ESPON
EUROPEAN SPATIAL PLANNING OBSERVATION NETWORK

The role, specific situation and potentials of urban areas as nodes in a polycentric development

ESPON Project 1.1.1

Third interim report

August 2003

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Preface

This report is divided into two main parts. The first part consists of a summary with the initial preliminary results and policy recommendations and responses to formal requirements set for the third interim report by the Co-ordination Unit.

The second part consists of reports from the work packages, showing mainly the progress made since the second interim report. The final report is due for August 2004. The main tasks in the final year of the project are to finalise all working packages and to integrate the results.

Responsible for the working packages:

- Critical dictionary of polycentrism (Work Package 1) is developed by CNRS-UMR with Nadine Cattan as co-ordinator and the following contributors: Sophie Baudet-Michel, Sandrine Berroir, Anne Bretagnolle, Cécile Buxeda, Eugénie Dumas, Marianne Guérois, Lena Sanders, Thérèse Saint-Julien (UMR Géographie-cités) and Remy Allain, Guy Baudelle, Danielle Charles Le Bihan, Juliette Cristescu, Emmanuèle Cunningham-Sabot (UMR RESO).
- The analyses of the urban system (Work Package 3 and 4) is developed by Janne Antikainen. Karin Bradley has acted as the main co-ordinator in data gathering/mining, assisted by Ton van Gestel and several Nordregio assistants. Other contributors in Nordregio have been Erik Gløersen and Jörg Neubauer (WP 4). Klaus Spiekermann and Michael Wegener from Urban and Regional Research, S&W have contributed to accessibility analysis and developing method to measure polycentricity (WP 3-4). The work on European Urban Networking (WP 3-4) is conducted by Nadine Cattan (co-ordinator), Cécile Buxeda, Juliette Cristescu, Grégory Hamez and Guillaume Lesecq at CNRS-UMR Géographie-cités.
- Governing polycentrism (Work package 5) is developed by Simin Davoudi (co-ordinator), Ian Strange and Michelle Wishardt at CUDEM.
- Studying the application of polycentricity (Work package 2) is carried out by Wil Zonneveld (co-ordinator), Bas Waterhout and Evert Meijers at OTB.
- Policy recommendations (Work package 6) have been developed by Niels Boje Groth at DFLRI and Hallgeir Aalbu at Nordregio.

Since the second interim report, researchers from Norwegian Institute for Urban and Regional Research (NIBR), Institute for Territorial Development and Landscape (IRL) Swiss Federal Institute of Technology and Hungarian Institute for Regional and Urban Development and Planning have joined the team under the instrument provided for new members of ESPON. The project team has had one three-day meeting in July where the results to date were discussed and analysed.

Apart from the project partners, many others have also contributed with useful comments, material and data during the course of researching. Data for population development trend analysis was provided by Kai Enkama. We are very thankful to Julia Spiridonova, Jitka Cenková, Rivo Noorkôiv, Erzsébet Visy, Ieva Verzemniece, Jolants Austrups, Armands Vilcins, Rita Bagdzeviciene, Algimantas Venckus, Tomasz Komornicki, Serban Nadejde, Dorottya Pantea, Christian Steriade, Miloslava Paskova, Margarita Jancic, Janja Kreitmayer, Tatjana Kerčmar, Marco Kellenberger and other people who have contributed with information, data and comments.

The content of this report does not necessarily reflect the opinion of the ESPON Monitoring Committee

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PART 1

1 First Preliminary Results and Policy Recommendations

The concept of polycentricity is now widely used even though it retains a variety of meanings. The lack of clear a definition may however be seen as one of its strengths, as this allows for adaptation to national challenges and policy contexts. This chapter will discuss the understanding of polycentricity at different geographical levels and the options for regional, national and European policymakers to influence the urban structure and to stimulate a more polycentric development of the European territory.

This summary offers the first preliminary results and policy recommendations from the ESPON 1.1.1 project. Since the Second Interim Report, work has concentrated on WPs 3 and 4 in order to provide data that may be useful for the 3rd Cohesion Report. This work will now soon be finalised. Consequently, the integration between the statistical work on one hand, and the other WPs on the other, has suffered. In the remaining project time towards August 2004, our work will be focused on territorial governance and in particular on examples of urban networking in the promotion of polycentrism. By the end of the project we will have a more comprehensive overview of the use of the concept of polycentrism as well as policy practice throughout Europe. This will allow us to draw more sophisticated conclusions on the preconditions for polycentricity as well as on policy recommendations.

1.1 Polycentricity is a bridging concept between growth and balance

1.1.1 Division of labour between urban nodes as a measure for regional balance

The promotion of a "balanced polycentric urban system" is one of the most frequently cited policy objectives of the European Spatial Development Perspective (ESDP) and is one of the core concepts of ESPON. The interest in polycentric development is fuelled by the hypothesis put forward in the ESDP that polycentric urban systems do stimulate economic growth, are more environmentally sustainable and do support territorial coherence better than both monocentric urban systems and dispersed small settlements.

The urban/rural distinction is no longer a functional dichotomy for the European space, as described in the ESDP. Cities must be seen as service points for population and industries in a wider perspective. The urban network is the structural backbone for the territory as a whole – polycentrism corresponds to the capacity of this network to service all parts of it efficiently and harmoniously.

The political concept of polycentricity is the territorial dimension of the European coherence policy. The urban structure should be organised to stimulate competitiveness and economic growth. Businesses should have access to the necessary services. Labour markets should have a sufficient diversity, such that people can find jobs corresponding to their professional aspirations. In all parts of Europe, citizens should benefit from a service provision that allows them to uphold a satisfactory quality of life, cultural offers and recreational areas.

Structural evolutions towards increased geographical concentration tend to deprive some areas of their urban network. Other areas may suffer from an excessive or badly managed concentration of urban functions, which affects the environment of businesses and populations negatively. Reaching equilibrium between economic competitiveness and social cost-efficiency will often imply organising high-quality dense areas. This in turn implies reflecting on an efficient division of tasks between different layers of the urban hierarchy, encouraging the development of activities that can thrive at the lower levels of the hierarchy in secondary cities.

The underlying hypothesis of polycentrism is that economic and functional integration can be achieved without creating structural territorial imbalances. The identification of possible conflicts

between the individual optimum for each economic actor on the one hand, and the general optimum for society as a whole on the other, is therefore an essential prerequisite to the design of a polycentric policy.

Polycentricity has two complementary aspects:

- *Morphological*, laying on the distribution of urban areas in a given territory (hierarchy, distribution, number of cities).
- *Relational,* based on the networks of flows and co-operation between urban areas at different scales. These flows are generally related to proximity, especially at the regional and national levels, but network relations can also be independent of distance.

Polycentricity is about the relative function of cities and urban areas. A polycentric situation occurs when two or more cities have functions that complement each other and have links with each other. Normally, we would identify three prerequisites for polycentricity: functions (often but not always depending on size), flows (often but not always depending on proximity) and co-operation (depending on mutual understanding, strategic interests and dependencies).

Polycentricity results from two main processes:

- *Structural* (economic, functional), resulting from "spontaneous" spatial development.
- *Institutional* (political), based on voluntary co-operation.

Polycentrism is a concept that refers to differentiated mechanisms and strategies of development according to the territorial scale and to the definition taken into account. Although the concept is not new, it has never been clearly clarified. We do also lack methods for assessment of the *impacts* of polycentricity (or the lack thereof) with respect to policy goals such as economic competitiveness, territorial cohesion and ecological sustainability.

For the ESPON programme, we propose the following definition of polycentricity:

> *A polycentric urban system is a spatial organisation of cities characterised by a functional division of labour, economic and institutional integration, and political co-operation.*

Polycentricity can be found at all territorial scales, from the regional to the national and the European. Sometimes there may even be a contradiction between geographical levels, where polycentricity at one level stimulates monocentricity at another geographical level, or vice versa. The issues raised by the concept of polycentricity are different at each geographical level, and must therefore be discussed separately for each of them.

1.1.2 Improving links within functional urban areas at the regional level

At the regional level, urban structures are shaped differently. Most large urban regions do have a number of cities/towns in close proximity to each other - integrated with the core and with each other trough functional links. The structure is monocentric if the core city does have all higher-level functions. It is polycentric if there is a division of labour between the cities and towns within the functional urban area, i.e. a certain level of specialisation of each node.

The polycentric region may be a continuous urban area with multiple centres as in the case of the Randstadt in the Netherlands, or an urban system with specialised cities such as Lorraine in France (with Nancy and Metz) and Tuscany in Italy (with Sienna and Florence). It can also consist of a dominant core with a number of separate cities with good access to each other around it, as in the cases of Greater London in UK, the Ile de France and the Navarra urban system in Spain.

A polycentric structure will have clearly recognisable centres and specialised centres within the larger urban region, as opposed to urban sprawl where the core city expands into the area around. There must be rich functional links between the nodes in the polycentric area. These can be based on an industrial specialisation where towns and cities complement each other within the larger region; a specialisation within private or public service provision to a degree that people visit more than one town to obtain e.g. recreational, educational or health services; or labour market links, i.e. people commuting to work (preferably in multiple directions).

Polycentric development is, at the regional level, mainly about

- increasing competitiveness through improving the links between the urban nodes within a region, and hence benefiting more fully from the economic variety of the region, and
- restructuring metropolitan regions experiencing urban sprawl, by improving the urban qualities of secondary urban centres.

1.1.3 A more balanced urban system at the national level

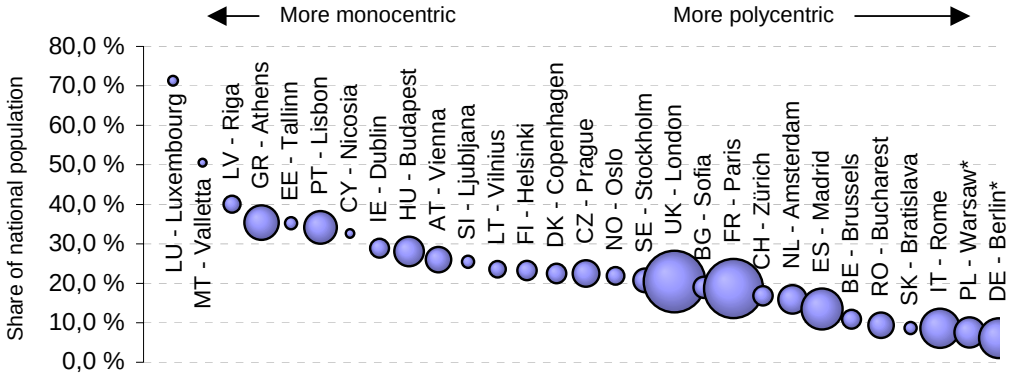
Even if urban systems are considerably older than the concept of the national state, national borders have for the last 100 years been a strong factor in the development of urban systems. As the economies - despite on-going economic integration - remain predominantly national, so do urban systems.

A simple way to illustrate the degree of polycentricity at the national level is to compare the primacy of the largest city in each country (Figure 1). The numbers are based on national definitions of urban agglomerations. The most polycentric countries are Germany, Poland and Italy - three countries with a large population and well-developed urban systems. At the other end of the spectrum we find three of the smallest countries, namely Luxembourg, Malta and Latvia.

The national urban systems can also be described on the basis of the difference between the leading cities in terms of population. Italy and Germany are examples of polycentric countries with several economically strong urban regions. France and the United Kingdom are also large countries with several strong cities, but they are more monocentric due to the primacy of their capital regions as compared to the second and third city regions.

At the national level, polycentric development is mainly about

- encouraging regional specialisation and the division of labour between urban regions, and
- improving access to urban services across the national territory.



Ball size represents the population of capital urban agglomeration
London 12.2 mill. Amsterdam 2,6 mill. Tallinn 0,5 mill.
(*= not the largest urban agglomeration in the country)

Figure no 1: Polycentrism in European countries: the capital urban agglomeration's share of total population in each country.

1.1.4 Development of global integration zones at the European level

Europe becomes more economically integrated day by day. Economic relations, business networks, subcontractor relations etc are increasingly globalised. Many businesses are acting on the international economic arena, not only within their countries and regions. And when a city's businesses become increasingly international in their outlook, so does the city. The urban area is becoming more important for globally oriented activities, and thus one way of enhancing European competitiveness is therefore to strengthen the regions.

This has led to a discussion of the global competitiveness of European city regions and the necessity of upgrading urban systems across Europe to become better environments for globally competing businesses. The ESDP identified the Pentagon (with London, Paris, Milan, Munich and Hamburg as its corners) as Europe's core area and its only *Global Integration Zone*. The dominance of the Pentagon will increase further in an enlarged EU. Today, this zone of dense urban systems has 15% of the area of EU27, 30% of the population and 45% of the GDP. This situation is often contrasted with the USA, where there are several Global Integration Zones.

An important dimension of polycentricity at the European level is specialisation and division of labour. We do have numerous examples of high profiled specialised regions beyond the Pentagon, such as Helsinki in Finland (ITC equipment) or Edinburgh in the UK (insurance). A global integration zone is however more than a specialised production base; it should also include a great variety of globally competitive activities, and a well-developed knowledge base and good global communications infrastructures.

Some urban regions can become globally stronger trough co-operation and economic integration with other cities not too far removed from themselves. An enlarged city region will be more competitive when the numbers of functions increase. On the other hand, businesses often work together across large distances. This kind of networking is less dependent on proximity and can take different forms, and may also include co-operation between cities and regional authorities in different countries.

At the European level, polycentric development is mainly about

- stimulating the emergence of globally significant groups of cities outside the Pentagon through functional integration, and
- stimulating co-operation between city regions to promote the development of specialised competencies.

1.2 Where does the concept of polycentricity come from?

1.2.1 From central-place theory to regional competitiveness

The concept of polycentricity of settlement structures originated as an empirical concept in the 1930s. Central-place theory explained the hierarchical decentralisation of cities by the fact that different goods and services command service areas and market areas of different size. A contrasting view was proposed by polarisation theory, which pointed out that increasing economies-of-scale lead to growing concentration in only few large cities.

Polycentricity as a *normative* concept can be traced back to the concept of self-contained satellite towns connected to the central city by commuter railways promoted by the garden city movement. Later, several countries adopted central-place concepts as a principle for guiding spatial development, the hypothesis here being that central-place systems are both efficient (in terms of economies of scale) and equitable (in terms of equivalent living conditions). Empirical evidence indicated that growth centres induce a convergence of income and welfare. According to this theory, the regional policies of the 1950s and 1960s were dominated by supporting the development of hierarchical urban systems designed to channel economic development from the largest centres to the smaller centres.

In the 1970s regional development changed, one reason being the increasing price competition for industrial production of standard products due to the opening of international markets. This was further facilitated by new international trade agreements and a major decline in transport costs. Meanwhile, the production of service and knowledge-based products started to develop.

These developments changed the economic life of cities and regions. Regional development depended more on the local capabilities *within* regions than on external relations. Furthermore, it was envisaged that technology and education, as well as other factors internal to the region, stimulated economic development rather than themselves being products of that economic development. The strongest position in international competition was held by companies/regions with products that were difficult to copy elsewhere. Thus, the new wisdom was to develop specialised competencies. The single company may specialise, but more viable synergies and strength will be developed if specialised competencies are developed in regional networks of specialists, suppliers, specialised education and labour markets, much of which is nested in tacit abilities and competencies that are difficult to codify and hence, difficult to copy elsewhere.

The new ideas have given rise to a desire to search for regional identities, as it was believed that closely related to the economic identity of a region were particular competencies embedded in it. This is why the branding of regional identities has become an integral element of current regional policy making.

The growth centre model overlooks the fact that smaller cities can be more global than large cities, however often with very specialised industrial products, as their proportion of international activities often are larger than is the case for large cities dominated by domestic services. This observation may run contrary to a general impression that the largest cities are the more internationalised. To the extent that small and medium sized cities are international they are becoming generators of local regional development rather than just mediators of the regional development spreading from the larger centres. Furthermore, in the past, small and medium-sized cities usually competed in their role as centres in the local hierarchies. Now, it seems more reasonable for cities to co-operate in their role as “sub-contractors” on the world market.

1.2.2 Polycentricity is a policy option in the ESDP

In the ESDP, three policy options are stated in support of polycentric development across the European territory at three spatial levels:

- European wide efforts strengthening of several larger *zones of global economic integration* in the EU, equipped with high-quality, global functions and services, including the peripheral areas, through transnational spatial development strategies.

- Macro-regional efforts strengthening a *polycentric and more balanced system of metropolitan regions, city clusters and city networks* through closer co-operation between structural policy and the policy on the Trans-European Networks (TEN) and improvement of the links between international/national and regional/local transport networks.

- Intra-regional efforts promoting integrated spatial development strategies for city clusters in all Member States, within the framework of transnational and cross-border co-operation.

Polycentric urban systems are seen as more efficient, more sustainable and more territorially balanced than both *monocentricity* (all activities are concentrated in one centre) and *dispersion* (all activities are equally distributed over space):

- *Efficiency:* Large centres can exploit economies of scale and agglomeration effects but suffer from negative effects of over-agglomeration. Dispersed settlements enjoy the benefits of nature but are too small to support efficient infrastructure facilities and units of production.

- *Cohesion:* Spatial polarisation is built on competition and leads to spatial segregation between rich and poor, central and peripheral cities. Spatial dispersal is egalitarian in its distribution of poverty but denies its citizens opportunities for social mobility.

- *Environment:* Large settlements use less energy for transport but more for high-rise buildings, air-conditioning and waste management. Dispersed settlements can utilise local renewable resources but are wasteful in terms of transport energy and open space.

It is obvious that the optimum lies somewhere in between monocentricity and dispersal, i.e. in a balanced mixture of large, medium-sized and small cities arranged in a pattern favourable for exchange and co-operation. The challenge for Europe is to develop a balanced urban structure that stimulates the competitive potential of its regions as well as of Europe as a whole. One central vision is to that dynamic Global Integration Zones can be formed beyond the Pentagon.

1.2.3 Polycentricity in ESPON as a follow-up of the ESDP

Polycentricity was made a core issue of the ESPON programme as a means of testing and operationalising the ideas of the ESDP. A number of links to other policies and projects are also mentioned, e.g. the indicators of the Urban Audit, practical experience on the transnational scale of Interreg IIC and IIB and the Study on European Polycentrism, conducted by the Conference of Peripheral Maritime Regions of Europe (CPMR).

The ESPON programme stresses the need to enhance polycentrism at all spatial levels. Special attention is given to the promotion of “global integration zones”. The programme asks for analysis of the kind of investments and transnational co-operation that are needed as well as what kinds of obstacles need to be removed in order to promote the creation of global integration zones outside the Pentagon. The aim here is to enhance European competitiveness as well as to foster the East-West and North-South Cohesion of the European Territory.

Emphasis here is put on the enhancement of three types of networks: (1) specialized (thematic) networks, (2) strategic co-operation between clusters of cities across administrative borders and (3) transnational urban networks. The enhancement of such networks should take place in particular between cities with growth potential and between cities that reveal potentials for further developing polycentric relations with other cities, e.g. the potentials for establishing and promoting co-operation based on complementary urban functions. Accordingly, the identification of such potentials is made a core issue.

The ESPON programme asks for policies and strategies at all policy levels, at the EU level, and the national and local levels. At the EU level the focus is on the Structural Funds and policies and programmes with spatial impacts. At national level, it is acknowledged that regional policies might differ substantially, due to the variations of national urban systems across Europe.

1.3 Functional urban areas in EU 27+2

1.3.1 Dense urban structures from the United Kingdom to Hungary

One condition for developing policies promoting polycentricity is that the existing urban structure and roles of cities in it are mapped out. There is no universal definition of *city* or *urban*. For this study, it was necessary to develop a common understanding of an urban region. The term *Functional Urban Area* (FUA) was thus chosen as the operational concept.

The aim was to describe the urban structure for the EU 27+2 countries as comparative as possible. Most European countries have definitions of Functional Urban Areas or similar concepts; such as travel-to-work-areas, commuting catchment areas, commuting zones or functional urban regions. Our figures are in these cases built upon national statistics. However, Germany, Luxembourg, Belgium, the Czech Republic, Bulgaria and partly Spain and Portugal do lack an official definition. In these cases, the identification of FUAs was solely based on insights provided by national experts.

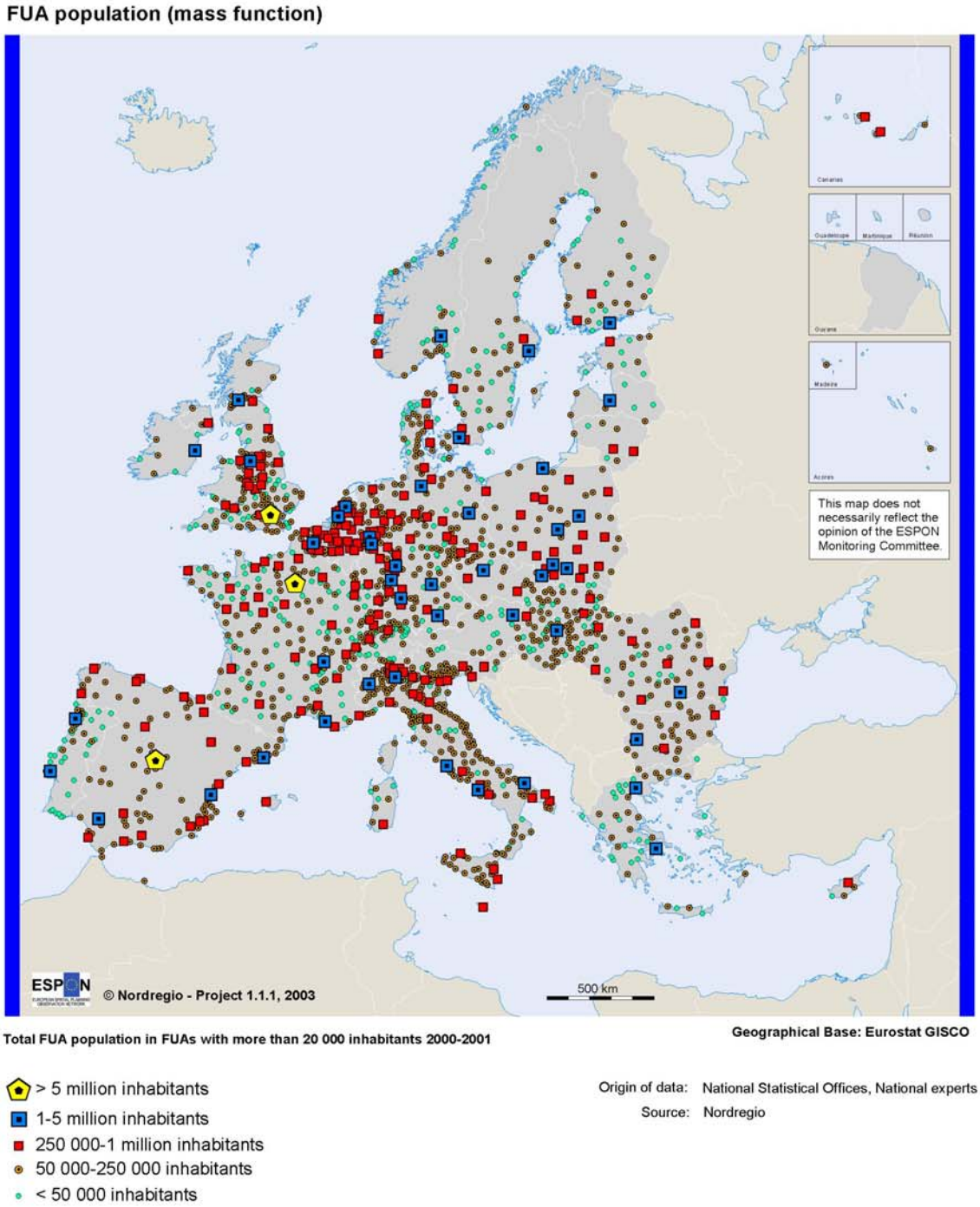
The definitions used for identifying FUAs in each country are:

- FUA population over 50 000 inhabitants and urban core (agglomeration) with more than 15 000 inhabitants (i.e. excludes those artificially large 'urban' areas with minor urban core).
- Or FUA population more than 0,5% of national population and urban core (agglomeration) with more than 15 000 inhabitants (i.e. in less populated countries smaller FUAs were taken into account).
- Smaller FUAs were included if they had at least local importance in transport, knowledge or decision-making functions or regional importance in administrative, tourism or industrial functions.

A total of 1,595 FUAs are identified in EU 27+2 (Map 1). There is a dense urban structure in the central parts of Europe, stretching from the United Kingdom in the north via the Netherlands, Belgium, western Germany and northern France, and continuing both east and west of the Alps; in the west to Italy, and in east through the Czech Republic, south Poland and Slovakia into Hungary.

Countries further north and south are less populated and have less dense urban systems. This is especially true of Ireland, the northern areas of the UK, Norway, Sweden, Finland, Estonia, Latvia and Lithuania, but also for parts of Spain, Greece, Bulgaria and Romania.

The national urban systems are characterised in Table 1. Of the 29 countries, 11 can be characterised as polycentric. In general, small countries and countries in the European periphery are predominantly monocentric. Only two of the larger countries, France and the UK are dominated by one FUA.



Map no 1: Functional Urban Area population

Table no 1: The national urban structure in EU 27+2

- *Austria* is dominated by Wien. The strongest population growth is found in small FUAs. The population in medium-sized cities are declining.
- *Belgium* is polycentric with two large centres and a balanced number of small and medium-sized FUAs. The strongest growth is found in medium-sized cities.
- *Bulgaria* is rather monocentric, with Sofia as the dominating city. Only three FUAs have more than 200 000 inhabitants. All FUAs are declining, the smallest most.
- *Switzerland* is rather balanced. The country is dominated by Zürich, but has four medium-sized FUAs and a large number of small FUAs. The largest growth are found in small FUAs.
- *Cyprus* has four FUAs. The population is increasing rapidly in all of them.
- The *Czech Republic* has two large FUAs (Praha and Ostrava) and couple of medium-sized cities. The largest population growth is in FUAs with population 100 - 200 000 inhabitants. Large cities are losing population.
- *Germany* is polycentric, with a large number of FUAs. There is no correlation between size and population change.
- *Denmark* is dominated by Copenhagen and has three medium-sized cities and a large number of small FUAs. Clear correlation between size and growth - the largest FUAs have the largest population growth.
- *Estonia* is dominated by Tallinn. All but one FUAs are losing population.
- *Spain* has two large FUAs, and a balanced network of other large and medium-sized FUAs. Strongest population growth in small FUAs, while large FUAs are losing population.
- *Finland* has one dominating FUA, Helsinki, and only a few medium-sized FUAs. Clear correlation between size and growth - the largest FUAs have the largest population growth.
- *France* is strongly dominated by Paris. Three other FUAs have population over 1mill. inhabitants. Strong growth takes place in all size-classes (small, medium-sized and large), but only small FUAs are losing population.
- *Greece* is dominated by Athens and has Thessaloniki as the second city. Other FUAs are small. Almost all FUAs are growing, the smallest relatively faster.
- *Hungary* has one dominating FUA, Budapest, and a dense network of small and medium-sized cities. The largest cities are losing population, growth in many small and medium-sized cities.
- *Ireland* has only six FUAs and is dominated by Dublin. All FUAs are growing strongly, the smallest ones more than large cities (in percentage).
- *Italy* is polycentric, with three poles and large number of medium-sized and small cities. Most FUAs are losing population, only some FUAs with less than 500 000 inhabitants are growing.
- *Lithuania* has eight FUAs with a balanced structure. Correlation between size and growth in negative sense: small FUAs are growing, larger FUAs are losing population.
- *Luxembourg* has only two FUAs, both growing.
- *Latvia* is strongly dominated by Riga. All FUAs are losing population.
- *Malta*, no data available for population development trend.
- *The Netherlands* is very polycentric. Large share of FUAs are medium-sized. Almost all FUAs are growing. Small ones relatively fastest, but also medium-sized cities are growing rapidly.
- *Norway* is dominated by Oslo, and has three medium-sized and several smaller FUAs. Growth in all size-classes.
- *Poland* has balanced urban structure with two large FUAs and many medium-sized cities. Polish FUAs are larger (population) than in most of the other countries. Large FUAs are losing population, only cities with less than 500 000 inhabitants are growing, some of them very rapidly.
- *Portugal* is a bipolar country, and has in addition a large number of small FUAs, most of them located near to large cities. Large cities are growing, some small FUAs are declining rapidly.
- *Romania* is dominated by Bucharest and has in addition seven FUAs with appr. 300 000 inhabitants. All but two FUAs are losing population.
- *Sweden* is dominated by Stockholm, but has a number of growing medium-sized cities. Correlation between size and growth - the largest FUAs have the largest population growth.
- *Slovenia* is dominated by Ljubljana. No data on FUA population development trend.
- *Slovakia* is rather polycentric. Most of the weight of urban system is in medium-sized cities. Most of FUAs are growing. No relation between size and population change.
- *United Kingdom* is strongly dominated by London, which is growing strongly. No correlation between size and population development. Data quality is poor, due to changes of statistical units.

1.3.2 Functional urban areas classified by function

All FUAs are obviously not of the same importance in the national or European urban system. Some are larger than others, and do therefore display a greater variety of functions and services. Some are of national and/or European significance based on the strengths of their manufacturing or service industries; others are the location of regional, national and/or European administrations.

There is only limited access to statistics on the level of FUAs. We have identified seven functions of urban areas that taken together provide us with an initial indication of their role in Europe, and we have identified indicators that are possible to measure rather comparably (table 2).

Table no 2: Features and functions of FUAs

Feature / Functions	**Measured variable**
Size of the urban region	Population
Transport function	Airport (passengers), ports (container traffic)
Tourism function	Number of beds in hotels (and similar)
Industrial function	Gross value added in manufacturing (industry)
Knowledge functions	Location of University and number of university students
Decision-making centre	Location of headquarters for the largest companies
Administrative functions	Administrative status of FUA

In addition, economic base of FUAs were studies by measuring share of primary, secondary and tertiary production in Gross Value Added.

Data is not available equally for all countries. Table 3 shows the indicators used to classify the different functions and provides a comment on challenges related to the data gathering. In a future study, we would like to go further by identifying new indicators and improving the statistical basis for the analysis.

Table no 3: Data used for the typology of FUAs

Function	Criteria	Sources	Comment
FUA population (mass function)	- Units used nationally signifying FUAs with population over 50.000 inhabitants. Statistical proxies.	- Available national statistics. - If statistics on FUA level not available, list of cities with more than 50 000 inhabitants	- National definitions of FUAs vary. Some countries have very large FUAs, for example the Netherlands (over 154000 inhabitants), while other countries have defined much smaller functional regions. -The years of the population figures vary slightly.
Transport	Airport with more than 50 000 pass. (2000) or port with more than 20 000 TEU container traffic (2001)	Aéroport Magazine. Port of Hamburg website.	If a FUA has both an airport and port, it is rated according to which is the relatively largest (see coding key).
Tourism	Number of beds in hotels or similar establishments 2001. NUTS 3 level	- Eurostat for EU15, NO, CH - National statistical offices	Most figures from 2001, some from 1999 or 2000.
Manufacturing industries	Gross value added in industry 2000.	- Eurostat - National statistical sources	Analysis on NUTS 3, as data is not available at FUA-level. For some of the acceding countries data is from 1999.
Higher education institutions	Main location of universities and number of students. ISCED classification 5A and 6.	- Statistics provided by national experts	The definitions of universities can vary slightly as well as the years of the data on students.
Location of company headquarters	The location of the headquarters of the top 500 companies in each country. Rated by turnover. 2001	- Ratings published by national financial magazines - Listing of the TOP 15 000 European companies by Euroconfidential, Belgium	- For most countries a list of the TOP 500 has been used. However, some countries only have official ratings of TOP 100 or TOP 200 companies, which have thus been used. - For the “Global” and “European” ratings a list of the TOP 1000 European companies have been used. The data is by postal addresses and not on FUA level, which makes the figures not totally reliable.
Administrative status	Based on the national administrative systems, cities that are the administrative seat of the different levels, national capitals, province centres, regional centres etc.	National experts	
Economic base	Share of GVA in primary, secondary and tertiary sector	- Eurostat - National sources and estimates	- Analysis on NUTS 3, as data is not available at FUA-level.

Each FUA has been ranked according to its importance for each variable. The analysis reveals the following pattern:

- **Population (mass function):** For both private and public-sector investments the demographic weight naturally constitutes the most favoured indicator for choosing the location of certain services and facilities. Population is concentrated to the Pentagon, but there are extensions reaching down to Southern Italy and to central and Eastern Europe, where there is a strong concentration of large urban agglomerations. In peripheral Europe most of the large urban agglomerations are more insular.

- **Transport**: The connectivity of the FUAs constitutes one of the central factors of polycentrism. Any sharing of economic functions cannot be really effective unless accompanied by an efficient transport infrastructure and by accessibility. Transport is measured by means of the main airports and major container traffic harbours, in order to explicitly identify transport-oriented cities. As a result, the general picture is rather monocentric, particularly in the geographically small countries. The busiest transport nodes are of course to be found in the Pentagon. Not one acceding country has a transport node of European significance.

- **Tourism:** Most of the FUAs strong in tourism are different from those that score highly in other functions. The highest weight of the urban system, when measuring the tourism function, is in the Mediterranean area and the Alps. Only a few highly tourist -oriented FUAs with European significance outside of this Mediterranean area can be identified. Globally significant urban destinations are London, Paris and Rome. Capital cities are in general also important nodes as regards tourism.

- **Industry**: The urban systems are in many countries the result of industrialisation. Manufacturing industries are in decline in most regions. However, they are still the backbone of the economy in many countries. Many industrial FUAs are selling globally, even the small ones. The industrial function of FUAs has been measured through gross value added in manufacturing. The strongest FUAs are found in the Pentagon. Gross value added is often low in acceding countries, except in capital regions and in Poland.

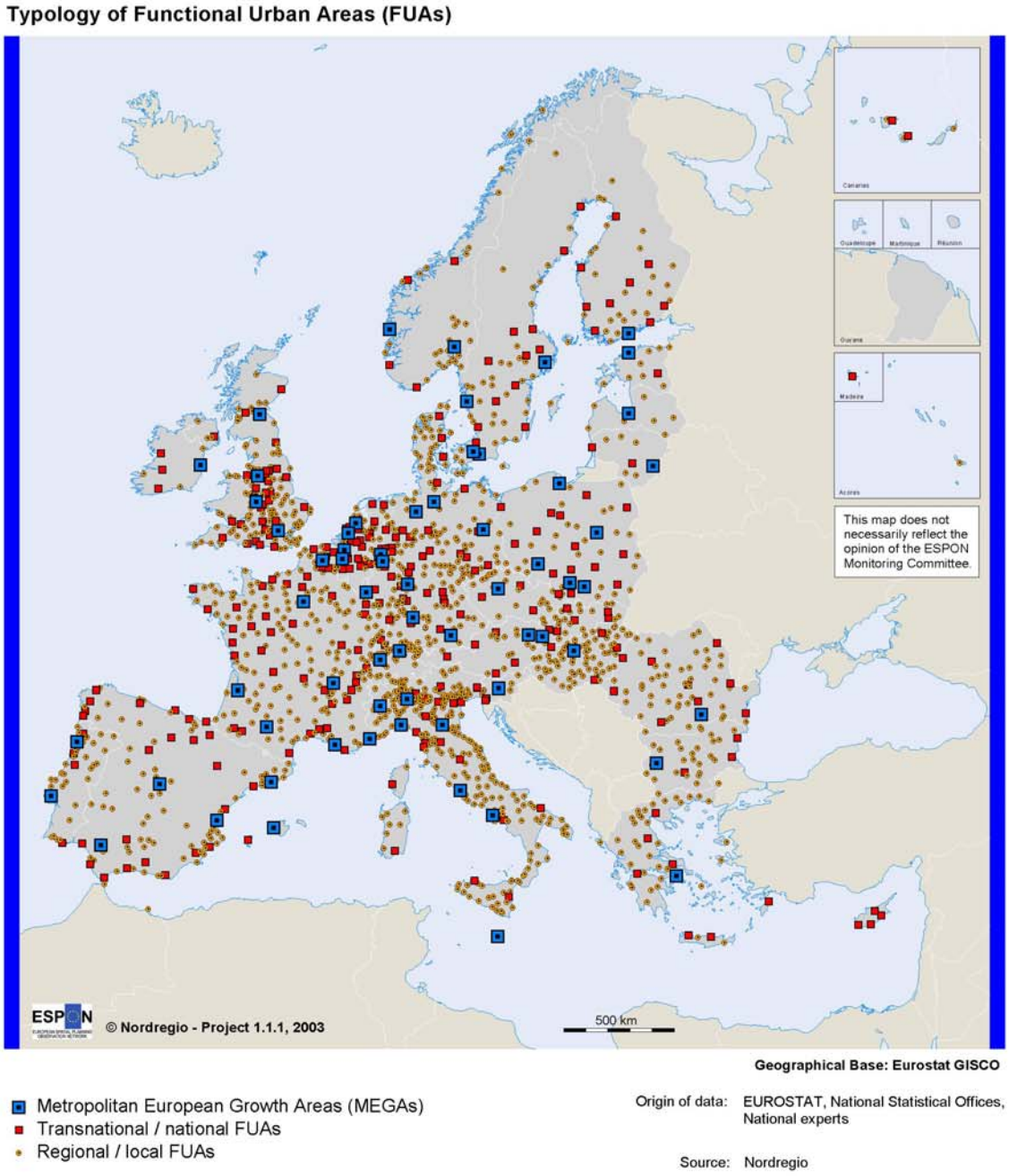
- **Knowledge**: This function is measured by the number of students in higher education institutes. In all countries, the capitals are the strongest nodes in knowledge, but many other FUAs are also important. The general picture is therefore rather balanced, as higher education is distributed across all parts of Europe, and within most of the countries as well

- **Decision-making:** The capacity of influence of an urban system is not solely dependent on its level of competitiveness and demographic weight, but also on its actual economic attractiveness for private investors. The distribution of the headquarters of top European firms is an indicator of economic attractiveness. Business headquarters locate in places with good accessibility and where they are close to business services. Decision-making however remains highly concentrated to the Pentagon, as Stockholm is the only FUA outside the Pentagon that makes the top list.

- **Administration:** Strong hierarchies within urban systems are often due to the development of administrative functions. The current picture of Europe is a result of the growth of different national systems. The capitals are the main nodes of the European administrative system.

Most crucial economic functions such as the location of European decision centres are concentrated within the Pentagon. The knowledge function is more balanced due to location of universities in national educational systems all over Europe. The tourism and transport indicators are different, showing a pattern of functional division of labour at the EU level. Thus, tourism is concentrated in the Mediterranean coastal regions and transport within the northern-most parts of central Europe.

In Map 2, all variables have been combined to give an overall ranking of the FUAs in to three groups. The 64 FUAs with the highest average score has been labelled *Metropolitan European Growth Areas* (MEGAs).



Map no 2: Typology of Functional Urban Areas (FUAs)

1.3.3 Potential polycentric areas in most parts of Europe

Thus far, the analysis has been based on the urban morphology and on the functions of FUAs. To analyse polycentricity, data on flows is however also necessary. However, such data is not yet available. At this point, therefore, we can only indicate where the potential polycentric regions are located on the basis of the urban morphology.

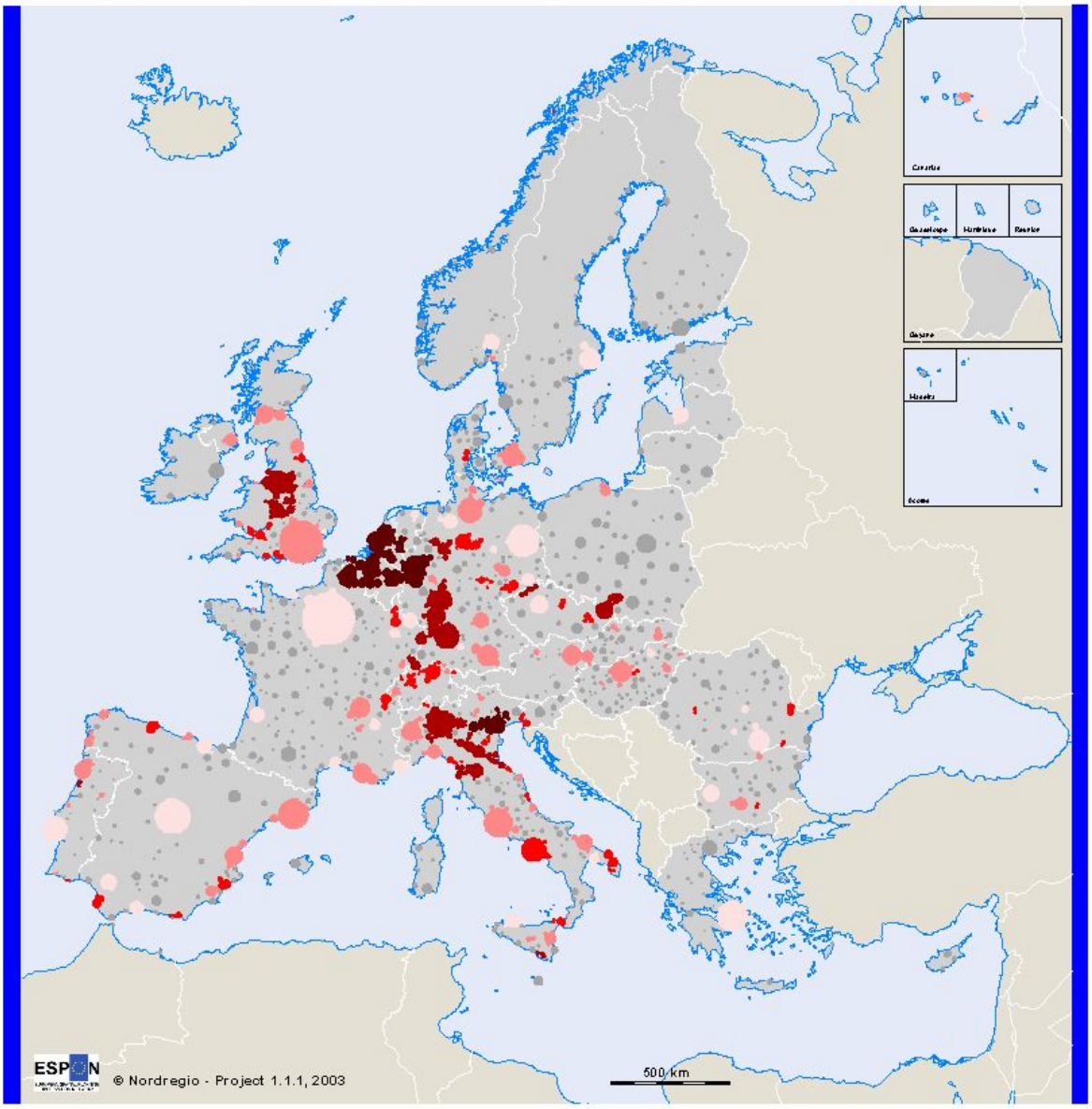
The potential for interaction between cities are mapped by identifying FUAs whose area of influence overlap each other, i.e. they are so close that a functional integration is probable or may develop in the future. Based on a function of each city's population and the distances between them, 149 groups of FUAs are identified. The largest in terms of population are Amsterdam-Brussels (17 mill. inhabitants), Paris (13 mill.), Stuttgart-Frankfurt (12 mill.), Köln-Düsseldorf (11 mill.) London (11 mill.), Manchester-Sheffield (11 mill.) and Milan (8 mill.).

