
Average of EU NUTS2 lower flow regions	17,39	13,54	0,00	49,96

Source: ATTREG Database, Variable: en2_34

Table 11: Monuments and other tourist sights valued 2 stars in TCI green guides series, indexed, NUTS2

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	2,37	.	2,37	2,37
Prov. Autonoma di Bolzano	3,37	.	3,37	3,37
Lombardia	10,2	.	10,2	10,2
Veneto	15,05	.	15,05	15,05
Average of Italian regions	6,53	4,95	1,75	20,77
Average of EU Regions	1,14	2,12	0,00	20,77
Average of EU NUTS2 region in Typology 1	1,74	3,05	0,00	20,77
Average of EU NUTS2 lower flow regions	1,22	1,76	0,00	8,45

Source: ATTREG Database, Variable: an2_05

As far the natural and cultural capital is concerned, Trento scores structurally above the Italian avarage and quite often also the EU average. Very significant is the presence of natural resources. Heritage is less present than in the rest of Italy but Trento has a better score than the European NUTS2s.

Table 12: CRUDE POPULATION DENSITY 2008

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	82,71	.	82,71	82,71
Prov. Autonoma di Bolzano	66,74	.	66,74	66,74
Lombardia	404,07	.	404,07	404,07
Veneto	262,66	.	262,66	262,66
Average of Italian regions	176,75	111,11	38,61	427,62
Average of EU Regions	348,50	877,01	2,65	9440,31
Average of EU NUTS2 region in Typology 1	176,44	215,47	3,06	1302,51
Average of EU NUTS2 lower flow regions	233,21	260,22	16,58	1231,19

Source: ATTREG Database, Variable: an2_11

Table 13: Accommodation: number of hotel beds

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	158729,70	.	158729,7	158729,7
Prov. Autonoma di Bolzano	218643	.	218643,0	218643,0
Lombardia	318619,3	.	318619,3	318619,3
Veneto	676528,3	.	676528,3	676528,3
Average of Italian regions	216225,00	157017,50	13463,3	676528,3
Average of EU Regions	96274,59	118374,70	1860,0	708949,7
Average of EU NUTS2 region in Typology 1	89014,09	116126,40	1860,0	676528,3
Average of EU NUTS2 lower flow regions	108194,50	116870,40	1860,0	637710,3

Source: ATTREG Database, Variable: an2_15

Table 14: Ratio of the number of university students against people aged 15 to 24 years, 2007

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	0,33	.	0,33	0,33
Prov. Autonoma di Bolzano	0,05	.	0,05	0,05
Lombardia	0,31	.	0,31	0,31
Veneto	0,27	.	0,27	0,27
Average of Italian regions	0,32	0,13	0,05	0,54
Average of EU Regions	0,25	0,16	0,00	1,15
Average of EU NUTS2 region in Typology 1	0,27	0,16	0,02	1,15
Average of EU NUTS2 lower flow regions	0,28	0,19	0,07	1,15

Source: ATTREG Database, Variable: sc2_35

Table 15: % of respondent in the area who were satisfied with life as a whole relative to the EU median score

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	0,33	.	0,33	0,33
Prov. Autonoma di Bolzano	0,05	.	0,05	0,05
Lombardia	0,31	.	0,31	0,31
Veneto	0,27	.	0,27	0,27
Average of Italian regions	0,32	0,13	0,05	0,54
Average of EU Regions	0,25	0,16	0,00	1,15
Average of EU NUTS2 region in Typology 1	0,27	0,16	0,02	1,15
Average of EU NUTS2 lower flow regions	0,28	0,19	0,07	1,15

Source: ATTREG Database, Variable: sc2_02

Table 16: % of respondent in the area who were satisfied with life as a whole relative to the EU median score

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	54,05	.	54,05	54,05
Prov. Autonoma di Bolzano	54,05	.	54,05	54,05
Lombardia	45,87	.	45,87	45,87
Veneto	55,94	.	55,94	55,94
Average of Italian regions	43,79	11,17	25,56	62,89
Average of EU Regions	46,81	14,65	8,69	83,65
Average of EU NUTS2 region in Typology 1	40,94	14,99	8,69	81,17
Average of EU NUTS2 lower flow regions	48,48	11,79	31,92	73,78