The groups of FUAs are mapped in Map 3. We can again see the northwest/southeast range of cities on both sides of the Alps. The strongest potentials for polycentrism based on proximity are in the central parts of Europe, in the Pentagon and the FUAs closest to it. Outside these areas, we find only a limited number of polycentric regions with several FUAs of equal size. The largest of these is Ostrava in the Czech Republic. Several others are located in Italy, like Venezia-Padova, Bologna and Firenze. Basel-Mulhouse is an example of a trans-national region where cities of similar size are located in close proximity to each other.

The map also shows the degree of polycentrism within each of these 149 groups of FUAs. The darker brown colours show potential polycentric regions of even-sized FUAs, whereas the lightest colours show regions dominated by one large FUA. Thus, monocentric regions such as the metropolitan regions of Paris, Madrid and Athens are identified by light colours, whereas the more polycentric patterns of the urban regions in the Midlands (UK), the Randstadt (the Netherlands), Rhine-Ruhr (Germany), the Po Valley (Italy) and Ostrava (the Czech Republic) are identified by darker colours.

Thus far, our analysis is based on morphology and proximity. However, a proper analysis of potential polycentric regions should also take the specialisation of the urban regions and the flows and co-operation between them into consideration. The analysis can be brought forward several steps with the data we now have. By calculating the combined strengths for these 149 FUAs, we can make an assessment of the potential gain they can have if their forces are joined: if FUAs with different strengths can develop into one economic area, they would increase their position in Europe. It is also possible to recalculate the groups of FUAs on the basis of geographical distance only, identifying where in Europe polycentricity can be developed by means of transport infrastructure. However, we do not have the resources to go further along this path within the terms of the present contract.

Level of polycentricity of FUAs grouped according to their population size and proximity, 1st draft



Geographical Base: Eurostat GISCO

Proportion of total population living in the largest FUA (%)

- < 20
- 21 - 40
- 41 - 60
- 61 - 80
- > 80

(Inversely related to a possible measure of the degree of polycentricity)

Map no 3: Level of polycentricity of FUAs grouped according to their population size and proximity

1.3.4 Strongholds for polycentrism outside the Pentagon

Of the 1,595 FUAs, the 64 with the highest average score on the FUA indicators has been labelled *Metropolitan European Growth Areas* (MEGAs) (ref. Map 2 above). These MEGAs are identified on the basis of their functions (not only population and distance as above) and are the primary urban regions that we should look to in any discussion over polycentric regions that, in future, can act as a balance to the Pentagon at the European level.

All country capitals are included as MEGAs, except for Nicosia in Cyprus. Only the six largest countries, in terms of population, have more than three MEGAs, and as many as 17 have only one. Of the 64 MEGAs, 17 are located within the Pentagon.

As a further development, we have applied the same methodology as previously used in CPMR's study of potential Global Integration Zones. The strengths of the MEGAs are analysed on basis of their size (population and GDP), competitiveness (GDP per capita, head offices of top European companies), connectivity (air transport, accessibility) and knowledge basis (education level, R&D personnel share of total employment).

London and Paris dominate the scores. Other strong city regions are also to be found within the Pentagon (Frankfurt, Amsterdam, Munich, Brussels, Zurich, Milan, Hamburg, Düsseldorf) as well as outside it (Madrid, Copenhagen, Rome, Berlin, Barcelona). This confirms the conclusions in the CPMR report as regards where the strongest urban regions outside the Pentagon are located, even if the analysis now is expanded from nine to 29 countries.

The bottom of the list is dominated by MEGAs in the acceding countries. These are cities with low scores particularly on connectivity and competitiveness. The FUAs of Prague, Budapest, Warsaw and Bratislava are the highest ranked of these, at the same level as Luxembourg and Lisbon.

Economic and political integration will increase rapidly after enlargement and will also give rise e.g. to new air links. Major investments in transport infrastructure and human capital are also to be expected here. Therefore, as a long-term effect of EU membership, the capital regions of the new Member States in particular will be expected to climb the list.

In order to further investigate the development potentials of polycentric FUA regions outside the Pentagon, we have combined Map 2 and Map 3. The idea is to identify strong FUAs in close proximity to other FUAs, as these are regions where it might be useful to closer investigate the potentials of co-operation and functional specialisation. The result is shown in Table 4, where FUAs in bold letters are amongst the MEGAs identified above. The actual potentials must be clarified by further examination in the local context of institutional, functional, economic endowments and political aspirations.

We would like to develop this approach further and to utilise the empirical data better than we have been able to up to now. A possibility to analyse the FUAs and MEGAs on the basis of indicators from other ESPON project would also be useful. An important part of this would be to discuss observations and possible interpretations with national experts. This is unfortunately not possible within the present project.

Table no 4: Potentials outside the Pentagon for FUAs to form polycentric regions

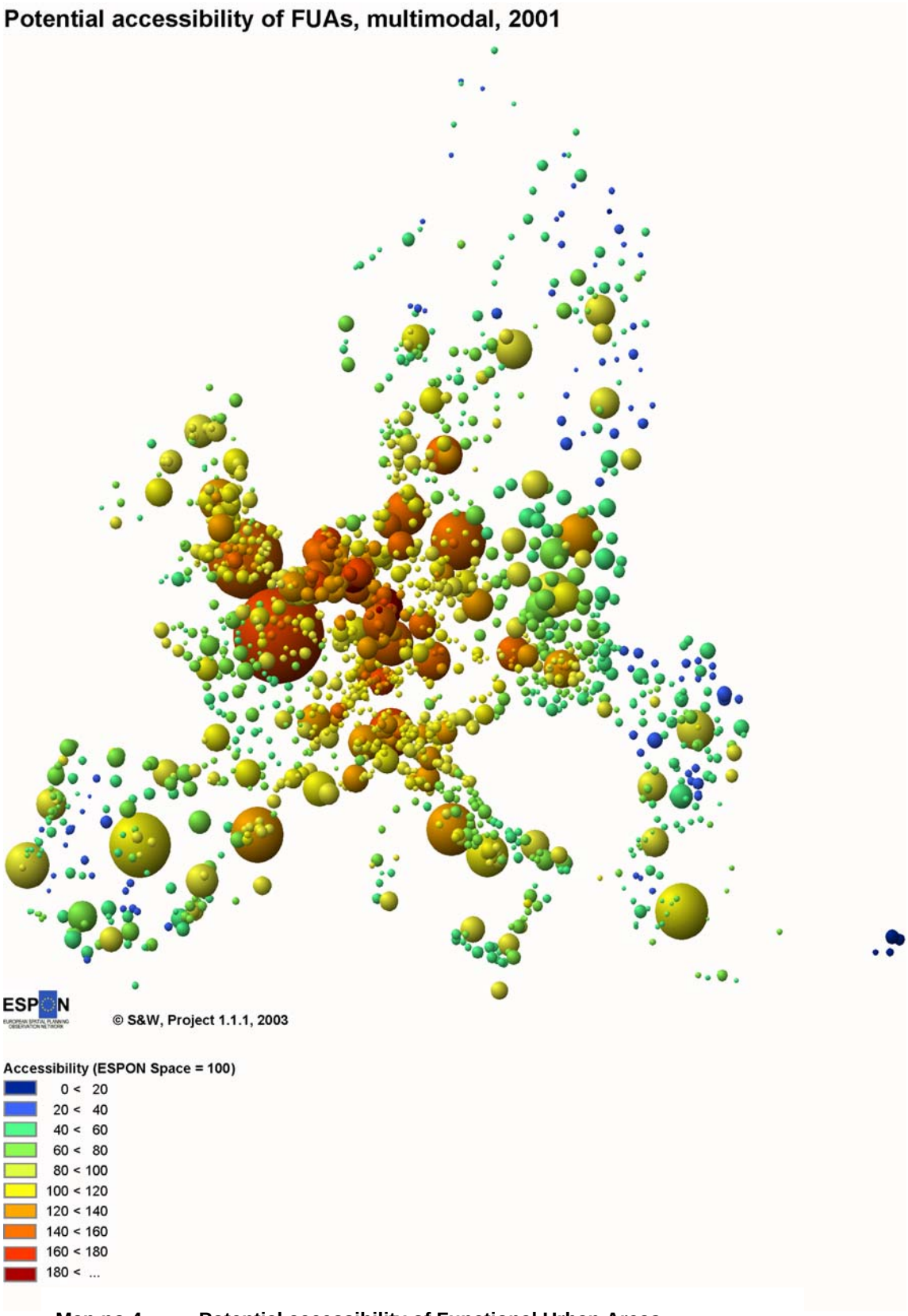
AUSTRIA/SLOVAKIA • **Wien (AT)** **Bratislava (SK)** Trnava (Slov) Nitra (Slov) BULGARIA • **(Sofia)** CZECH REPUBLIC ▪ **(Prague)** Plzen DENMARK/SWEDEN • **Copenhagen (DK)** **Malmø (SE)** Helsingborg (SE) FRANCE/SWITZERLAND ▪ **Lyon** St.Etienne Chambery Annecy Grenoble Valence Geneve (CH) Lausanne (CH) ▪ **Marseille** Montpellier Nimes Avignon Toulon • **(Bordeaux)** • **(Nice)**	**GERMANY** ▪ **(Berlin)** Potsdam ▪ **Dresden** Chemnitz Leipzig Halle **GREECE** ▪ **(Athens)** Khalkis **HUNGARY** • **Budapest** **ITALY** • **Napoli** Salerno • **Genova** La Spezia Pisa Florence Livorno • **Torino** • **Bologna** Parma Modena • Udine Trieste • Venezia Vicenza • Verona	**LATVIA** • **(Riga)** **NORWAY** • **(Oslo)** **POLAND** • **Gdansk** • **Krakow** **Katowice** *Bielsko-Biala* Czestochowa Ostrava (CZ) **PORTUGAL** • **Porto** Braga Coimbra • **(Lisboa)** **ROMANIA** • **(Burcarest)** Ploiesti	**SPAIN** • **(Madrid)** • **Barcelona** Tarragona • **Valencia** Castellon de la Plana • **Alicante** Murcia • **Sevilla** Cadiz **SWEDEN** • **(Stockholm)** Uppsala Västerås UNITED KINGDOM • **Birmingham** Wolverhampton Coventry/Bedworth Nottingham • **Manchester** Derby Sheffield Liverpool Leeds Tyneside-Newcastle-Gateshead Huddersfield • **Edinburgh** Glasgow
Bold letters: Metropolitan European Growth Areas (MEGAs). Not bold letters: Transnational / national FUA's. In brackets: Cities with more than 80% of total population living in the largest FUA (i.e. monocentric regions).			

1.3.5 Accessibility is dependent on location, not on size

The quality of transport infrastructure in terms of capacity, connectivity, travel speeds etc. determines competitive advantage of location relative to other cities or urban regions. This can be measured as potential accessibility, i.e. based on the assumption that the attraction of a destination increases with size, and declines with distance, travel time or cost. Potential accessibility indicators measure the potential for networking and interaction of a location, not the real use of the potential. The accessibility indicator belongs to the connectivity group of indicators. Applied to European urban regions it describes their relative geographical position in the European transport systems as one of their most important competitive features.

Map 4 shows the results of applying the multimodal potential accessibility concept of ESPON 1.2.1 to the current set of FUAs. In the map the FUAs are represented in two ways. The size of the circle represents the size of the population. The colour of the circle reflects multimodal accessibility, i.e. a combination of road, rail and air accessibility in one single indicator.

Very peripheral FUAs can be found in remote parts of Portugal, Spain, and Greece, on Cyprus, in Bulgaria and Romania, in the Baltic states and in the very north of Europe. Smaller FUAs in Portugal, Spain, Italy, Greece, Ireland, in the Nordic countries and in the acceding countries are classified as being peripheral. The larger agglomerations in those countries are on the European average, some are even central. The FUAs with highest accessibility values are mainly located in the UK, northern France, Benelux, in Germany, Switzerland and Austria and in northern Italy. Here, even smaller FUAs have very high accessibility values. Overall, the largest agglomerations do not necessarily have the highest accessibility.



Map no 4: Potential accessibility of Functional Urban Areas

1.4 Flows and polycentric practises

1.4.1 The strongest flows are between large cities

Thus far, the analysis has overlooked the relational aspects of polycentrism. These are however vitally important, and will be further developed in the final report. Ideally, we would need data on the actual exchange between urban regions. Unfortunately such data is rare on the regional or national level, and certainly not available for comparative studies across Europe. We have therefore concentrated our efforts on a limited number of indicators as regards the flows between European cities:

- Air connections
- Student exchange trough the ERASMUS programme
- Participation in Interreg programmes

The main picture is that air traffic is more concentrated now than 10 years ago: there has been a trend towards flow polarization around London and Paris, with an increasing distance to Frankfurt and Amsterdam as the next traffic hubs. However, some important cities outside the Pentagon, such as Lisbon, Madrid, Barcelona, Prague, Berlin and Warsaw have experienced a faster growth in air traffic.

Regarding student exchange, the most attractive cities are the major national and regional capitals located in the Western part of Europe. Spanish cities are particularly attractive and have high flows of students both in and out. Swedish, Irish and British cities have a positive balance, while Italian cities have a negative balance.

The participation in Interreg programmes is studied for a small selection of programmes, and shows that medium and small sized towns are amongst the most active.

1.4.2 Co-operation between cities and regions is a tool for polycentricity

A third important feature of polycentricity, that is more closely linked to spatial planning practice and strategies for regional development, is that of *governance*. The belief in the local *milieu* includes the idea that regional development has to rely on local stakeholders making joint efforts in respect of developing and promoting the region. Such joint efforts have, to a large extent, been formed by informal rather than formal organisations. In some cases partnerships have been effective in pooling local resources as well as in lobbying vis-à-vis national governments, other authorities and agencies. A new idea of government has been formed, focusing on crossing boundaries within the public sector as well as crossing boundaries between the public, private and community sectors. Rather than focusing on exercising the authority of government, the informal organisations focus on new roads to reach joint goals. Rather than being a simply managerial process, the process is heavily politicised. This new way of governing is called *governance*.

Creating horizontal and vertical co-operation between various levels of government, as well as between government and non-public bodies, and achieving integration between disparate responsibilities has now become the central focus of effective governance. This is particularly the case with regard to the polycentric development of Europe. Promoting economic competitiveness in European polycentric urban regions needs both ‘hard’ infrastructure, such as an efficient transport and telecommunication network between and within the regions, and ‘soft’ infrastructure, including in particular an effective institutional network.

Empirical evidence with regard to the endowments of polycentricity is rather scarce and difficult to provide due to the ambiguities of the concept of polycentricity and the difficulties of benchmarking the complex situations of different regions. We will therefore take this forward through an examination of the level and nature of political polycentricity in different European countries. Our focus is on those partnerships and networks that have a wider place-based strategic remit.

From the work so far, it is clear that partnerships require more *robust political and policy frameworks* if they are to operate successfully, as commitment from the higher tiers of government is necessary. Moreover, the issue of *resources* (funding) is important. It is necessary to integrate activities with existing national and EU funding to become sustainable.

In the final year of this project, efforts will concentrate on the application of the concept of polycentrism in each of the countries of EU 27+2 and on the identification of good practices in European regions.

1.5 Policies for polycentricity - first recommendations

1.5.1 Added value to current policies

As the competence within spatial planning is with the countries, the EU contribution to a polycentric development policy has to be mediated via other EU policies. The ESPON programme suggests that the Cohesion policy and the Structural Funds are amongst the most spatially relevant policies, and that they would benefit from the comprehensive approach proposed by the ESDP and it's focus on development options

At the *regional level* it has become mainstream policy for local authorities to co-operate with neighbouring cities and local agencies, e.g. universities and local business co-operations. Cities have realised that they may become more influential players vis-a-vis national governments and the EU, if they act in a concerted way towards common challenges.

At the *national level* the enhancement of polycentric urban systems would be in line with the recent focus in most countries on regional policies that contribute to economic growth in all parts of the national territories - urban as well as rural, centrally as well as peripherally located. Policies for polycentric development also call for broad partnerships, which again is in line with the implementation of Structural Funds.

The enhancement of a polycentric tissue at the *European level* works in concert with current efforts in EU regional policies on strengthening regions outside the European core. The strengthening of relations between cities rather than cities as centres of their own goes hand in hand with the efforts on enhancing spatial cohesion in Europe.

1.5.2 Different issues and actors at each geographical level

We have defined a polycentric urban system as *a spatial organisation of cities characterised by a functional division of labour, economic and institutional integration, and political co-operation.* Thus far, our empirical work has concentrated on the description of the urban tissue of the EU 27+2, as this is a necessary precondition for the discussion of possible policies to influence the future urban structure in Europe.

As we have seen above, the concept of polycentricity is of relevance at all territorial levels, even if the issues are different. We shall now try to elaborate policy recommendations at all three levels based on our empirical findings as well as on the current discussions on polycentrism and regional development.

On occasion there may be a contradiction between policies at different geographical levels. A policy for increased polycentricity and spatial balance at the European level will aim at the strengthening of the strongest urban regions outside the Pentagon. As far as this is done by concentrating investments in these regions at the expense of other (and more) peripheral regions, the urban systems of the countries in question may then become more monocentric. The same discussion can also be applied at the national level, where the strengthening of secondary cities with the aim of balancing the capital region may increase the difference between these and smaller cities. Such contradictions can

potentially create certain political tensions that can ultimately only be dealt with on a case-by-case basis.

1.5.3 Polices for polycentricity at the regional level

Polycentric structures within large urban regions

At the regional level, the challenge is to enhance regional strengths in order to stimulate welfare and economic development. As a general rule, large city regions do have a wider set of economic activities than do smaller regions, especially as regards services. They do also have larger labour markets. Therefore, they offer better services for businesses and families as well as more job opportunities.

On the other hand, large city regions do also face a number of challenges in respect of welfare issues, such as traffic congestion and crime. A city region's physical structure may be important for pollution levels and for the availability of recreation areas. The challenge is therefore to combine the advantages of size without having too many of the disadvantages. Polycentricity may be a part of the answer here, since a polycentric structure with a functional division within the larger urban region is often regarded as better than urban sprawl.

Strategic co-operation and investments in infrastructure

One set of measures here will be investments in hard and soft infrastructure. Physical infrastructure (road, rail) will improve the links and reduce travel time between the centres within the region. Investments in transport infrastructure can also connect new cities to the larger urban area and increase integration over a larger area ("regional enlargement"). Soft infrastructure (culture, education, etc.) can contribute to the specialisation of cities within the urban region and stimulate the division of labour between them.

Strategic planning and co-operation between cities are key issues at this level. The mental distance between neighbouring cities may in some cases be more important to overcome than the physical distance. The integration of larger city regions demands co-operation from a large number of stakeholders in the public as well as the private sector, i.e. a good governance.

Contribution from EU policies

Responsibilities for polycentric policies at this level rest with the national planning authorities and the cities and regions themselves. European regional polices may be used to support national and regional authorities in several ways:

- In general, EU policies dealing with urban issues should turn current efforts towards the development of *linkages between cities* rather than the mere development of cities when ever optional. Available funds may be used for hard and/or soft investments (depending on areas and regulations). Especially in the Cohesion countries and in Objective 1 areas, there are possibilities for investments in productive infrastructure to be utilised for transport investments and investments promoting functional specialisation.

- The zoning of Objective 2 programme regions should make it possible to include measures for economically functional regions. This has not always been the case in the past. There are several examples of separate programmes for urban and rural regions, and of programme areas where the urban core is left out while the rest of the functional region is included.

- Regional partnerships can be encouraged to focus on analyses of their urban structures. The need to consider issues regarding the morphology and functions of urban areas can be included in the Structural Fund regulations for Objective 1 as well as for Objective 2 programmes. This may be implemented as part of the SWOT analyses, or as a horizontal topic. For this to be effective, a set of guidelines for the understanding of polycentricity is also necessary.

- Neighbouring cities can be encouraged to co-operate strategically to explore the potentials in forming a common polycentric region with joint strategies and visions, joint institutions and complementary urban functions.

1.5.4 Polices for polycentricity at the national level

More balanced national urban systems

Most European countries have since the 1990s experienced increasing regional polarisation between centrally located city regions on the one hand, and peripherally located regions and regions undergoing structural change on the other.

At the national level, the challenge is therefore to make higher-order services available for all parts of the countries in order to stimulate economic competitiveness and improve territorial cohesion. The urban system does have an impact here, as it organises important parts of economic life.

Functional specialisation and strengthening the second tier of cities

Policies at this level should focus on the division of labour between the various national nodes, and the balance between the economically strongest regions within a country and the rest of the urban structure. In monocentric countries, this implies a focus on the second tiers of cities.

This is of particular relevance for many acceding countries now facing rapid structural change and urbanisation. In this context, polycentricity means that investments should be directed towards urban regions other than the strongest ones in order to develop strong alternatives, as this will give them a more even access to services and contribute to the integration of these regions with the rest of Europe.

Contribution from EU policies

Several EU policies are important for the development of national urban systems. Investments in Trans-European Networks have obvious impacts on the relative position of city regions, and the Framework programmes for research contributes to the strengthening of city regions with good research facilities.

The Structural Funds are however the main policy instruments for territorial cohesion. The EU can influence national and regional programming directly in countries where large parts of the territory are eligible for structural support. This is particularly the case for the acceding countries, where large national infrastructure investments may be co-funded by the Structural Funds.

The EU can contribute to a more polycentric national urban structure in a number of ways:

- Co-funding of investments in productive infrastructure that contributes to the functional specialisation of the second tier of cities, as well as to the strengthening of the links between these urban regions and the European core. This is of relevance especially for Cohesion countries and Objective 1 regions.

- Encourage a national spatial planning regime in which the country's urban structure and the role of their cities in a wider European context is discussed. A possible instrument here can be to invite countries and regions to discussions of the concept of polycentric development in the context of the empirical data on the urban structure of EU 27+2 and the identification of potential polycentric regions.

1.5.5 Polices for polycentricity at the European level

Competitiveness and territorial cohesion

At the European level, the main issue is to stimulate the development of regions beyond the Pentagon into becoming *global integration zones.* A more polycentric structure, with several strong urban regions of European and global significance, can contribute to the competitiveness of Europe as well as to cohesion between different territories.

The empirical data reveals a situation with significant differences between the core and the periphery regarding the urban tissue. Even if statistics at this level also show large core-periphery differences in GDP, we do find large variations regarding income levels and development endowments between centrally located regions as well as between peripherally located regions.

This observation is even more valid at the EU 27+2 level than the EU 15 level. After enlargement, there will be several new EU Member States with dense urban systems, located relatively close to the Pentagon.

Development of strong urban regions as supplements to the Pentagon

Policies at this level should focus on the regions with the largest potentials for establishing polycentric structures. There are several large urban regions that have potentials to become Global Integration Zones at the level of London and Paris. The strongest candidates are however located within or in close proximity to the Pentagon.

The challenge is therefore to identify and strengthen polycentric regions in other parts of Europe that can supplement the Pentagon functionally.

Contribution from EU policies

Again, investments in Trans-European networks are important for the functions of city regions at the European level. A conscious localisation of European institutions will potentially impact significantly on the functional specialisation of city regions.

EU regional policies are also of importance for the development of polycentric structures at the European level:

- Funds must be made available for the enhancement of polycentric urban structures. The distribution of funding between EU regions is therefore important. Historically, a substantial part of the Structural Funds has been spent in urban regions. This will probably remain the case in the future, since a concentration of funds to regions lagging behind automatically will make a substantial part of the urban structure in EU 25 eligible for Structural Fund support, i.e. the city regions of the acceding countries.

- The new generation of Objective 2 programmes is expected to have measures for the development of urban regions. If these are to have an impact on city structures, such measures should go beyond the issues of urban decay and reconstruction, and allow support for actions promoting the specialisation of the larger polycentric city regions.

- Instruments such as Interreg and Interact should be used for the promotion of networking, development of common strategies covering several cities (also cross-border) and for the dissemination of good practices between the city regions that are in the forefront of polycentric thinking.

2 Response on Requests from the Co-ordination Unit and Project 3.1

2.1 Concepts, Methodologies and Typologies

The focus of Critical Dictionary of polycentrism is on clarifying the concept of polycentrism and on establishing an overview of the major concepts and notions linked to polycentrism. Polycentrism has two complementary aspects: morphological and relational. Polycentrism results from two main processes: institutional and structural. Combining the two aspects of polycentrism leads to the identification of four main types of integration: integrated monocentrism, outcoming polycentrism, metropolitan polycentrism and integrated polycentrism. Polycentrism occur at different territorial scales, from the regional to the national and the European.

In operationalising key concepts related to polycentrism are urban agglomeration (UA), Functional urban area (FUA), the notion of different dimensions of polycentrism (morphological, functional, economic andpolitical as well as various territorial dimensions of polycentrism) and Metropolitan Growth Areas (MEGAs). All these concepts are elaborated in the report.

Indicators and typology of 1.1.1. is based on two building blocks: First is the “list of FUAs” and second typology of MEGAs. Making of “List of FUAs” is based on analysis of certain functions of FUAs (mass, transport, tourism, industry, knowledge, decision-making and administration). In each FUA Each function is scored from 1 to 5 (local to global significance). Average of score determines category of FUA. Stronges (average 2.5 or above) are MEGAs, 1.5 to 2.49 are transnational/national FUAs and FUAs scoring below 1.5 are regional/local FUAs. Result is a 3-class typology labelled list of FUAs.

The MEGA analysis seeks to identify those urban areas that can be seen as “counterweights” to the Pentagon in the future. There are four building blocks here, namely (1) mass criterion, (2) competitiveness, (3) connectivity and (4) knowledge basis. Each of these building blocks consists of two variables. The typology of the

MEGAs is based on indexes of these four building blocks. Result is a 5-class typology of MEGAs (global nodes, European engines, Strong MEGAs, Potential MEGAs and weak MEGAs).

NUTS 2/ NUTS 3 typology based on the list of FUAs has been developed. Four variants are presented (4, 6 and 19 types). This typology will be developed furher.

The indicator to be applied in accessibility analysis is based on the reference accessibility indicators proposed in the SPESP working group on 'Geographical Position'. There, potential accessibility indicators by mode (road, rail, air) were developed. The accessibility indicator belongs to the connectivity group of indicators. Applied to European urban regions it describes their relative geographical position in the European transport systems as one of their most important competitive features.

Also a method is presented to identify centres in the European urban system and to measure the degree of polycentricity of urban areas, of the urban systems of the member states of the European Union and of the acceding countries and Norway and Switzerland as well as of the European urban system at large. The approach proposed is to identify and measure polycentricity by three dimensions of polycentricity: size, location and connectivity. The three partial indicators, can be aggregated to a comprehensive indicator of polycentricity. The indicator will classify each country on a continuous scale of polycentricity and at the same time assign each city a place and level in the national and European urban hierarchy. It may also be possible to apply cluster analysis to verify and validate the polycentric urban system so derived. The presentation is illustrated by examples; the actual implementation of the methodology is planned for Year Two of ESPON.

An alternative methodology to group FUAs is based on a simplified version of Reilly’s model, in which the potential for interaction between cities decreases according to an inverse function of the square root of each city’s population. Based on this, an area of influence proportional to the square root of each FUAs population has been estimated. The factor of proportionality is 1/30 (Area of influence = square root of population / 30). Those FUAs with overlapping areas of influence have a spatial

potential for polycentric integration. With the previously mentioned factor, this produces 149 groups of FUAs.

The objective of the work on European Urban Networking is to understand and illustrate how the exchange and cooperation networks between urban areas in Europe shape the relations of society to space and reorganise territorial structures. Three complementary networking indicators have been gathered and developed: Air traffic, student exchanges and trans-border and trans-national cooperation. Consequently, we have to underline that various types of polycentrism are occurring in Europe. Various typologies are presented.

The key to the development and promotion of polycentricity in Europe is the existence or development of effective institutional co-ordination and co-operation. One of the key objectives of studying governance of polycentrism is to examine the level and nature of this political polycentrism in different European countries. A series of questionnaire surveys of a sample of existing partnerships have been undertaken during the course of the study. A typology of partnerships focusing on type, the process of mobilisation, the territorial coverage, partners, and purpose is presented.

The key objective of studying the application of polycentricity is to determine if and how this concept is applied in the ESPON study area. Basic criterion to answer this question: are there policies in operation or being promoted addressing the distribution of economic and/or economically relevant functions over the urban system? Central to this work package is the concept of application. To determine the present state of affairs in the EU of 27+2 countries a key method of research has been the issuing of a questionnaire. Typologies remain to be developed.

2.2 List of indicators developed/provided

Following indicators have been developed:

- List of FUAs is based on indicator desribing functional weight and significance. Indicator is based on average of scores in seven functions (mass based on FUA population, transport (traffic in airport and harbour), tourism (number of beds in hotels), industry (gross value added in manufacturing), knowledge (number of students in higher education institutes), decision-making (location of headquarters of top-500 companies) and administration (administrative status). Furhermore economic base has been analysed (based on gross value added in primary, secondary and tertiary production).
- For analysis of MEGAs indicators on mass, competitivenss, connectivity and knowledge basis have been developed (based on population, GDP, GDP per capita, location of top-500 companies, passengers at airports, multimodal accessibility indicator, education level and R&D share of employment.
- Multimodal accessibility indicator, potential accessibility of FUAs
- Some testing on indicator on degree of polycentricity / level of polycentricity has been done

2.3 List of maps, figures and tables in the report

PART 1 (Summary)

- Figure 1. Polycentrism in European countries: the capital urban agglomeration's share of total population in each country.
- Map 1. Functional Urban Area population
- Table 1. The national urban structure in EU 27+2
- Table 2. Features and functions of FUAs
- Table 3. Data used for the typology of FUAs
- Map 2. Typology of Functional Urban Areas (FUAs)
- Map 3. Level of polycentricity of FUAs grouped according to their population size and proximity
- Table 4. Potentials outside the Pentagon for FUAs to form polycentric regions
- Map 4. Potential accessibility of Functional Urban Areas

PART 2

- Figure 2. Polycentrism: two complementary aspects
- Figure 3. Polycentrism: two main processes
- Figure 4. Polycentrism: different territorial scales
- Figure 5. Integration: four main types
- Table 5. Polycentrism: major questions and the primary set of concepts related to polycentrism
- Table 6. The key concepts of 1.1.1
- Map 5. Functional urban areas with over 20 000 inhab. In France and in the Nordic countries
- Map 6. Functional urban areas with over 20 000 inhab. In France and in the Nordic countries - population density
- Table 7. Features and functions of FUAs
- Table 8. Gathered data for making of list of FUAs
- Map 7. Population (mass function)
- Table 9. Population (mass function) – country reports
- Map 8. Transport function
- Table 10. Transport function – country reports
- Map 9. Tourism function
- Table 11. Tourism function – country reports
- Map 10. Industrial function
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- Map 11. Knowledge function
- Table 13. Knowledge function – country reports
- Map 12. Business decision-making centre
- Table 14. Business decision-making centre – country reports
- Map 13. Administrative function
- Table 15. Administrative function – country reports
- Map 14. Typology of Functional Urban Areas (FUAs)
- Table 16. Typology of Functional Urban Areas (FUAs) – country reports
- Map 15. Economic base of FUAs
- Table 17. MEGA analysis variables
- Table 18. MEGA analysis - scoring
- Table 19. MEGA analysis - results

- Table 20. NUTS 3 typology - six types
- Table 21. NUTS 3 typology -19 types
- Map 16. Nuts typology based on list of FUAs (4 types). DRAFT.
- Map 17. Multimodal accessibility of FUAs
- Figure 6. Population size and accessibility of FUAs.
- Figure 7. Spatial structure as function of economies of scale and transport cost
- Figure 8. The bunch of grapes
- Figure 9. Rank-size distribution of cities over 50,000 population in EU-27
- Figure 10. Rank-size distribution of cities in France, Germany, Italy and Spain
- Figure 11. Catchment areas of cities over 50,000 population in Germany
- Figure 12. Catchment areas of cities over 50,000 population in the Netherlands and Poland
- Figure 13. Cities in Europe over 50,000 population connected to the nearest larger city
- Figure 14. Cities in Germany connected to the nearest large city
- Figure 15. Cities in the Netherlands and Poland connected to the nearest large city.
- Map 18. Level of polycentricity of FUAs grouped according to their population size and proximity, DRAFT
- Figure 16. Networks of European territorial integration
- Map 19. Cities' absolute attractivity for ERASMUS students
- Figure 17. Number of students received in ERASMUS
- Map 20. Cities' relative attractivity for ERASMUS students
- Map 21. Main ERASMUS networks in 2000
- Table 22. Main ERASMUS networks
- Map 22. Major domination and dependences for Erasmus students in 2000
- Figure 18. Number of first flows (at least 25 students) for ERASMUS students
- Map 23. The Franco-Belgian regions
- Figure 19. Topics of cooperation (215 FB projects)
- Figure 20: Topics of cooperation (113 punctual FB projects)
- Table 23. Spatial scope and topics of cooperation
- Figure 21. Topics of cooperation per town
- Figure 22. The towns involved in more than 2 projects.
- Map 24. Main French-Belgian urban co-operation in Interreg Iia

- Figure 23. The towns involved in projects related to the punctual type
- Map 25. Main Franco-German co-operations in Interreg Iia
- Figure 24. Three strands of urban networks
- Table 24. Number of links between two cities by the number of projects
- Map 26. The CADSES city network
- Figure 25. Types of actors by countries
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- Map 28. Domination and dependence: Major air flows in 1990.
- Table 26. Dominant cities 1990
- Map 29. Domination and dependence: Major air flows in 2000.
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- Map 30. Evolution of main air flows
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- Table 31. Questionnaire responses on Partnerships and Networks, July 2003
- Table 32. The nature of the Partnership
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- Table 34. Powers and resources of the Partnership
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- Table 35. The purpose and achievements of the partnership

- Table 36. Objectives of the Partnership
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- Figure 34. Relative areas of success
- Table 38. Q21 Areas of success
- Table 39. Q22 Key factors contributing to the success of the Partnership?
- Table 40. Q23 Inhibiting factors
- Figure 35. Key factors contributing to the success of the Partnership
- Figure 36. Areas of difficulty
- Table 41. Q24 Key weaknesses and strengths
- Table 42. Strengths of Partnerships
- Table 43. Weaknesses of Partnerships
- Table 44. Q25 Recommendations for improvement of the Partnerships
- Table 45. Received questionnaires
- Table 46. Current state of analysis and the research format
- Map 35. Existing and new centres in the desired polycentric spatial structure for Ireland.

2.4 The application of Common Platform and the Crete guidance paper

The following efforts have been made in the application and development of the Common Platform:

- Providing data to the ESPON database (list of FUAs) to 3.1. BBR and comission has provided additional data and material to 1.1.1 in order to improve the list of FUAs and the typology (Element 1 in the Common Platform).
- The list of indicators and typologies and the list of ESPON maps have been produced, commented and verified (Element 1 and 2 of the Common Platform). Most of the maps are produced in the ESPON layout.
- Typologies have been developed (list of FUAs, NUTS 3 typology). Common efforts regarding typology of urban and rural areas have been undertaken with the project 1.1.2., as requested in the Crete Guidance Paper (Element 3 of the Common Platform).

- The stage and trends of development in FUAs have been analysed. The analysis of level of polycentrism has been developed (Element 4 of the Common Platform).
- The conceptualising of polycentrism and operationalising it's measurement have been completed (Element 5 of the Common Platform).
- Preliminary policy recommendations concerning polycentrism have been drawn (Elements 6 and 7 of the Common Platform).

2.5 Integration of points raised in Response to the 2nd Interim Report

The territorial trends of the enlarged European Union (EU27+2) have been described in the form of population development trends. The level of development can also be interpreted from the list of FUAs, thematic maps and MEGA-analyses. Three different scales of polycentrism have been adopted as an interpretation framework also in the policy recommendations. Maps of degree of polycentrism have been developed for this report.

The natural and cultural assets analysis of FUAs remains to be tackled, and will be completed during the second year of this research project. This was done as originally-allocated resources were directed to making a comprehensive and fully reliable list of FUAs (not originally in the contract, but later required). However, the data provided in the list of FUAs and the analysis of level of polycentricity will help to later analyse the complementary analysis of FUAs.

2.6 Networking undertaken with other ESPON projects

The networking undertaken with other ESPON projects has been that of 1.1.1 team members as participants in other ESPON projects. This has guaranteed good information flow and brought fresh views to ESPON 1.1.1. The most relevant projects in this regard have been 1.1.2 and 1.2.1 (2.1.1.). Accessibility indicator is one of the key indicators also in analysis of position of FUAs in European urban system.

Spiekermann & Wegener have been bridging these projects efficiently. The exchange of statistics and GIS-data has also formed an important element of this networking.

The most active co-operation and networking has been with project 1.1.2 (Urban-Rural Relationship). One joint session was held in July 2003, and the overall exchange of information and ideas has been intensive. The preliminary findings from 1.1.2 have been important factors in developing 1.1.1 typologies. Members of 1.1.2 have also provided feedback on the work carried out by 1.1.1. CUDEM and OTB members are also partners in 1.1.2.

Expert views from 1.1.3 and 1.1.4 have enriched discussion on polycentricity, on the role of acceding countries' FUAs and population development trend analyses.

The exchange of ideas, data and expert views have also been fostered between projects 1 2.1.2 (R&D Policy) and 2.2.3 (Structural Funds in Urban Areas).

Some overtures of findings have been made to project 1.3.2 (Natural Heritage), but networking has not yet been effective. This link will become active in 2003-2004 as well as reach project 1.3.1. (Natural and Technological Hazards).

SWOT analysis - Updated Version

1) In the light of the policy aims of the ESDP: What are the main **strengths** identified by your TPG?
   - Polycentrism (at the conceptual level) has strong and broad support in ESDP and in all Member States
   - Many countries in Europe (ESPON countries) still have a relatively balanced network of small and medium-sized cities, and polycentric development is interpreted as "lifeline" to these cities
   - The strong nodes also outside the Pentagon are noted in the form of identification of pillars for European polycentrism in terms of competitiveness; it is possible to identify and strengthen several larger zones of global economic integration
   - The Pentagon itself is not monocentric, but genuinely polycentric

2) In the light of the policy aims of the ESDP: What are the main **weaknesses** identified by your TPG?
   - Overwhelming power of few major urban regions in Europe, further concentration of activities to these urban regions
   - Even the strongest nodes in the acceding countries are weak in comparison to strong urban regions (global nodes, European engines and strong Metropolitan European Growth Areas (MEGAs))
   - "Kaleidoscope-effect": Balancing between monocentrism and polycentrism varies in different scales: e.g. In global competition it could be argued that the Pentagon should be strengthened in order to build a stronger European node in the global urban system. Also, strengthening national capitals would balance development at the European level, but make its national systems more monocentric.
   - Some peripheral countries have only minor population potential and low accessibility compared to central Europe as well as long distance between urban nodes within the country, which is major challenge in terms of development of transport networks.
   - Transnational and crossborder co-operation is often characterised by one-way relationship due to the development gaps between urban regions in EU15-countries and in candidate countries
   - There is no common pan-European definition of Functional urban areas. Delineating the functional area would be the first step when discussing the relationship between the urban node and rural areas functionally connected to it.
3) In the light of the policy aims of the ESDP: What are the main **opportunities** resulting from the identified frame conditions?
   - Solidarity and European integration are at the core of the polycentric project, which seeks to foster centres of competitiveness and development throughout the European area, thus offering its citizens credible prospects for success.
   - European competitiveness, the main issue addressed at the Lisbon Summit, constitutes the content of a polycentric project that invites public services to play a key role in boosting a number of major centres of development in Europe, in respect of priority issues such as R&D, innovation, human resources and accessibility, etc.
   - Co-operation - whether at intergovernmental, interregional or interurban level - also constitutes a basic value, aiming to ensure more coherent and efficient public service action, by bringing together economic or functional territories and institutional territories.
   - The polycentricity concept cannot, and should not, be elaborated in a uniform way, but will (have to) differ according to territorial circumstances (such as geographical location, the characteristics of the urban system etc) and policy goals
   - Continental Europe has chances to develop more polycentric structure with emphasis on Trans-European Networks (especially high-speed trains)

4) In the light of the policy aims of the ESDP: What are the main **threats** resulting from the identified frame conditions?
   - polycentrism will remain an uncommunicative catchword. It will be challenging to conceptualise it so that it will be possible to win the confidence of the higher realms of power
   - If only capital regions are considered as “gateway cities” (e.g. in acceding countries) the national structures will become more and more monocentric. There has to be good balance between European polycentrism (pillars for polycentric development in Europe) and the role of small and medium-sized cities (polycentrism within Member States, reflecting also urban-rural partnership)
   - Simultaneously when specialisation (explicit functional role of cities in greater urban system) is emphasised it certainly does not support an economic diversification strategy. Especially small and medium sized cities have to “gamble” in this sense - more networked structure is needed in order to build buffers between global economic fluctuation and the development of small and medium-sized cities.
   - The weight of urban system glides towards the Pentagon if weak MEGAs are not developing.

5) Looking back on the questions 1) to 4): What are the 3-4 driving forces dominating the thematic sector? Please explain each driving force in one or two paragraphs.

In the context of polycentric policy, the main driving forces are:

1) “New regional development logic” including: interplay between various levels and recognition of role of cities in regional development as well as recognition of different development potential of urban areas
2) Increasing specialisation and functional urban networking; interplay between competition and co-operation
3) Development of transport networks
4) Development of knowledge intensive functions and services

The driving forces are measured by the following indicators:

1) Strength and diversity of urban regions: population, gross regional (domestic) product, GDP per capita PPS, gross value added in industry, number of beds in hotels and similar (tourism),
2) Functional specialisation: gross value added in primary, secondary and tertiary productions, productivity
3) Accessibility indicators (multi-modal), passengers (airports), container traffic (airport)
4) Location of universities, number of students, locations of headquarters of TOP 500 companies, R&D employment, educational level of population

6) Commencing from these driving forces please develop a typology which can be used to classify the European regions.'

Please see Chapter 4 of this report

7) Please map the spatial pattern emerging from this typology of main driving forces.

Please see Chapter 4 of this report

8) Please prepare a data set, which contains the data of the driving forces and the regional classification.

Please see Chapter 4 of this report

9) Refer to the concept of sustainable development and regional competitiveness: Please describe on a half page how the spatial pattern and developments (or: innovative elements of policies – see example on the right) in your sector outlined above relate to sustainable development and balanced competitiveness as overall aims in the field of spatial development and EU policies.

The outcome of the ESDP is balanced competitiveness, a compromise between the periphery's interest of social-economic cohesion and the core's interest of global competition. To achieve this balanced competitiveness of the European territory, the ESDP promotes a polycentric development through transnational spatial development strategies. The current European urban system is seen as monocentric, in the sense that there is only one major urbanised area with sufficient mass and economic potential to be integrated in the global economy. Though several potential dynamic peripheral regions can be identified (such as Barcelona and Øresund-region), the European urban space still can be understood by a monocentric paradigm. In this rationale, the area identified as periphery has some disadvantages in relation to the core. The first is increased travel and transport cost resulting from remoteness relative to the main centres of population and economic activity. The second is the absence of agglomerative advantages (external economies of scale) enjoyed by more central locations. Contingent causes are for example, the high cost of service provision, and low rates of entrepreneurship and innovation. The periphery will, under these conditions, lose even more economic activities and will see a decline in population. On the other hand, there is the danger of hyper concentration in the core, with negative side effects such as pollution, congestion and unaffordable land prices, which may result in a decline of economic potential. (Copus, 2001,p 540-544).

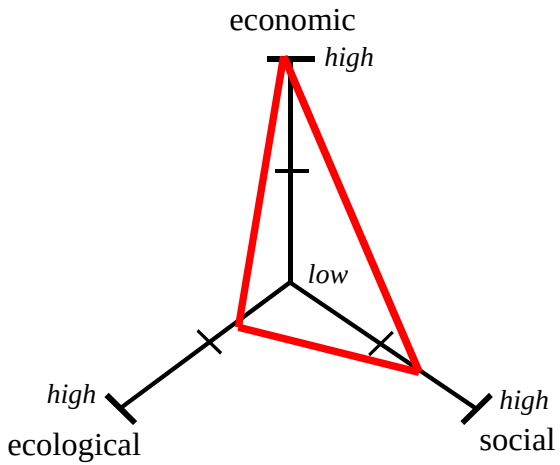
Fundamental changes in the geographical constraints to many economic activities, and especially the key growth sectors, will mean that the economic potential of all regions (including those on the periphery in spatial terms) will become less closely related to location, and increasingly influenced by a variety of aspatial characteristics, such as the quality of ICT-networks or an attractive 'business climate'. While the traditional core-periphery rationale represents a one-dimensional view of Europe, polycentricity represents a more diversified view of Europe, taking account of more indicators: "It demonstrates willingness to take a closer look at individual regions and to take account of their specific characteristics. Economic performance is just one dimension and judged as neither more nor less important than other characteristics" (Waterhout, 2001, p9).

10) Please name for both aims the three or four most important indicators you use to measure and assess these trends

It would be relevant to look at drivers of change: e.g. population 1990-2000, gross domestic product 1990 – 2000, employment change

In terms of regional competitiveness: gross domestic product per capita, location of top-500 companies

11) Refer to sustainability and its economic, social and ecological dimension: Please give an intuitive assessment to what degree the spatial patterns in your sector comply with the three dimensions of sustainability (Figure 2).



PART 2

3 Critical Dictionary of Polycentrism

3.1 A dictionary: what is the aim?

The focus of this work package is on clarifying the concept of polycentrism and on establishing an overview of the major concepts and notions linked to polycentrism.

The objective is to produce a critical thematic dictionary in order to provide a better understanding of the idea of polycentrism. The dictionary seeks to clarify scientific ideas and to bring common sense to the wider debate.

Indeed, polycentrism is a concept that refers to differentiated mechanisms and strategies of development according to the territorial scale and to the definition taken into account. Although the concept is not new, it has never been clearly clarified. As such, it remains rather confused and ambiguous. To define this concept is one of the major challenges of the ESPON programme. From a methodological and empirical point of view, it allows for a better identification of the territorial indicators and tools that are the essential elements in the evaluation of the current and future trends with regard to the organization of the European space. From an operational point of view, it is the best way to ensure the better determination of spatial planning strategies and development policies targeted at spatial cohesion.

Therefore, our objective is to carry out

- Comprehensive definitions of polycentrism and of the major concepts, notions and expressions linked to it
- A critical analysis of these concepts, their usages and their territorial impact.

The object for this TIR is to present a revised and comprehensive *typology of polycentrism* providing a number of hypothesis and models and a revised and comprehensive *general framework* of the Critical Dictionary of Polycentrism and list of concepts.

Method

To ensure the efficiency of the dictionary, a common **method** was used to define each concept.

The ‘writing rules’ consist of following a *common structure* for each concept, meaning that each definition will

- Outline how the concepts are defined in the literature and development strategies (in the European official documents),
- Evaluate their territorial impacts,
- Assess their linkages to each other.
- Provide examples and maps (if real value-added)

The common ‘writing rules’ consist also in grouping the concepts into *three types, according to their relative ‘importance’* in relation to the concept of polycentrism. The belonging of a type to such a group determines the length of the definition.

- Key concept: 4500 characters
- Important concept: 2500
- Basic notion: 1000

3.2 Polycentrism: description and types

3.2.1 Polycentrism: two complementary aspects

Our first main position -- that has been developed in the second Interim report and is deepened in the Third Interim Report -- is that polycentrism has two complementary aspects:

- Morphological, laying out the distribution of urban areas in a given territory.
- Relational, based on the networks of flows and cooperation between urban areas at different scales (Figure 2).

Morphological aspect

The observation of a system of cities automatically implies the observation of several nodes and centres. The urban pattern may be, either strongly or weakly hierarchical. Two extreme patterns can be identified as follows:

- *Mono-nuclear pattern*: one dominant city and several peripheral/dependant cities.
- *Poly- nuclear pattern*: no dominant city. Cities are quite similar in size.

Relational aspect

Relations, flows and cooperation, may be oriented in different ways between centres. Two extreme patterns can be identified as follows:

- *Mono-oriented*: relations are preferentially oriented towards one centre.
- *Multi-directional*: relations have no obvious orientation.

Thus far, our main strong position is that polycentrism cannot, and should not, be linked a priori to a poly-nuclear, and weakly hierarchical pattern, nor should it be drawn from a multidirectional pattern of relations between cities of a given territory. Poly-nuclearity and a weak hierarchy to the urban pattern are not prerequisites for polycentrism.

Nothing has thus far been said on the characterisation of the centres, nor on that of their relations. It is however obvious that both the specialisation of the centres, and the specialisation of relations will have to be taken into account in order to deepen the study more fully.

3.2.2 Polycentrism: two main processes

The second main position is that polycentrism results from two main processes

- Institutional, based on voluntary cooperation
- Structural, resulting from “spontaneous” spatial development (Figure 3)

Institutional or political polycentrism

Institutional or political polycentrism relies on co-constructions, cooperation, and on the willingness of people in territorial administrations to work together. It implies that localities will start to work together on various projects. In that context, polycentrism corresponds to “planified” strategies and actions.

The cities may, or may not, be complementary with regard to urban functions. The functional complementarity is not a pre-condition for cooperation. What is important is that two or more cities develop common projects in order to build thematic and joint projects, actions and strategies, to exchange knowledge, best practices etc. and to share equipment and upgrade infrastructure (cultural, social, transport…).

Structural polycentrism

Structural polycentrism is related to the organisation of a territory i.e. to its spatial patterns. It is based on the joint observation of the spatial distribution of urban nodes and on the spatial orientation of flows in a territory.

Polycentrism may also be occurring through urban networking: from migrations (students, active population, commuters….), rail and air traffic, financial flows, information flows etc….

Thus far, polycentrism is not only the result of voluntary strategies and actions. Polycentrism could occur spontaneously as a product of historical, economic, or spatial patterns.

3.2.3 Polycentrism: Different territorial scales

The third main position is that polycentrism can occur at different territorial scales, from the regional to the national and the European (Figure 4).

Connectivity

Distant urban areas are connected through various types of relations:

- co-operation directed towards the sharing of experiences, of methods, of information, participating in a development project ….
- flows and exchanges

Examples of institutional polycentrism:

- URBAN programme led to a form of smooth cooperation, exchange of experience between distant cities around a thematic issue.
- INTERREG III B and III C tend also to encourage this form of cooperation as regards connectivity in transnational areas.

Examples regarding structural polycentrism :

- Financial flows, telecommunications networks, exchanges of students, air traffic ….

Proximity

As in the connectivity case, close urban areas are linked through

- co-operation between cities that aim at the sharing of equipment, projects, or policies : locating a university in one centre , and a hospital in a neighbouring one, etc.. in order to allow inhabitants of both cities to use both facilities.
- flows and exchanges such as daily commuters, telephone calls

Examples regarding institutional polycentrism*:*

- Interreg IIIA enhances trans-border cooperation.

Examples regarding structural polycentrism :

- Travel to work

Thus far, spatial proximity is not a condition of polycentrism. Urban areas can cooperate and exchange even if they are not in close spatial proximity. Urban

Networking is not only dependent on spatial proximity: connective networking is one of the major guarantees in the promotion of polycentric spatial organisations.

3.2.4 Integration: four main types

Combining the two aspects of polycentrism leads to the identification of four main types of integration. Although, our hypothesis is that polycentrism is a process, it is plain that there is not one inescapable way to achieve this kind of structure, nor is there one unique model of performance (Figure 5).

Integrated monocentrism

This defines a highly hierarchical urban pattern, combined with a strongly oriented flows pattern. All centres may, or may not, be specialised, though the main one is rather diversified, the labour market may be locally organised, although it is dependent on the main centre.

Examples :

- European scale: London and the European urban network, as regards air traffic.
- National scale: Budapest and the Hungarian urban system, Vienna and the Austrian urban system.
- Regional scale: Madrid and the Navarre urban system.

Outcoming polycentrism

The spatial structure combines an urban pattern that is rather strongly hierarchical, and multidirectional flows. Some of the secondary centres could have developed a specific thematic competence that promotes them to the upper layer of the local or environing urban hierarchy. Those specific competences have induced the multidirectional pattern of the relations. This multidirectional pattern may be developed when the cities – either act in the same field, are competitors and/or develop complementary specialisations: research and production in electronics, aeronautics…, whisky or wine production and tourism – either share a project in common (INTERREG).

Examples:

- European scale: specialized networks of cities in aeronautics, finance, based on university cooperation and exchanges, on INTERREG cooperation.
- National scale : Italy
- Regional scale: Greater London region, Parisian region, textile activity in the Po valley : Milan, Turin, etc

Metropolitan polycentrism

This type of polycentrism describes a weak urban hierarchy with strongly orientated relations towards an upper level of cities that consequently act *together* as the main centres of the network.

One can label this as ‘one level polycentrism’, observed when the upper level of cities is developed through a poly-nuclear pattern.

It is not linked with the obvious types of specialisation, although one may argue that the upper layer of the hierarchy is specialized in rare functions, in rare activities, inducing several specific links and specialised networking.

Examples :

- European level: political and economic European capital network
- National level: Spain with Barcelona and Madrid
- Regional scale: Lorraine (Fr) with Nancy and Metz, Tuscany (It) with Sienna and Florence

Integrated polycentrism

This type of polycentrism describes a weak urban hierarchy associated with multidirectional relations.

It may not as yet be observable at the European level. Though one may find that the German urban network responds to this description, or at the regional level, the Randstadt.

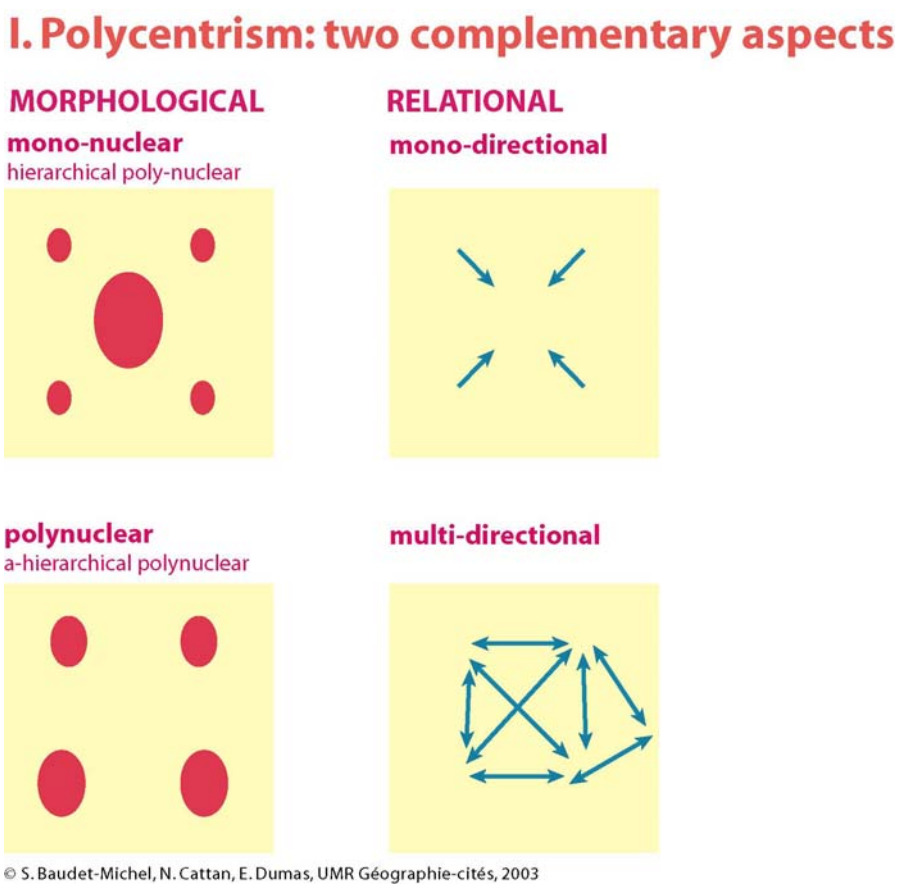


Figure no 2: **Polycentrism: two complementary aspects**

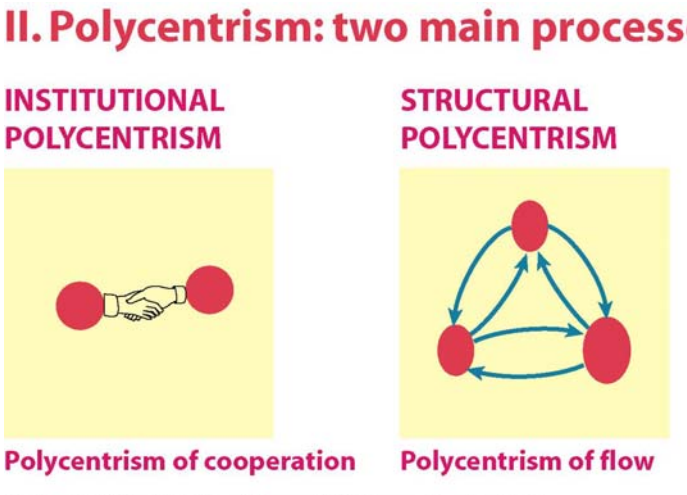


Figure no 3: **Polycentrism: two main processes**

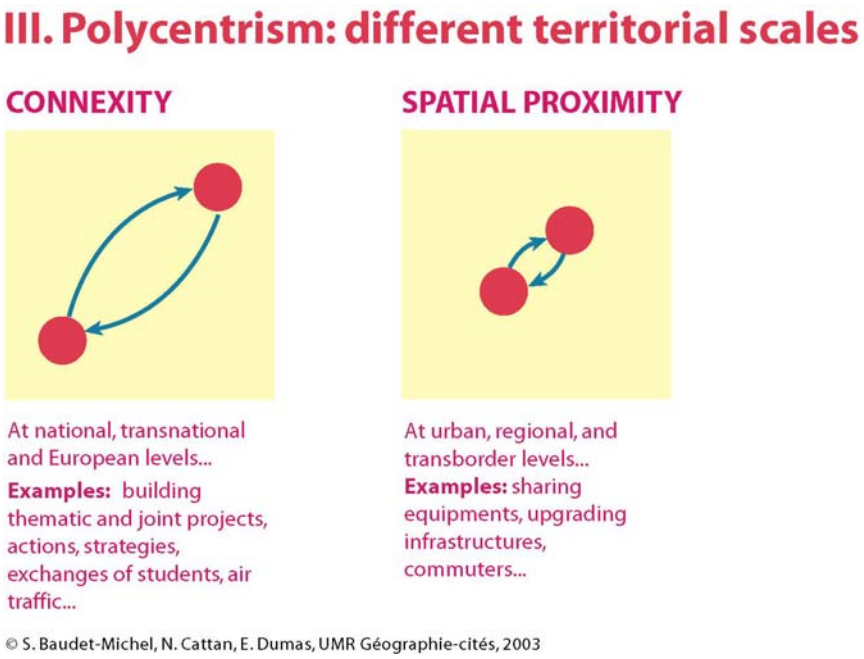


Figure no 4: Polycentrism: different territorial scales

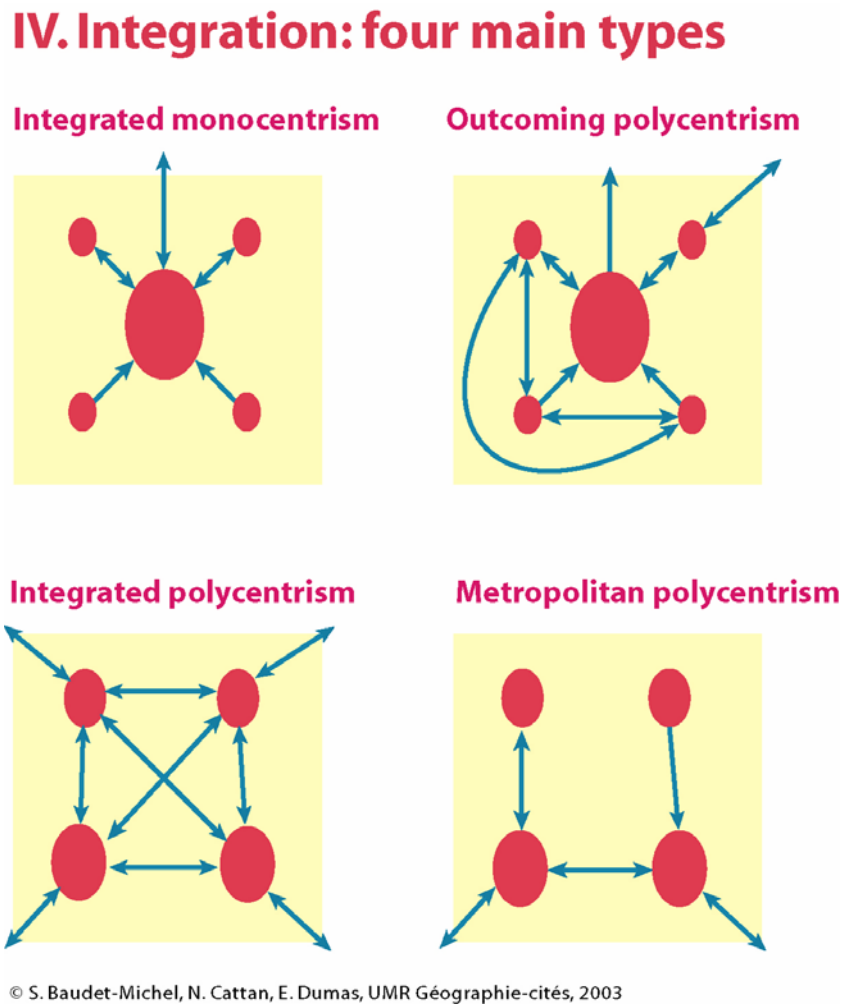


Figure no 5: **Integration: four main types**

3.3 Polycentrism: seven major questions

The general framework of the Dictionary addresses seven major questions. Each will be developed, explained and discussed through several main concepts.

Table no 5: Polycentrism: major questions and the primary set of concepts related to polycentrism

What are the ***elementary concepts*** that are necessary for the comprehension of polycentric spatial structures?	Metropolis Nodal region Proximity Territory Conurbation
What ***processes*** underlie polycentric territorial structures?	Concentration Polarisation Spatial diffusion
What are the ***challenges*** to polycentric territorial structures?	Spatial integration Sustainable development Territorial equity Territorial cohesion
In what ***contexts*** can the concept of polycentrism be said to be spreading?	Centre-periphery Cross-border Blue Banana ESDP Political-administrative system Community space Community territory
What common ***conceptual strategies*** have been developed to enhance polycentrism?	Devolution Governance Coherence Contract Coordination Partnership
What are the ***ideal spatial types*** of polycentric configurations to be achieved?	Gateway city Global city Belt Bunch of grapes Blue Orchids Red octopus Industrial district
What are the *European* ***policies*** that enhance, or are linked with, polycentric objectives?	The example of Interreg

3.4 Main definitions: first drafts

3.4.1 Elementary concepts

Metropolis

Basic definition

The term “metropolis” generally defines the greatest centre of a whole group of towns. In practice, only large towns enjoying easy accessibility, large size and a varied economic and human environment are defined as “metropolises”. Their position, at the top of such urban hierarchies, has been constructed over time. However, the acceleration of the relative strengthening of their power over the last forty years can be linked too a wider global metropolisation process. For a small number of large towns, which generally enjoy a very high status in the network of central spaces, this process has enhanced their ability to attract activities linked with primary entrepreneurial organisational functions, new activities for which the metropolitan market is a privileged place for experiment and activity, for which the immediate proximity of an adjacent wide and diversified conglomerate of companies is an advantage. The space directly and tightly polarized by one or several metropolis is defined as a “metropolised space”.

Links to other concepts

To designate the greatest metropoles that have become the major nerve centres of the world economy, the term “global cities” has been proposed. It corresponds to the most advanced forms of what can be identified at present as the new form of worldwide centrality.

Territorial impact

There is open debate on a possible and progressive disconnection between the metropoles and their surroundings. This hypothesis does not appear to take into consideration the long-lasting territories and the systemic links between the centres and their peripheries. The various territorial systems continue to influence the shaping of economic, socio-spatial networks, “rooting” them into metropolises and the impact of metropolisation processes extends beyond their limits. On the contrary, the links deeply rooted in territories shape metropolitan spaces and intervene in their dynamics.

Metropolisation and sustainable development can however become conflictual when the costs of concentration increase, and when there socially and environmentally negative effects are inadequately monitored.

Development strategies

The metropolitan model is bound to disseminate in and around a certain number of large towns. But, contrary to other diffusion processes, the increasing dissonance between time and space that has accelerated globalisation, and thus the metropolisation process, is liable to contribute to the short-cut of a number of them. Too close to one another or hardly innovative enough to secure their position, or weakened by surroundings hardly integrated, some large towns are liable to miss this initial and highly selective accumulation in the first phase of spatial diffusion. At that stage, the polycentric territorial systems can be selective and at the origin of new hierarchies.

Nodal region

Basic definition

A nodal region is an urban region in which power is inseparable from its position as a nerve centre within a diversified interregional, international…, network of relationships. A real pole, its capacities of accumulation, attraction and diffusion, are linked to its powerful concentration and to the complexity of its economic, social and territorial internal structures. On the wider Western European scale, the Rhine region, the Randstad, the greater London region and the Ile de France are nodal regions. The nodal region is often structured around the capital cities (political or/and economic) of States and it enjoys structuring capacities able to expand far beyond the simple national framework. So is it for the region of Athens in Greece, Budapest in Hungary, Milan in northern Italy, Vienna in Austria, etc.

Territorial impact

Nodal regions are very important structuring elements of transnational spaces. They can be considered to be at the core of transnational planning procedures. These nodal regions are often equipped with polycentric – or on their way to becoming polycentric – territorial structures. They are the first regions on their way towards integration into networks expanding in the European integrated space.

They can therefore fulfil the functions of gateways for large parts of the European continental territory and be considered as strong assets in a polycentric territorial system.

Development strategies

The “euro-corridors” are nodal regions where development could be facilitated by a structuring axial dimension. An efficient transport network facilitating the linear development of powerful and strongly interconnected poles should support the formation or the development of these regions.

Territory

The territory has been defined as an “appropriate space” (R. Brunet). Whatever be the scale taken into consideration, Europe, State, Region, Village, it has been built either by History or by institutions or else by collective logics, or by all of these elements together. It implies a notion of identity, authority and, increasingly, a notion of planning (Country charter, European plan). Therefore it is not a space a priori bordered with intangible limits. It was considered that globalisation would weaken or eradicate territories. On the contrary, they reappear stronger than ever as elements resisting standardization and asserting their necessary rooting, and also as decisive elements in the strategies of settlements of enterprises. In this manner, they are no longer a passive framework endowed with material resources that are exploited, nor are they a space that has become more or less attractive due to its socio-economic assets (good salaries, subsidies from regional or State authorities).

They must be increasingly perceived as a space characterized by its “industrial environment”, the entrepreneurial mind, the quality of its inhabitants, relationships of complementarity and trust that they have established, the opportunities for planning and reaction. All of these elements give way to wealth and new resources. The idea is not new. In the 16th century, Jean Bodin was already stating: “There is no other wealth than mankind”. “Mankind” is also one of the main components of the concept of “industrial district” (A. Marshall, 1890, G. Beccatini, 1991) and of the more recent concept of the “learning region” (B. Johnson, 1992, P. Cooke, 1999) defined by the capacity to learn, to adapt and to innovate. A real polycentrism can appear only when the emergent conditions behind these factors of development are created.

Proximity

This term defines the closeness in space, the existence of a small distance between two places, two cities, or two regions (geographical distance or distance in time). Due to a change in meaning, this term now also defines the similarity of socio-economic conditions between families, even the cultural affinities of the people themselves. This term also defines the institutional, organizational or functional proximity constituted by the intensity and the quality of the relationships between the participants, however not necessarily in the same space. It is in reference to the first and the third meanings that our reflections on land planning and polycentrism refer.

Since Adam Smith (1776), a major part of economic theory confirmed proximity and spatial concentration as the conditions of economic efficiency. The argument with regard to "external economies of agglomeration" was set out at the end of the XIXth century by Alfred Marshall (Principes d'économie – Principles of Economics, 1890). This argument is also discernable in the Weberian notion of "agglomeration force". The theory of "poles of growth" (F. Perroux, 1955) and the reflections on polarization, both considered as ineluctable even though not always deemed desirable emerged from this idea on the advantages to be drawn from spatial proximity.

This argument is essential for the concept of "industrial district". Recent studies show that far from weakening the notion of spatial proximity, the New Technologies of Information and Communication - NTIC rather strengthen it. The strongest physical proximities are sought by the upper-tertiary sector (co-presence in business centres) (S. Sassen). Apparently, the advantages of proximity are far superior to the disadvantages (dis-economies), otherwise we would have witnessed a general dispersal of the business activities. These activities are less concentrated but there is no dispersal. The idea of local interactions is therefore fundamental.

The notion of proximity often includes a normative dimension, more or less implicitly, and is therefore a representation. Rather than sticking to a merely relative position in space, it reveals the existence of an absolute reference point, generally the centre (economic pole or core of the area enjoying a high potential of population…) and the criteria of economic efficiency. What is referred to here is the logic of the enterprise.

From the point of view of the citizen-inhabitant and of the quality of life, the response is not as clear. Many planners and town planners still consider proximity-concentration as a condition of urbanity, without always questioning the price to be paid by the individuals in broad urban regions (land and housing prices, pollution, traffic jams, insecurity).

The negative effects of dis-economies had not escaped the attention of Alfred Marshall. The quality of territories, not only from a residential viewpoint but also from the viewpoint of interactions, knowledge and the trust they can provide has become an important criteria in respect of the degree of proximity. This aspect, which is no longer only economic, plays an increasingly important role in the strategies of enterprises.

Conurbation

Basic definition

This concept was created in 1915 by Patrick Geddes to define a conglomeration resulting from the coalition of several neighbouring cities originally separated, though they eventually end up joining to form a continuous urban area. Ex : Liverpool-Manchester, Lille-Roubaix-Tourcoing-Courtrai. Each core-city generally remains individualized by its place in the hierarchy. Conurbations are often formed in coal basins (West Midlands, West Yorkshire, The Potteries, Ruhr, Upper Silesia, Mons-La Louvière) or tourist regions (Antibes-Grasse-Cannes). They are therefore frequent in urban regions and in the European megalopolis. The urban spreading continues to create new conurbations (ex. : Marseille-Aix and Douai-Lens in 1999). However, the identification of conurbations depends on the various definitions of the morphological agglomeration.

Links with other concepts

If the term keeps its original meaning in French, in English it is rather used to define multi-nodal functional urban units. It is therefore often increasingly replaced by the notion of metropolitan area or even by other concepts such as city-region, urban area or functional urban region – FUR.

Territorial impacts

For a similar population, a conurbation often holds a lower position than a unipolar agglomeration due to the fact that the functions are shared between its cities and due to

the low population in the main city of that conurbation. Moreover, the competition can be real between the various poles often performing similar functions different to their relative specializations. The perception of a conurbation is therefore negative and is not promoted as a model of development.

Development strategies

The multipolar character of these agglomerations is a weakness in the perspective of a polycentric strategy due to the dissemination of the function between several urban centres. However, the layout of conurbations favours the strategy of clusters of cities and euro-corridors owing to their geographical and cultural proximity and to their satisfactory internal links. With their polycentric organization (and their relative proximity in certain parts of North-West Europe), conurbations can also contribute to the construction of networks of cities, even of polycentric metropolitan regions on the pattern of the Randstad or the Ruhr. The extension of their radius of alternating migrations favours, in fact, the constitution of wide unified labour markets and larger customer catchment areas, as processes favouring competition and the improvement of the hierarchical position of agglomerations traditionally segmented and partitioned.

3.4.2 Processes and/or logics

Concentration

Basic definition

Concentration defines the gathering of persons, activities or wealth in a central location and can be characterized at various scales. More widely and still in spatial terms, the notion of concentration indicates the state of the development of unequal distribution on a territory. There is no theoretical definition of this notion, only methods of assessment based on the idea that the concentration of a population, observed at a certain level of administrative units, represents an intermediary state between two extreme theoretical distributions – the uniform distribution and the concentration at one unique location of the territory. The concentration is then assessed as a discrepancy between the distribution observed and one of the extreme theoretical distributions.

Links with other concepts

The results of these measures reveal that the concentration of the population tends to noticeably increase – whether at the regional level or at the national and European one. These increasing inequalities can be explained, in the context of competitions between urban centres and globalisation, by the attraction of the main poles for companies attempting to realise agglomeration economies and by the increasing speed of trade, resulting in a loss of accessibility to smaller centres.

Territorial impact

Contrasting systematically the process of concentration and the development of polycentrism would be too simplistic. If certain forms of the concentration of population or wealth result in the reinforcement of a central pole over peripheral centres (monocentrism), other forms indicate, on the contrary, a reinforcement of some peripheral poles and a relative decrease in influence of the central pole, enhancing a structure of polycentric nature.

Development strategies

Given the above -mentioned processes, closely linked to the current economic, technological and global context, it is unlikely that inequalities in the concentration of population and wealth will decrease in the absence of planning policy. The solutions proposed by the SDEC to re-balance the “European core” and the peripheral regions go through the emergence of global economic integration zones and a transport policy aiming at the rectification of the discrepancies in accessibility between these regions.

However the consequences of this policy at infra-regional scales must be taken into consideration insofar as targeted support to the main poles of peripheral regions entail the risk of enhancing – within these regions – the process of the concentration of population and wealth.

Polarisation

Basic definition

Polarisation corresponds to all of the asymmetric relationships linking a centre and its periphery and places the periphery in a position of dependence towards its pole. The territorial polarisations observed are two distinct subsets but not totally independent

regarding their territorial organization. The first is linked to influential networks of urban centres structured according to a more or less hierarchical system of populated centres. The second indicates a polarised structure of exchange and influence between local zones of activity undergoing asymmetrical and differentiated relationships picturing the relationships between towns. The pole is a place of attraction and diffusion. It has the function of stimulation on the neighbouring space.

Territorial impact

In a polycentric territorial setting, the specialisations and complementarities of the centres' position them in a situation that enables several to exert the functions of poles. Their areas of polarisation can combine or interfere. The processes of polarisation could then enable several poles to dispose of stimulating capacities and favour asymmetric and intermingled structures.

Links with other concepts

The processes of polarisation are fed by pyramidal territorial networks (appearing with the populations' provision of goods and services), which the theory of places has shaped, more tree-like networks of relationships between companies, and networks of creation and innovation stimulating the great centres.

The theory of polarisation has attempted to assess the regional effects of these various complementarities. The polarised or multi-polarised regional space assumes the possibility of geographical, technical and economic interconnections.

Development strategies

The important means that the SDEC enjoys in order to promote a balanced development of the European territory relies on the power and diversity of the processes of polarisation.

"Motor region", "euro corridor", "global city" are among the many models constructed on the potentialities of polarization.

Spatial diffusion

Basic definition

Diffusion is the action – and the result of the action – that lets an object or a phenomenon within a system disseminate quite homogeneously or is transmitted. Diffusion and innovation are associated when this process of dissemination deals with something new

that is liable to invest in the system, and therefore to transform it. The more complex the object is, the more the diffusion will be a decisive factor for this transformation due to the increase in, and/or expansion of, the effects resulting from its adoption.

" Spatial diffusion" occurs in spatial systems such as polycentric systems. In these systems, the various centres liable to be either transmitting poles of innovation or relay poles of diffusion are accurately selected. Spatial diffusion covers both propagation processes and the backlashes that it produces in the spatial system.
Beyond the specific propagation channels of each phenomenon, or the general ones intervening whatever the phenomenon is, spatial diffusion privileges two main channels: the channel of proximity focusing on nearby diffusion and the channel of the hierarchy of centres. In this case, diffusion tends to follow the downward trend of the hierarchy.

The largest centres are those more liable to instigate propagation, the middle-sized centres being its relay-poles. A polycentric regional context should increase the channels of diffusion insofar as the centres able to play the role of transmitters and relays in the diffusion of an innovation are more numerous, more diversified and better interlinked than in a more strictly monocentric structure.

Links with other concepts
In a polycentric regional system, the centres playing the role of the transmitters of a process of diffusion are similar to poles of development. According to the terminology of the theory of polarization, the relay-poles of this diffusion would be poles of expansion.

Territorial impact
The processes according to which spatial diffusion takes place clearly reveal the degree of integration of the territorial system and its workings on a more or less polycentric mode.

Development strategies
The attention given by the SDEC to "clusters", "polycentric metropolitan regions", and "motor regions", is based on the capability of those polycentric structures not only to internally accelerate the diffusion of innovations but also to transfer them to the outside. In

these various models, the strong territorial integration underlining these structures is a fundamental driver of the acceleration of the diffusion process.

3.4.3 Challenges to polycentrism

Spatial integration

Basic definition

The notion of integration defines a process of increasing interaction between the various elements of a territory carried out through increasing flows between these elements.

Integration implies a strong capacity for spatial connections and must be understood from both static and dynamic viewpoints. At any given time, the level of integration is estimated in relation to the intensity of the links between the various elements of a territory. For some, a space is really integrated only if these inner links are more important than the outer ones. As a process, it is more the increase of the relationships in time that should be taken into consideration. The improvements in spatial integration can be promoted by spontaneous mechanisms. In this case, they partake in the process of the internationalisation of the exchanges. The networks of cities through which these exchanges are being strengthened and developed constitute the main territorial points. Integration can also result from increasing projects of voluntary cooperation. The phasing out of discrepancies due to material and non- material barriers is then made possible through the improvement of transport infrastructures and the adoption of legal and fiscal measures aimed at weakening the influence of inner borders.

Links with other concepts

Integration is tightly linked to the notion of cohesion. Unlike integration – a dynamics increasing interaction between geographical targets - cohesion organises these dynamics for the benefit of the entire spatial setting with a concern for equity. The integration process increases the potential for interaction between spaces and can benefit their interdependence and therefore their cohesion. It can also create situations of dependence and domination enhancing spatial disparities, thus entailing the marginalisation of some spaces. While all projects of territorial development are based on the requirement for

reinforced integration, the European project is based on the double requirement of integration and cohesion.

Territorial impacts

Two models of spatial organisation can support a process of integration: a centre-periphery model where the centre is the motor of integration and a polycentric model of metropolises' networking when integration is carried out through a system of more balanced supports. When implementing this polycentric model at a European scale, integration would come from the top, **-** supported by interactions between capital cities (political, economical, cultural) – as the "bridgehead" of an inner diffusion of national urban systems. A less hierarchical integration process can nevertheless be founded on specialised urban networks or on cross-border regional networks. At such, the projects of cooperation between cities or regions can now strengthen one another with these dynamics.

The articulation between integration and the polycentric model is not limited to the European scale. One of the main targets of spatial integration in fact dwells in the articulation of scales: reinforcing interdependencies between already well connected places, rooting new peripheral territories in highly integrated spaces at the European scale and improving the relationships between cities and their region at a local scale.

Contexts and development strategies

Among the processes of European integration, the centre-periphery model appears to be the most "spontaneous". However, is it capable of ensuring the double request linked to the improvement of connectivity : linking up places on the one hand, while strengthening the cohesion of a whole territorial setting on the other? It could only reach a target – if not of spatial equity – though perhaps of territorial harmony by operating a re-distribution from the core to the margins. The polycentric model, which responds to the aim of territorial balance, cannot be implemented without political voluntarism but is often presented as the model best adapted to a total integration of the European territory. But is this request compatible with the quality of the connection of the European space with worldwide networks?

Sustainable development

Basic definition

Sustainable development, according to the Brundtland Report definition (World Commission on Environment and Development, 1987), is a principle of action "that meets the needs of the present without compromising the ability of future generations to meet their own needs". Adopted by the General Assembly of the United Nations at the "Earth Summit" (International Conference of Rio on Environment and Development - 1992), a part of the preamble of the Treaty of Amsterdam (1997), ever present in the reports of the European Union, since the end of the 1980s this concept has been regularly promoted as a major scope of territorial management. It involves the conjunction of three elements: protection of the environment, economic development and social equity through the articulation of several time-scales (short and long term) and space-scales (from global to local). As such, it is partly related to criticisms raised since the end of the 1960s regarding the model of growth, putting more stress on qualitative than on quantitative improvement, but it is distinct from the principles of "eco-development" with its more all-encompassing character and wider dissemination in the global political and scientific spheres.

Links with other concepts

Sustainable development is very often associated with the notions of balance and balanced development. If either of these two expressions are used, balanced development can be more accurately defined as the territorial chapter of the general economic and social principles of sustainable development. It is in this case presented as a compromise between the spontaneous logics of development – which bear inequalities in the spatial dissemination of the economic potential, and more interventionist logics for balance that confront forms of excessive concentrations of populations and urban functions but which – if they were the only ones advocated – could be prejudicial to the dynamics of the economically strongest regions.

Territorial impacts

The appropriateness of a polycentric model of territorial organisation for sustainable development is asserted several times in the final report of the ESDP: at a European level, urban polycentrism could be the model that ensures at best, the fair distribution of economic development and the reduction of territorial inequalities. Similarly, a fairer distribution of the flows of populations and merchandise is encouraged in order to relieve

the traffic congestion on the central corridors and to preserve the environment in the regions crossed by these corridors. At the scale of urban regions, the polycentric model is enhanced for the structuring of urban expansion around secondary poles in order to minimize land use by towns and help the development of public transport in urban peripheries. At each level, moreover, polycentrism would best respond to the prerequisites of sustainable development, granting a more important role to decentralized action.

Development strategies

In the political sphere, sustainable development is therefore a fundamental principle of action supporting territorial balance, whereas in the scientific sphere it is often still presented as a vague concept beset by numerous contradictions. The debate over the success of this concept deals in particular with the contents of these broad principles lacking proper norms: what can the operating scope of such an inclusive concept be? Can it go beyond the status of a label, or be seen as anything more than the rhetoric of good intent? And at what time and space scale can these principles be implemented with efficiency? The principle of sustainable development, which is regarded by some as basically contradictory and therefore useless, is regarded by others as a principle enhancing those contradictions and promoting a debate: how can the economic efficiency of a connection to worldwide networks ensured by the large metropolis' at the same time encourage economic decentralization? At the scale of urban regions, how can we solve the contradiction between the will to minimize urban expansion for the purpose of the environmental preservation of cities, and the will to promote social equity, often frustrated by measures of urban densification?

Territorial equity

Territorial equity can be understood in the sense that Rawls (1971) gives to social equity. His concept of "fairness" implies a priority given to justice in relation to usefulness but without taking the equality of revenues into account since this is considered to be counter-productive. His theory of justice can be applied to space. The aim is to ensure to territories a maximum of equality in services (training, culture, health, economy) compatible with efficiency and a real possibility for the emergence of local or endogenous dynamisms (where again the notion of territory is present).

Territorial equity should therefore aim higher than the target of reducing inequalities and focus on the optimisation of potentials in order to create the conditions for the emergence of a real polycentrism. It should therefore go beyond the liberal logics of short-term profit to which some territories are almost inevitably doomed. It also implies a decisive involvement of public policies in well-targeted actions aiming at restarting autonomous local developments.

Contexts of polycentrism

Centre-periphery

Basic definition

The centre is a space that is distinct from the periphery by way of its concentration and the complexity of its various functions, which grant to it the direct or indirect power of attraction and domination over persons and entities. Traditionally, the centres benefit from better accessibility, which enhances their relative attractiveness. Centres are required for the maximisation of the proximities they can provide. The passage from centre to periphery undergoes a gradient of decreases in concentration, diversity and in the complexity of functions. This gradient generally also undergoes a decrease in the densities of land use and ground rent.

Territorial impact

Centre-periphery structures can be observed at various levels of the territory.