Source: ATTREG Database, Variable: sc2_35

Table 17: Dependency ratio of population aged 65 and over and the working age population, 2001

AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	0,27	.	0,27	0,27
Prov. Autonoma di Bolzano	0,23	.	0,23	0,23
Lombardia	0,26	.	0,26	0,26
Veneto	0,26	.	0,26	0,26
Average of Italian regions	0,29	0,05	0,21	0,39
Average of EU Regions	0,23	0,06	0,05	0,39
Average of EU NUTS2 region in Typology 1	0,21	0,07	0,05	0,39
Average of EU NUTS2 lower flow regions	0,24	0,05	0,09	0,39

Source: ATTREG Database, Variable: sc2_20

Table 18: Percentage of respondents who were more satisfied with the state of health services in country nowadays relative to the EU median score

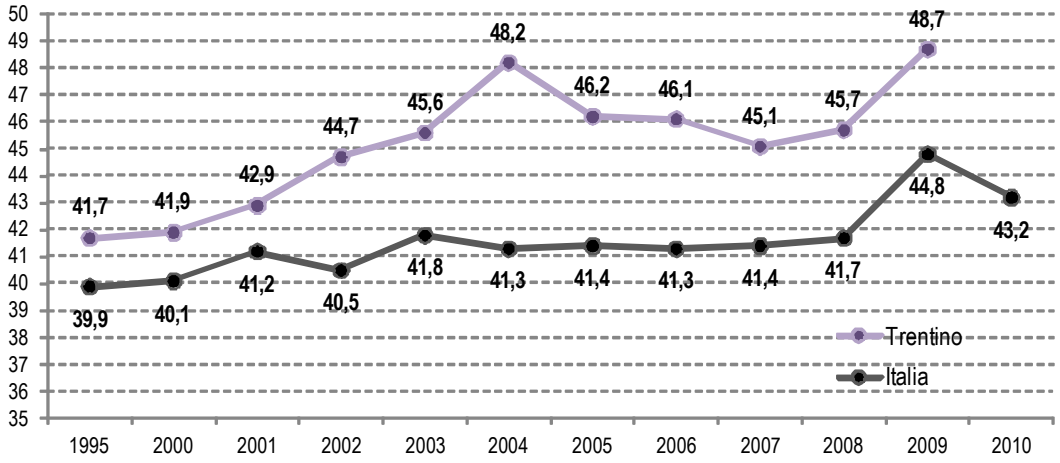
AREA	MEAN	STD. DEV.	MIN	MAX
Prov. Autonoma di Trento	44,91	.	44,91	44,91
Prov. Autonoma di Bolzano	44,91	.	44,91	44,91
Lombardia	42,18	.	42,18	42,18
Veneto	42,31	.	42,31	42,31
Average of Italian regions	39,67	12,86	23,49	80,95
Average of EU Regions	45,44	17,24	6,60	87,88
Average of EU NUTS2 region in Typology 1	40,52	20,52	6,60	87,23
Average of EU NUTS2 lower flow regions	53,47	17,14	20,79	85,15

Source: ATTREG Database, Variable: in2_48

The last set of tables shows us that people in Trentino are quite satisfied with the Province they are living in. Finally, the quality of human capital that is present in the Province of Trento is relatively high.

Moreover from ATTREG DB variables it is possible to see some indicators in order to better understand what does mean “autonomy”. The first graph shows public expenses in percentage on overall GDP. We could see that Trentino have, since the first year analyzed (1995), a value higher than the rest of Italy.

Graph 1: Public Expenses in percentage on overall GDP



Source: Sistema informativo degli indicatori statistici Trento, 2010

The next two tables show the direct expenses of the Italian regions in Tourism promotion.

The analyzed period is 2001-2006 and he values of top 5 regions are expressed in millions of Euro. As to compare expenses with the tourism dimension of the region, the next table express expenses (NUTS2) compared to each official tourist (visitor arrival). In this case we could see that Veneto was at the third place in absolute values, if compared to arrivals (and not even to overnights who will reduce again the value) its expenses are 25 times lower than Sardegna in 2001. Trento, as well as other autonomous regions, shows values that are much higher per each arrival when compared to neighbor regions.

Table 19: Direct expenses (tourism promotion, 2001-2006 in mln. euro, 5 top Italian regions)

NUTS2 (Region)	Direct Expenses (5 years)	Share
Calabria	340.646,73	17,98
Trento	**234.988,12**	**12,40**
Veneto	148.852,51	7,85
Sicilia	135.048,87	7,13
Emilia Romagna	124.493,25	6,57

Table 20: Regional expenses compared to each official tourist (visitor arrival)

NUTS2 (Region)	2001	2006
Trento (autonomous)	**42,0**	**45,0**
Sardegna (autonomous)	**127,8**	**66,9**
Valle d'Aosta (autonomous)	**103,3**	**127,3**
Veneto	5,3	7,3
Lombardia	9,3	3,4

The data provided by Statistics Service of the Autonomous Province of Trento allow us to consider only the **hotel overnights**.

During 2010, 2,532,929 arrivals were recorded, compared with 2,482,737 the previous year. Although the attendance was increased from 11,404,558 to 11,446,047 in 2009 (of which 33.8% was due to foreigners). The average stay was of 4.6 days and 4.3 for Italians and foreigners. The provincial tourism presents, as confirmed by measurements in successive years, one of his typical pattern characterized by the presence of two seasonal peaks: the first in the summer quarter (41.3% of Total attendance in 2010 compared to 41% in 2009), the second in the first quarter (35.1% of the total compared with 34.4% in 2009). Definitely contained, however, the presence in the months of April, May, October and November.

If we go back in time and consider the historical data covering the period 1968-2010, reproduced in Tables 3 and 3.1, emerges with immediate highlight the impressive development recorded by Tourism Trentino, of which we consider only the hotel component. Tourism in second houses and other forms of accommodation remains invisible for these statistics.

From 2,415,324 in 1968 attendance grew to 9,035,753 in 1991. Then there followed two years of retreat, which was followed by a recovery of the development process that culminated in 2001 with 10,514,849 visitors. In subsequent years there was an alternation of growth and withdrawals with the establishment of a slightly expansionary trend in recent years. The comparison between the index numbers on arrivals and those related to the phenomenon is also evident with an abbreviation of average overnights. If we move to consider the tourism supply, even in 2010, the process of transformation, especially in the quality of hotel accommodation is considerable. There was, in fact, a strengthening of the presence of four stars hotels (which have increased from 162 to 172 units) and of those with three stars (which have increased from 889 to 900). The three stars structures are clearly prevalent (58% of total). In the year 2000 a sharp contraction of the one-star hotels took place, mainly due to a change of the recognition criteria used. In essence, some employees from other facilities, which were previously detected independently, were merged to the respective hotels.

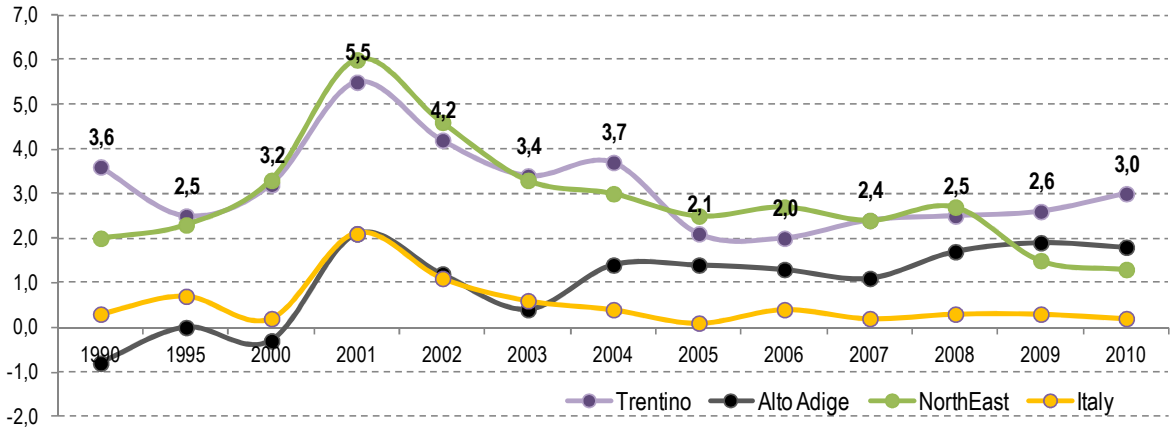
The **resident population** has reached the date of the General Census of 2001, 477,017 units. Taking as a basis of the census of 1951, the increase was 82,313 inhabitants in total, equal to +20.85% according to the local Chamber of Commerce. Population growth has slowed, however, since the second half of the seventies up to the Eighties. In the nineties the population grew more briskly as a result of a large immigration movement. In fact, the index number, base 1951 = 100, rose to 104.41 in '61, in '71 at 108.40 to 112.20 in ''81, in '91 at 113.97 and 120.85 in 2001. At the end of 2010, the population amounted to 529,457 units in the province and the valley, with its 176,003 inhabitants, has been awarded the maximum impact on the provincial total (33.24%), followed by Vallagarina (17.30%) and the High Valsugana (10.14%). These three areas are home to 60.7% of the population of inhabitants in their thirties.