- At the local level of the towns and their rural surroundings. The main and secondary centres and their surrounding peripheries can be observed in every town, even in every part of a town, labour-market areas or within large urban areas.
- Regional level: most often, a region is structured around one or more powerful centres, all of which have peripheries.
- National level: a centre-periphery structure can determine the strength of the links between the various parts of a wider territory.
- European level: the first dimension of interregional differentiation dwells in the centre-periphery contrast that corresponds to a gap in wealth between the “central” region, a wide urban region called either the north-western axis, the “Pentagon” or

the “golden triangle”, and the peripheral regions. The designation of peripheral and ultra-peripheral regions appears with the territorial categories selected by the European Union for the allocation of the structural funds.

The contexts of the territorial integration of centres generally hold an intermediate position between two extremities. These extremities are, on the one hand, monocentrism with its strictly binary structure, and polycentrism on the other. In a polycentric territorial structure, the global dominating structure is never the one with centre-periphery asymmetries.

Links with other concepts

The processes of agglomeration linked with the research of positive externalities and accumulation tend to create a discrepancy between centre spaces and their neighbourhoods. The differences that characterise a centre and constitute its centrality are of the nature of differentials of concentrated masses, degrees of complexity of the functions associated, potentials of attraction and related symbolic powers. In the long term, the strength of these centres is closely linked to the accumulated centralities a space is meant to exercise: economic, politico-administrative, commercial, cultural, etc.

Development strategies

The centre-periphery structures bear intra-urban and interregional, disparities.

Territorial policies have to reduce spatial imbalances due to the attraction and diffusion processes associated with it. These policies must also remedy the social effects that this imbalance could initiate in the field of territorial equity.

Cross-border

Basic definition

While the term “border” defines a neighbouring situation or position, the prefix “cross” – through / across – means a passage or a change. The word cross-border qualifies spaces or relationships of various natures, material links or non -material flows, crossing or encroaching upon a political boundary and linking two neighbouring spatial entities. Since the term implies spatial proximity, the number of spaces concerned is limited to those that have a common border (partners are therefore two or three nationalities at most).

Links with other concepts

The concept of cross-border is tightly linked to the concept of integration because it assumes a process of linkage of two spaces and of bringing them closer together. Cross-border integration therefore indicates the increasing interdependence, at an average scale, of two spaces, contiguous but separated by a political boundary. But Integration constitutes the ultimate step in cross-border relationships, which can often be limited to mere cooperation. Integration and cross-border cooperation are stimulated by complementary relationships but also by differences on either side of the border: so cross-border relationships are asymmetrical in most cases and can entail the domination of one space over the other. Besides, comparing the terms cross-border and transnational, it appears that while cross-border indicates relationships between contiguous spaces separated by a political boundary, transnational does not indicate this contiguity between the spaces or national partners brought together.

Territorial impact

The networks of cross-border cities joining spaces – often peripheral or marginalized in national spaces – can bypass the national bridgeheads and, like all the specialised networks, participate in the promotion of a polycentric logic, less hierarchical at a regional scale. They can also favour articulation between regional and local scales through the constitution of (or proximity) networks. The notion of cross-border therefore a priori indicates polycentrism at a regional scale, based on the logic of spatial contiguity.

Contexts and development strategies

The existence and intensity of non -tangible cross-border flows (cross-border commuters, residential migrations, settlements of companies, etc.) depends upon the degree of openness of a boundary, though they are also generated by the differences between neighbouring spaces. Material links need, on the contrary, a harmonisation and a homogenisation of the conditions existing on either side of the border (for example the size of land communication routes). Does the cross-border integration made possible through these relationships imply homogenisation, or the maintenance of disparities between these neighbouring areas?

Blue banana

Basic definition

A pleasant term created, according to the sources, either by a journalist or by the French ex-minister of Regional Development, Jacques Chérèque, to define the European megalopolis following a coloured map representation made by the GIP-RECLUS team of Roger Brunet in 1989 (R. Brunet (dir.), Les villes “européennes”, Report to DATAR, Paris, La Documentation Française, 1989).

Links with other concepts

The term “European megalopolis” today connotes a meaning somehow outdated or pejorative to denounce the economic and urban prevalence of a megalopolitan Europe.

The “Blue Banana” is also known as the “Hot banana” or the “European banana”. The representation of the prevalence of some large urban regions is also expressed in various ways: “European core region”, “Rhine axis”, “Red Octopus”, “Blue Orchid”, “Europe of the capital cities”, “Pentagon”. The expression, the “grey banana” has also been used in recent research to define the declining industrial basins in countries that have, from the Baltic States to the Czech Republic and Romania, economies in transition.

Territorial impacts

The map of the Blue Banana has been reproduced in numerous scientific articles and in the media for the general public. The term Blue Banana met with large success, contributing to forge the image of a two-speed Europe structured on the centre-periphery model and confronting a core that is well supplied with towns of international dimension and a periphery lacking “European” towns. The bearing of that term has been considerable in regions that from that time had considered themselves to be peripheral.

Development strategies

The process leading to the establishment of the European Spatial Development Perspective (ESDP) and the promotion of a polycentric Europe is directly attributable to the shock of the sudden emergence of the Blue Banana, insofar as it is a question of counterbalancing the power of that part of Europe to reduce regional disparities. A more balanced development, deemed more sustainable, has since been claimed in support of this search for a better territorial cohesion. Many policies have been set up in order to

contribute to the development of the regions outside the Blue Banana: regional planning, decentralization, networks of towns, endogenous development, interregional cooperation, and polycentrism.

European Spatial Development Perspective

Basic definition

The European Spatial Development Perspective is a document drafted by the Member States in order to evolve (as its subtitle indicates) “towards a balanced and sustainable territorial development of the European Union.

This text, based on an intergovernmental consensus, but deprived of any binding character is presented as a “political framework”. Conceived in 1989, officially launched in 1993, drafted in 1997 in the form of a project in Noordwijk, the EDSP was, in 1999, officially adopted in Postdam during an informal council of the Ministers of Land Planning. It will now be regularly updated.

Links with other concepts

The EDSP is based on several statements: high geographical focalisation of activities and population (cf. Pentagon); increase in spatial disparities of development between the core of the Union and peripheries in constant expansion; increasing territorial impact of the European policies; unequal accessibility and innovative capacities of the regions; environmental threats. This perspective holds polycentrism as its major goal in view of the need for the better economic and social cohesion of the Community space.

Territorial impacts

The ESDP has considerably improved reflection on territorial problems due to the permanent nature of the consultation process involving many partners: Member-States, committees (European Commission), Parliaments, Regions and European Organizations including the Committee for Spatial Development. It has now become the recommendation that national regional and local policies are meant to follow and actually increasingly refer to (cf. spatial view). The European Community clearly aims at implementing a better level of coordination between territorial policies and the planning policies of the Member-States.

The ESDP intends to concentrate its efforts on estimating the impacts of the planning projects by carrying out Studies on Territorial Impacts (STI) in order to measure the environmental, social, economic and cultural effects of an initiative compared with the development goals of a given area, in particular with regard to large developments and infrastructure projects.

The global principle of the ESDP, resulting from a consensus on minimum requisites and its non-binding status has however fuelled a number of criticisms. Several economists highlight the “idle” nature of polycentrism that stands in contrast to the powerful processes of polarization and metropolization; others even deem it dangerous and point to the power of concentration and agglomeration economies. The geographers criticize a spatial perspective without any cartographic element. The jurists question the bearing of a text without any regulation and only mere instructions, and they describe it as “paper tiger” and as a “catalogue of good intentions”. However the ESDP does open up certain prospects and new horizons, thus indicating the directions to follow. In this way, it may be a step, possibly imperfect, but certainly necessary, towards the establishment of a potential community competence in territorial planning.

Development strategies

The ESDP has established three major goals :

- the development of a polycentric urban system with a reinforcement of partnerships between urban and rural spaces ;
- equal access to infrastructures and knowledge ;
- careful management of the natural and cultural heritage.

These three strategic principles are developed into 60 political options.

The choice of a “model of polycentric development” aims at avoiding further reinforcement of the spatial concentration of the economic and demographic power of the European Union by relying on the urban network “relatively decentralized characterizing Europe”. The political options defined view the polycentric concept on three different scales.

- the creation of large areas of economic integration on a global scale,
- the reinforcement of a more balanced and polycentric system for metropolitan regions (cf. urban region, city-region), clusters of cities (cf. clusters) and urban

networks by means of cooperation (cf. networks of cities) and the policy of Trans-European networks (TEP) ;

- support for the development of small and medium-sized cities of underprivileged regions and rural spaces of peripheral regions by their networking.

In this framework, a strategic role is given to gateway-cities, to the improvement of accessibility by a better connexion to transport and telecommunication networks and to infrastructures linked to knowledge, cross-border and transnational cooperation (cf. Interreg, interregional cooperation, transnational cooperation spaces).

Political-administrative system

The conception of the State, its role, the distribution and organization of powers and decision-bodies, has powerful and cumulative effects. The question of mono or poly-centrism is primarily a concern for the States. It is a challenge tightly linked with the conception of population and territorial management (modalities and scale of involvement of territorial and sectoral public policies) which is superimposed on the challenge of the content of public policies (more or less important regulation…).

Centralized and federal models can be debated. The monocentric, hierarchised and authoritarian model is less efficient for the management of a large quantity of information (Polanyi, 1951). The real evolution to the decentralization of competences in States traditionally highly centralized, like France, has hardly decreased the high centralization of sectoral policies, energy, transport, which are managed in a pyramidal way by large public companies (EDF, SNCF, Air France, etc.)

Community space

Basic definition

The Community Institutions have opted for the notion of “Community Space” defined by reference to the territory of the Member-States. The Community Space coïncides with the territorial components of the States. It is therefore of a terrestrial, maritime and aerial nature. The principle of the referral to internal law entails that the communities are not competent to delimit the Community territories (bilateral or unilateral delimitations). However it is possible that the competences of the community intervene in the

competences accepted by Member-States (example : delimitation of areas under their jurisdiction) and in the competences of the Member-States apart from the spaces under their jurisdiction. The notion of community space would therefore cover “functional spaces” for the European Communities to define and implement policies and actions.

Links with other concepts

The notion of “spatial planning” (a neutral term adopted by the European Commission) defines “the methods widely used by the public sector to influence the future distribution of activities in the space”. This process is undertaken in order to create a more rational territorial organization for the use of lands and the links between them, to balance the necessities of development with those of the protection of the environment and to reach the social and economic targets. It covers all the measures in order to coordinate the impacts on the space of the other sectoral policies, to ensure the distribution of an economic development between the regions better balanced than the one which would result from the mere laws of market economy, and to regulate the change in land and housing planning. It also includes national and transnational elements of planning, the regional policy and detailed planning procedures regarding the use of lands.

This concept is different from the French concept of regional planning which is tightly linked to administrative and political traditions. It deals with regional economic planning in its broadest sense (Yves Madiot, Land planning, Ed. A. Colin, 1996).

Development strategy

This concept of functional space, accepted by the “European Spatial Development Perspective” does not preclude from the progressive emergence of a more political notion of “Community Territory”.

Community territory

Basic definition

There is a general uncertainty on what criteria should be relevant for the delimitation of the Community territory following the Treaties and the Community’s judicial precedents which refer to various criteria to delimit the territory of the Union or the territory of the Community (geographical, institutional, principle of referral to the first line of internal law). The variable

character of the Community territory is accepted notably with the possibility to reduce it or enlarge it according to the policies concerned.

That being the case, the territory does not constitute a claim of competence to the benefit of the Community or the Union, it is only determined by the necessity to establish the sphere of implementation within the framework of the functional competences ascribed by the institutive Treaties of each of the Communities of the Union (J. Ziller, “Champ d’application du droit communautaire, Jurisclasseur Europe, Fascicule 470, 3-1998, p. 4 – “Field of implementation of the community law”, Europe Jurisfile).

The Court of Justice of the European Community, in its decree of 31 January 2001, Kingdom of Spain against Council of the European Union (case C-36/98) has considered that the territory, the land of the Member-States and their water resources were limited resources and that “the measures as such affecting them (par. 2, art. 175 of the Treaty instituting the European Union and the spatial planning) are measures regulating the quantitative aspects of the use of these resources”.

Links with other concepts

In France, the concept of land planning is tightly linked with the administrative and political traditions and it deals with the regional economic planning of the territory in its largest sense (Yves Madiot, Aménagement du territoire, Ed. A. Colin, 1996 – Land planning).

A minimalist conception is accepted by the Law Commission of the European Community. Land planning, according to article 175, par. 2 of the Treaty instituting the European Community includes the measures which “aim at achieving the targets of article 174, they regulate the uses of the territory of the Member-States such as the measures referring to regional, urban or rural planning or to the planning of various projects regarding the infrastructure of Member-States. These measures are regulating only the quantitative aspects of the use of the territory and not those regarding its improvement nor the protection of its quality.

A conception related to the specificity of the community has been developped in a document, “for a new model of land planning”. The commission makes an assessment of the new initiatives TERRA – Trans-European Resource for Research and Agriculture

(article 10 transformed into article 4 of ERDF – European Regional Development fund) and proposes criteria and options for a “new land planning” and sets its new targets :

- new political criteria and options
- planning is a legal instrument for public investment (…) and also an operational and “programmatic” instrument for the elaboration of policies, investment strategies and private local initiatives
- local administrations are encouraged to play an active role in the elaboration and implementation of the plan
- cooperations between cities and regions play a predominant role.

The concept of sustainability is at the core of land planning insofar as it integrates long-term targets. The strategy of land planning is characterized by a middleterm and long term conception and by partnership. The targets of land planning consist of stimulating economic growth, reducing the vulnerability of regional economies to external threats, supporting the competitive assets of the regions and the dialogue between public and private socio-economic participants in their management of territorial strategies. Putting together the wishes and intentions and coordinating the initiatives of the regional economic, social and political participants, is an essential element of these strategic plans. They must also ensure that production activities are diversified by using the endogenous resources and attempting to attract new ones. Social participation and consensus are necessary to the success of such an approach.

Beyond the “resource-territory” or the “spatially functional-territory” where the Community defines and implement its policies and action, a global community conception of land planning emerges and appears to respond to the philosophical and practical view recommended by the European Spatial Development Perspective (ESDP) (triangular target : balanced and sustainable development of space).

Development strategies

The territory is “a space which is not only economic but also bearing a project and solidarity for the community living in it. This term is generally associated with the state which constitute the ultimate form of integration. At the European scale, the challenge remains that the European space is not only a market but also a space for projects and

solidarity. Could we contemplate the emergence of the concept of “European Union Territory” ?

3.4.4 Conceptual strategies

Partnership

Basic definition

The principle of partnership, a “programming” principle with a limited accountability, is also a founding principle of community democratization. According to the functional community approach, it is a principle of participation by nature, evolutional and present at every stage of the structural policies of the community. It is also a principle of political structuring and legitimacy of the powers of the participants in their communities relationships. This mutual acceptance aimed at an institutional articulation between the politicians in charge and all the participants is operating on either side of the State which plays a pivotal role and responds to an expansion and deep rooting of decentralization.

Besides, partnership appears to be a method revealing the community action, aimed at adapting the legal mechanisms to the targets and conveying a trend of integration directed towards the permanent expansion of the joint action of the community and the other regional and local participants, as recommended by the Agenda 2000 (O. Castric, Quel partenariat pour les régions de l’Union Européenne ?, ed. Apogée 2002 – What partnership for the regions of the European Union ?).

Links with other concepts

The principle of subsidiarity, a flexible criterium for the exercise of competences in the fields which do not exclusively come within the remit of the Community but which are the shared responsibility of the Community, the Member-States and the Regions, is applied only to the field of the relationships between the Union and the States without working de jure in favour of the Infra-State communities. Nevertheless, it favours a partnership between the Community and the Regions regarding the competences they share but do not specify the procedures of cooperation between these different levels.

The contractual method, applied to the Community policies, is regarded as the most adapted to the partnership between the Community, national and regional levels needing strengthening.

Territorial impacts

If a “partnership” is established in the framework of the legal system of the economic and social cohesion, the Member-States are committed to undertaking close conslutations between the commission and the Member-State as well as the authorities and organizations appointed by the Member-State in the framework of the national rules and current practices”, without entailing community laws for local communities. The general definition of partnership has remained unchanged but its structure has been enlarged and is composed of the Commission, the Member-States, the regional and local authorities (including the environmental authorities), the economic and social partners, the other organizations concerned, including those dealing with environment and equality between men and women.

The principle of partnership relies on the search for a greater efficiency of public action by associating the different levels of decisions with the participants nearest to the territory. But this does not resolve the problems of the competences granted in each country to the State and local authorities for the implementation of the community policies. The forms of partnership remain different from one state to another and from one region to another (G. Marcou, “La régionalisation en Europe”, document de travail du Parlement Européen, Direction générale des études, REDI 108 FR – The regionalization in Europe”, working paper of the European Parliament, General Direction of Studies).

Development strategies

With the reinforcement of the needs of transnational and interregional development and the European cooperation meant to support it, it appears that most of the practical difficulties met stem from the variety of the administrative systems, the diversities in competences at regional levels, the lack of clarity on the role of the regions and local authorities in the implementation of the community policy having an impact on territorial development.

This obligation for partnership can be better defined in the framework of the current positive law as some practices and experiments reveal it, but it appears in addition that the local authorities should be legally recognized as participants in the definition and implementation of the community policies.

Governance

Basic definition

According to P. Le Gales, “we find in the governance the ideas of leading, steering and management, but without the priority granted to a sovereign State. To consider the question of governance means to understand the articulation of the different types of regulations in a territory both in terms of political and social integration and the capacity to act”. “It is a process of coordination of participants, social groups and institutions, to reach goals discussed and defined collectively in fragmented, uncertain environments”. According to the CPMR (Conference on the Peripheral Maritime Regions), the challenge of governance implies “an articulation between the geographical levels of public and private participants on common targets. The involvement of regional, local and non-governmental participants in the Community decision process appears to be “the condition of efficiency and acceptability of the European rules” (cf. “Approfondir la démocratie dans l’Union européenne”, contribution au Livre Blanc sur la gouvernance européenne. Etapes préparatoires,– “Improving democracy in the European Union”, contribution to the White Paper on the European Governance, Intermediary workshop - December 2000 – March 2001).

The topic of governance thus covers three dimensions : the global character of the thorough review of the project-plan of the European Union, the government at several levels (European, National and Infra-State) and the contact with the civil society taking into account the public-private interdependence.

Regarding global governance, the difficult negotiations of the Treaties of Amsterdam and Nice reveal the crisis met by the current community model which is still unfinished. The projects undertaken of the Convention anticipate a “sui generis” European model of a “federative type” adaptable to the enlarged Europe on the basis of the adherence of its

members to a common project, or, the third way between a confederation and a federal State.

Regarding the articulation of the different levels of governance, it clearly appears that “Europe cannot be built only in Brussels”: the challenge is cultural insofar as the phenomenon of networks introduces a revolution in the exercise of authority and political power insofar as a classical administrative authority bound to the direct authority of a commissioner or a minister does not in fact benefit from a sufficient authority or independence to regulate a sensitive topic. A “structural reform” i.e. a different position between the European, national, regional and local public participants is necessary. The increasing devolution (across all Member-States) of competences from the national to the regional level, the development of forms of local democracy, the capacities for cross-border initiatives demonstrated by the regions and cities really constitute one of the major changes in the Union over the last ten years. Moreover, the phenomenon of networks acts as a conveyor of the renaissance of the Europe of cities and territories.

The Commission states five principles for good governance :

- opening up of the institutions to clearer functioning ;
- participation for the quality, the relevance and the efficiency of the policies of the Union ;
- responsibility in clarifying the role of the individual in the democratic process;
- greater efficiency of the measures liable to produce the expected results at the correct time ;
- and the coherence of policies and actions is to be made “fully understandable”.

Links with other concepts

Links to the concept of partnership are readily apparent. The European Union is in fact at a crossroad, between a “centralizing Europe where institutions are criticized for their weak legitimacy and their “democratic deficit” and a Europe where the “new participants” would see their participation accepted in the framework of partnership. The new participants are the regional, communal, urban and rural authorities in charge of the implementation (on home ground, on territory, on site…) of community policies and regulations. They are also the socio-economic participants, social partners, NGOs and associations constituting the “organized civil society”. They are also the groups, structures, networks more or less

formalized and concerned with community responsibilities. Finally, they are the numerous professional people who have become experts on Europe due to their function.

Territorial impact

The debate on governance has become a strategic priority of the Union. The necessity to elaborate a strategy in order to give a direction to the development of the European Territory has also become an important topic for political debate due to the removal of the borders in the single market and to the increased possibilities to constitute networks linking together the territories and economies of the whole continent, imposing the convergence of the targets and the coordination of the policies.

Development strategies

A new global governance regime, at several levels and a meeting with civil society appear to be necessary in order to achieve the triangular target (society, economy, environment) expounded by the ESDP.

Coordination

Basic definition

The EC Treaty recommends the coordination (fitting together several elements in order to constitute a whole) of some policies (for example the policies of employment), revealing the weak integration of these policies into the Community.

The method of “open coordination” applied to regional and local participants in the framework of national constitutions appears to be particularly adapted to the construction of a “Europe of territories in a strategy of sustainable development”, taking into account the major political changes in respect of the increasing devolution of competences from the national level to the regional and the cross-border qualities indicated by the regions and cities. This method is presented as a “method of mutual training” creating confidence between the national administrations and enmeshing the Member-States in the construction of a framework of efficient cooperation. This method is experienced primarily in the field of education.

Beyond the mere juxtaposition of national tendencies, it also results in a “sui generis” European dimension, which could be taken into account in the next phase of the long-term programming of the Union’s policies (Agenda 2007) in order to organize cross-border, or transnational, cooperation within the relevant intermediary territorial frameworks (also called “Small Europes”).

This method provides the Member-States with the means to exchange good practices and to agree upon common objectives and orientations, on occasion with the support of national plans of action.

Links with other concepts

Similarly to the contractual method, the open coordination is an instrument liable to participate in the principle of the action of coherence, serving cohesion.

Territorial impacts

This method must contribute to the drive to go beyond the ingrained and over-compartmentalized sectoral culture, of community policies, also taking into account the public costs met by Member-States (decentralization, territorialization, mediation, coordination…) as well as a strong structuralisation of the territories all over the “community territory”, which involve not only the public and parapublic structures, but also the lifeblood available (J. C. Leygues, Report of the Workshop “Governance at several levels : articulation and networking of the different territorial levels” - Group 4C, May 2001, p. 42).

Development strategy

It therefore becomes necessary to propose methods and coordinating instruments for community policies and their impact on sustainable development and the cohesion of the Union.

Contract

Basic definition

If, in the framework of the policy of economic and social cohesion, the contractual operations (legally guaranteed mutual agreements) are widely used (such as the support

community framework and the Single Programming Document - SPD) and entail a partnership in the structural intervention between the European Commission, the Member-States and the authorities concerned at the regional and local levels, nevertheless, these operations do however remain an exception in the functioning of the policies of the Union.

The Commission recommends (White Paper on Governance) the exploration of the "contracts based on the realization of targets" which result in :

- long-term contract-based community policies and their impact on given territories in the form of targets and planning contracts ;
- the legal establishment of a partnership between the Union, the States, the regions and the socio-economic partners, in the form of "contracts of governance at several levels".

Links with other concepts

A consensus appears to be taking shape with regard to the fact that contract-based procedures are the methods best adapted to creating partnerships at the community, national and regional levels and to reinforcing coherence and integrating the European, national and regional procedures into the framework of several European policies.

The political and legal involvement of these three categories of partners results in a real partnership that is well-organized and systematic, with a structuring between the networks of associations in local communities and the institutions and community organizations, i.e. the "governance at several levels".

Territorial impacts

The targets and planning contracts aim at a global programme in the form of Integrated territorial plans that integrate all the policies of the Union with a territorial impact (the policy of economic and social cohesion, the environment and sectoral policies, research, transport, agriculture…) establishing common targets. Less ambitious options contemplate either a formalization by contract of highly targeted topics of community policy such as for example, a directive or a programming of structural funds on the basis of territorial projects presenting a strategic interest for spatial (urban and rural) planning or an integration of the territorial dimension into sectoral policies, or else an adaptation of the legal frameworks of the INTERREG European programme notably in the form of the creation of a "statute of

association of community law" or other specific procedures which could be recognized by the national administrations and could grant to local communities grouped together to define transnational common strategies between the States, the Regions and the Union.

These contracts included in the process of governance at several levels imply a structuring between the networks of associations of local communities and the community institutions and organizations, a really organized and systematic partnership. This structuring can be implemented according to the degree of political and legal involvement of the three categories of partners. An option of a global contract, on a coherent territory, permitting the coordinated implementation of the community policies, could be undertaken taking into consideration the different approaches of the four groups of States. Such a contract framework, liable to stimulate the local and regional participants and necessary for the implementation of decentralized policies, must be flexible enough depending on the sectors and the needs of formalization, adapted to the human and financial resources of the communities (leaving them the decision and the choice of the procedures) and respectful of the principles of subsidiarity and proportionality.

Development strategies

These "targets contracts" eventually entail a new global definition and elaboration of community policies (in the institutional and material field) as well as their implementation (based on partnerships). They should be launched in the form of "pilot-projects" which could lead to a first assessment with a view to the next long-term financial prospects (after 2007) of the enlarged Union (cf. "European Governance. A White Paper, COM, 2001 428 of 25 July 2001). These planning and governance procedures are recommended for serving the target of polycentrism stated in the ESDP.

Coherence

Basic definition

Coherence contributes both to the rationalisation of the action of institutions and to the establishment of cooperation between partners. It is also a factor in implementing the distribution of competences at different levels of governance. As a general and global commitment of the Union, it appears to be a general principle for the action of the Community, accepted by the Treaty which introduced several clauses on coherence

between Community policies, such as the clause of article 159, paragraph 1 which establishes the principle of the coherence of economic and social cohesion with the other policies and actions of the Community (cf. also the coherence of research policy with the other policies (article 163, par. 3,) of public health policy with the other policies (article 152), and of consumer policy (article 153, par. 2).

This principle was reinforced when the Treaty of Amsterdam came into effect (article 6 of the Treaty) establishing , among the principles of the European community, a general clause of coherence according to which “the requirements for the protection of the environment must be integrated into the definition and implementation of the policies and actions of the Community aimed at in article 3, particularly for promoting sustainable development”.

Coherence is also one of the five basic principles “of good governance” as envisaged by the European Commission insofar as the range of tasks of the Union has expanded and enlargement will proceed in the sense of a wider diversity.

Links with other concepts

As a general principle of action, coherence is linked with the principle of integration, which takes into account the aims of other community policies for the elaboration of Community policy and is therefore placing itself in its service.

It has placed itself in the service of the sustainable development of the Community through article 6 of the Treaty. It also serves the goal of “good governance”.

Territorial impacts

Due to the territorial impact of Community policies in the fields of agriculture, transport, energy, and environment, these policies must be integrated into a coherent setting and must also avoid any sectoral logics. Researching “a legalization of the planning of territorial planning therefore becomes an aim in order to guarantee the coherence of public policies and social and territorial cohesion” at the Community scale.

The challenges that the Union will have to accept “go beyond the boundaries of sectoral policies” on which it has been built. The principle of coherence implies a rationalization of the actions of the institutions, of the cooperation of the partners in the framework of a

distribution of the competences within which implementation needs to be regulated as far as necessary (the principle of proportionality) and in a sufficient and efficient manner (the principle of subsidiarity). Coherence is also subject to “the ability to give political direction and the assertion of the responsibility of the institutions to guarantee an integrated approach to a complex reality”.

Development strategies

In order to have the means to realize this political option, the European Union must, as the second report on economic and social cohesion published by the Commission clearly reveals, attempt to establish coherence between the Community policies that have a strong territorial impact, an option which is recommended by the ESDP.

Devolution

Basic definition

Devolution is derived from “devolutus”, the past participle of “devolvere” which in medieval Latin figuratively meant “to pass on”. Devolution therefore consists of passing selected governmental powers from central to local governments (another French term could be “selective decentralization”). This devolution often results in the creation of Regional Assemblies or Parliaments.

Territorial impact

In reaction to globalisation, cultural and linguistic minorities are asserting themselves more clearly increasingly claiming political recognition.

The European Union has encouraged this movement in response to the “principle of subsidiarity” according to which decisions must be made by the authorities at the closest levels to those who will be directly affected by such decisions. Certain European countries, such as Germany, due to its constitution, are already functioning according to this principle, others such as Spain have more recently granted considerable powers to its regions, while in the UK, Northern Ireland, Scotland and Wales obtained Regional Parliaments in 1998 and 1999. These Assemblies have the power of political, economic and legal decisions over their territories.

Development strategy

In the western world, the end of the 20th century has witnessed the advent of a supranational political government (the European Union) as well as a strong demand for local self-determination resulting in numerous processes of devolution: the whole process has come to be seen as a counterbalance to the hegemonic power of the Nation-States.

3.4.5 Ideal spatial configurations

Gateway city

Basic definition

For a given space, gateway-cities are poles in a system of relationships of which the distinctive feature is that all flows pass through them. Attracting flows of all kinds – material or informational – from abroad, these gateway-cities also re-disseminate flows on the continent, as well as disseminating new flows themselves, these new flows being secreted by the development of the passage. This “gate”-like function is in favour of both the development of interface activities, which, in a highly competitive environment, must challenge a greater free flow, and the development of activities enhancing those flows.

Links with other concepts

The gateway-cities enjoy the most favourable situations for the formation of poles of development. It is assumed that as regards the expansion of such poles, the diversification and the increasing complexity of their functions have everything to gain from the reinforcement of this inter- and intra-continental polarisation.

Territorial impact

Harbour-cities or some border cities have, more often than not, been the great gateways of national and continental territories. Following the development of air transport and the fast and massive flow of non-material commodities on the new networks, the models of gateway-cities have diversified and now new continentally based locations can fulfil this traditional role.

These indisputable advantages for the development of a greater territorial polycentrism are not definitely secured. With the improvement of the speed of circulation, the extension of the distances of commerce, the gradual elimination of national borders, these gateway functions have become extremely competitive. The towns concerned – or liable to become concerned – must attempt to diversify these functions and gain other activities that, in a very unstable context, can position them in a favourably competitive situation. These particularly demanding conditions appear to be more in favour of the development of large metropolises, which themselves enjoy a relatively more advantageous position.

Development strategies

The attention given by the SDEC to the European "gateway-cities" is related to their potential development. In a polycentric territorial system, the Hubs, multi-modal platforms are among many of the assets inevitably associated with the development of real gateway-cities.

However, they (the hubs and multi-modal platforms) do not guarantee the development of gateway-cities. This development requests that the advantages offered by the new gateway-cities be enhanced further than those strictly resulting from well-organised transport infrastructures.

Global cities

Basic definition

The term "global city" has been suggested to designate what would be the latest form of world centrality in the context of globalisation (at the top, Tokyo, London, Paris, Sao Paulo, Hong Kong, Frankfurt, Singapore, Toronto, etc.). The concentration of direct foreign investments appears to be a sign of these new levels of networking. As the economies of urban areas are totally active for these nerve centres within a worldwide network, the activities, which are highly integrating innovations due to the pilot-role they have to play in the world economy – a permanent adaptation of the territories to globalisation, sometimes the necessity to sooth its brutal effects – tends to settle in these very large centres. These centres become very attractive for activities weakened by this new context and, in the new

expansion of intra-metropolitan environments, looking for the means to deal with these new tensions. Today, global cities appear to be one of the best territorial forms of globalisation.

Territorial impact

The tight and powerful web between these global poles, at this global scale, display polycentric space. It evokes the archipelago in the sense that each of its elements makes sense only through the relationships structuring the whole web.

Questions do however remain over the manner in which these “global cities” still enjoy a polarization role in the territorial continuity, or if they can polarize the world without their surrounding territories.

Belt

Cartographic representations of Europe display homogenous belts by analogy with the classical belts of the economic geography of the United States. Most of them identify belts as potential cooperation areas such as the Atlantic arc, the Mediterranean arc or the Baltic arc (cf. transnational cooperation areas) or axes characterized by a type of development or economic trajectory similar to that of the Blue Banana. Some other maps are attempts at new prospective views. The research team “Europe and territorial planning” (DATAR (Délégation à l’Aménagement du Territoire et à l’Action Régionale – Territorial Planning and Regional Action Delegation), Programme “Perspective 2020”, 2002) identifies various belts in the framework of a scenario of “diffused metropolization, the arms of the Red Octopus, a Sun Belt, a Sea Belt, a Fun Belt and a Rust Belt. Such representations have a stimulating function according to the aims of the prospective. They are alternatives to the current representations (cf. the Bunch of Grapes). However, their territorial impact remains modest. Strategies of development can attempt to enhance the comparative advantages illustrated by integrating them into shared spatial views.

Bunch of grapes

Basic definition

The Bunch of Grapes is the graphic representation of Europe as introduced by prospective researchers to illustrate the polycentric scenario. The various grapes placed side –by- side cover the whole of the European Union and are meant to illustrate the possibility of harmonious development well spread across all of the regions. The image symbolises a community of regions interlinked and sharing the common target of spatial equity.

Links with other concepts

This “spatial metaphor” (Klaus R. Kunzmann) is a response to the Blue Banana. It reveals that a polycentric Europe is to be built.

Territorial impacts

This alternative model intends not only to be closer to the polycentric reality of the European urban system but also appears to be the best metaphor available to concentrate efforts in favour of a relative spatial equity in the European Union. Klaus R. Kunzmann, the author of this “mega-symbol” stresses the stimulating and partly self-realizing dimension of such a vision bearing a pro-active aim, deemed indispensable to allow planners to define their axes and guidelines. With this doctrine, these decision-makers may think that the old diversity of Europe’s urban network will constitute one of its main assets in the global economic competition and therefore act day after day to preserve and develop this potential. The image acts as a metaphoric code and as an artefact aimed at encouraging adhesion, it contributes to realising the aim of a polycentric Europe.

Development strategies

The image of the bunch of grapes can facilitate the construction of spatial visions oriented to the polycentric target. It permits us to modify the participants’ representations, often marked with the Blue Banana, offering the image of another Europe, spatially balanced. The Bunch of Grapes intends to function as a “soft doctrine” encouraging planners to search for better solutions to reach that target. This representation however is not yet well spread and its function is still not well understood, the current trend being to compare that virtual image to the current reality.

Blue Orchid

Synonymous with the Red Octopus

Red Octopus

The Red Octopus is a graphic representation of Europe introduced by prospective studies to illustrate the scenario of an extension of the European megalopolis (or Blue Banana) on its margins by extending new axes of development, the tentacles of the octopus, particularly towards Central and Southern Europe. The Blue Orchid is its accurate equivalent.

This concept leads us to consider the absolute predominance of the megalopolis as a relative one. As a consequence, it has a stimulating value permitting us to contemplate a new balance resulting from the spatial diffusion of development supported by a structuring policy (cf. euro-corridors), able to favour polycentrism by reducing the gap between the European core region and its peripheries.

Development strategies can lean on the already initiated process of unlocking the must cumbersome activities subjected to agglomeration diseconomies in urban regions and large cities of the European core region and welcoming production units in search of better sites and salary conditions.

Industrial district

Basic definition

A territory composed of a concentration of many specialized enterprises united by mutual links. Several research trends are currently debating the interpretation of this phenomenon, though all stress the importance of relations between economic agents and on the networks built in a territory. The geographic closeness of the premises permits a network to function and facilitates synergies in favour of flexibility and externalities.

Links with other concepts

The term industrial district is synonymous with “Marshallian district”, referring to the research of the economist Alfred Marshall (Principes d’économie politique - Principles of political economy, 1890) who was the first to explain certain choices on the location of enterprises according to economies of external scales and to show the advantages linked with the closeness of activities associated with industrial basins characterized by an

“industrious atmosphere”, a climate and an agglomeration of activities favourable to business (Lancashire textiles, Birmingham with its “thousand and one industries”, the metallurgic complex of Sheffield). The French term for “industrial district” should be understood as “active area”, “industrious area”. The expression “local production system” (LPS) is also meant to define this type of spatial agglomeration with similar activities. Numerous districts result from endogenous development. Certain districts situated adjacent to a major trunk road or a motorway constitute corridors of development able to create euro-corridors (M4 to the west of London).

Territorial impacts

The concept of “district” was used again in the 1970s by Italian researchers to describe the success of this new mode of development in the “Third Italy”. This analysis shows that it is not always an enterprise that imposes itself upon a local environment but that the characteristics of the territory can sometimes secrete it through the synergy between local agents – thus the importance of their mutual relations and the close networking specific to each of these territories. The reunion of the activities on a territory also permits the reduction of the “transaction costs”, i.e. the costs of the time and information needed by the participants in a business negotiation. Many more or less complex industrial districts have been listed in Europe. The Porto region, Baden-Wurtemberg, Arve Valley, the watch-making Swiss Jura, Western Flanders, etc.

Development strategy

The novelty dwells in the discovery of the “territory” by the economists who formerly considered the space as a neutral category. The territory is not interchangeable and neutral, it has a history, particular inhabitants and spatial relationships that are not reproducible and constitute an immobile resource.

New local and regional development strategies are based on encouraging and trying to structure and organize the dynamics existing in these districts and/or in supporting these emerging territorial dynamics in order to reinforce the synergies and expand the economic infrastructure. The industrial districts appear to be the kind of development favourable to the better integration of mainly rural regions or those slightly metropolized for the international economy, therefore a polycentric structuralisation ensues at a European scale by favouring the emergence of new regions as well as at the regional scale by

favouring a type of spatial development relatively independent of the urban hierarchy. In France, the DATAR has censed “LPS” (local production systems) of which it is encouraging the development and organization into “project-territories”.

However, a certain contradiction arises between this external intervention sometimes officially acknowledged and the fundamentally endogenous and autonomous character of the district dynamics.

The networking, the density of social relationships favouring the informal exchanges, the collaborations and mutual training between specialized producers cannot be decided from the top. However such a policy finds its legitimacy in the encouragement of specific dynamics for “project-territories,” which seems to replace a form of classical external intervention sometimes unsatisfactorily connected with the local economic environment. The support to industrial districts aims at reinforcing their inner organization due to the frequent institutional weakness of the LPS and their relative fragility. The districts generally produce items of poor technological content highly exposed to changing conditions and international competition. The economic trajectories of districts differ and indicate that proximity is not enough to ensure reactions and competition. The unexpected performances of the districts nevertheless question the regional policy of the European Union, which could take into better consideration the ability of territorial partners to support projects.

3.4.6 European policies

Interreg

Created in 1990 and financed by the European Regional Development Funds (ERDF) up to 4.8 billion Euros for the programme 2000-2006, this Community Initiative (CI) mainly involves regional partners but also national partners from the countries that have not yet reached the NUTS II level. This CI is constituted by three main elements, each with complementary goals.

Interreg A is devoted to cross-border cooperation between contiguous areas of the NUTS III level, located alongside internal and external borders of the European Union.

The I Interreg B element is involved with transnational cooperation between national, regional and local partners distributed over seven areas of transnational cooperation, and is aimed at the promotion of common strategies of development and land planning on a super-State scale.

Finally, Interreg C, “interregional cooperation” is designed to improve the efficiency of policies and the means of regional development. It is in the framework of these last two elements that polycentrism finds a good opportunity to be implemented at the scale of large transnational spaces outside the community borders, even though a number of problems relating to harmonization remain between the different funds, depending on the level of integration of the various States involved.

4 Indicators and typologies

4.1 Key concepts

The key concepts related to polycentrism are urban agglomeration (UA), Functional urban area (FUA), the notion of different dimensions of polycentrism (morphological, functional, economic andpolitical as well as various territorial dimensions of polycentrism) and Metropolitan Growth Areas (MEGAs) (Table 6).

Urban Agglomerations (UA), which refers to contiguous built-up areas, has no common definition within Europe.The United Nations (UN has the most common definition, but it is not standardised. Other bodies such as CORINE and N.U.R.E.C also have some groundwork classifications concerning contiguous built-up areas. Lacking comprehensive and definitive definitions, this research could only look at various national definitions of UAs. To do this, the most important issue was to identify the core of FUAs (to pinpoint where the centroid of the FUAs are situated). Secondly, the share of total population that lives in a FUA's contiguous build-up areas had to be identified and then used in an estimation of the urbanisation rate of a country (this exercise has been carried out in project 1.1.2., where the population is indexed based on the rural population.). The population of UAs are also important factors in this analysis: it can be argued that only UAs that exceed a certain threshold level (e.g. 10 000) can be labelled urbanised areas. In 1.1.1, only the core of such UAs have been identified. Only those UA cores, which are centres of Functional Urban Areas (see below), with more than 20 000 inhabitants (or functionally important) have been identified.

Functional Urban Areas (FUA): These are the UA/core municipality plus adjacent commuting areas (fringe municipalities). The commuting data on the NUTS 5 level is a prerequisite for defining these FUAs, but commuting data (according to Data Navigator) is available for this territorial level only for Austria, Belgium, Denmark, Finland, France, Germany Luxembourg, Norway and Sweden. FUA has a national counterpart definition (often named functional urban region, travel-to-work-area, commuting catchment area, commuting zones or similar) in 18 countries (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary (regional labour centres), Italy, Norway, Luxembourg, Netherlands, Sweden, Switzerland, Slovak Republic, Slovenia and the

United Kingdom). Due to the lack of data, 1.1.1 uses the national definitions of FUAs, or the closest available counterparts. FUAs that have a population of 20 000 inhabitants are considered urban, and even smaller FUAs are considered if they have a functional role within the national urban system.

FUAs are the building blocks of the polycentric region. Polycentric regions are established by two or more FUAs reinforcing each other. At two levels, we are dealing with polycentric urban regions, the (sub) national level (national polycentric regions) and the trans-national level (cross-border polycentric regions).

Several definitions are offered for the concept of polycentrism. The classic definition of morphological polycentrism is that a region (1) consists of more than two cities that are (2) historically and politically independent (no hierarchy) and that (3) are in proximity to each other and further (4) have a functional relation and are complementary to each other. However, these criteria are applied differently on the national and European levels. Furthermore, functional (systems of FUAs consisting of different specialised and complementary urban functions), economic (systems of FUAs highly integrated into the labour market, industrial clusters and trade) and political (systems of FUAs working together on joint strategies) polycentrism all have their own definitions, which, in turn, also have regional, national and European-level counterparts). Indeed, a major challenge of this study is the European-wide statistical examination and mapping of economic and functional polycentric regions.

The concept of European Polycentrism was suggested by the CPMR study. The idea behind the study was to identify cities beyond the Pentagon that could function as economic centres (Metropolitan European Growth Areas (MEGAs)) and thus be capable of competing with the Pentagon.

Table no 6: The key concepts of 1.1.1

	Building blocks:
UA	Urban Agglomeration
FUA	Functional Urban Area
MEGA	Metropolitan European Growth Area
	Polycentrism
	- various territorial levels: regional, national, European
	- various aspects: morphological, functional, economic, political

4.1.1 What is FUA?

Regional analysis often draws from statistical material based on conventional administrative units, i.e., municipalities (NUTS 3) or regions (NUTS 5). It is obvious that most of the municipalities are simply too small in spatial terms to be used in the comprehensive analysis of regional development trends. On the other hand, the alternative level of spatial unit analysis, namely the regions, is too heterogeneous to portray the actual spatial patterns of society. It is for this reason that the more recent concept of Functional urban area (FUA) has risen in status to become the significant functional level in the urban and regional system. (Antikainen & Vartiainen 2002)

The concept refers to agglomerations of municipalities that are grouped together according to their functional orientation in order to reflect the actual daily operational conditions of people, enterprises, and community organisations. FUA is a useful concept also when analysing regional development from a functional viewpoint. Using FUA as the level of analysis enables to distinguish internal development dynamics from the features of external development more explicitly. Internal dynamics refer to development conditions and features within the functional urban region, while external development relates to the inter-regional, national, and international levels. (Antikainen & Vartiainen 2002)

The most important quality of the concept of FUA is thus its capacity to extend beyond administrative boundaries. As a result, the needs of economic activity and service

production can be more efficiently mapped. This leads to more coherent strategic planning and visioning. Many European countries have inserted some statistical levels between the municipal and regional levels, thus giving shape to the current urban areas and inter-municipal co-operation. FUAs have been identified in various manners by the European countries as functional urban regions, districts, travel-to-work-areas, local labour market areas, daily urban systems, commuting zones and sub-regional units as well as others. (Antikainen & Vartiainen 2002)

This drive towards the creation of FUAs has played a central role in the implementation of regional development policy and statistical monitoring. At the operational level, districts are thus utilised in targeting regional policy incentives according to their disparities and characteristics. The feasibility of using the concept of FUA can also be justified within the context of urban change. FUAs are highlighted by the ongoing global process of regionalisation. Initially, regionalisation referred to the growth of diversified large and medium-size urban regions and, intra-regionally, to the branching out of population growth from the centre to the surrounding rural areas. In practice, economic activities and jobs were concentrated at the centre of these urban regions although population grew in the fringe areas, i.e., in the surrounding municipalities. The core (the centre) of the urban region along together with its fringe areas thus formed an increasingly interwoven and interactive functional region. The process is now considered to be the most important structural change impacting upon the urban and regional systems. Generally speaking, inter-municipal co-operation strengthened throughout the last decade, with the FUA level now being considered as one of the basic levels of regional and community strategy formulation and planning for both local and national policy-making. In this way FUAs have become to attract increased levels of governmental capacity instead of being mere statistical units of analysis. (Antikainen & Vartiainen 2002)

4.1.2 Functional Urban Areas definition and delimitation - The cases of France and the Nordic countries

Most of the European countries have a national definition for Functional Urban Areas. The existence of such areas is an important prerequisite for an analysis of polycentric urban trends; indeed, statistics based on morphological boundaries or administrative boundaries

will in most cases not reflect the actual role played by a city. However, different national definitions of FUAs can create a bias in a comparative European analysis.

By establishing a European map of national FUA areas, ESPON 1.1.1. seeks to illustrate these different national approaches. Furthermore, these delimitations allow for an analysis of the internal structures of FUAs across Europe. Internal structure partly explains the way in which the FUA relates to other cities in the national and European urban systems. A delimitation of FUAs across Europe contributes to making an analysis of the interaction between the regional and European scales of polycentrism possible. It is therefore an important contribution both to the analysis of cities, both as nodes in a European scale polycentrism, and as spatial contexts for regional and local polycentrism.

Finally, as statistics seldom exist for FUAs as such, identifying which municipalities they are composed of is helpful when gathering data (e.g. identifying the infrastructure present, or significant company headquarters in each FUA).

This preliminary methodological discussion deals with the cases of France and the Nordic countries, for which information on the NUTS 5 composition of each FUA has been the most readily available. As shown below, these cases illustrate some of the difficulties that can be encountered when gathering and comparing different kinds of FUAs.

Definitions of areas based on commuting patterns vary greatly from country to country, and are more or less based on predetermined statistical criteria:

- In **France**, the FUA is an area attracted by an Urban Pole, i.e. a group of municipalities with over 5000 jobs. Municipalities are considered to be attracted to the urban pole if over 40% of the active and employed resident population work there or in any other municipality attracted by it.
- In **Sweden** and **Finland**, the FUA is an area attracted to a labour market centre. A municipality is considered a labour market centre if less than 20% of its resident employed population commutes to areas out of the municipality, and if no other municipality attracts more than 7,5% of this resident employed population. All municipalities that do not satisfy these criteria belong to the FUA of the labour market centre to which the greatest number of resident employees commute. If a municipality sends the greatest number of employees to another non-labour market

centre, which itself sends the greatest number of employees to a labour market centre (chain migration), all these municipalities belong to the FUA of the labour market centre.

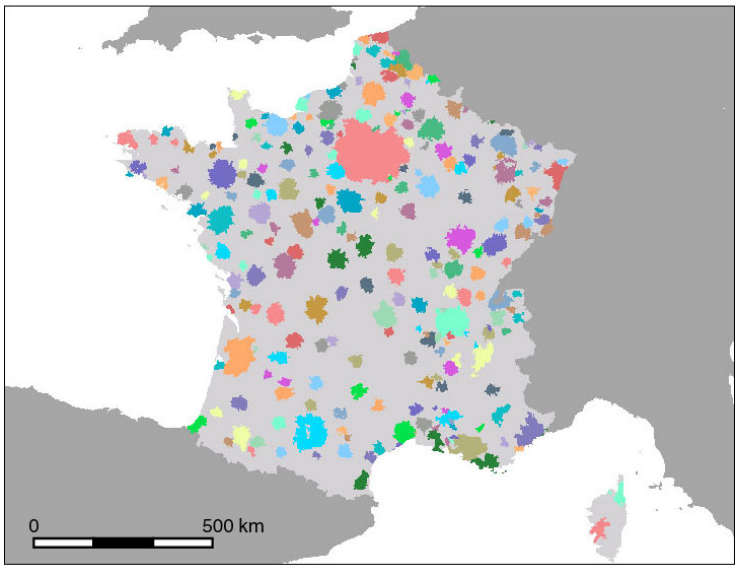
- In **Norway**, more qualitative criteria have been used, even if the delimitation is in general based on travel times and commuting patterns. A first group of labour market areas is composed of municipalities within 30 minutes travel time of an urban core area, as well as those within a 75 -minute travel time distance, which send at least 10% of their resident employed population to the core urban area. Other municipalities with little out-migration constitute the second group, and theses municipalities are then grouped into one entity if the travel time from one to the other is less then 30 minutes. While the first group corresponds to the general approach of FUAs, the latter should rather be envisaged as non-attracted areas. This is also the case for the municipalities that are not grouped to any other in this classification, unless their internal labour market is considered to be of significant importance.
- In **Denmark**, a Commuting area (CA) is an area in which the number of people living *and* working is more than twice as large as the number of daily commuters (in- and outgoing commuters) to and from the area.

This review shows that each definition should be analysed carefully, and may perhaps be improved if one can gain access to the original data used for delimitation. Indeed, when statistics on migration from municipality to municipality exist, these can be of great help in homogenising different national approaches.

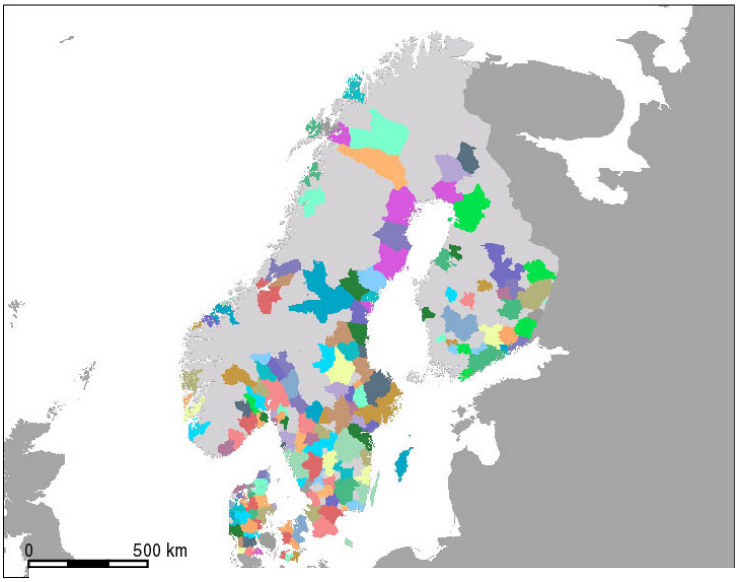
A second major parameter is the size of municipalities. As shown by the figure below, while the limited size of French municipalities allows for a precise distinction between the Urban Areas and the rest of the territory, municipalities in Finland, Norway and Sweden create erratic delimitations of FUAs. In inner and northern parts of these countries, one finds FUAs with an extensive spatial delimitation, despite the fact that all of their population is concentrated in a single urban centre. As illustrated in Maps 5 and 6, this leads to functional urban areas with population densities below 10 inh/km^2. Delimitations could, in such extreme cases be revised, in order to correspond better to demographic and economic spatial structures.

Despite some limitations due to the diversity of national approaches, which can partially be compensated by a reinterpretation of the data used for delimitation, a spatial delimitation of FUAs opens up new perspectives for their statistical analysis, through the use of GIS-data. One can for example examine the pattern of the infrastructure network with each FUA, look at the number and location of universities positioned in and around it, or look at how functional urban areas co-exist with agricultural land by the use of CORINE-data.

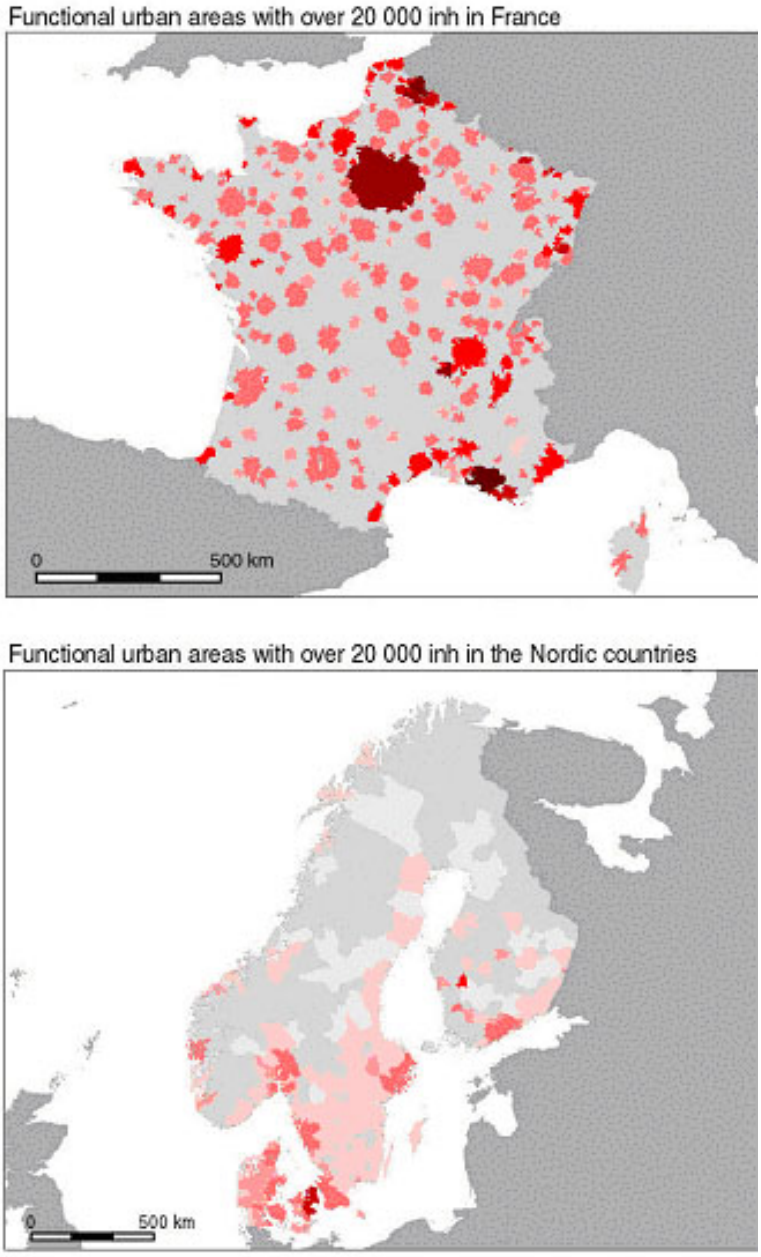
Functional urban areas with over 20 000 inh in France



Functional urban areas with over 20 000 inh in the Nordic countries



Map no 5: Functional urban areas with over 20 000 inhab. In France and in the Nordic countries



Map no 6: Functional urban areas with over 20 000 inhab. In France and in the Nordic countries - population density

4.2 List of FUAs

Indicators and typology of 1.1.1. is based on two building blocks: First is the “list of FUAs” and second typology of MEGAs. Making of “List of FUAs” is based on analysis of certain features and functions of FUAs (presented in table 7)

Table no 7: Features and functions of FUAs

Feature / Functions	Measured variable
Population (mass function)	Population
Transport function	Airport (passengers), ports (container traffic)
Tourism function	Number of beds in hotels (and similar)
Industrial function	Gross value added in industry
Knowledge functions	Location of University, number of students
Decision-making centre	Location of TOP 500 companies
Administrative functions	Administrative status of FUA

The information used for this study has primarily been gathered through a questionnaire, which was disseminated to the national experts in the project group as well as national contact points in countries not covered by the partners. The respondents were initially asked whether the concept of functional urban area or similar – travel-to-work-areas, commuting catchment areas, commuting zones, functional urban regions – is used in the country. If so, the respondents were to provide a definition of the applicable concept and, if possible, list the FUAs with a population of over 20 000 people and indicate in which NUTS 3 regions these are located in the applicable country. In most of the countries, the concept of FUA as well as relevant statistics were readily available. In other cases, the defining of functional urban area was based on an expert’s view.

The following information (Table 8) has been used to classify the different functions of FUA. The ‘criteria column’ describes the requested information and the respondents’ comments on problems related to the data gathering.

Table no 8: Gathered data for making of list of FUAs

Function	Criteria	Sources	Comment
FUA population (mass function)	- Units used nationally signifying FUAs with population over 20.000 inhabitants. Statistical proxys.	- National experts, who have used available national statistics. - If statistics not available, list of FUAs over 50 000 inhabitants from 2nd interim report (Spain, Germany)	The national definitions of FUAs vary. Some countries have very large FUAs, for example the Netherlands (over 154000 inhabitants), while other countries have defined much smaller functional regions. The years of the population figures vary slightly.
Transport	Airport with more than 50 000 passangers (2000) or port with more than 20 000 TEU container traffic (2001)	Aéroport Magazine. Port of Hamburg website.	If a FUA has both an airport and port, it is rated according to which is the relatively largest (see coding key).
Tourism	Number of bedplaces in hotels or similar establishments 2001. NUTS 3 level	- Eurostat for EU15, NO, CH - National statistical offices	Most figures from 2001, some from 1999 or 2000.
Industry	Gross value added in industry 2000.	EUROSTAT National statistical sources	Analysis on NUTS 3. Data is not available at the FUA-level. For some of the acceding countries some data is from 1999.
Higher education institutions	Location of universities (only main location) and number of university students. ISCED classification 5A and 6.	- Statistics provided by national experts	The definitions of universities can vary slightly as well as the years of the data on students.
Location of company headquarters	The location of the headquarters of the top 500 companies in each country. Rated by turnover. 2001	- Ratings published by national financial magazines - Listing of the TOP 15 000 European companies by Euroconfidential, Belgium	For most countries a list of the TOP 500 has been used. However, some countries only have official ratings of TOP 100 or TOP 200 companies, which have thus been used. For the “Global” and “European” ratings on decision making a list of the TOP 1000 European companies have been used. However, the data is by postal addresses and not on FUA level, which makes the figures not totally reliable.
Administrative status	Based on the national administrative system, cities that are the administrative seat of the different levels, national capitals, province centres, regional centres etc.	National experts	

The information has been coded according to a coding key (annex 1).

Conditions for choosing FUAs to be listed:

- FUA population over 50 000 inhabitants and urban core (agglomaration) with more than 15 000 inhabitants (i.e. excludes those artificially large ‘urban’ areas with minor urban core)
- Or FUA population more than 0,5% of national population and urban core (agglomaration) with more than 15 000 inhabitants (i.e. in less populated countries smaller FUAs were taken into account)
- Smaller FUAs were included if they had at least local importance in transport, knowledge or decision-making functions or regional importance in administrative, tourism or industrial functions

4.2.1 Population

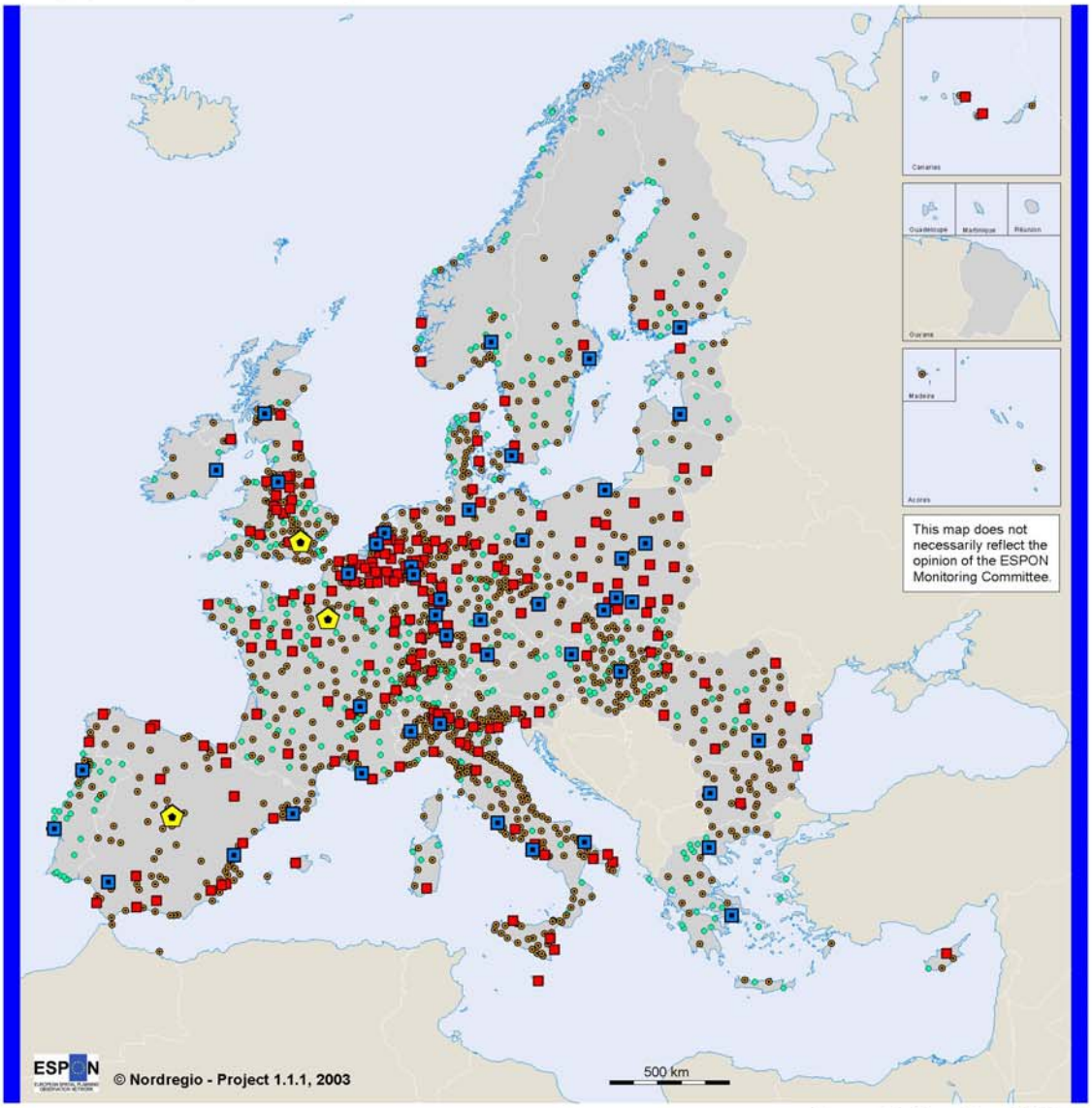
The criterion of the mass of the FUA is measured in terms of population. The demographic weight (population) of the urban system constitutes an important factor in the settlement of people and activities. For both private and public-sector investments it naturally constitutes the most favoured indicator for choosing the location of certain services and facilities. Demographic criterion correspond more and more to human resources, i.e. that of being able to tap into a labour force that is large enough to offer sufficiently diversified skills. Mobility offers only a very partial response to reducing demographic disparities. However, it constitutes one of the main reasons for seeking functional links between urban areas in order to form a more significant labour-market-area. Polycentrism is thus depended to a large extent on the mass criterion.

The population development trend in the FUAs of each country (1990–2000) is presented in Annex 5. The interpretation of this data is included in the summary table below. Furthermore, Annex 6 presents the population development trend in the FUAs and in their respective core cities from 1950 to 2000. This also forms part of the supporting population development trend analysis data presented in the summary table. Kai Enkama has collected the population data.

Population is concentrated to the Pentagon, but there are three extensions to the Pentagon, one reaching down to the east coast of Spain, one to Southern Italy and one to central Eastern Europe where there is a strong concentration of large urban

agglomerations. In more peripheral Europe most of the large urban agglomerations are more insular (Map 7).

FUA population (mass function)



Total FUA population in FUAs with more than 20 000 inhabitants 2000-2001

Geographical Base: Eurostat GISCO

- > 5 million inhabitants
- 1-5 million inhabitants
- 250 000-1 million inhabitants
- 50 000-250 000 inhabitants
- < 50 000 inhabitants

Origin of data: National Statistical Offices, National experts

Source: Nordregio

Map no 7: Population (mass function)

Below all national reports are presented (Table 9). The following six functions are compared to settlement structure, i.e. it is analysed whether the function in question favours polycentricity or whether the function in question makes the system more centralised (Tables 10, 11, 12, 13, 14, 15 and 16). The summary country reports are presented in Annex 2.

Table no 9: Population (mass function) – country reports

Country	Observations
Austria	Austria is monocentric in the sense that it is strongly dominated by Vienna and the country lacks strong or medium-sized FUAs. Average FUA population: 120 367, 35% of Austria's inhabitants live in FUAs. The low share of people living in FUAs in relation to total population is on the hand due to the national interpretation of functional urban area (same as core city) and on the other to the Austrian settlement structure being based on units smaller than FUAs. There is strong population growth in small FUAs, though cities above 100 000 inhabitants have declining populations.
Belgium	Belgium is polycentric, it has two large centres and a balanced number of small and medium-sized FUAs. Average FUA population: 336 969, 69% of inhabitants live in FUAs. Strongest growth is in medium-sized cities.
Bulgaria	Bulgaria is rather monocentric. Sofia is the dominant city, and BG has two other medium-sized cities. The remaining FUAs have less than 200 000 inhabitants. Average FUA population: 155 291, 63% of inhabitants live in FUAs. All FUAs are declining, with the smallest FUAs losing most of their population.
Switzerland	Switzerland has a rather balanced settlement structure. The country remains dominated by Zürich, but it has four medium-sized FUAs and a large number of small FUAs. Average FUA population: 96 473, 63% of inhabitants live in FUAs. The largest growth is to be found in small FUAs.
Cyprus	Cyprus has four FUAs, all of which are growing rapidly. Average FUA population: 132 579, 69% of inhabitants live in FUAs.
Czech Republic	The Czech Republic has two large FUAs (Prague and Ostrava) and a couple of medium-sized cities. The largest growth is in FUAs with a population between 100 000 and 200 000 inhabitants. Average FUA population: 246 777, 60% of inhabitants live in FUAs. Large cities are losing population.
Germany	Germany has a large number of FUAs. Average FUA population: 263 645, 59% of inhabitants live in FUAs. There is no correlation between size and population change, but there are significant structural changes taking place in eastern Germany.
Denmark	Denmark is dominated by Copenhagen, while it also has three medium-sized cities. In addition, it has a large number of small FUAs. Average FUA population: 149 505, 97% of inhabitants live in FUAs. Only a few of the FUAs are currently losing population. There is a relatively good correlation between size and population change, as in all Nordic countries.
Estonia	Estonia is dominated by Tallinn. Average FUA population: 98 110, 69% of inhabitants live in FUAs. All but one of these FUAs is however losing population.
Spain	Spain has two large FUAs, but also a balanced network of other large and medium-sized FUAs. Average FUA population: 274 279, 75% of inhabitants live in FUAs. Strongest growth is to be found in small FUAs, large FUAs are losing population.

Finland	Finland has a typical Nordic urban system: one dominating FUA, Helsinki, a few medium-sized FUAs, and a few dozen small FUAs. Average FUA population: 116 786, 79% of inhabitants live in FUAs. There is a relatively good correlation between size and population change in FUAs.
France	France is strongly dominated by Paris. Three other FUAs have populations over 1 000 000 inhabitants. Average FUA population: 200 196, 71% of inhabitants live in FUAs. Strong growth takes place in all size-classes (small, medium-sized and large), while only small FUAs are losing population.
Greece	Greece is dominated by Athens, and has Thessaloniki as its second-city. Other FUAs are small. Average FUA population: 154 312, 65% of inhabitants live in FUAs. Almost all FUAs are growing, with the smallest are growing relatively faster.
Hungary	Hungary has one dominant city, Budapest, supported by a dense network of small and medium-sized cities. Average FUA population: 105 418, 81% of inhabitants live in FUAs. The largest cities are losing population, growth is however occurring in a dozen or so of the small and medium-sized cities.
Ireland	Ireland has only six FUAs, dominated by Dublin. Average FUA population: 207 411, 37% of inhabitants live in FUAs. All FUAs are growing strongly, with the smallest growing more rapidly than the large cities in percentage terms.
Italy	Italy has highly developed urban system. It is polycentric in sense that it has three poles and a large number of medium-sized cities as well as a vast number of small cities. Average FUA population: 181 116, 79% of inhabitants live in FUAs. However, most of the FUAs are losing population, the number of FUAs with less than 500 000 inhabitants is growing.
Lithuania	Lithuania has eight FUAs with a balanced structure. Average FUA population: 191 049, 42% of inhabitants live in FUAs. There is a relatively good correlation between size and growth, though only in a negative sense: small FUAs are growing, while larger FUAs are losing population.
Luxembourg	Luxembourg is a bipolar country (two FUAs), both growing. Average FUA population: 129 951, 58% of inhabitants live in FUAs.
Latvia	Latvia has six FUAs, and is strongly dominated by Riga. The remaining FUAs have less than 200 000 inhabitants. Average FUA population: 214 862, 73% of inhabitants live in FUAs. All FUAs are losing population.
Malta	Malta as country can be considered as one FUA. The population on Malta Island as a whole is growing, as is the population of Valletta's urban harbour (the core of the FUA).
Netherlands	The Netherlands is very polycentric (structure similar to BE). A large number of their FUAs are medium-sized. Average FUA population: 259 403, 63% of inhabitants live in FUAs. Almost all FUAs are growing with the smaller ones growing relatively faster, though the medium-sized cities are also growing rapidly.
Norway	Norway is dominated by Oslo and in addition it has three medium-sized cities and few dozen small FUAs. Average FUA population: 102 352, 81% of inhabitants live in FUAs. Growth is occurring in all size-classes.
Poland	Poland has a balanced and developed urban structure. There are two large FUAs and a large number of medium-sized cities. Average FUA population: 406 446, 51% of inhabitants live in FUAs. Polish FUAs are larger (population) than in most of the other countries. The large FUAs are losing population, only cities with less than 500 000 inhabitants are growing, some of them very rapidly.
Portugal	Portugal is bipolar country, and it has a large number of small FUAs, most of them located near to large cities. Average FUA population: 131 664, 60% of inhabitants live in FUAs. Large cities growing, some of the small FUAs are losing population extremely quickly.

Romania	Romania is dominated by Bucharest, and has seven FUAs with 280 000 to 320 000 inhabitants. Average FUA population: 144 052, 38% of inhabitants live in FUAs. All but two FUAs are losing population.
Sweden	Sweden is dominated by Stockholm, but it is a polycentric country in the sense that it has number of growing strong medium-sized cities and few dozen smaller FUAs with functional significance. Average FUA population: 168 657, 89% of inhabitants live in FUAs. There is a relatively good correlation between size and population change.
Slovenia	In a small country there cannot be many urban nodes, and here the urban structure is rather balanced. There is a steady population development trend in all FUAs. Average FUA population: 167 981, 52% of inhabitants live in FUAs
Slovakia	Slovakia is rather polycentric. Most of the weight of the urban system is in medium-sized cities. Average FUA population: 129 210, 64% of inhabitants live in FUAs. Most of the FUAs are growing, but there is no discernable relation between size and population change.
United Kingdom	The United Kingdom is strongly dominated by London, which is growing strongly. Average FUA population: 208 008, 51% of inhabitants live in FUAs. The low share of people living in FUAs in relation to the total population is in this case due to the national interpretation of functional urban area (same as core city). There is no correlation between size and population development. Data quality is poor, due to the changes in statistical units used.

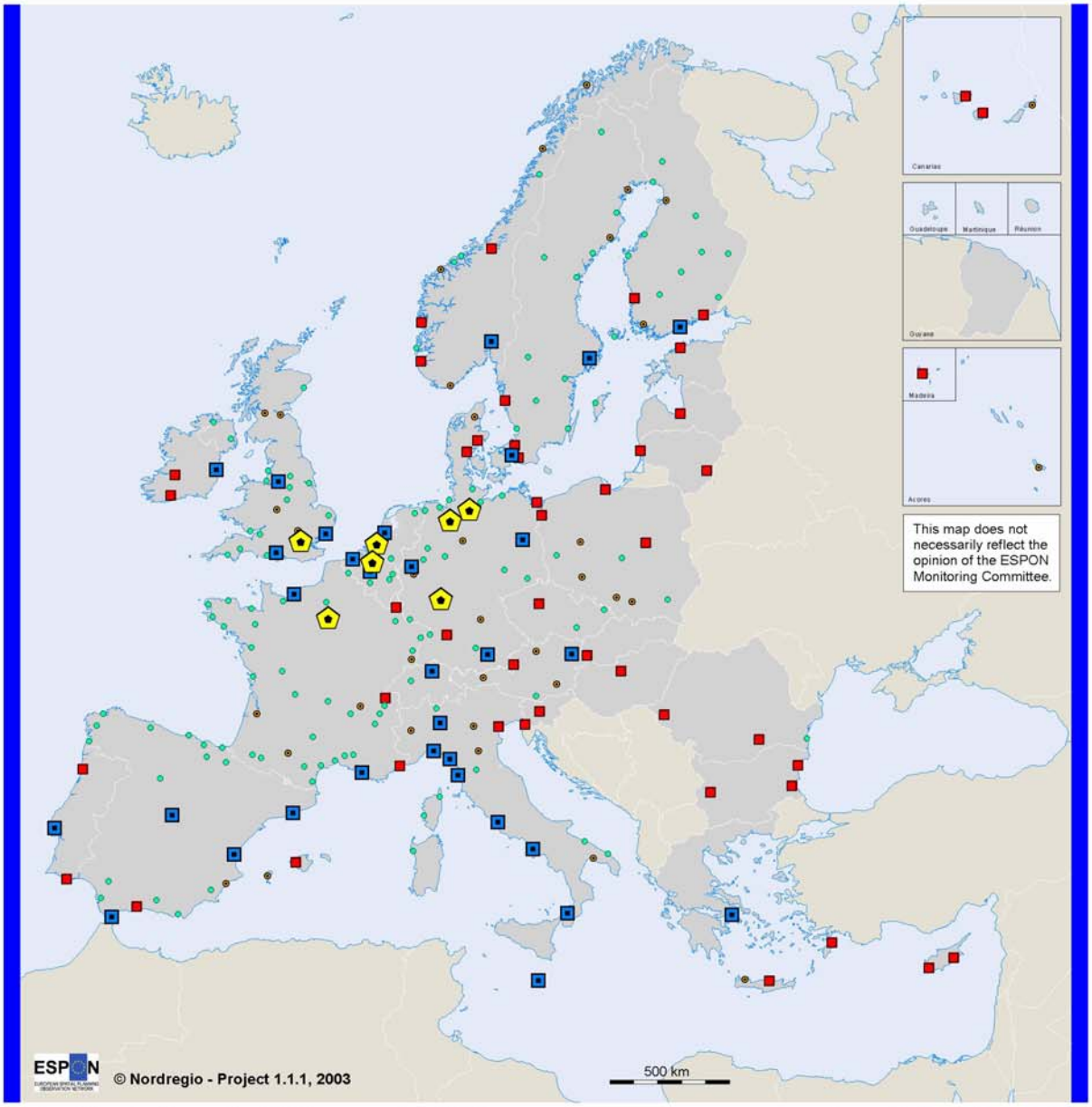
4.2.2 Transport

The connectivity of the FUAs constitutes one of the central factors of polycentrism. Any sharing of economic functions cannot be really effective unless accompanied by an efficient transport infrastructure and accessibility.

Transport is measured by means of the through main airports and major container (not bulk) traffic harbours, in order to identify explicitly transport oriented cities. As a result, the general picture is rather monocentric, particularly especially in geographically small countries. is rather monocentric. The B busiest transport nodes are, of course, to be found in the Pentagon. However, maritime transportation has more weight in the Mediterranean region, where major transport hubs are located. Not one acceding country has a transport node of having European significance.

The transport system is polycentric (favouring polycentricity) especially in Austia, Germany, Italy, Finland, Norway and Sweden. The transport system is monocentric (more monocentric than what one c would be expect ed on the basis of the settlement structure) in many acceding countries, especially in CZ, HU and SK (Map 8).

Transport function



Location of airports with more than 50 000 passengers/year (2000) or ports with more than 20 000 TEU container traffic (2001)

Geographical Base: Eurostat GISCO

Origin of data: Aéroport Magazine, Port of Hamburg website
Source: Nordregio

- Global transport hub (more than 5% of European total)
- Transport hub of European significance (1-5% of European total)
- Major transport node (more than 5% of national total but less than1% of European total)
- Minor transport node (2-5% of national total)

per year) or harbour

Map no 8: Transport function

Table no 10: Transport function – country reports

Country	Observations
Austria	The transport structure is also dominated by Vienna, though it has one national and three regional nodes. The transport structure is however rather more balanced than the settlement structure.
Belgium	Antwerp is a global node in maritime transport. Air traffic is dominated by Brussels. Two FUAs score in terms of local significance. Being a small country, the transport system is polycentric.
Bulgaria	Bulgaria has no FUA with a significant role as a transport node at the global or European levels. Air traffic is channelled through three FUAs. In addition to Sofia, Burgas and Varna have significance as national nodes.
Switzerland	Zürich is the main node in transport, being European node. Geneva is another strong node in the transport network (national significance). Bern and Lugano have small airports.
Cyprus	The transport system is bipolar as air traffic is channelled to two FUAs one at each end of the island.
Czech Republic	The Czech Republic has no FUA with a significant role as a transport node on the global or European levels. The transport system is rather monocentric. Prague is the most important transport node, though Brno and Ostrava have regional airports.
Germany	Germany has a number of global and European transport nodes both in air traffic and in maritime transport, three of these score at the global level, while three have European significance. Ever part of the country has a strong node, enabling a balanced and polycentric national urban network to exist.
Denmark	The transport system is rather monocentric. Copenhagen is a European transport node, serving as both an air traffic and a maritime transport node. Two FUAs have national, and one has regional significance in transport.
Estonia	Estonia has no FUA with a significant role as a transport node on the global or European levels. Transport is very monocentric, as Tallinn is the only node in the country.
Spain	The transport structure is polycentric. There are four nodes that have European significance, as well as four nodes with a national role. In large countries such as Spain an extensive network of smaller nodes is necessary.
Finland	Helsinki is the most important transport node, having European significance. Two harbour FUAs are important in terms of maritime transport. In a country with such long travel distances there are many small nodes in the transport system (similar to NO and SE).
France	Paris is a global transport node. Twe FUAs have significance on the European level as hubs for maritime transport. Nice is an important national node. There is an extensive network of small airports and harbours.
Greece	Athens is the main transport node, having European significance. Other important nodes have significance mainly due to their tourist flows.
Hungary	Hungary has no FUA with a significant role as a transport node on the global or European levels. The transport system is highly monocentric. Budapest is the only node in country.
Ireland	Dublin is the main transport node, having European significance. Other nodes of national significance are Cork and Limerick.
Italy	The transport system is also polycentric. There are a number of important air traffic nodes as well as smaller FUAs acting as transport hubs with European significance (the total number of FUAs in this class is seven). One FUA has national significance. In addition, 10 FUAs have smaller airports or harbours.

Lithuania	Lithuania has no FUA with a significant role as a transport node on the global or European levels. The transport system is bipolar. Vilnius is the main node in terms of air traffic, while Klaipeda fulfils a similar function in terms of maritime traffic. Other FUAs do not have any significance in terms of transport functions.
Luxembourg	Luxembourg has no FUA with a significant role as a transport node on the global or European levels.
Latvia	Latvia has no FUA with a significant role as a transport node on the global or European levels. Transport is very monocentric: Riga is the only node.
Malta	Transport is of course channelled through only one urban node. Valletta harbour has European significance.
Netherlands	Rotterdam is a global node in terms of maritime transport. Amsterdam has European significance as an air traffic node. In such a small country there cannot be many transport nodes, but three other FUAs have local significance (small airport or harbour).
Norway	Oslo is the main transport node with European significance. In a country with such long distances there are number of smallish airports. In a country with long travel distances there are many small nodes in the transport system (similar to FI and SE).
Poland	Poland has no FUA with a significant role as a transport node on the global or European levels. Four FUAs are of European significance. Warsaw is the main node, the others are nodes in maritime transport. Four FUAs have regional significance and three FUAs have small airports with more than 50 000 passengers annually.
Portugal	Lisbon is a European node in transport. Porto has national significance, as do two small FUAs as nodes for maritime transportation. In general the transport infrastructure favours polycentricity in the country.
Romania	Romania has no FUA with a significant role as a transport node on the global or European levels, though, in addition to Bucharest, Timisoara has the role of a transport node with national significance. Traffic flow in Constanta harbour is still rather weak.
Sweden	Stockholm is the most important transport node with air traffic scoring on the European level. Other large cities also score highly, mainly due to maritime traffic. In a country with such long travel distances there are many small nodes in the transport system (similar to FI and NO). The transport system makes the urban system in the country more polycentric.
Slovenia	Slovenia has no FUA with a significant role as a transport node on the global or European levels. The transport system is ultimately monocentric, Lljubljana being the only major node in the country.
Slovakia	Slovakia has no FUA with a significant role as a transport node on the global or European levels. The transport system is very monocentric. Bratislava is the only node in the transport system.
United Kingdom	London is a global node in transport. Three FUAs score on the European level, Manchester is an important node in air traffic, and two FUAs are significant maritime nodes. 19 FUAs have regional or local significance. Transport is rather more monocentric than that the settlement structure would suggest.

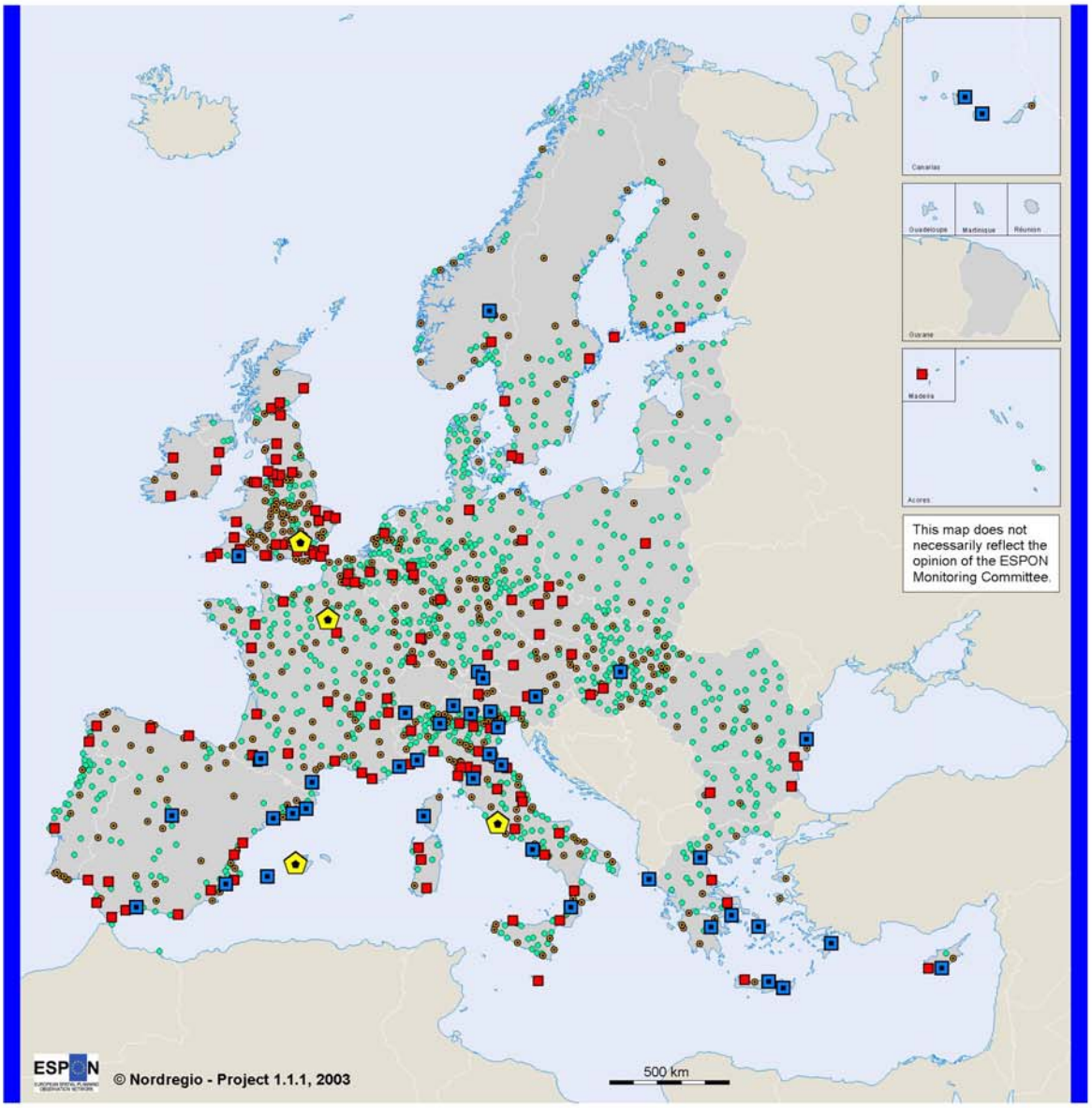
4.2.3 Tourism

Tourism is the most balancing function in terms of polycentrism. It is the strongest force favouring polycentrism driven by the private sector. Most of the FUAs that are strong in tourism are different to those that score highly in other functions. The weight of the urban system, when measuring tourism function, is in the Mediterranean area (ES, FR, IT, GR, CY) and in the Alps (IT, AT). Only a few highly tourist -oriented FUAs of European significance can be identified beyond this Mediterranean area.