The data relating to the resident population at the end of each year attest to all districts in recent years, population growth and confirm the passing of the process of erosion of the residents that had characterized the peripheral areas until the early nineties. It seems interesting, with regard to resident population, to have a quick look at the data provided by the service economic development, studies and statistics of the Municipality of Trento, which analyze the most recent and dynamics of the resident population in 2010 and are compared with data from provincial and national:

- Resident population (31.12.2010) 116,298 units (55,707 males and 60,591 females), an increase of 787 people amounted a +0.7% compared to 2009.
- Crude birth rate (number of live births / average resident population): 10.2 per thousand (increased compared to 2009), higher than the given provincial (10.1) and national (9.2).
- Crude death rate (number of deaths / average resident population): 9.3 per thousand, an increase compared to 2009 (8.7); intermediate position compared to the provincial (9.0) and the national (9.7) values.
- Aging index (population aged 65 years / population between 0 and 14 years): 136.8 (in line with previous years). Average age at the municipal level: 42.9.
- Families: 51,567 units, the average size of 2.2 family members (since 2007). It consolidates the trend of increase in households with only one component (19 506).
- Foreign citizens registered with the Registry: 13,039, an increase of 7.0% compared to 2009; account for 11,2% of the population of Trento.

As you could see from this last paragraph trend in Trentino are similar, and even better in last two year, compared to NorthEast Region and always higher than Italian trends.

Graph 2: Net migration to the rest of Italy (registered minus deleted over total population)



Source: Sistema informativo degli indicatori statistici Trento, 2010

It should be considered in terms of territorial attractiveness, and general underperformance, as fewer children are born in Italy than it would take to offset the mortality rate and this leads to a negative natural balance. Only by attracting new population is offset declining birth rates. Data on residents to December 31, 2010 provided by the National Statistics are emerging as 60,626,442 people residing in Italy, an increase of 286,114 units (+0.5%) over the previous year. ISTAT (National statistics) affirmed how this is solely due to migration from abroad. In particular, the migratory movement with foreign countries in 2010 showed a positive balance to +380 thousand units. The arrival of "new" Italian make it possible to counter the population decline. If we consider the general framework of the presence of immigrants in Italy, the share of foreigners in the resident population is 7.5%. The incidence of the foreign population is highest in the entire North Central (9.9% in the north-west, 10.3% in the Northeast and 9.6% in the center), with the regions of South and Islands , where the share of foreign residents, respectively, 3.1% and 2.7%.

Only the province of Trento at the 1st of January 2011 are 48,572, 9.2% of the population. Compared to 2010, increased by 5.6%. Most are young, well-integrated: the last year grew by 45.5% the acquisition of "new" Italian citizenship. In a study conducted in 2004 by the Autonomous Province of Trento (Information Centre for Migration) on critical and emerging self-employed foreigners no obstacles other than those found by the national population. It should be noted however that the distribution by nationality of entrepreneurs tend to coincide, with some exceptions with that of foreign residents. To demonstrate this is even on a small scale but growing areas of activity are more interested in trade and construction, but each sector has its own mix of self-employment - sometimes random, sometimes tied to the characteristics of the market or employers - including national groups different.

3 Policy review

As one of the main issue of this case concerns autonomy and its influence to attactiveness it should be noticed that it involves not only more resources. Simplification in governance (centralization) is a key element.