Globally significant urban destinations are London, Paris and Rome. Capital cities are often also important nodes as regards tourism. However, there are countries where FUAs score only on the regional or local levels (EE, LT, LV). Some of the tourist oriented FUAs have grown very rapidly. In the acceding countries only a few strong nodes can be identified (a few capital cities and destinations on the Black Sea). The economic base of strongly tourist oriented FUAs are now often strongly service oriented.

The tourism-based urban system is polycentric (favouring polycentricity) especially in AT, CY, GR, IE, and UK. The tourism-based urban system is monocentric (more monocentric than what one would expect on the basis of settlement structure) in BG, DE, PL, RO (Map 9).

Tourism function



Number of bedplaces in hotels or similar establishments 2001

Geographical Base: Eurostat GISCO

Origin of data: EUROSTAT for EU15, CH and NO; National Statistical Offices

Source: Nordregio

- Global tourist attraction (more than100 000 beds)
- Tourist attraction of European significance or strongly tourist oriented FUA (50 000-100 000 beds or more than100 beds per 1 000 inhabitants)
- Major tourist attraction (15 000-50 000 beds)
- Tourist attraction of regional significance (5 000-15 000 beds or between 25 and 100 beds per 1 000 inhabitants)
- Local significance (less than 5 000 beds or less than 25 beds per 1 000 inhabitants)

Map no 9: Tourism function

Table no 11: Tourism function – country reports

Country	Observations
Austria	Tourism makes Austria polycentric. It has two FUAs of European significance, three of transnational/national significance, and a dozen of regional significance. Austria's position as regards tourism in the ESPON-countries is strong.
Belgium	Belgium lacks FUAs with a significant role in tourism at the global or European levels. Brussels is the strongest node. Four FUAs score at the regional level. Tourist oriented cities located on the coast balance the urban structure.
Bulgaria	Bulgaria lacks an FUA with a significant role in tourism on the global or European levels. Four FUAs have national, and two FUAs regional significance in tourism. Tourist oriented cities located on the coast balance the urban structure, though in general, tourism is not yet an important factor in making Bulgaria more polycentric.
Switzerland	No data available
Cyprus	Limassol has European significance in tourism, Paphos has national significance, and Larnaca regional significance. The capital FUA is the weakest as regards tourism. In other words tourism is genuinely increasing polycentricity.
Czech Republic	The Czech Republic lacks an FUA with a significant role in tourism on the global or European levels. Five FUAs score at the national level, and seven FUAs have regional significance. Tourist oriented FUAs are FUAs other than those that score highly in other functions. In that sense this favours a division of labour between cities and polycentricity.
Germany	Germany does not have a global node in tourism. Small tourist oriented FUAs and a number of MEGAs score at the European and national levels. 42 FUAs have regional significance. The tourist oriented FUAs are FUAs other than those that score highly in other functions. In that sense this favours the division of labour between cities and polycentricity. However in general in Germany tourism does not have a major role in terms of polycentricity.
Denmark	Denmark lacks an FUA with a significant role in tourism on the global or European levels. Copenhagen is also the main node as regards tourism. Other major cities have regional significance. Denmark has only few tourist oriented FUAs, and only one of them scores on the regional level.
Estonia	Estonia lacks an FUA with a significant role in tourism on the global or European levels. Tallinn is the strongest tourism node, but it does not score more highly than the regional level. The remaining FUAs have only a local role.
Spain	Tourism makes Spain polycentric. It has one FUA (Mallorca) that has global significance and nine FUAs with European significance. Dozens of coastal FUAs are strongly tourist oriented (40 have regional significance). Spain's position in tourism in ESPON-countries is strong.
Finland	Finland has no FUA with a significant role as a tourism node on the global or European levels. There are two FUAs that have national, and nine that have regional significance in tourism. Small FUAs are not as attractive tourist destinations as their mass criterion would suggest. In Finland tourism does not favour polycentricity.
France	As regards tourism, the weight of the urban system is in the south, where four FUAs with European significance are located. Paris has a global position in tourism. Four FUAs have European, 21 national and 54 regional significance. Tourist oriented FUAs are often FUAs other than those that score higher in other functions.

Greece	Tourism is making Greece more polycentric. Many FUAs' positions in the national tourism network makes their position stronger than that which their population mass would normally allow. In total eight FUAs have European, three national and 11 regional significance. Tourist oriented FUAs are usually FUAs other than those that are score highly in other functions.
Hungary	Budapest is the also the strongest node in terms of tourism, having European significance. Two other small FUAs are highly tourist –oriented, having a national significance. 25 FUAs have a regional significance. Tourist oriented FUAs are usually FUAs other than those that are score highly in other functions. In that sense this favours the division of labour between cities and polycentricity.
Ireland	Ireland has no FUA with a significant role as a tourism node on the global or European levels. Four FUAs score on the national level, and some FUAs' weight as regards the tourism function is stronger than that which their population mass would suggest. It can be argued that tourism is the main function driving Ireland to become more polycentric.
Italy	Tourism is rather more polycentric than the settlement structure, i.e. the FUAs' position in the national network as regards the tourism function makes their position stronger than that which their population mass would suggest. Rome is a global magnet. In addition, Italy has twelve FUAs of European significance, most of them located in north of the country.
Lithuania	The tourism sector is very weak in Lithuania. Lithuania is the only country where not one FUA scores higher than the local level.
Luxembourg	Neither of Luxembourg's two FUAs have a significant role in tourism.
Latvia	Latvia lacks an FUA with a significant role in tourism on the global or European levels. Riga is the strongest tourism node, but it does not score higher than the regional level. The remaining FUAs have only a local role.
Malta	Tourism is important for Malta. However, in European comparison it does not score on the European level, only on the national level.
Netherlands	The Netherlands has no FUA with a significant role as a tourism node on the global or European levels. Amsterdam and Maastricht are the main nodes on the national level. 10 FUAs have regional significance. In such a polycentric country tourism is more monocentric than the other sectors.
Norway	In Norway Lillehammer FUA is highly tourist oriented (European significance). Oslo scores on the national level. 13 FUAs have regional significance. In Norway tourism favours a rather more polycentric structure as compared to the other Nordic countries.
Poland	Poland has no FUA with a significant role as a tourism node on the global or European levels. Warsaw is also the main node also as regards tourism. Six FUAs have regional significance. Tourism is not as polycentric as other functions in Poland.
Portugal	Portugal has no FUA with a significant role as a tourism node on the global or European levels. In addition to Lisbon, Funchal FUA has national significance in tourism. In addition, nine FUAs have regional significance. Tourist oriented FUAs are FUAs other than those that score highly in other functions. In that sense it favours the division of labour between cities and polycentricity. However in Portugal the effect of tourism in terms of polycentricity is smaller than in other countries in Mediterranean area.
Romania	Romania has one FUA by the Black Sea (Constanta) of European significance in tourism. In other functions Bucharest is very dominant, as such, tourism is an important field in terms of polycentricity.

Sweden	Sweden has no FUA with a significant role as a tourism node on the global or European levels. The same nodes that are the backbone of the urban system are also the most important nodes as regards tourism. Small FUAs are not as attractive tourist destinations as their mass criterion would suggest. Sweden is an example of country in the north where tourism does not increase polycentricity (cf. Mediterranean countries).
Slovenia	The weight of tourism in Slovenia is still light. Koper is a small FUA with a high tourism orientation, but it does not score higher than the regional level of significance.
Slovakia	Slovakia has no FUA with a significant role as a tourism node on the global or European levels. The tourism sector is still rather weak, only four FUAs score on the regional level.
United Kingdom	London is also a global node in tourism. Torquay in the southwest is a highly tourism oriented FUA. 33 FUAs score on the national level, and 68 have regional significance. Tourism is making the UK more polycentric as most of the tourist oriented FUAs are located on the south coast and in the north.

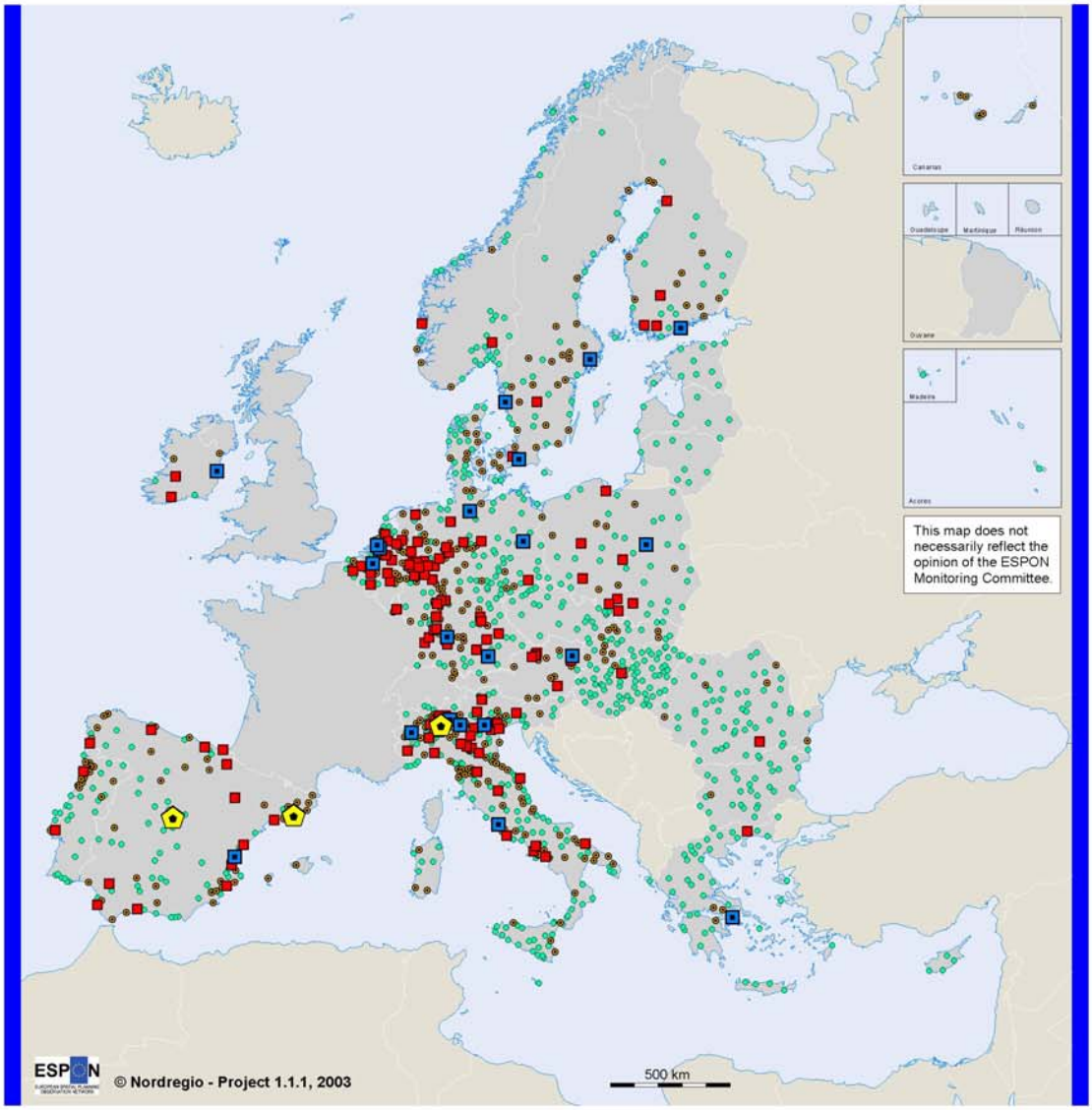
4.2.4 Industry

In many countries the polycentric urban system is mainly the result of industrialisation. Manufacturing industrial nodes have grown up close to raw material deposits, energy sources and to a location from which products can be delivered on most cost-efficiently. However, manufacturing industrial regions have been in decline for some time, and certainly since the emergence of structural change in the service industries. However, they still act as strong backbones of the economy in many countries. Nowadays many industrial FUAs, even those with less than 50 000 inhabitants, can trade globally (their market area is the whole world). It is the density of these global relations that defines the internationality of urban systems. Regional data is not available for CH, FR and UK.

The industrial function of FUAs was measured through gross value added in manufacturing. On the European scale the weight of this system leans heavily on the Pentagon. However, polycentric systems can be found on the fringe as well. The gross value added in the acceding countries is often relatively low, except in capital regions and in Poland.

The industry-based urban system is polycentric (favouring polycentricity) especially in AT, DE, FI, IT, LU, NL, PT, SE and SK. The tourism-based urban system is monocentric (more monocentric than what one would expect on the basis of the settlement structure) in BG, CY, CZ and LT (Map 10).

Industrial function



Gross value added in manufacturing (industry) 2000

Geographical Base: Eurostat GISCO

- Global industrial node (more than 20 billion Euro in GVA)
- Industrial node of European significance (7.5-20 billion Euro in GVA)
- Transnational industrial significance or strongly industrially oriented FUA (2.5-7.5 billion Euro in GVA)
- Major industrial FUA (1-2.5 billion Euro in GVA)
- Minor industry or no industry (less than 1 billion in GVA)

Origin of data: EUROSTAT, National Statistical Offices
Source: Nordregio

Map no 10: Industrial function

Table no 12: Industrial function – country reports

Country	Observations
Austria	Industry is also rather more polycentric than the settlement structure, i.e. the FUAs' position in the national network in terms of industrial (manufacturing) functions makes their position stronger in the national network than would be the case if we were to refer only to population mass.
Belgium	Antwerp is the strongest industrial node, scoring on the European level. Six FUAs score on the national level, and seven on the regional level. Three FUAs are industrial in economic structure.
Bulgaria	Sofia is also the largest industrial node in the country. The remaining FUAs have only minor industry or no industry at all. Sofia is the only FUA with a diversified production structure. Other FUAs are primary production oriented.
Switzerland	No data available
Cyprus	Four FUAs on Cyprus do not have any significant role as industrial nodes.
Czech Republic	Most of FUAs in the Czech Republic are industrially oriented. However, gross value added in industries is low, and not one FUA scores even on the regional level.
Germany	Germany is a highly industrialised country, with a very polycentric industrial network. It is in fact due to polycentricity that the country does not have one global node in industry, even though neighbouring FUAs score highly, especially in the heavily industrialised west. Four FUAs have European significance (Berlin, Hamburg, Munich and Stuttgart). 36 FUAs have national, and 57 regional significance.
Denmark	The industrial structure is quite polycentric. Copenhagen is also the main location for industry, but 12 other FUAs have a gross value added between 1 and 2.5 billion euros yearly (regional significance).
Estonia	As with all of the Baltic States, industry in Estonia is rather weak. There is no one FUA with more then 1 billion euros gross value added.
Spain	The industrial structure is also polycentric. Spain is the only country that has two global nodes in industry (Madrid and Barcelona). Valencia has European significance in this regard. 13 FUAs have a national role and 43 other FUAs have a gross value added between 1 and 2.5 billion euros yearly.
Finland	Helsinki is the main node in industry. Four other FUAs score on the national level, and 11 have regional significance. The urban system is based on scattered industrial nodes, i.e. the system is more polycentric due to industrial functions.
France	No data available
Greece	Athens is also the main node in industry, having European significance. One FUA has national and three regional significance. Industry is thus quite concentrated to a few centres. Most of the FUAs in Greece rely on primary production in terms of their economic structure.
Hungary	Budapest is the only significant node as regards industry. Other FUAs do not score higher than the local level, even though some of these FUAs are strongly industry oriented. In other words, industry is also highly monocentric.
Ireland	Industry is somewhat more polycentric than the settlement structure. In both tourism and industry some FUAs' positions in these national networks make their position stronger in the national network as a whole over and above that which their mass would otherwise suggest.
Italy	Milan is a global node in terms of manufacturing. Five other FUAs are of European, 30 national, and 88 of regional significance. About four fifths of these FUAs are located in northern Italy, as such, this does not favour polycentricity at the national level, only at the regional level.

Lithuania	All eight FUAs have a gross value added of less than 1 billion euros annually. Industry has no significant role in making the country more polycentric.
Luxembourg	Industry is rather more polycentric than the settlement structure, i.e. Esch-sur-Alzette's position in terms of the industrial (manufacturing) function makes its position stronger in the urban network than that which its population mass would suggest.
Latvia	As with all the Baltic States, industry in Latvia is still rather weak. There is no one FUA that has more then 1 billion euros gross value added.
Malta	Industry in the Valletta FUA has less than 1 billion euros gross value added, so it has only local significance.
Netherlands	Rotterdam and Dordrecht are the main industrial nodes (European significance). The Netherlands is genuinely polycentric, and has a developed division of labour between its cities, as different cities score highly in different functions. Nine FUAs have national significance and 14 FUAs regional significance.
Norway	No FUA scores on the global or European levels. Oslo and Bergen are the main nodes as regards industry. Four other FUAs score on the regional level. The industrial function does not have an effect on polycentricity in Norway.
Poland	Warsaw has European significance as an industrial node, being the only FUA in the acceding countries at this level. Eight other FUAs have national significance, and a further eight FUAs score on the regional level. The industrial function does not affect polycentricity in Poland.
Portugal	Lisbon and Porto are the strongest industrial nodes as well, but there are 17 other FUAs where gross value added in industry is more than 1 billion euros per year. The industrial structure is more polycentric than that which the settlement structure would suggest.
Romania	Bucharest is the strongest industrial node, scoring on the national significance level. Five other FUAs have a gross value added of more than 1 billion euros annually. Overall, industry does not affect polycentricity.
Sweden	The strongest FUAs are also the most important nodes as regards industry, all having European significance. However there are 23 other FUAs that have more than 1 billion euros value added in industry every year (having at least regional significance in industry). In other words, the urban system is based on scattered industrial nodes. However, most of these FUAs have a diversified economic structure, so that they are not only dependent on industry.
Slovenia	Ljubljana is also the strongest industrial node, but gross value added in manufacturing has only regional significance. Three FUAs have an industrial orientation in economic structure but their industry does not add value more than 1 billion euros yearly.
Slovakia	Of all of the 27 FUAs in the country 12 have an economic base in industry. However only five of these had a gross value added above 1 billion euros in 2000. Industry is however the function that makes Slovakia's urban structure more polycentric.
United Kingdom	No data available

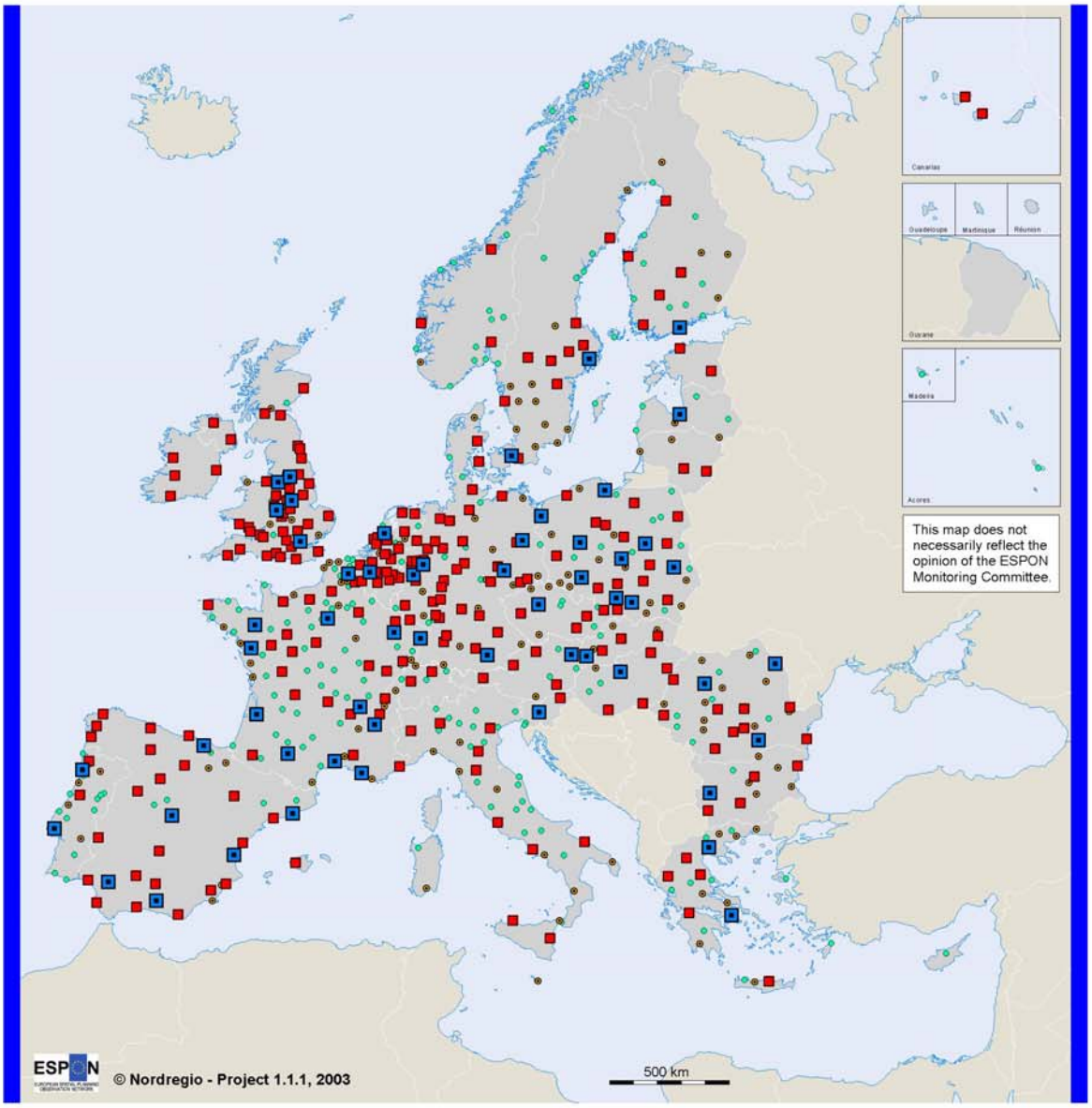
4.2.5 Knowledge

The knowledge function is measured in terms of the number of students in higher education institutes. In all countries the capital city is also the most important node in this regard. It can be argued that knowledge makes strong poles even stronger, which is an important feature when identifying growth poles beyond the Pentagon. On the other hand, the university system in most of the countries favours polycentricity. Even though the main node is in a capital city, it is usually the case that many other large universities are located in other FUAs.

The general picture of knowledge-based Europe is very balanced. Important nodes are evenly distributed to all parts of Europe, and within most of the countries as well. The density of higher-level education institutes is naturally higher in more densely populated areas.

The knowledge-based urban system is polycentric (favouring polycentricity) especially in AT, BE, FI, GR, IE, LT, LV, NL, PT, RO, SE, SI and UK. The knowledge-based urban system is monocentric (more monocentric than what one would expect on the basis of settlement structures) in CH, CY, DK, HU and IT (Map 11).

Knowledge function



Number of university students in FUA (ISCED 5A and 6) 2000-2001

Geographical Base: Eurostat GISCO

- Knowledge node of European significance (50 000-500 000 students)
- Large higher education institute/s (10 000-50 000 students)
- Medium-sized higher education institute/s (5 000-10 000 students)
- Regional higher educatioin institute/s (less than 5 000 students)

Origin of data: National experts

Source: Nordregio

Map no 11: Knowledge function

Table no 13: Knowledge function – country reports

Country	Observations
Austria	The knowledge structure is again more balanced (polycentric) than that of the settlement structure, though universities are concentrated in the larger FUAs. Vienna's Universities have more than 50 000 students. Four other FUAs have larger universities. The total number of FUAs with higher education institutes is eight.
Belgium	The total number of FUAs with higher education institutes is 16. Brussels has most students, while seven other FUAs have more than 10 000 students.
Bulgaria	Sofia has more than 50 000 students in higher education institutes, which gives the city the status of being a significant knowledge node on the European level. Four other FUAs have large universities. The total number of FUAs with higher education institutes is 11. Three of these 11 FUAs have less than 100 000 inhabitants.
Switzerland	Three FUAs have more than 10 000 students, but there is no knowledge node of European significance. The total number of FUAs with higher education institutes is nine. The university system is concentrated in the larger FUAs, making the country more monocentric.
Cyprus	Nicosia is the only FUA with higher education institutes, but it only scores on the local level.
Czech Republic	Prague is also the main node in the knowledge system. Four other FUAs have major universities. The total number of FUAs with higher education institutes is 12. The university system is as balanced as the settlement structure requires.
Germany	Five FUAs have more than 50 000 students in higher education institutes, and there are 37 other major university cities. The total number of FUAs with higher education institutes is 63. In a polycentric country this relatively scattered university system does not work to increase polycentricity.
Denmark	Copenhagen is also a node in the European knowledge system. Two other FUAs have major universities. The total number of FUAs with higher education institutes is seven, in other words the university system is very monocentric.
Estonia	The knowledge system in Estonia is bipolar. Tallinn and Tartu are the two university FUAs in Estonia. Other FUAs have no higher education institutes.
Spain	Six FUAs have more than 50 000 university students. Furthermore there are 25 other university-FUAs. The total number of FUAs with higher education institutes is 40. The university system is as polycentric as the settlement structure requires.
Finland	Helsinki has more than 50 000 students attending its universities. Five other FUAs have large universities. The total number of FUAs with higher education institutes is 20.The university system makes the urban system more polycentric.
France	The university system is very polycentric. 12 FUAs have more than 50 000 university students, located in all parts of country. In addition there are 22 other important university-FUAs. The total number of FUAs with higher education institutes is 98.
Greece	Both Athens and Thessaloniki have universities of European significance. Seven other FUAs have large universities. The total number of FUAs with higher education institutes is 23. The university system is making Greece more polycentric.
Hungary	Budapest is a node in the European knowledge system, as it is the seat of a number of major higher education institutes. Four other FUAs have major universities. The total number of FUAs with higher education institutes is nine. Compared to other measured functions, institutes providing higher education make the Hungarian system more monocentric (more concentrated).

Ireland	The total number of FUAs with higher education institutes is four, none of them having less than 50 000 students. Dublin is the strongest node, the other three are the next largest cities.
Italy	Italy has no FUA of European significance in terms of knowledge. 10 FUAs have national significance. The total number of FUAs with higher education institutes is 41. Higher education institutes are distributed evenly across all parts of the country, but the number of FUAs with these functions is rather small compared to the total number of FUAs in Italy.
Lithuania	The knowledge system is bipolar. In Vilnius and Kaunas the universities are large (more than 10 000 students). In total, Lithuania has four FUAs with higher education institutes.
Luxembourg	Only one of Luxemburg's two FUAs has a higher education institute, but it has only local significance.
Latvia	The knowledge system is rather polycentric. Riga higher education institutes have more than 50 000 students in addition, there are two FUAs with medium-sized higher education institutes. The total number of FUAs with higher education institutes is seven.
Malta	Valletta has a higher education institute, and it has regional significance.
Netherlands	Amsterdam has the most students in the Netherlands (European significance). 12 other FUAs have large universities. The total number of FUAs with higher education institutes is 24. The Netherlands is a polycentric country and this feature is supported by its scattered university system.
Norway	Oslo is the main node in the knowledge system, but it does not score on the European level. Two other FUAs also have national significance. The university system is dominated by small universities with less than 5000 students each, while the total number of FUAs with higher education institutes is 20.
Poland	The university system in Poland is very polycentric (most polycentric in Europe). Nine FUAs have universities with more than 50 000 students. In addition, there are 14 large university-FUAs. The total number of FUAs with higher education institutes is 45.
Portugal	The two main FUAs (Lisbon and Porto) also have the main universities of European significance. These two FUAs have large universities. The total number of FUAs with higher education institutes is 24.
Romania	The knowledge system is very polycentric. In addition to the capital, eleven FUAs have major universities, distributed over all parts of country. The total number of FUAs with higher education institutes is 29. The knowledge system makes the national urban system more polycentric.
Sweden	Stockholm is the main node of the knowledge system. Nine other FUAs have large universities. The total number of FUAs with higher education institutes is 26. The university system makes the urban system more polycentric.
Slovenia	Lljubljana has more than 50 000 students in higher education institutes. Maribor also has a major university. Koper also has a role in the university system. In other words the knowledge system makes the country more polycentric.
Slovakia	Bratislava has major higher education institutes and there are three other FUA universities with more than 10 000 students. The total number of FUAs with higher education institutes is eight.
United Kingdom	The university system in the UK is polycentric and balanced with the national urban structure. The total number of FUAs with higher education institutes is 54. Five universities have more than 50 000 students and as many as 40 FUAs have a medium-sized university.

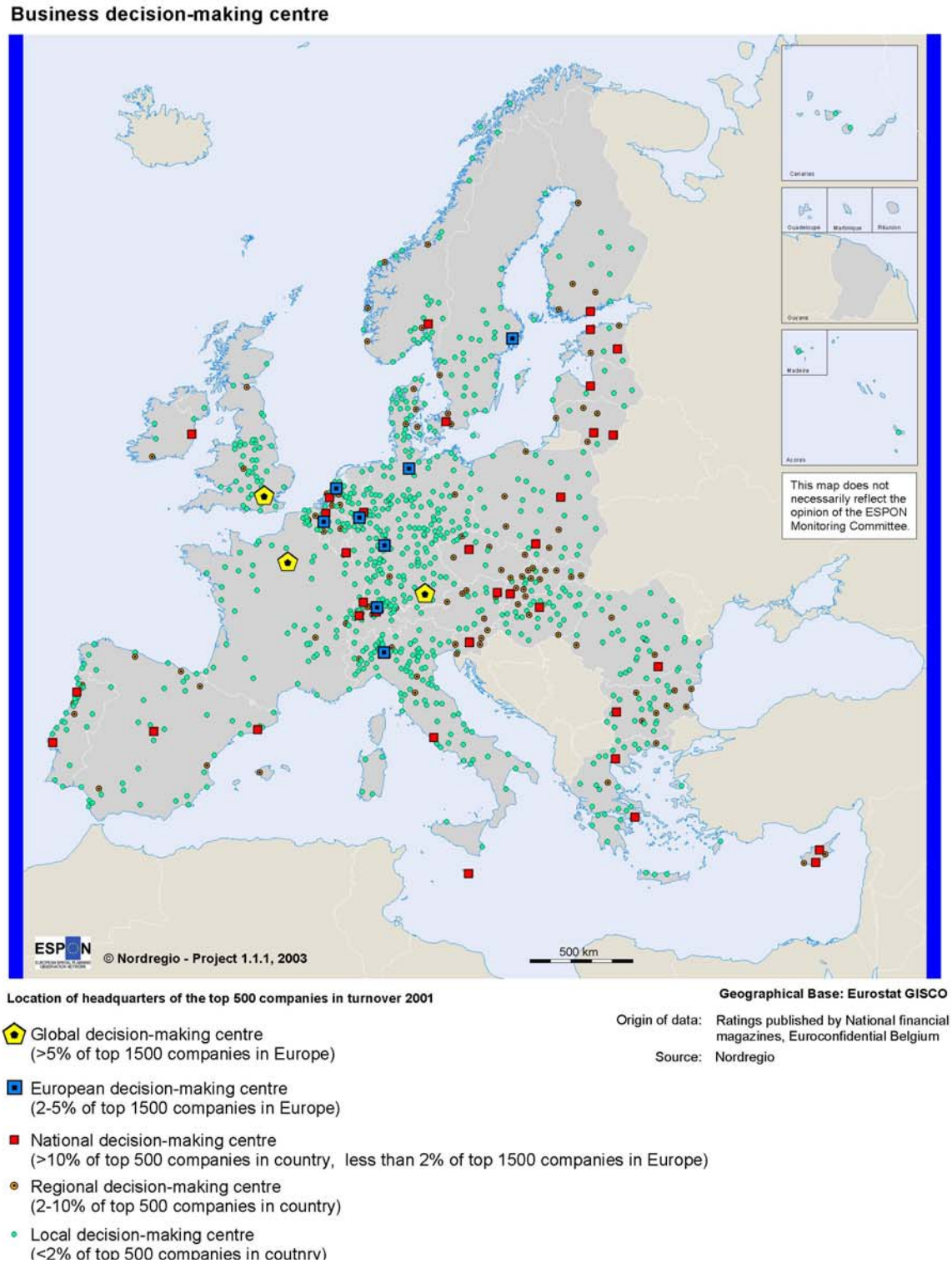
4.2.6 Decision-making

The capacity of influence of an urban system is not solely dependent on its level of competitiveness and demographic weight, but also on its actual economic attractiveness to private investors. Other factors then, which are difficult to measure and compare, come into play in the individual choices made by firms. Owing to the complexity of any approach that consists of listing all of the conditions of attractiveness within a territory, for the purposes of this study we have chosen instead to examine its effects – in other words the distribution of the top European firms. In this regard, the degree of attractiveness of the urban systems included in the study should be read as an observation and not a potentiality, since the factors governing the establishment of companies are by nature likely to change over time.

The location of the largest companies in Europe, and in each country, describes the locational behaviour of the private sector. Business headquarters locate to places with good accessibility and that are close to business services. Future growth is expected to take place particularly in private sector services.

Decision-making is highly concentrated to the Pentagon (Stockholm is the only FUA outside). Of core areas BE, DE and NL are polycentric countries, while in FR and the UK the capital overshadows the other FUAs in the country. DE, IT and CH are countries where business power is located in cities other than the capital. In general, national capitals are important in national decision-making, but in many small countries (CY, EE, GR, LT, PT) there are two important centres, and this is something that favours polycentrism.

In general, the location of the top-500 companies favours polycentrism in AT, CH, CY, EE, IE, LT, LU, LV, NO, SI and SK. Business structure is relatively monocentric (concentrated to one or few FUAs) in CZ, ES, FI, FR, HU, IT, PL, RO and UK (Map 12).



Map no 12: Business decision-making centre

Table no 14: Business decision-making centre – country reports

Country	Observations
Austria	Austria has no FUA with a significant role as a business decision-making centre at the global or European level. Vienna is a national node. Seven smaller FUAs have a role as business decision-making centres on the regional level, and 14 have some top 500 companies.
Belgium	Brussels has a significant role as a business decision-making centre on the European level. Antwerp is another important node. Four FUAs have regional significance. Another 15 FUAs have at least one top-500 company headquarters.
Bulgaria	Bulgaria has no FUA with a significant role as a business decision-making centre on the global or European levels. Sofia is a national decision-making centre. Seven other FUAs have 2 to 10 percent of top-500 companies, and 22 FUAs have at least one, but less than 10, top-500 companies.
Switzerland	Zürich has a significant role as a business decision-making centre on the European level. The business decision-making centre is not the same as the administrative centre however, which makes the country more polycentric. Bern, Basle and Zug have more than 50 national top-500 company headquarters. Four other FUAs have a regional significance in business decision-making. The total number of FUAs with at least one company headquarters is 40, as such, decision-making is the function that most favours polycentricity in Switzerland.
Cyprus	Cyprus has no FUA with a significant role as a business decision-making centre on the global or European levels. Companies are mainly located in Nicosia and Limassol, though some are located in two other FUAs.
Czech Republic	The Czech Republic has no FUA with a significant role as a business decision-making centre on the global or European levels. Prague is a national decision-making centre. Five other FUAs have 10 to 50 top-500 company headquarters. Seven more FUAs have some headquarters.
Germany	The central business decision-making centre is not the same as the major administrative centre, which makes the country even more polycentric. Munich is the only FUA considered to be globally significant as a business decision-making centre. However, polycentricity does not do justice to the importance of cities located in e.g. Rhine -Ruhr area, where top companies are scattered to a number of FUAs.
Denmark	Denmark has no FUA with a significant role as a business decision-making centre on the global or European levels. Copenhagen is a national decision-making centre. Four FUAs have between 10 and 50 of headquarters of top-500 companies. Furthermore, 25 other FUAs have some business headquarters. The decision-making system is rather polycentric.
Estonia	Estonia has no FUA with a significant role as a business decision-making centre on the global or European levels. Top-500 companies are located mainly in Tallinn, though over 50 are also to be found in Tarto, which maintains its position in the national urban network. Two other FUAs have over 10 headquarters, and three have some companies.
Spain	Spain has no FUA with a significant role as a business decision-making centre on the global or European levels. As regards decision-making, the country is bipolar: both Madrid and Barcelona have important national roles. These two centres overshadow the smaller FUAs as decision-making centres. Only six other FUAs have a regional significance, with 41 having a local significance.
Finland	Finland has no FUA with a significant role as a business decision-making centre on the global or European levels. Helsinki is the national decision-making centre. Four other FUAs have regional significance, and 11 FUAs have some headquarters of top-500 companies.

France	Paris has a significant role as a business decision-making centre on the global level. At the same time it is (like London in UK) dominant also in the national field, and there is only one other FUA with regional significance, and 46 FUAs with local significance as decision-making centres.
Greece	Greece has no FUA with a significant role as a business decision-making centre on the global or European levels. The headquarters of top-500 companies are located in Athens and in Thessaloniki. Komotini and Larisa are other two FUAs that boast regional significance.
Hungary	Hungary has no FUA with a significant role as a business decision-making centre on the global or European levels. Budapest is a national centre for business decision-making. Four other FUAs have 2 to 10 percent of large companies in Hungary. 31 other FUAs have some headquarters.
Ireland	Ireland has no FUA with a significant role as a business decision-making centre on the global or European levels. Dublin is the national decision-making centre. Cork has regional significance. Two FUAs in Ireland have no top-500 company headquarters.
Italy	In decision-making terms Italy is polycentric. Milan has a significant role as a business decision-making centre on the European level. The business decision-making centre is not same as the administrative centre, which makes the country more polycentric. Rome is the national decision-making centre.
Lithuania	Lithuania has no FUA with a significant role as a business decision-making centre on the global or European levels. Both Vilnius and Kaunas are important business decision-making centres in Lithuania. The remaining FUAs have some headquarters of main companies.
Luxembourg	Luxembourg has no FUA with a significant role as a business decision-making centre on the global or European levels. Most of the companies are located in Luxembourg FUA.
Latvia	Latvia has no FUA with a significant role as a business decision-making centre on the global or European levels. Riga is a national node for business activity, but some of the large companies are also scattered to other FUAs.
Malta	Malta has no FUA with a significant role as a business decision-making centre on the global or European levels. The Valletta urban area is naturally the location for headquarters operating in Malta.
Netherlands	Amsterdam has a significant role as a business decision-making centre on the European level. Rotterdam is the second-city in decision-making terms, functioning as national node. Four other FUAs have 2 to 10 percent of the top-500 company headquarters. In other words, business decision-making is rather more centralised to the large FUAs.
Norway	Norway has no FUA with a significant role as a business decision-making centre on the global or European levels. Oslo is the main location for major companies. Five other FUAs have 2 to 10 per cent of top-500 companies.
Poland	Poland has no FUA with a significant role as a business decision-making centre on the global or European levels. Warsaw and Katowice are national decision-making nodes. Five other FUAs have 2 to 10% of top-500 companies in the country. 30 other FUAs have some headquarters. Business decision-making is much more concentrated in Poland than the other functions.
Portugal	Portugal has no FUA with a significant role as a business decision-making centre on the global or European levels, moreover, business decision-making is divided between Lisbon and Porto. Three other FUAs have regional, and 23 local, significance.