In this sense, it is useful to consider some ideas that emerged during the Provincial Tourism Conference (late 2010) with the help of 225 local stakeholder of the tourism production system, a sort of "auditing" of the needs of the tourism sector in Trentino. Among the issues to be favored in future tourism policy for the Trentino: there is the scope of management and in particular the promotion of tourism in the region. At that time (end of 2010) the provincial law was amended (8/2002) with a further clarification of tasks and roles. This is one of the main elements that came out from five interviews held during the realization of this case study:

- dean of the Faculty of Economics of the University of Trento
- director of Provincial (Regional) Tourism Policies Unit;
- director of Trentino Spa;
- marketing assistant of Trentino Spa;
- director of Trentino Sviluppo Spa

First of all, let us give some information concerning the organization directed by these stakeholders.

The *University of Trento* and its Faculty of Economics in particular, contribute to the formation of human capital. Moreover, it organizes a number of important cultural events, in particular the 'Days of Economics', an event which attracts thousands of people to the city.

The Autonomous Province of Trento has revised the system of welcoming its visitors and information in the region through the reform of the Italian APT (Provincial Law June 11, 2002, No. 8) and it has created *"Trentino SpA",* a regional central marketing company with the task of communicating and promoting the Trentino region both as a tourism and as an environmentally friendly destination. It also involves accommodation, facilities, services, and it supports and promotes local products, particularly by promoting the high quality production and those that express the local identity. In May 2003 through the signing of a specific agreement with the Province, it was formalized that the company Trentino SpA will be in charge of the entire promotion of tourism and territorial image of Trentino. Annually, the company defines an operational program for the implementation of its interventions.

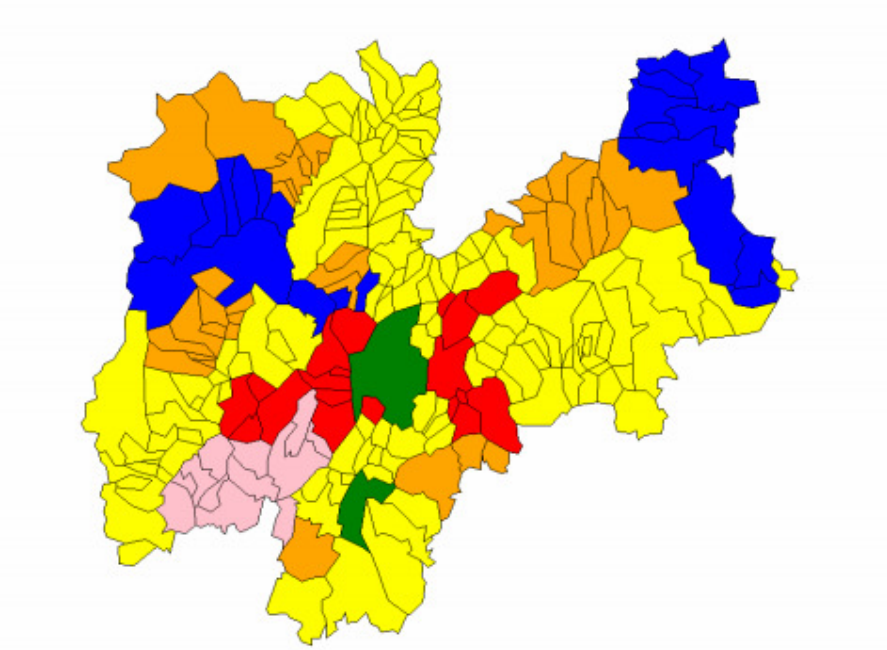
Trentino Sviluppo has been founded in 1986 (even if initially with another corporate form) by the Autonomous Province of Trento, to work as a Technology Park, to provide space and services to manufacturing companies and research centers. Since 2007 it is called Trentino Sviluppo, to be able to promote the system outside the province of Trentino in a more immediate and evocative form, with a direct reference to the territory for which it operates. Shareholders of Trentino Development are: Autonomous Province of Trento (98.57%) and the University of Trento (1.30%). Trentino Sviluppo manages 6 BIC (Business Innovation Centre).