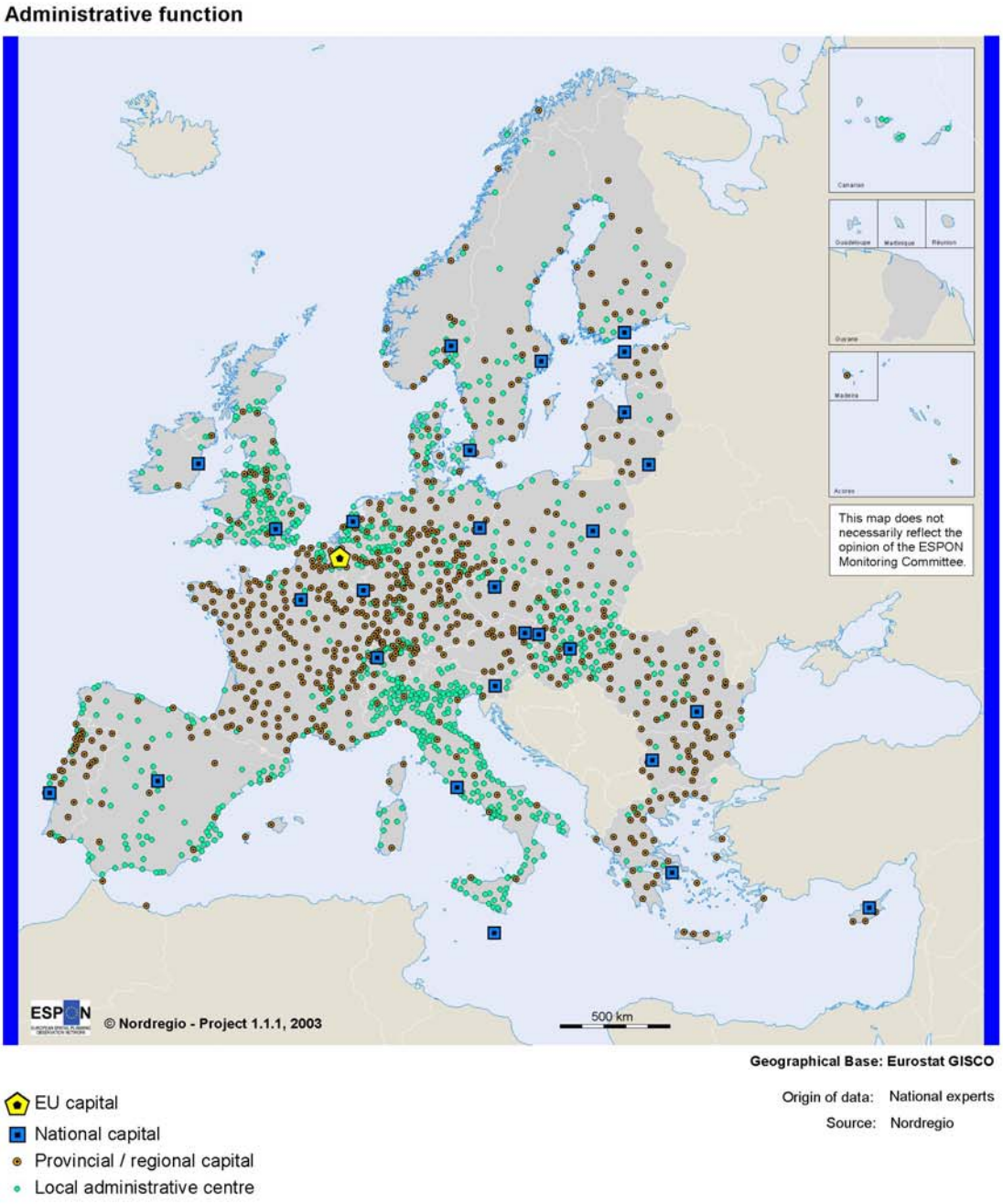
Romania	Romania has no FUA with a significant role as a business decision-making centre on the global or European levels. Bucharest is the most important node in national decision - making and also in the private sector. Five other FUAs have regional significance in decision-making, while the top-500 companies are scattered across 32 other smaller FUAs.
Sweden	Stockholm has a role in business decision-making on the European level, being the only FUA outside the Pentagon that has attained this status. Three other FUAs have 2 to 10% of top 500 companies. Furthermore, 32 other FUAs have some major companies.
Slovenia	Slovenia has no FUA with a significant role as a business decision-making centre on the global or European levels. The capital city is also the most important decision-making centre in country. In terms of polycentricity it is important that all other FUAs have 2 to 10% of major companies in the country.
Slovakia	Slovakia has no FUA with a significant role as a business decision-making centre on the global or European levels. Bratislava is also a decision -making centre for the private sector. In terms of polycentricity it is also important that 21 other FUAs have some of the largest companies in the country.
United Kingdom	London is a global decision-making centre every fifth TOP500 company in Europe has their headquarters in London. The UK is monocentric in terms of decision-making. Other FUAs are shadowed by London - there is no other FUA that would be transnational/national decision-making centre.

4.2.7 Administration

Administrative functions have a significant role in polycentrism. Administrative cities have a strong public sector service role. These services have to be available in all parts of the country, and regional capitals are evenly distributed in each country. The strong hierarchy of urban systems is often due to the development of administrative functions. However, a strong administrative role does not guarantee a good position in the urban network when competition between FUAs is tightening. The FUAs position has to be supported by other functions as well.

The current European picture is a result of different national systems. Capitals are the main nodes of the European administrative system. In federal states (e.g. DE and AT) provincial capitals as administrative centres have a strong position in the national system.

The administrative system is polycentric (and favouring polycentricity), in comparison to the mass function of FUAs, in AT, FI, FR, GR and PT. The administrative structure is polycentric, in comparison to mass function of FUAs, in CZ, ES, IT and PL (Map 13).



Map no 13: Administrative function

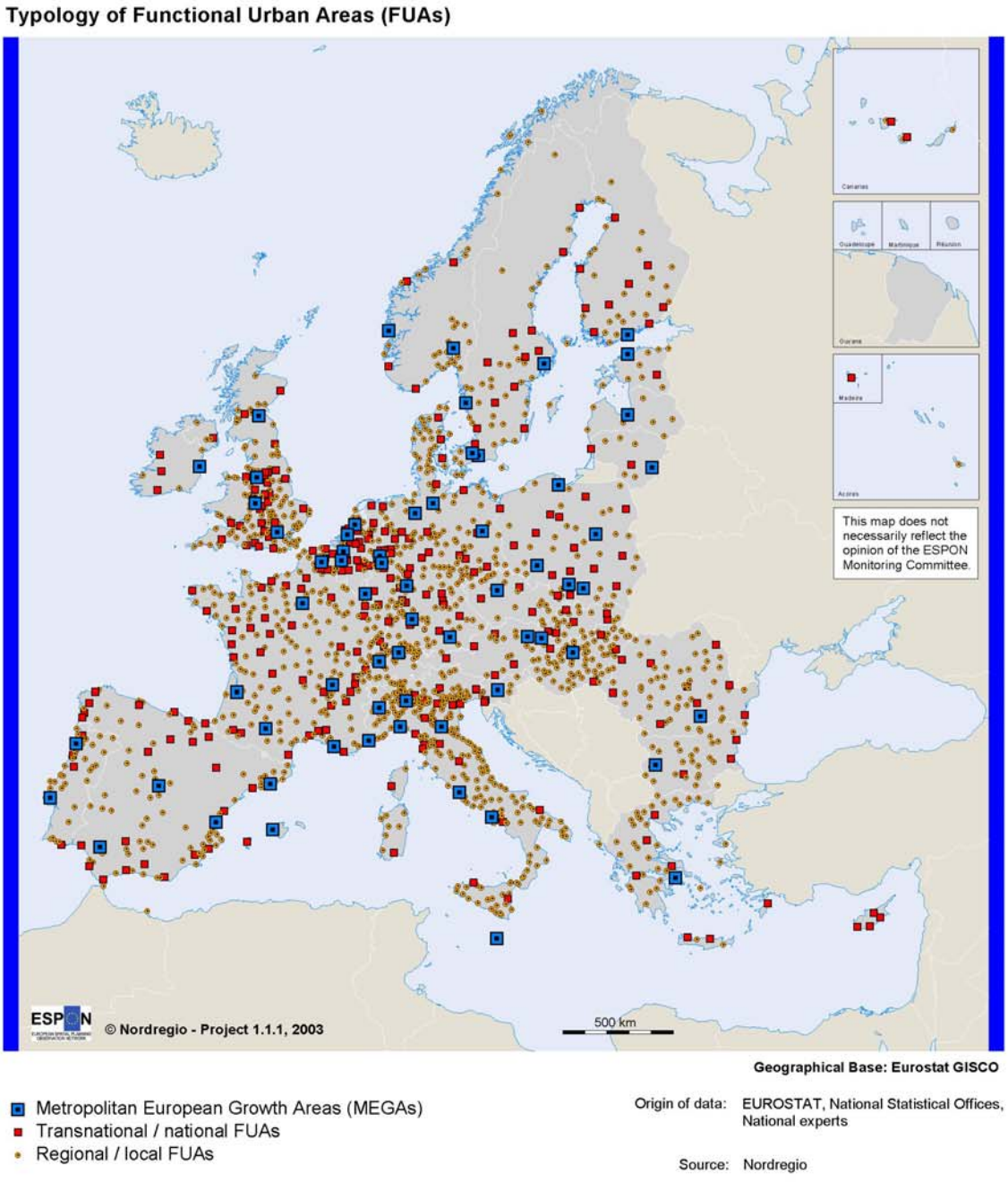
Table no 15: Administrative function – country reports

Country	Observations
Austria	Vienna is the capital city (European significance in administration). As a federal state, the administrative role of some FUAs is strengthening their position in the national urban network, compared to their position according mass criterion. There are 20 regional capitals.
Belgium	Brussels is an EU capital (global significance in administration). There are seven regional capitals. The remaining FUAs have only local service functions.
Bulgaria	Sofia is the capital city (European significance in administration). The network of regional capitals is rather dense. There are 26 regional capitals, and only four FUAs do not have a significant role in administration.
Switzerland	Bern is the capital city (European significance in administration). There are 18 regional capitals.
Cyprus	Nicosia is the capital city (European significance in administration), the other three FUAs function as regional capitals.
Czech Republic	Prague is the capital city (European significance in administration). There are 12 regional capitals, and 12 FUAs do not have any significant administrative role. The public administrative system is as balanced as the settlement structure requires, and does not favour polycentricity.
Germany	Berlin is the capital city (European significance in administration). As a federal state, the administrative role of some FUAs strengthens their position in the national urban network, as compared to their position according to mass criterion. There are 112 FUAs that have some role in regional administration. Some of them are state capitals of the länder.
Denmark	Copenhagen is the capital city (European significance in administration). There are nine regional capitals. 25 FUAs do not have any significant role in administration. The administrative system is quite centralised, but in a small country the service area of administrative centres cannot be any smaller.
Estonia	Tallinn is the capital city (European significance in administration). The rest of the FUAs are regional capitals.
Spain	Madrid is the capital city (European significance in administration). 18 FUAs are regional capitals, the rest have only local significance. The area and the number of people that these regional centres serve is rather large, making urban system more monocentric.
Finland	Helsinki is the capital city (European significance in administration). There are 18 regional capitals. 16 FUAs do not have a significant role in administration. Administrative functions balance the national urban network (favours polycentricity).
France	Paris is the capital city (European significance in administration). The administrative role of some FUAs is strengthening their position in the national urban network, particularly when compared to their position according to mass criterion. Administration is very polycentric. 181 FUAs can be considered as regionally significant in administrative functions.
Greece	Athens is the capital city (European significance in administration). The administrative role of some FUAs is strengthening their position in the national urban network, as compared to their position in accordance with mass criterion. 35 FUAs have regional significance in administration.
Hungary	Budapest is the capital city (European significance in administration). There are 19 regional capitals. The remaining FUAs have only a local service function.
Ireland	Dublin is the capital city (European significance in administration). Administrative functions do not make Ireland more polycentric, only Waterford has regional significance in administrative terms.

Italy	Rome is the capital city (European significance in administration). There are 19 regional capitals, the remaining FUAs have only local significance. The area and number of people that regional centres serve is rather large.
Lithuania	Vilnius is the capital city (European significance in administration). The remaining FUAs are regional capitals.
Luxembourg	Luxemburg is the capital city (European significance in administration). Esch-sur-Alzette has only local service functions.
Latvia	Riga is the capital city (European significance in administration). There are five regional capitals, though two FUAs have only a local service function.
Malta	Valletta is the capital city (European significance in administration).
Netherlands	Amsterdam is the capital city (European significance in administration). 11 FUAs have regional capital functions and 27 FUAs have only local service functions.
Norway	Oslo is the capital city (European significance in administration). 13 FUAs are considered as regional capitals, 22 FUAs have only regional local service functions (most of them located near Oslo).
Poland	Warsaw is the capital city (European significance in administration). There are 17 regional capitals. 30 FUAs have local service functions. The area and the number of people that regional centres serve is rather large.
Portugal	Lisbon is the capital city (European significance in administration). The number of FUAs that are considered to have regional significance in administration is 33. Thus, the administrative role of some FUAs is strengthening their position in the national urban network, as compared to their position according to mass criterion.
Romania	Bucharest is the capital city (European significance in administration). 40 FUAs have regional administration functions. The network of regional capitals is rather dense.
Sweden	Stockholm is the capital city (European significance in administration). There are 18 regional capitals and 28 FUAs that have only regional service functions.
Slovenia	Ljubljana is the capital city (European significance in administration). The remaining FUAs are regional capitals. Administration maintains the polycentric structure, but does not increase polycentricity.
Slovakia	Bratislava is the capital city (European significance in administration). There are seven regional capitals, 19 FUAs have only local service functions.
United Kingdom	London is the capital city (European significance in administration). 19 FUAs are considered to have significance as regional administrative centres. The area and number of people that regional centres serve is rather large. As a result, administrative functions make the urban system more monocentric rather than more polycentric. 129 FUAs have only local service function.

4.2.8 Typology of Functional Urban Areas

The typology is based on the average of the above-presented seven functions. The total number of functionally significant urban areas in Europe is 1595. 64 of these are MEGAs, 219 are transnational/national FUAs and 1312 are regional/local FUAs (Map 14).



Map no 14: Typology of Functional Urban Areas (FUAs)

Table no 16: Typology of Functional Urban Areas (FUAs) – country reports

Country	Observations
Austria	Austria has one MEGA, five FUAs with transnational or national significance and eighteen FUAs with regional or local significance. The total number of functionally significant functional urban areas is 24.
Belgium	Belgium has two MEGAs, eight FUAs with transnational or national significance and 11 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 21.
Bulgaria	Bulgaria has one MEGA, three FUAs with transnational or national significance and 27 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 31.
Switzerland	Switzerland has two MEGAs, three FUAs with transnational or national significance and 43 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 48.
Cyprus	Cyprus has no MEGA, but four FUAs with transnational or national significance (the total number of functionally significant functional urban areas is four).
Czech Republic	The Czech Republic has one MEGA, four FUAs with transnational or national significance and 20 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 25.
Germany	Germany has eight MEGAs, 35 FUAs with transnational or national significance and 143 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 186.
Denmark	Denmark has one MEGA, three FUAs with transnational or national significance and 31 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 35.
Estonia	Estonia has one MEGA, one FUA with transnational or national significance and eight FUAs with regional or local significance. The total number of functionally significant functional urban areas is ten.
Spain	Spain has five MEGAs, 27 FUAs with transnational or national significance and 78 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 110.
Finland	Finland has one MEGA, nine FUAs with transnational or national significance and 25 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 35.
France	France has one MEGA, 41 FUAs with transnational or national significance and 163 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 211.
Greece	Greece has one MEGA, seven FUAs with transnational or national significance and 37 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 45.
Hungary	Hungary has one MEGA, four FUAs with transnational or national significance and 72 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 77.
Ireland	Ireland has one MEGA, three FUAs of transnational or national significance and three FUAs of regional or local significance. The total number of functionally significant functional urban areas is seven.
Italy	Italy has six MEGA, 19 FUAs of transnational or national significance and 228 FUAs of regional or local significance. Total number of functionally significant functional urban areas is 253.

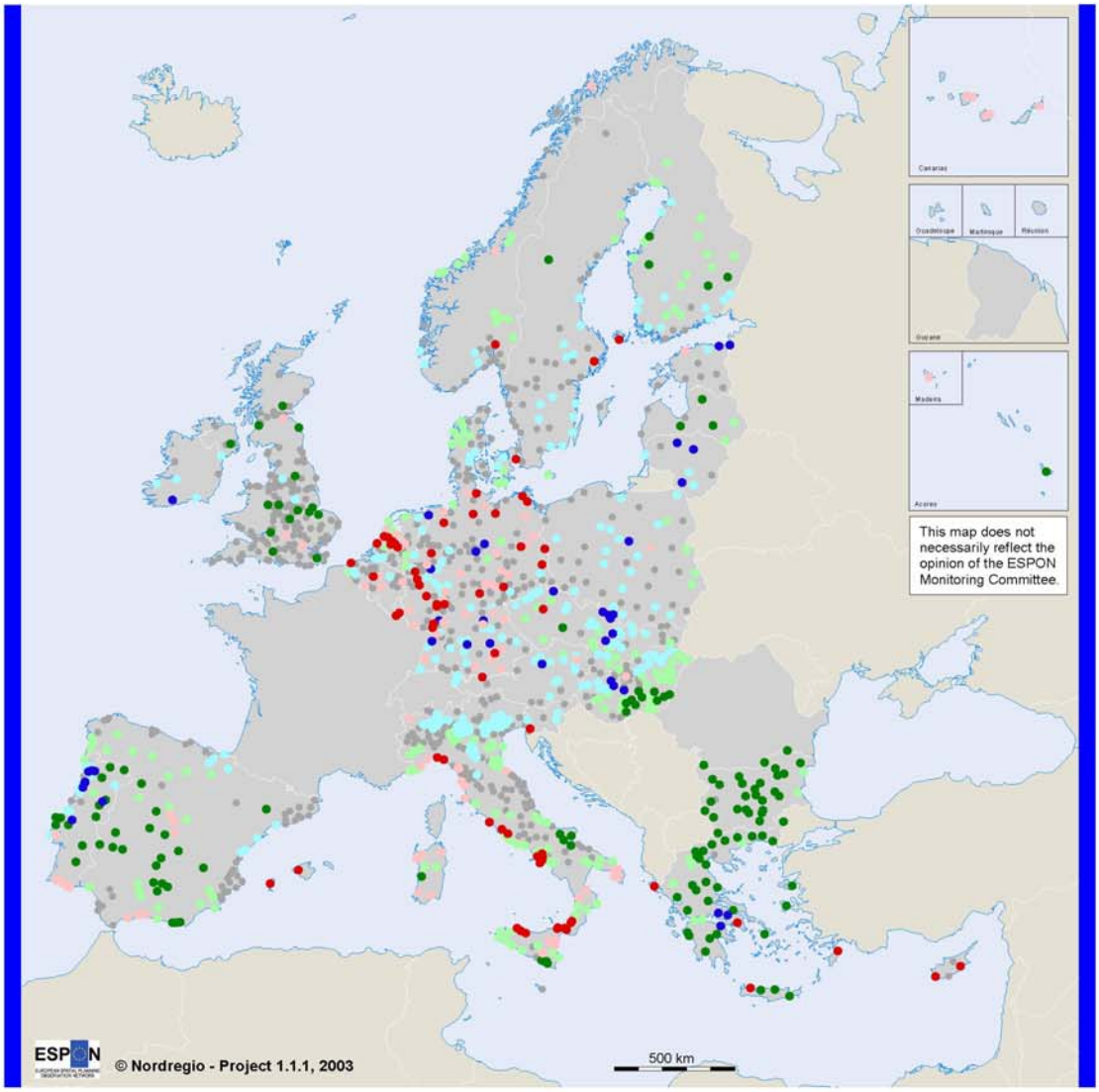
Lithuania	Lithuania has one MEGA, two FUAs of transnational or national significance and five FUAs of regional or local significance. The total number of functionally significant functional urban areas is eight.
Luxembourg	Luxembourg has one MEGA and one FUA with regional or local significance. Thus, the total number of functionally significant functional urban areas is two.
Latvia	Latvia has one MEGA, no FUAs of transnational or national significance and seven FUAs of regional or local significance, totalling eight functionally significant functional urban areas in country.
Malta	Malta has one FUA, which is classified as MEGA.
Netherlands	The Netherlands has two MEGAs, 14 FUAs of transnational or national significance and 23 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 39.
Norway	Norway has two MEGAs, four FUAs of transnational or national significance and 30 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 36.
Poland	Poland has five MEGA, 14 FUAs of transnational or national significance and 29 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 48.
Portugal	Portugal has two MEGAs, five FUAs of transnational or national significance and 39 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 46.
Romania	Romania has one MEGA, nine FUAs of transnational or national significance and 49 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 59.
Sweden	Sweden has three MEGA, 12 FUAs of transnational or national significance and 32 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 47.
Slovenia	Slovenia has one MEGA, one FUA of transnational or national significance and four FUAs of regional or local significance. The total number of functionally significant functional urban areas is 6.
Slovakia	Slovakia has one MEGA, six FUAs of transnational or national significance and twenty FUAs of regional or local significance. The total number of functionally significant functional urban areas is 27.
United Kingdom	The United Kingdom has four MEGAs, 30 FUAs of transnational or national significance and 112 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 146.

4.2.9 Economic base

In order to appreciate a more explicit functional orientation (economic base), an analysis of economic structures was carried out. The analysis was based on gross value added in the primary, secondary and tertiary production, or share of the labour force in case GVA data was not available.

Most services-oriented FUAs are located within the Pentagon and in the strongly tourist-oriented areas. Also, capital regions are often service oriented or diversified. Industrial orientation is found in the small or medium-sized FUAs, which are often located close to natural resources. A dense network of industry-oriented FUAs can be indentified in central and east Europe. Most peripheral FUAs are primary production-oriented (Map 15).

Economic base (orientation)



Share in gross value added in 2000

Geographical Base: Eurostat GISCO

- Strong service specialisation (share of service production >80%)
- Service specialisation (share of service production 75-80%)
- Strong industrial specialisation (share of industrial production >50%)
- Industrial specialisation (share of industrial production 37.5 -50%)
- Strong primary production specialisation (share of primary production >10%)
- Primary production specialisation (share of primary production 5-10%)
- Diversified (share of primary production <5%, industrial production <37.5%, service production <75%)

Origin of data: EUROSTAT, National Statistical Offices, Estimates by national experts

Source: Nordregio

Map no 15: Economic base of FUAs

4.2.10 MEGA analysis

The MEGA analysis seeks to identify those urban areas that can be seen as "counterweights" to the Pentagon in the future. There are four building blocks here, namely (1) mass criterion, (2) competitiveness, (3) connectivity and (4) knowledge basis (Table 17). Each of these building blocks consists of two variables or indicators. The typology of the MEGAs is based on indexes of these four building blocks (cf. CPMR-study).

As in making of list of FUAs, the population of an urban system constitutes an important factor in the settlement of people and activities. For the economic mass indicator we have selected GDP in millions of euro, since it is the most comparable and relevant indicator. The economic weight of a conurbation or urban system measured in GDP expressed in millions of euro also provides a major indication of a FUA's attractiveness and the density of economic relations that it generates. The denser the economic environment, the more likely it is to present favourable conditions for its development, thereby exploiting the phenomena of economic complementarity and size effects. Moreover, certain sectors such as the higher tertiary sector only develop massively once a certain threshold of economic activity has been reached in the surrounding area, these being key factors towards economic development and the innovation of regional productive fabrics.

The capacity of an urban system to play a structuring role within its territory depends to a large extent on its competitiveness. The stronger this is, the greater and more effective will be not only its capacity to spread its influence, but also its ability to establish relations with other urban systems. Proximity between highly competitive urban systems or between very wide-ranging levels of competitiveness in a centre-periphery type relation would theoretically seem to provide the right conditions for making function-sharing easier.

The capacity for influence of an urban system is not solely dependent on its level of demographic weight, but also on its actual economic attractiveness for private investors. Other factors then, which are difficult to measure and compare, come into play in the individual choices made by firms. Owing to the complexity of any approach that consists of listing all of the conditions of attractiveness within a territory, for the purposes of this study we have chosen instead to examine its effects – in other words the distribution of the top

European firms. In this regard, the degree of attractiveness of the urban systems included in the study should be read as an observation and not a potentiality, as the factors governing the establishment of companies are by nature likely to change over time. The competitiveness of the FUAs is examined using GDP in ppp per capita and in the concentration of company headquarters of the top 500 European companies.

Connectivity indicators have been explained in connection of making of list of FUAs and are more elaborated below in connection of multimodal accessibility.

The knowledge basis is analysed on NUTS II level to data restrictions. In other words all MEGAs receive the value of NUTS II in which they are located, even though there obviously are major differences within NUTS II area. Two variables are measured: educational attainment level of the persons between the ages of 25-59 (as a % of the total) and R&D personnel (share of employed).

Table no 17: MEGA analysis variables

Theme	Variable	Variable index	Total index
Mass criterion	Population	Index: average of MEGAs = 100	Mass criterion: average of two indexes
	GDP	Index: average of MEGAs = 100	
Competitiveness	GDP per capita PPS	Index: average of MEGAs = 100	Competitiveness: average of two indexes Index weighted so that GDP per capita is 2/3, headquarter location 1/3)
	Location of TOP 500 companies in Europe	Index: 10 companies = 100	
Connectivity	Passengers at airports	Index: average of MEGAs = 100	Connectivity: average of two indexes
	Multimodal accessibility indicator	Index: average of MEGAs = 100	
Knowledge basis	Education level	Index: average of MEGAs = 100	Knowledge: average of two indexes
	R&D share of employment	Index: average of MEGAs = 100	

Data is based on NUTS 3 and NUTS 2 level data (the units employed are defined in Annex 7). Each of four indexes were scored in the following way (Table 18). Maximum score for MEGA is 16 (4 x 4) and minimum 0 (4 x 0). Results are presented in Table 19.

Table no 18: MEGA analysis - scoring

Index	Character	Score	Colour code
160 or above	Very strong	4	
120 – 159	Strong	3	
80 – 119	Average	2	
40 – 79	Weak	1	
less than 40	Very weak	0	

Global nodes

Of the total 64 MEGA cities in Europe, two are considered by this study as global nodes. Europe's two global nodes, the largest and most competitive urban systems with high connectivity, are Paris and London.

European Engines

The next classification of MEGA cities is European engines. These FUAs are often large, highly competitive, possess strong human capital and good accessibility. However, there can be two reasons why FUAs do not ascend to the global node level. While all the four building blocks are rated of a high European level, there is one building block that is prominently weaker than the other three. Most of these FUAs are located within the Pentagon, but a few of them are located outside. These FUAs play a key role in building a

more polycentric European engine of economic growth. MEGAs that belong to this category: Munich, Frankfurt, Madrid, Milan, Rome, Hamburg, Brussels, Copenhagen, Zürich, Amsterdam, Berlin, Barcelona and Stuttgart.

Strong MEGAs

Strong MEGAs comprise cities that are relatively large, competitive and often possess strong human capital. Most MEGAs in this category have an average of building block indexes slightly below European Engines, or have one or two qualities that are notably weaker than others. In most of the cases, it is the size (population), competitiveness or accessibility of FUAs that differentiates Strong MEGAs from European engines. However, Strong MEGAs' human capital (knowledge basis) is often at the same level than with European Engines. Strong MEGAs have a very important role as relays in building polycentrism. MEGAs that belong to this category are: Stockholm, Helsinki, Oslo, Düsseldorf, Vienna, Cologne, Manchester, Athens, Dublin and Gothenburg.

Potential MEGAs

These MEGAs are smaller, have lower competitiveness are more peripheral and often have weaker human capital than strong MEGAs. Often, potential MEGAs have one quality that is well above the other measured building block qualities. Another reason for MEGAs of this category is that the overall average of all building block qualities are rather weak. Warsaw, Budapest and Bratislava are the only MEGAs from the acceding countries that score to this category. These cities are non-capital cities of their respective countries, except in the acceding countries, Portugal and Switzerland, where Zürich is stronger. Thus, these cities play an important role in building more polycentric structures, also within their respective countries. MEGAs that belong to this category: Lyon, Antwerp, Turin, Rotterdam, Malmö, Marseille, Nice, Bern, Lisbon, Prague, Bremen, Toulouse, Budapest, Warsaw, Lille, Bergen, Edinburgh, Birmingham, Luxembourg, Palma de Mallorca, Bologna, Valencia and Bratislava.

Weak MEGAs

These MEGAs are often smaller, less competitive, more peripheral and have lower human capital figures than Potential MEGAs. There might be one quality that is stronger than others, but then all the other building block qualities are very weak. Another reason can be that the MEGA scores are relatively weak in all qualities overall. The development of these

Weak MEGAs will depend on their capacity to overcome their weaknesses. MEGAs that belong to this category are located in the Mediterranean area, and in the acceding countries. In the acceding countries, these MEGAs are nodes to the European urban system. Their role is crucial in relaying a more balanced territorial development on the European scale. MEGAs that belong to this category: Naples, Bordeaux, Genoa, Bucharest, Tallinn, Sofia, Seville, Porto, Ljubljana, Katowice, Vilnius, Krakow, Riga, Gdansk-Gdynia, Wroclaw and Valletta.

Table no 19: MEGA analysis - results

MEGA	mass	competitiveness	connectivity	knowledge	Index average	Score total	Groups
Paris	705	194	384	170	363	16	global nodes
London	495	400	534	120	387	15	
Munich	147	223	156	177	176	14	European engines
Frankfurt	141	139	287	131	174	13	
Madrid	248	96	185	151	170	13	
Milan	211	123	187	56	144	12	
Rome	189	109	168	83	137	12	
Hamburg	162	153	105	121	135	12	
Brussels	90	145	164	128	132	12	
Copenhagen	122	120	136	143	130	12	
Zürich	86	122	163	..	124	12	
Amsterdam	86	156	239	117	149	11	
Berlin	200	76	120	140	134	11	
Barcelona	210	63	134	96	126	10	
Stuttgart	147	104	99	151	125	10	
Stockholm	118	114	117	193	136	9	strong MEGAs
Helsinki	85	107	77	214	121	9	
Oslo	71	111	102	200	121	9	
Düsseldorf	103	148	144	79	118	9	
Vienna	113	92	109	145	115	9	
Cologne	109	114	95	121	110	9	
Manchester	132	70	136	76	103	8	
Athens	155	46	104	85	97	8	
Dublin	68	106	101	113	97	7	
Gothenburg	80	66	59	141	87	7	

MEGA	mass	competitiveness	connectivity	knowledge	Index average	Score total	Groups
Lyon	91	74	76	107	87	6	
Antwerpen	65	82	65	115	82	6	
Turin	113	94	62	58	82	6	
Rotterdam	67	84	61	111	81	6	
Malmö	59	55	60	134	77	6	
Marseille	86	58	71	88	76	6	
Nice	49	56	92	88	71	6	
Bern	45	73	48	..	(55)	6	
Lisbon	114	73	78	58	81	5	
Prague	49	71	76	114	77	5	
Bremen	57	73	66	106	75	5	
Toulouse	51	62	66	116	74	5	Potential MEGAs
Budapest	65	59	72	92	72	5	
Warsaw	90	50	73	75	72	5	
Lille	120	51	54	55	70	5	
Bergen	23	64	45	146	69	5	
Edinburgh	35	96	61	84	69	5	
Birmingham	52	67	89	65	68	5	
Luxembourg	28	127	66	40	65	5	
Palma de Mallorca	28	59	123	48	64	5	
Bologna	47	87	67	54	64	5	
Valecia	86	49	49	72	64	5	
Bratislava	21	55	51	126	63	5	

MEGA	mass	competitiveness	connectivity	knowledge	Index average	Score total	Groups
Naples	121	39	65	39	66	4	
Bordeaux	58	61	56	75	62	4	
Genoa	42	68	52	61	56	4	
Bucharest	56	22	49	88	54	4	
Tallinn	17	37	37	131	56	3	
Sofia	35	25	44	113	54	3	
Sevilla	54	38	41	68	50	3	
Porto	48	47	49	34	44	3	Weak MEGAs
Ljubljana	18	54	46	49	42	3	
Katowice	81	31	37	36	46	2	
Vilnius	19	29	42	79	42	2	
Krakow	34	40	46	50	42	2	
Riga	37	31	40	53	40	1	
Gdansk-Gdynia	32	37	39	48	39	1	
Wroclaw	24	38	39	48	37	1	
Valletta	13	33	46	..	31	1	

Knowledge index score for Zürich, Bern and Valletta are estimations. Scores are derived from not rounded off index number.

4.2.11 What-if FUA-scenarios

Choosing variables to be measured, indicators derived and threshold levels in the MEGA analyses conducted are always subjective decisions. Some indicators are more standardised (objective) than others. It is possible for anyone interested to ascertain a different list FUAs based on these same criteria. Conducting a MEGA analysis would produce different results by giving different weights to the measured variables and by following a scoring procedure different from the one introduced in this report. Material for these exercises is provided in appendixes. However, it should be stressed that major efforts have been made to design this reports' testing structures and procedures and each function is considered essential. Therefore, the results of any alternative scenarios could be questionable. In the interest of comparison, the following example of an alternative grouping is presented.

In this alternative grouping, the difference is that the administrative and tourism functions are ignored (i.e. only population, transport, industry, knowledge and decision-making functions are considered). Otherwise, the scoring is the same as utilised in this report.

In this alternative FUA-scenario, the following FUAs would have been MEGAs in addition to all "official" MEGAs: Poznan, Århus, Bilbao, Turku, Cork, Lodz, Szczecin, Timisoara, Geneve, Le Havre, Glasgow, Southampton/Eastleigh.

The following FUAs would have scored to the transnational/national level instead of regional/local level: Lübeck, Vejle, Taranto, Dordrech, Heerlen, Radom, Örebro, Maribor, Plymouth, Sunderland/Whitburn and Londonderry. Luxembourg would have dropped to regional/local level.

40 FUAs would have dropped from the list of functionally significant urban areas.

4.2.12 NUTS 3 typology

One task to be tackled in 1.1.1 was to derive a NUTS 3 typology on polycentricity, based on the list of FUAs. The following typologies were produced (Tables 20 and 21).

Table no 20: NUTS 3 typology - six types

Typology	Description
1+	Monocentric NUTS 3 (FUA exceed NUTS 3 boundaries)
0+	NUTS 3 region neighbouring 1+ NUTS 3 region
1	monocentric NUTS 3 (only 1 FUA)
2	bipolar NUTS 3 (two FUAs)
3	polycentric NUTS 3 (three or more FUAs)
0	no FUA

Table no 21: NUTS 3 typology -19 types

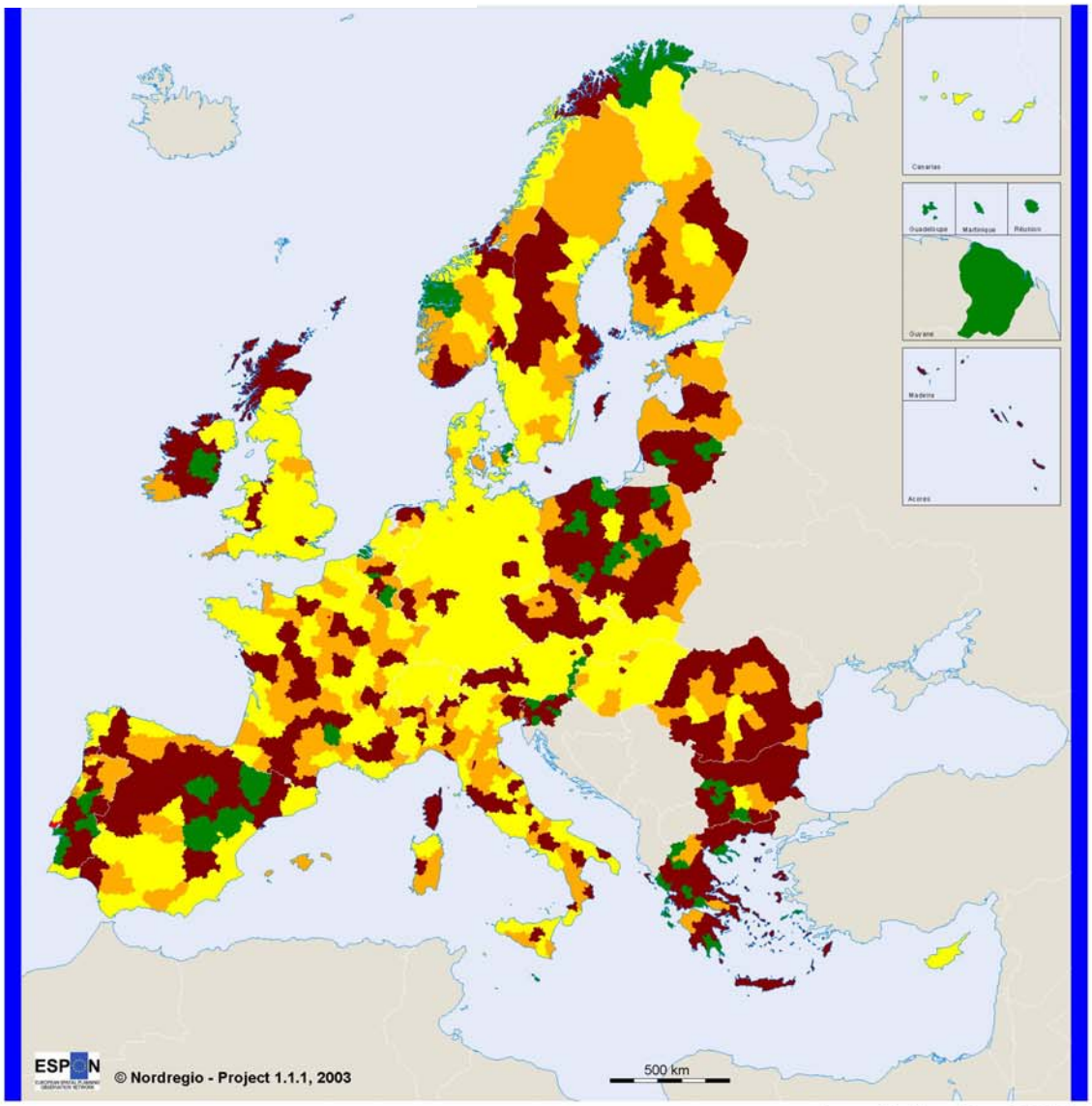
Typology	Description
1+A	MEGA FUA (exceeds NUTS3 boundaries)
1+B	Transnational/national FUA (exceeds NUTS3 boundaries)
1+C	Regional/local FUA (exceeds NUTS3 boundaries)
1B	transnational/national FUA
1B-	transnational/national FUA, but FUA population smaller than non-FUA population
1C	regional/local FUA
1C-	regional/local FUA, but FUA population smaller than non-FUA population
2A	at least one of FUAs is MEGA
2B	at least one of FUAs is transnational/national FUA
2B-	at least one of FUAs is transnational/national FUA, but FUA population smaller than non-FUA population
2C	two regional/local FUAs
2C-	two regional/local FUAs, but urban population smaller than rural population
3A	at least one of FUAs is MEGA
3B	at least one of FUAs is transnational/national FUA
3B-	at least one of FUAs is transnational/national FUA, but FUA population smaller than non-FUA population
3C	only regional/local FUAs
3C-	only regional/local FUAs, but FUA population smaller than non-FUA population
0+	neighbouring 1+ NUTS3 region
0	no FUA

if NUTS 3 population 20% larger than FUA: '+' added after typo
if FUA population is smaller than non-FUA population: '-' added after typo

Results of this typology is presented in and Annex 8 (also available in ESPON database).

NUTS 3 regions are small in Austria, Belgium, Switzerland, Germany, Netherlands and United Kingdom. Thus, it is more accurate to use NUTS2 regions for analysis. In the following map, only four typologies are presented (monocentric, bipolar, polycentric, areas with no FUA). In Map 16 number of classes is reduced to four.
This typology of NUTS 3 areas is only a preliminary draft version and will be developed further. During the second year of ESPON 1.1.1., the typology of NUTS 3 regions will be developed further when more information is generated on the level of polycentricity and also when typologies in other projects are developed further.

According to the NUTS 3 typology on polycentricity, the area that is most densely populated is, naturally, polycentric (the axis from the UK to Hungary). In the peripheral areas, more monocentric areas are found. Also in the periphery, where NUTS 3 regions are larger, there often are two or more FUAs within NUTS 3 regions. The map below could be interpreted as saying that the monocentric areas are in most urgent need of tools for developing links between cities in order to enhance the division of labour between FUAs because they are more insular.



Map no 16: Nuts typology based on list of FUAs (4 types). DRAFT.

4.2.13 Multimodal accessibility

The quality of transport infrastructure in terms of capacity, connectivity, travel speeds etc. determines the quality of cities or urban regions relative to other cities or urban regions. This competitive advantage of locations is usually measured as accessibility, of which, a general definition is that "accessibility indicators describe the location of an area with respect to opportunities, activities or assets existing in other areas and in the area itself, where 'area' may be a region, a city or a corridor" (Wegener et al., 2002). Accessibility indicators can differ in complexity. More complex accessibility indicators take account of the connectivity of transport networks by distinguishing between the network itself and the activities or opportunities that can be reached by it. These indicators always include in their formulation a spatial impedance term that describes the ease of reaching other such destinations of interest. Impedance can be measured in terms of travel time, cost or inconvenience.

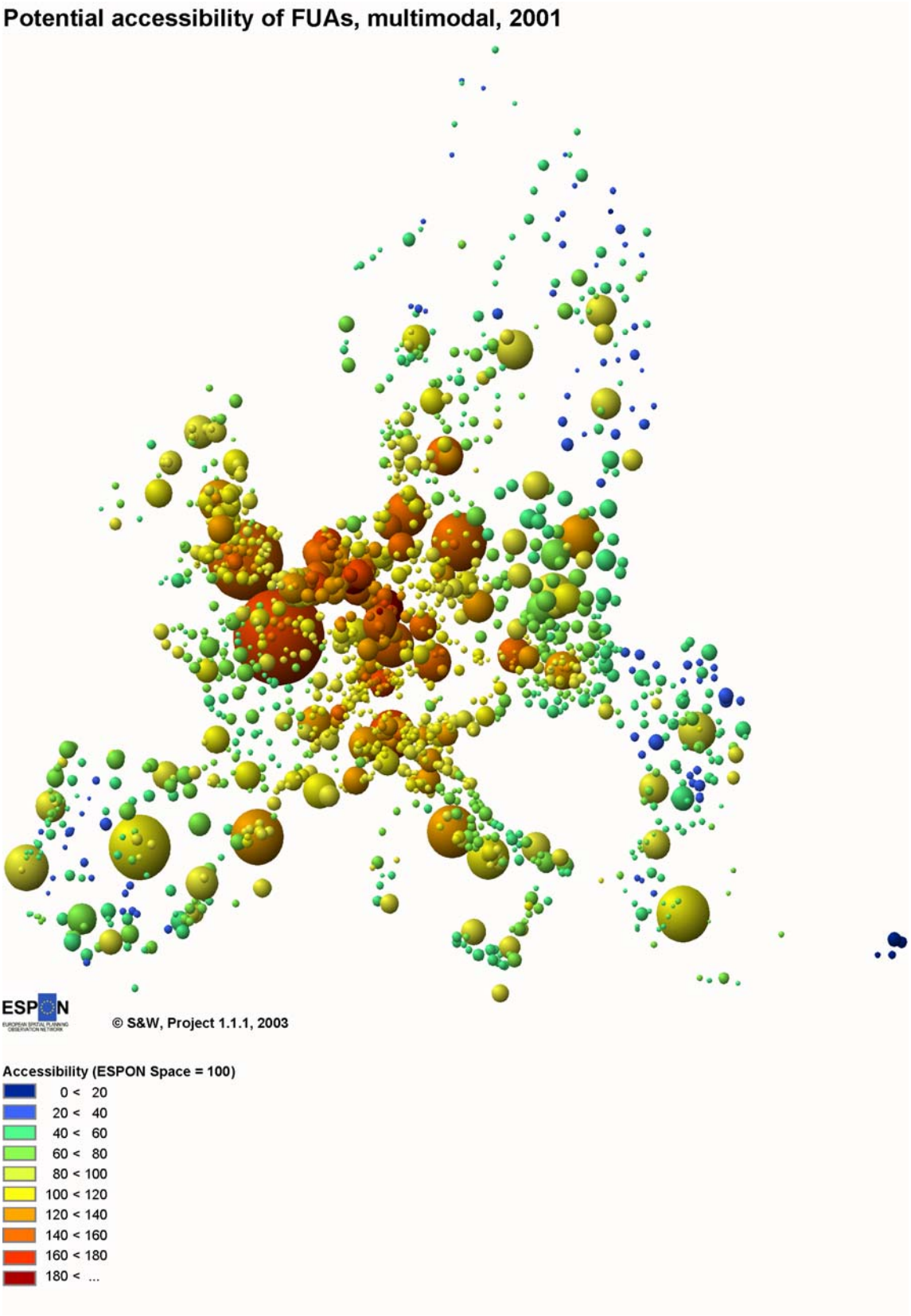
The indicator to be applied here to the European urban system is based on the reference accessibility indicators proposed in the SPESP working group on 'Geographical Position' (Wegener et al., 2002). There, potential accessibility indicators by mode (road, rail, air) were developed. Potential accessibility is based on the assumption that the attraction of a destination increases with size, and declines with distance, travel time or cost. Population or economic indicators such as GDP or income usually represent destination size. Potential accessibility indicators measure the potential for networking and interaction of a location, not the real use of the potential. Although measuring opportunities for spatial interaction the indicators are expressed as values for locations and can thus easily be used in comparative analyses of the European urban system.