As we anticipated in the first chapter we started to dialogue with our stakeholder issuing the reasons of why this region seemed less able to attract and why it seems to be underperforming.

As one of our focus had been the visitor population attractiveness we stressed in these three last issues: is there any selective strategy toward specific types of resident or visitors? Which are its mobilization strategies for the future? According to our stakeholders we need to consider limits to growth: have we included in the model any indicators both of average tourism expenses and negative effects due to structural limits of growth? A variable that they thought was missing was the pressure on the housing market, especially in terms of house prices. In the Province of Trento there is no significant difference in the price of housing in the central areas with respect to the peripheral ones. This makes Trento an attractive but yet expensive place to live.

Our interviewed affirmed that they are not very much interested to stimulate all kinds of growths of population: it might be useful to include in the model some "maturity" elements in the model. In other words, growth ought to be very selective and oriented towards specific segments of the population (young, creative, well educated, for example). The areas in the early stage of economic development need to incentive population growth tout court; mature areas need to manage them.

We can observe by looking at the figures below how the entire NUTS2 can be subdivided in different areas with different characteristics and stages. They already recognize some high intensity areas that confirm some statements of interviewed: while evaluating what seems to be classified as "underperformance" in the ATTREG classification that a region might very well prefer a sort of controlled expansion or even decline? Some areas, like the Province of Trento, do not want to attract more people and has recently adopted a selective attraction policy both with respect to tourists and to residents. In order to do so, the local administration is creating incentives (also financial ones) to upgrade the (tourism) infrastructure, housing stock, environment, facilities and so on.



Legend: Mountain high intensity (BLUE); Mountain middle-intensity (ORANGE); SPA area (RED); Garda Lake (PINK); Cities (GREEN); Other areas (YELLOW)

Figure 3: Tourism subdivision of Trentino province

What this actually means can be easily understood by simply watching the development of the average expenditure of tourists in the summer season: from 49,7 euro daily spent by tourists in 2000, the last surveys has shown an increase to 78,4 euro in 2009 and up to 79,7 in 2010. If we apply the territorial subdivision that was represented in the map, we can see a clear relationship between this average tourism expenditure and the different territorial tourism products within the same NUTS2.

Table 21: Average of tourism expenditures in summer season for area typology (in euro)

	Mountain high-intensity	Mountain middle-intensity	Cities	Garda Lake	SPA area	Other areas
Total	88	78	113	89	67	60

Source: Sistema informativo degli indicatori statistici Trento, 2010

Concerning the evaluation of policies for the region it emerged the importance of regulating the private houses used by non residents (second houses).

Some numbers, drawn on the basis of 2001 Italian census data, allow us to understand how, in a ranking of the provinces with the highest percentage of second homes built on the total, led by the Valle d'Aosta region with 46.39%, Trentino has 32.75% against the Italian average of 19.51 and about 12% of the adjacent province of Bolzano.

The non-hotel-accommodation has a very heavy weight in Trento's tourism supply: the second housing has become an issue: of over 400,000 beds available in the Trentino, two thirds are attributable to the so-called tourist traffic that is not officially registered. It is estimated that about 200,000 beds are offered through second homes and another additional 100,000 beds through private homes. Only 95,000 are hotel beds.

In terms of residential policies, the Trentino and the new Provincial Law No. 13 of 2007 reformed its system of social policies. The new facility includes the activation of an integrated system of

services and social interventions that places at its center the same person and the right of the help and support when you are in need.

Emerges as social policies are classified as investments that generate social capital stretegici strengthen social cohesion and territorial. With the new standard have been updated means of action, has emphasized the importance of policy integration. He underlined the importance of the tools of social reporting and the District was established solidarity economy.

In order to overcome problems of mobility and accessiblity, due to its morphological characteristics, an important weight is assigned to e-welfare. The Autonomous Province of Trento works on issues related to improving the living conditions of the population, particularly low users (elderly and disabled), through the study of innovative solutions in the areas: telemedicine, telecare, telemonitoring; of assistive technology environments for life; social inclusion, social housing and home automation.

If you look at the indices of demographic composition, presented by the City Council of Trent in an analysis of their commuting: the capital has a high old age index (ratio between elderly and younger) and a lower proportion of young people, while the index Total dependency ratio (14 + pop-POP0> = 65) / * 100 pop15-64 does not deviate from the mean (average weigh of age classes).

It has a net outflow to almost all the municipalities of the urban area expanded.

The relocation of residences, however, is supported only in a limited number of municipalities in the immediate vicinity of Trent, which probably made planning policies Attraction: Pergine Civezzano, Besenello, Aldershot, Caldonazzo Terlago Vigolo Vattaro.

Migration flows into and out of (relative to the common and adjacent municipalities) are relatively uniform age: it is not clear model for young people to the common output of the belt and the aging population of the center, rather appears related to the different seasons of life of a family and individual choices.

Thus stands out an area in which you change residence but chooses to remain in any case (to prove that stickiness highlighted by the model).

In general, the first settlement areas are those central or first row, except for particular groups who find accommodation with chains or ethnic kin.

The families residing for some time, in turn, will relocate to areas more peripheral or external to the municipality, in search of particular quality housing or stimulated to return from the countries of origin (still inside the Province of Trento).

In common (adjacent to capolugo) in which the economic structure changes more and move away from the capital, there are very different situations:

- Municipalities in decline (Garniga, Cimon, Bosentino, Vezzano) that gradually assume a structure Economic less autonomous;
- Municipalities are addressed to a specialization of functions in Tourist directions (centers around Caldonazzo, Vatten) or commercial (Pergine).

In terms of commuting in the capital, are estimated to come from the urban area expanded to about 13,500 daily commuters Trent (Census 2001), 9500 and 4000 to study business.

According to estimates made by the City Council of Trent, about half (53.5%) of commuters coming from the private uses of the car to get to Trento, for a total of just over 7000 people (and a number of vehicles likely to be a little 'below).

In any case, demonstrating a high quality of life also in the management of this phenomenon, interventions in mobility and roads are constantly planned.

4 Some Conclusions

Trento Province results from the ATTREG cluster analysis as a region with a high net migration rate and a medium attraction capacity. There are various interdependencies with the economic indicators related to the labor market. The same document shows for Trento a medium retention rate for all age cohorts, it being also a major domestic (tourism) destination and a good Erasmus attractor.

However, the final typologies in the region is classified as type 1 for flows, ie "That is low flow region NUTS2 region" and as "NUTS2 region that is mostly sticky for all ages "for the" Stickiness Typology. Apparently, it would seem to be a negative outlier with respect to what the model predicts, on the basis of the variables used, a lower flow of the real one.

Investigating one of the best policies for the region it emerged the importance of **regulating second houses phenomenon.** This includes private houses use of non residents. We are therefore dealing in the first place with a non registered population that is not included in our statistics, nor in our forecasting model. In short, flows are evidently underestimated. This explains in part why the Province of Trento appears as an underperforming and low flow region in the analysis.

A major hindrance for Trento are the relatively high housing prices and land rents, prices that do not seem to fall the further one searches form the central locations. This reduces the heterogeneity of the population and the economic activities very much and makes it difficult for immigrants to establish themselves in the Province.

Another aspect that clearly emerged is that in Trentino, due to its previous experiences in a period in which it searched for unconditioned expansion, the policy they have been adopting both to attract inhabitants and tourists has become much more selective. It has abandoned a polity that seemed to turn Trentino into **an attraction "at all cost".** This policy was also fueled by Trentino being an autonomous Province and therefore entitled to receive exceptionally high state contributions, They have deliberately left this particular phase of development, also because the system of contributions has changed towards a more federal one, a policy that mainly characterizes young and new destinations, trying to balance the quality of the flows with the social and economic objectives the Province was pursuing. This is another element that explains the apparent underperfomance that stemmed form the mechanic application of our model and it therefore opens an important debate related to the concept of performance: is it so bad to be a low flow region, which is sticky for the most interesting parts of the inhabitants and tourism populations? Do we have to consider any limit to growth as something positive or negative?

This particular case study helps us thus to improve the model in which we have not fully included the **quality of life** as an indicator to evaluate if an area should attract more people and how it is affected if increase the population.

Finally, in Trentino (with success, according to our stakeholders) a process of **centralization** is continuing, with a firm aggregation of municipalities, assuring a better efficiency and more effective relationship with the stakeholders.