The modal accessibility indicators have been further developed in ESPON 1.2.1 to a multimodal potential accessibility indicator, thus expressing the combined effect of alternative modes for a location in a single indicator value. In this way, the multimodal accessibility indicator is superior to the accessibility by road indicator used in the CPMR study, which did not reflect rail and air though they are important modes when

assessing the locational advantages of urban regions. The accessibility indicator belongs to the connectivity group of indicators. Applied to European urban regions it describes their relative geographical position in the European transport systems as one of their most important competitive features.

Map 17 shows the results of applying the multimodal potential accessibility concept of ESPON 1.2.1 to the current set of FUAs. In the map the FUAs are represented in two ways. The size of the circle represents the size of the population. The colour of the circle reflects multimodal accessibility, i.e. a combination of road, rail and air accessibility in one single indicator. The accessibility values are standardised to the average multimodal potential accessibility of the ESPON space calculated in ESPON 1.2.1. The blue colour reflects the lowest values, i.e. very peripheral cities. The green colour shows peripheral cities, while yellow indicates cities that have average accessibilities. Orange and red depict the centre of very central FUAs.

The overall geographical distribution of accessibilities of urban areas is very similar to the regional distribution presented in ESPON 1.2.1. Very peripheral FUAs can be found in remote parts of Portugal, Spain, and Greece, on Cyprus, in Bulgaria and Romania, in the Baltic states and in the very north of Europe. Smaller FUAs in Portugal, Spain, Italy, Greece, Ireland, in the Nordic countries and in the acceding countries are classified as being peripheral, while the larger agglomerations in these countries are can be seen to score around the European average, some are even central. The FUAs with the highest accessibility values are mainly located in the UK, northern France, in the Benelux countries, Germany, Switzerland, Austria, and in northern Italy. Here, even smaller FUAs have very high accessibility values.



Map no 17: Multimodal accessibility of FUAs

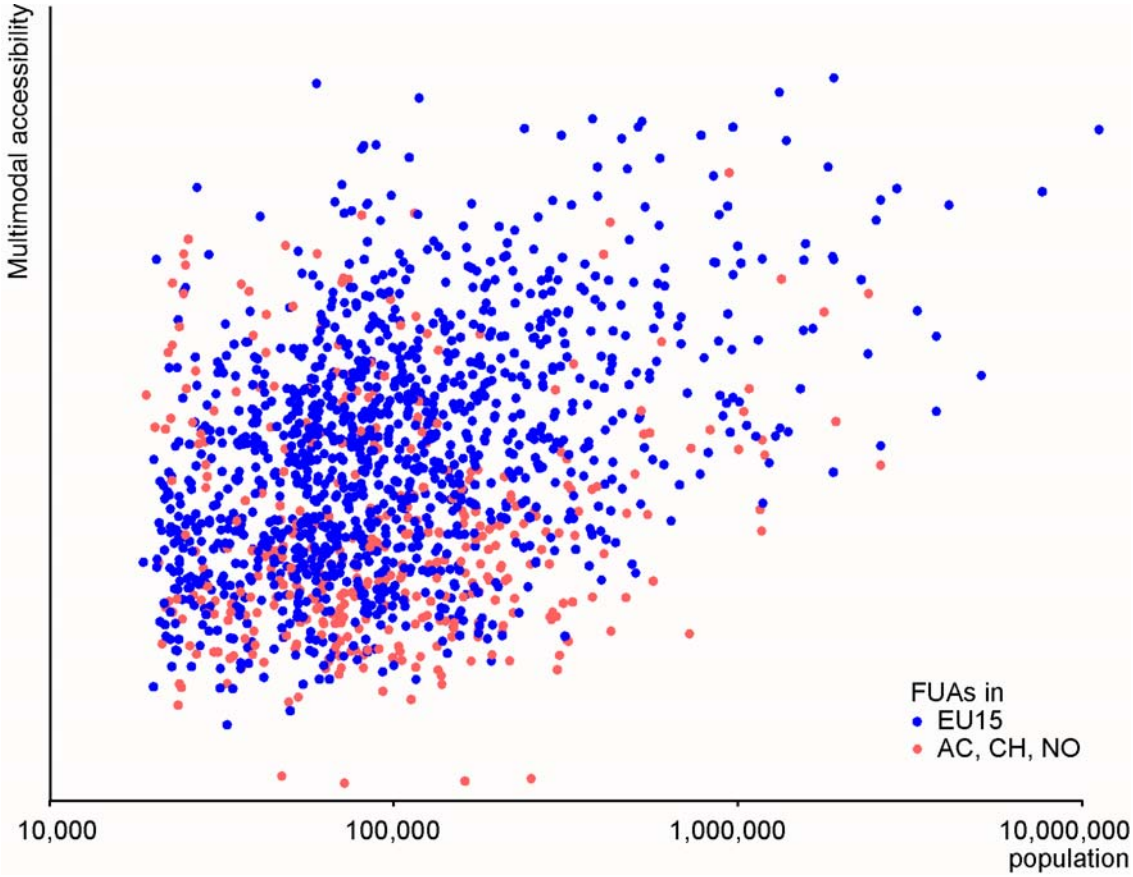


Figure no 6: Population size and accessibility of FUAs.

The accessibility map hides an important message from the analysis of the accessibility of urban areas. Therefore, Figure 6 displays the same data in a different way. Each dot represents one FUA, blue dots are located in the current European Union, red dots in other areas of the ESPON space. It can now be seen that there is little correlation between the size of an FUA and its accessibility level. The largest agglomerations do not necessarily have the highest accessibility. There are a large number of smaller urban regions that have higher values than most FUAs with a population of more than one million. Apparently, accessibility indicators lead to a different urban hierarchy in Europe than that based on population. Consequently, the large differences in accessibility existing in Europe are working against polycentric developments if the term is understood as a balanced system of urban regions.

4.3 How to Measure Polycentricity

This chapter presents an outline of a methodology to identify centres in the European urban system and to measure the degree of polycentricity of urban areas, of the urban systems of individual countries and of the European urban system at large. The presentation is illustrated by examples; the actual implementation of the methodology is planned for Year Two of ESPON.

4.3.1 Introduction

Polycentricity is one of the core concepts of ESPON. Following the European Spatial Development Perspective (ESDP), the promotion of a 'balanced polycentric urban system' is one of the most frequently cited policy objectives of the programme.

Two policy options are stated in support of polycentric development across the European territory:

- Strengthening of several larger *zones of global economic integration* in the EU, equipped with high-quality, global functions and services, including the peripheral areas, through transnational spatial development strategies.
- Strengthening a *polycentric and more balanced system of metropolitan regions, city clusters and city networks* through closer co-operation between structural policy and the policy on the Trans-European Networks (TEN) and improvement of the links between international/national and regional/local transport networks.

It is hoped that by encouraging polycentric urban regions, the competitive potential of these regions will improve and that 'dynamic global integration zones' can be formed beyond the 'Pentagon' defined by the metropolitan areas of London, Paris, Milan, Munich and Hamburg.

The interest in polycentric development is fuelled by the hypothesis put forward in the ESDP that polycentric urban systems are more efficient, more sustainable and more equitable than both monocentric urban systems and dispersed small settlements.

The concept of polycentricity of settlement structures originated as an empirical concept in the 1930s. Central-place theory explained hierarchical decentralisation of cities by the fact that different goods and services command service areas (Christaller, 1933) and market areas (Lösch, 1940) of different size. A contrasting view was proposed by polarisation theory which pointed out that increasing economies of scale lead to growing concentration in only few large cities (Perroux, 1955; Myrdal, 1957). Both perspectives are integrated in recent results of economic geography (Krugman, 1991; Fujita et al.,1999) which show that different constellations of economies of scale and spatial interaction costs lead to different spatial arrangements of production and consumption (see Figure 7). One important contribution of these approaches is that not only vertical linkages are important but also horizontal linkages between cities with complementary economic specialisation.

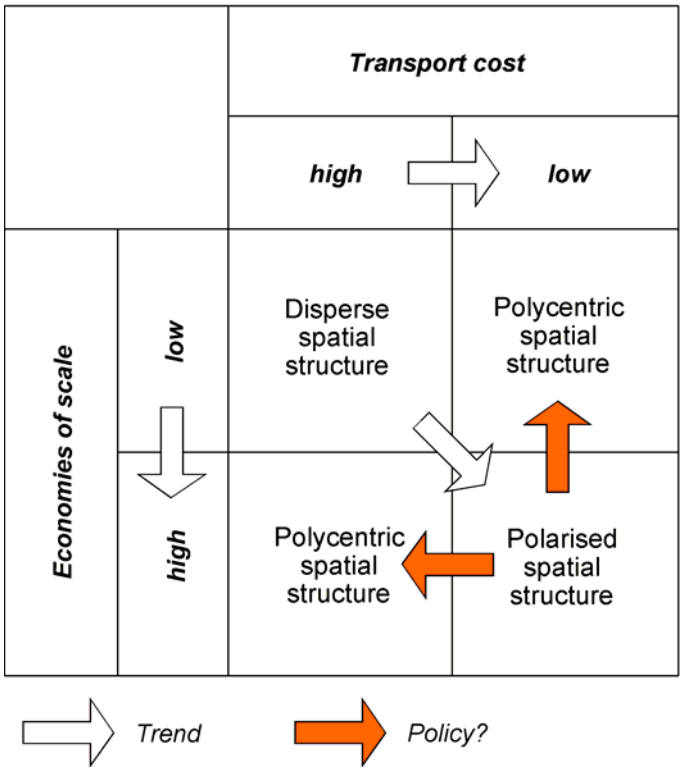


Figure no 7: **Spatial structure as function of economies of scale and transport cost**

Polycentricity as a *normative* concept can be traced back to the concept of self-contained satellite towns connected to the central city by commuter railways promoted by the garden city movement (Howard, 1900). In the 1940s the Nazis

applied Christaller's central-place theory to the occupied territories in Poland recognising that a hierarchical network of central places can also be used for military control:

> "The final domination of the Generalgouvernement will be based on the key positions of a regular network of central places. The central place in the Generalgouvernement, centre and leader of its region and focus of German culture, power and economy, will contain all elements required for the immediate expression of German dominance."
>
> (Schepers, 1942)

Despite this ambiguity of the concept, many countries adopted central-place concepts as principle for guiding their spatial development after World War II. The hypothesis was that central-place systems are both efficient (in terms of economies of scale) and equitable (in terms of equivalent living conditions).

It can in fact be argued that both extremes, *monocentricity* (all activities are concentrated in one centre) and *dispersion* (all activities are equally distributed over space) perform poorly with respect to the policy goals efficiency, equity and environmental sustainability:

- *Efficiency*. Large centres can exploit economies of scale and agglomeration effects but suffer from negative effects of over-agglomeration. Dispersed settlements enjoy nature but are too small to support efficient infrastructure facilities and units of production.
- *Equity*. Spatial polarisation is built on competition and so leads to spatial segregation between rich and poor, central and peripheral cities. Spatial dispersal is egalitarian in its distribution of poverty but denies its citizens opportunities for social mobility.
- *Environment*. Large settlements use less energy for transport but more for high-rise buildings, air-conditioning and waste management. Dispersed settlements can utilise local renewable resources but are wasteful in terms of transport energy and open space.

It is obvious that the optimum lies somewhere in between monocentricity and dispersal, i.e. in a balanced mixture of large, medium-sized and small cities arranged in a pattern favourable for exchange and co-operation.

This view was expressed by the 'bunch-of-grapes' metaphor proposed by Kunzmann (Kunzmann and Wegener, 1991) as a different and more 'co-operative' *Leitbild* for urban development in Europe" than the 'Blue Banana' proposed by French geographers (RECLUS, 1989), which was viewed as "the pure expression of the competition between the regions in Europe" (Kunzmann and Wegener, 1991). The authors claimed that the bunch of grapes was more suited to represent the polycentric structure of the urban system in Europe and the fundamental *similarity in diversity* of the interests and concerns of its member cities (see Figure 8):.

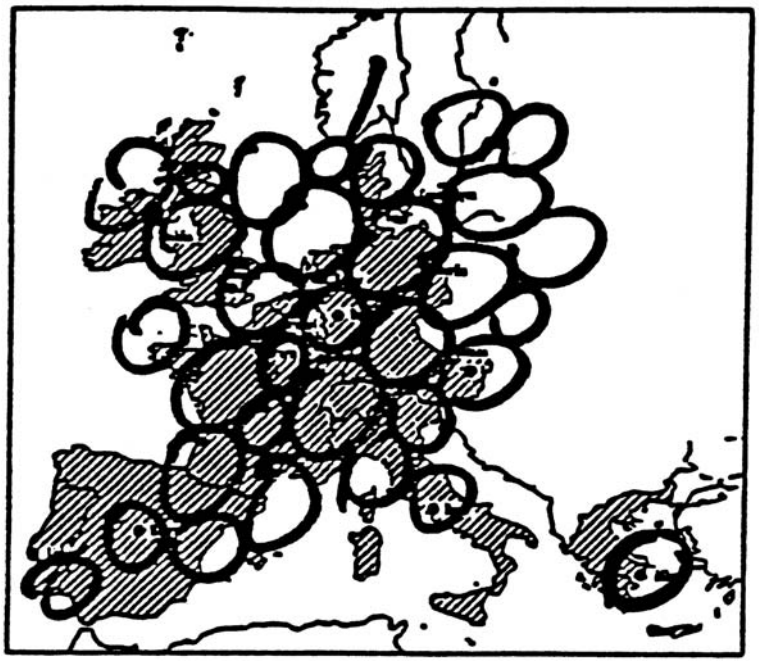


Figure no 8: The bunch of grapes (Kunzmann and Wegener, 1991)

However, until today the concept of polycentricity has remained largely at the level of rhetoric without a precise operational definition (which puts it into a class with similarly vague concepts such as 'city networks' or 'industrial clusters'). There exists neither a method to *identify* or *measure* polycentricity at different spatial scales nor a method to *assess* the impacts of polycentricity (or the lack of it) with respect to policy goals such as efficiency (competitiveness), equity (cohesion) and sustainability. It is therefore not possible to determine an *optimal* degree of polycentricity between centralisation and decentralisation or, in other words, between the extremes of

monocentricity and dispersal. This makes it difficult to formulate well-founded policy recommendations as to which cities should be developed with priority.

Such recommendations, however, are the ultimate task of ESPON 1.1.1. It is therefore essential that ESPON 1.1.1 develops a clear concept of polycentricity and operational methods for identifying and measuring the existing polycentricity of the European urban system, predicting their likely future development and assessing the positive and negative impacts of different degrees of polycentricity at the regional, national and European scale. To be more specific, the following questions need to be answered for the territory of the European Union at large and for different countries or subregions:

- *Analysis*. How can polycentricity be defined in a way that makes it measurable? How polycentric is the European settlement structure? Are there countries that are more polycentric than others? Are there trends towards more polycentricity or towards more polarisation? Are these trends the same in all countries or subregions or are there significant differences?
- *Evaluation*. Is polycentricity desirable? Are polycentric systems more efficient and more competitive? Does polycentricity increase spatial cohesion? Is it good for the environment? Are there disadvantages, such as agglomeration diseconomies, marginalisation of peripheral areas or more traffic and congestion? Is there an optimum degree of polycentricity (a balance between efficiency, equity and sustainability?)
- *Policy analysis*. What should be done? Is it necessary to contain the growth of central regions? Should one strengthen medium centres or support peripheral areas? Which policies are available – taxation, regulation, subsidies, infrastructure?
- *Forecasting*. What would be the impacts of such policies? What would be their effects not only on polycentricity but also on regional competitiveness and economic performance, on spatial cohesion and on the environment?
- *Implementation*. How can the policies be implemented? Which policies need to be implemented at the European level, and which should be left to national and regions governments?

4.3.2 Concepts of Polycentricity

In ESPON 1.1.1 the current pattern of polycentricity and the potential of urban regions as nodes in a polycentric European urban system in the European Union, the twelve acceding countries and Norway and Switzerland are being analysed at three spatial levels: at the regional and local level, at the national level and at the European level, including transnational urban systems (ESPON 1.1.1, 2003). As units of analysis, 'functional urban areas' were defined in each country. Of these, urban centres to be included in the analysis were selected using seven criteria: population, transport (airports, ports), tourism (hotels), industry (gross value added), knowledge (universities), corporate decision making (headquarters) and administrative function. The selected centres were classified using a typology of global, European, national, regional and local importance. In addition, accessibility and other indicators were collected and presented for the selected centres.

In a parallel approach of ESPON 1.1.1, CNRS-UMR analysed polycentricity based on the relational logic of territories ("the space of flows") proposed by Castells (1989) focussing on trans-border co-operations (Interreg IIa and IIIa), air traffic and co-operations between universities (ESPON 1.1.1, 2003).

The CPMR study (CPMR, 2002) proposed a typology of urban areas based on the indicators competitiveness (GDP per capita, labour productivity), economic decision-making (number of headquarters of the top 1500 European firms), human capital (share of R&D employment, share of population 25-59 years of age with higher education), connectivity (number of international flights and destinations) and 'drivers of change' (growth of GDP and productivity).

The Draft Guidance Paper prepared by ESPON 3.1 (2003) proposed a three-level hierarchy of urban areas: the *macro* level (European core, European periphery, acceding countries and neighbouring countries), the *meso* level (metropolitan areas, urbanised areas and non-urban areas) and the micro level (metropolitan areas, cities, towns and villages). It proposed that each NUTS-5 region is classified by its membership in the macro, meso and micro categories and that each NUTS-3 regions

is assigned to one meso level group based on the characterisation of its NUTS-5 members.

These approaches are useful analyses and classifications of urban areas but they fail to provide a measure of polycentrism or of its effects. The typologies proposed by the CPMR study and the ESPON 3.1 Draft Guidance Paper neglect the *spatial* dimension of polycentric urban systems, i.e. the distance between centres at the same level of the urban hierarchy and between centres at one level and those at lower and higher levels as well as the functional relations between centres of the same or different levels. The networking analysis concentrates on the interactions between the centres at one level and ignores the multilevel functional relationships between higher-level and lower-level centres, i.e. the linkages between the cities and their peri-urban and rural hinterlands.

What is needed is a methodology which allows (i) to *measure* the degree of polycentricity of a region, a national urban system or the European urban system at large, (ii) to *evaluate* it with respect to the policy objectives of European Spatial Development Perspective competitiveness, cohesion and environmental sustainability and (iii) to *forecast* the likely impacts of European, national or regional economic, transport and telecommunications policies on the degree of polycentricity and the three policy goals.

4.3.3 The Proposed Approach

In this section a method is presented to identify centres in the European urban system and to measure the degree of polycentricity of urban areas, of the urban systems of the member states of the European Union and of the acceding countries and Norway and Switzerland as well as of the European urban system at large.

Three Dimensions of Polycentricity

The approach proposed here is to identify and measure polycentricity by three dimensions of polycentricity: *size*, *location* and *connectivity*. These three dimensions

are in line with the distinction made in ESPON 1.1.1 between *morphological* aspects of polycentricity (hierarchy, distribution, number of cities) and *relational* aspects (flows and co-operations bewteen urban areas at different scales): size and location describe morphological aspects, whereas connectivity describes relational aspects.

Size

The first and most straightforward prerequisite of polycentricity is that there is a distribution of large and small cities. It can be shown empirically and postulated normatively that the ideal rank-size distribution in a territory is loglinear. A population rank-size distribution of European cities over 50,000 population is presented in Figure 9.

Rank-size distributions of cities in European countries differ significantly. Figure 10 shows the rank-size distribution of cities with a population of more than 50,000 in France, Germany, Italy and Spain. It can be seen that France has a predominantly monocentric city-size distribution, whereas Germany) has a historically grown polycentric urban system.

A first step in analysing polycentricity of an urban system would therefore be to derive its population rank-size distribution. A possible indicator of the size dimension of polycentricity would be the squared residuals of the rank-size distribution from the regression line of the logarithmic transformed population values: the smaller the residuals, the more polycentric is the urban system under investigation. Alternatively, a combined indicator of city size and importance may be used, such as economic activity, human capital, higher education, cultural importance, administrative status etc.

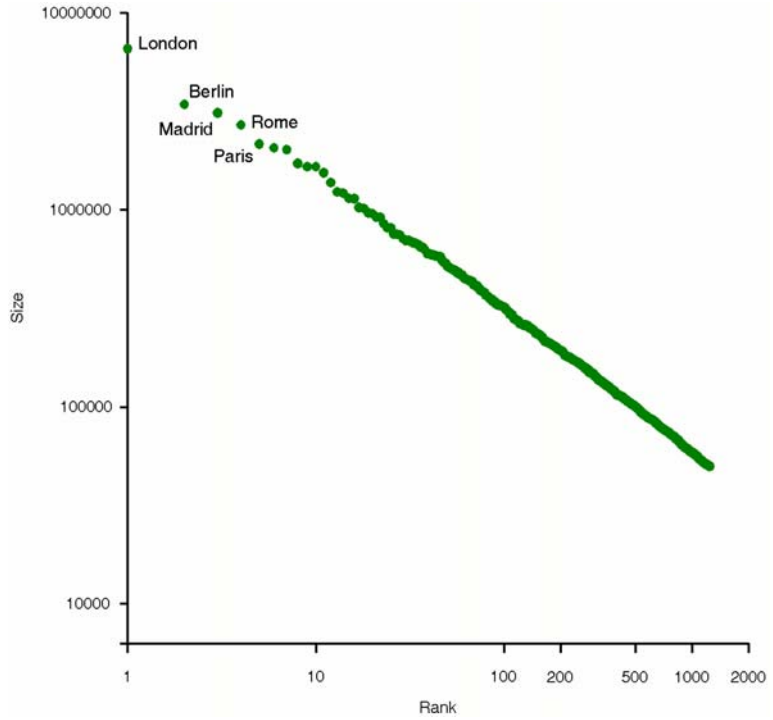


Figure no 9: **Rank-size distribution of cities over 50,000 population in EU-27**

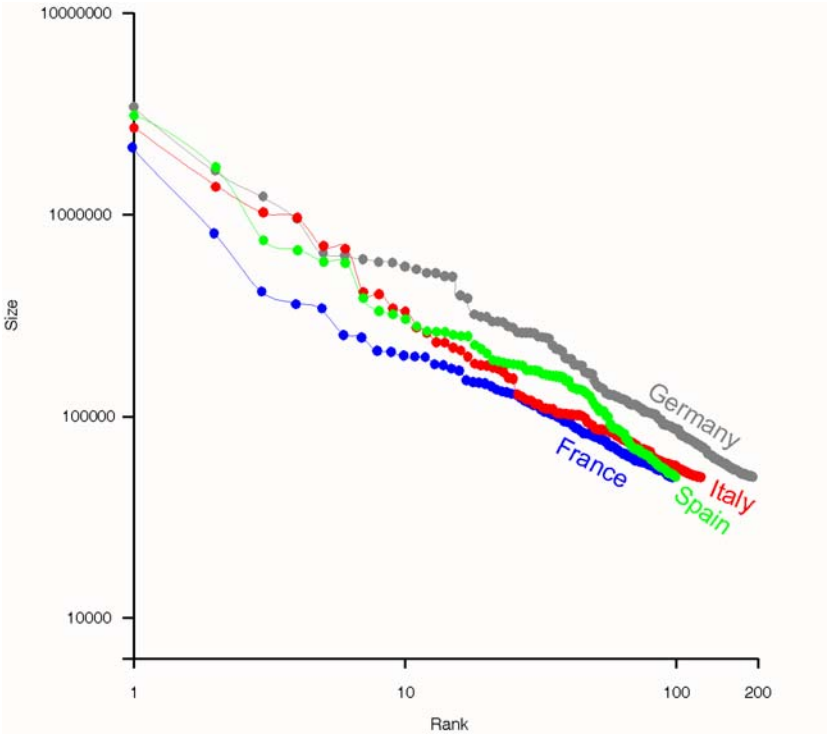


Figure no 10: **Rank-size distribution of cities in France, Germany, Italy and Spain**

Location

The second prerequisite of a polycentric urban system is that its centres of equal size or rank are equally spaced from each other – this prerequisite is derived from the optimal size of the catchment area or market area of centrally provided goods and services. Therefore, a uniform distribution of cities across a territory is more appropriate for a polycentric urban system than a highly polarised one where all major cities are clustered in one part of the territory.

A second step in the analysis of polycentricity would therefore be to analyse the distribution of cities of equal size or rank over the territory.

One possible approach is to subdivide the territory of each country into catchment areas (Thiessen polygons) of each centre. This can be done by dividing the territory into raster cells of equal size and to associate each cell with the nearest urban centre by airline distance. In this way the area, or population, served by each centre can be measured. The indicator of the location dimension of polycentricity is then the squared sum of deviations of the areas or populations served by each centre from the average area or population served by a centre in the whole country. The smaller the squared sum of deviations, the more polycentric is the urban system. Instead of airline distance also the logsum of the travel times and/or travel costs by road and rail (and at higher levels of the hierarchy also by air) could be used. Alternatively, also the mean travel time and/or travel cost, again multimodal, by which each centre can be reached by the population in the areas served could be taken as indicator. Figures 11 and 12 show the subdivision so derived for Germany, the Netherlands and Poland.

Connectivity

A third property of polycentric urban systems is that there is functional division of labour between cities, both between higher-level centres and the lower-level centres in their territory and between cities at equal levels in the urban hierarchy. This implies that the channels of interaction between cities of equal size and rank but in particular

between lower-level and higher-level cities are short and efficient. It is obvious that this requirement may be in conflict with the postulate that cities of equal size and rank should be equally spaced on the territory.

There principally two ways to measure connectivity. One is to measure actual interactions. Ideally, the analysis would reveal functional relationships between cities of equal size or rank and between cities of different size or rank in the urban hierarchy. Appropriate indicators of such interactions would be flows of goods or services, travel flows or immaterial kinds of interactions, such as telephone calls or e-mails. At the level of municipalities, information on such interactions is rarely available or considered an economic asset, as in the case of travel flow data held by private transport carriers or telecommunications data held by private telecommunications operators.

The second possibility is to measure the potential for interactions. Measures of interaction potential could be infrastructure supply, i.e. the level of road connections (motorways, roads) or the level of service of rail (number of trains) or air (number of flights) connections. Another way is to simply measure proximity between centres, because if two centres are close to each other, the probability and feasibility that functional division of labour is implemented is higher than if the two centres are distant from each other.

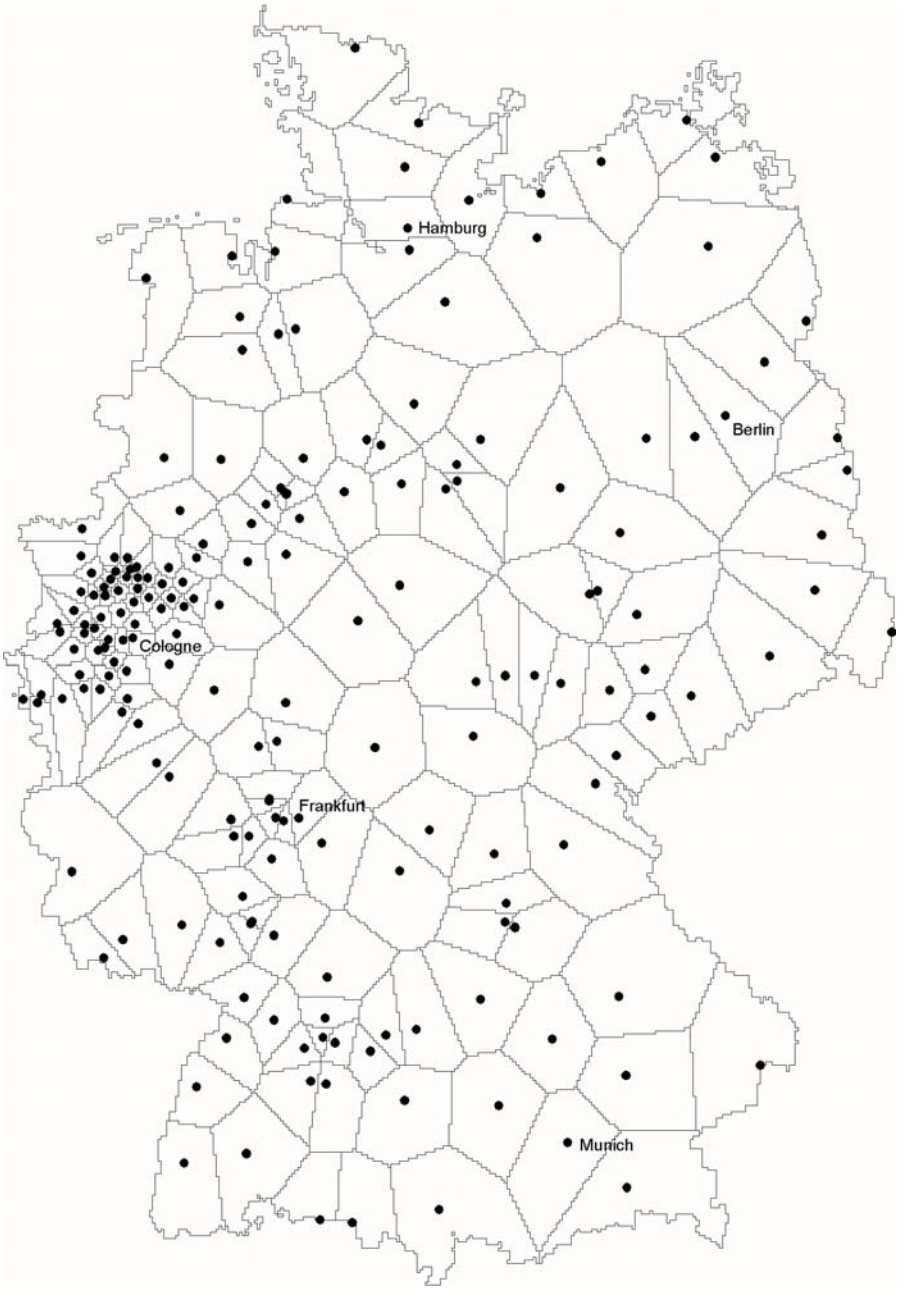


Figure no 11: Catchment areas of cities over 50,000 population in Germany

Groningen
Amsterdam
Den Haag
Utrecht
Rotterdam
Maastricht

Gdansk
Poznan
Warszawa
Lodz
Lublin
Wroclaw
Krakow

Figure no 12: Catchment areas of cities over 50,000 population in the Netherlands and Poland

Figure 13 is a very simple analysis of connectivity as proximity. The map shows the cities in Europe with a population of more than 50,000 population. Each city is represented by a circle the area of which is proportional to its population. In addition, each city is connected by a line to the nearest city with larger population. Figures 14 and 15 show excerpts from the same data for Germany, the Netherlands and Poland. It can be seen that, with few anomalies, the historically grown urban hierarchy in Europe emerges.

Here airline distance was used. However, the analysis could also be repeated with travel time and/or travel cost via networks and so measure not only geographical proximity but also the quality of infrastructure supply.

In a further step, the travel times and/ travel costs between cities so derived could be used to calculate hypothetical interactions, such as commuter flows, business trips or tourist visits. If the same behavioural parameters are applied all over Europe, countries and regions could be compared with respect to the efficiency and ease of spatial interactions, for instance in terms of average speed.

What could be an appropriate indicator of connectivity derived from these results? Simply to give a premium to high speeds and large volumes of traffic between cities would be misleading as it would ignore equity and sustainability objectives. It will be necessary to develop a connectivity indicator which recognises the need for a balance between efficiency, equity and sustainability.

With these three partial indicators of polycentricity, size, location and connectivity, a comprehensive indicator of polycentricity can be constructed.

The proposed method is, in principle, independent of spatial scale. It can be applied both at the national and at the European level; in fact it should be attempted to link the two levels.

The proposed method differs from normative approaches to polycentricity in which a system of central places in a country, e.g. taken from a national planning document, is taken as given; instead the polycentric urban system is a *result* of the analysis.

4.3.4 A Typology of Urban Areas by Position in Polycentric System

There are innumerable ways of developing typologies of urban regions. Cities may be classified by their size, their location (coastal cities, port cities, border cities, etc.), their administrative function (national capitals, regional capitals, etc.), their economic function (global cities, financial centres, industrial cities, etc.) or by their function in the transport network (railway nodes, airport hubs, etc.). All of these typologies are of interest for certain purposes.

Figure no 13: Cities in Europe over 50,000 population connected to the nearest larger city

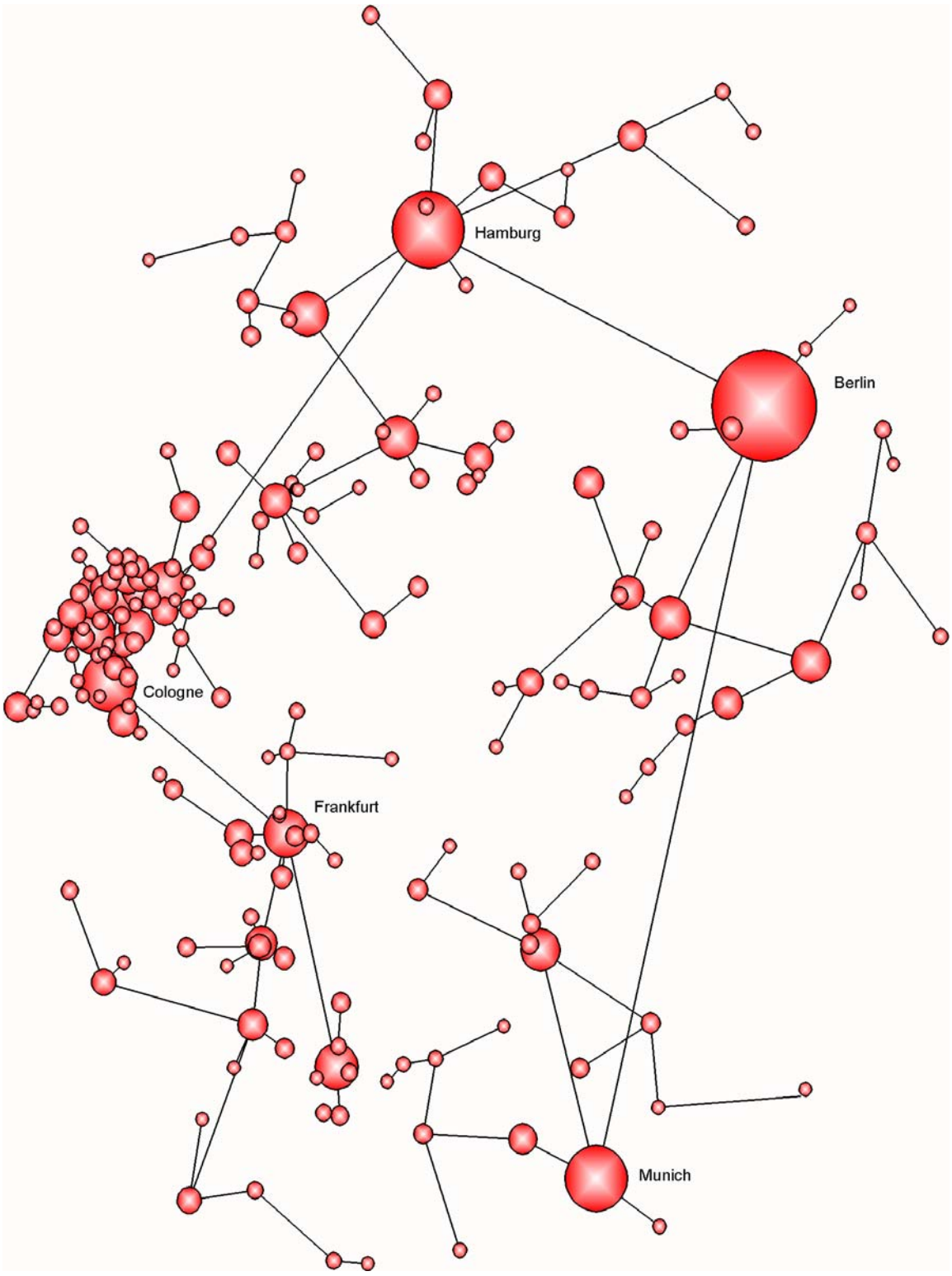


Figure no 14: Cities in Germany connected to the nearest large city.

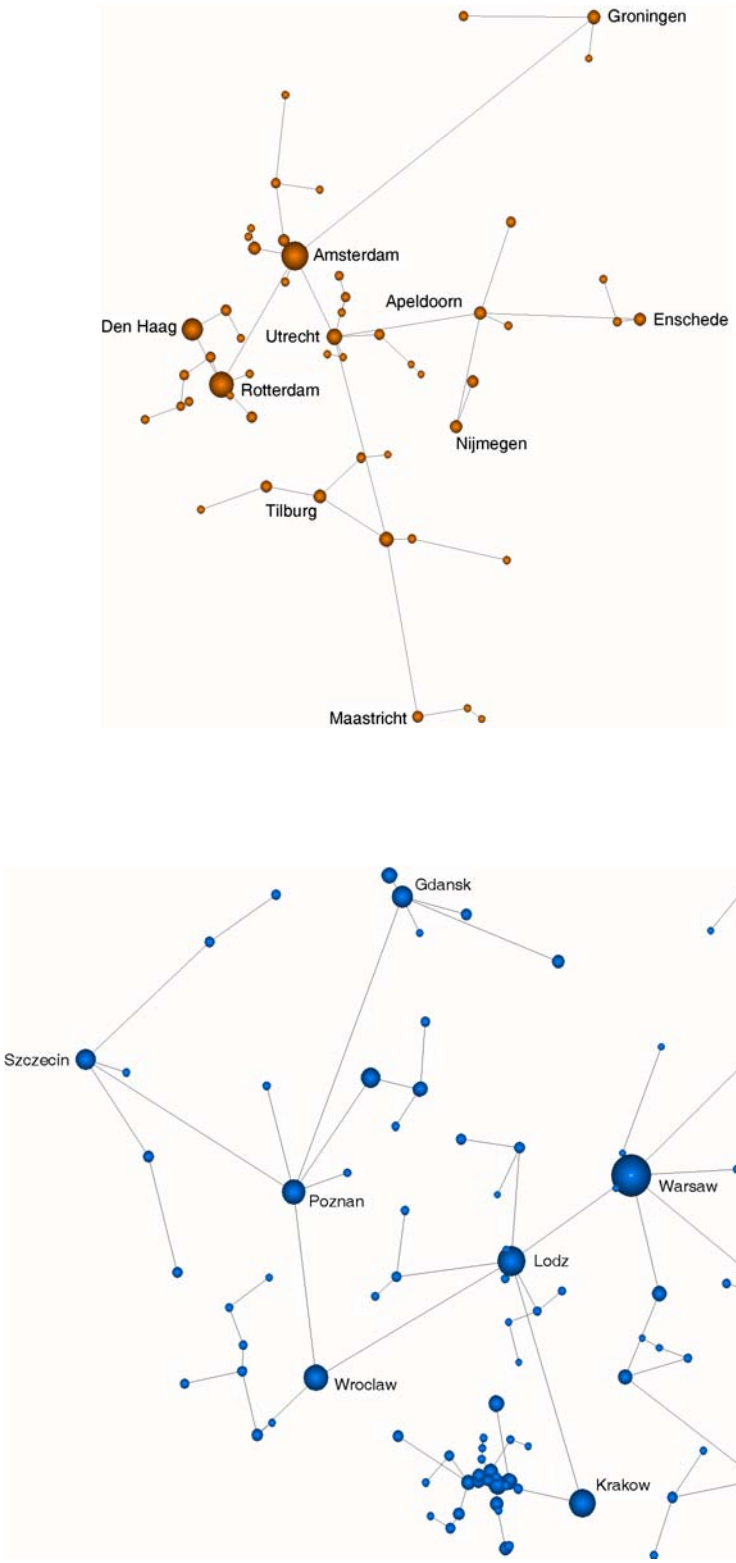


Figure no 15: Cities in the Netherlands and Poland connected to the nearest large city.

However, for spatial planning the most interesting aspect for the classification of cities is their position in the multilevel polycentric urban system.

The three partial indicators of polycentricity proposed (size, location and connectivity), can be aggregated to a comprehensive indicator of polycentricity. The indicator will classify each country on a continuous scale of polycentricity and at the same time assign each city a place and level in the national and European urban hierarchy. It may also be possible to apply cluster analysis to verify and validate the polycentric urban system so derived.

The method can also be used to forecast the likely future development of polycentricity in Europe for different scenarios of urban growth and linkages between cities taking account of macro trends such as the enlargement of the European Union, further integration of the world economy and intensification of the competition between regions and cities and the development of energy cost, transport technology and the further diffusion of telecommunications.

Scenarios of the socio-economic development of NUTS-3 regions in the European Union and the acceding countries and Norway and Switzerland can be obtained from the results of ESPON 2.1.1 "Territorial Impacts of EU Transport and TEN Policy".

4.3.5 Policy Applications

The indicator of polycentricity and the typology of urban areas can be used in various policy contexts.

One significant application would be to use the typology for the assessment of future TEN transport and telecommunications policies. The underlying hypothesis is that in a well developed and balanced polycentric urban system the interactions between higher-level centres are more intense and cover greater distances than those between lower-level centres or between higher-level centres and their subordinate lower-level centres, and that therefore higher-level centres should be connected by higher-level and faster transport and telecommunications links than lower-level centres. In the absence of true interaction data, the quality of the links can be used

as proxies for the intensity of interaction; in this case the analysis contributes to the identification of polycentrism. In reversal of the argument, the analysis can be used to examine whether the polycentric hierarchy of centres is supported by a corresponding hierarchy of networks.

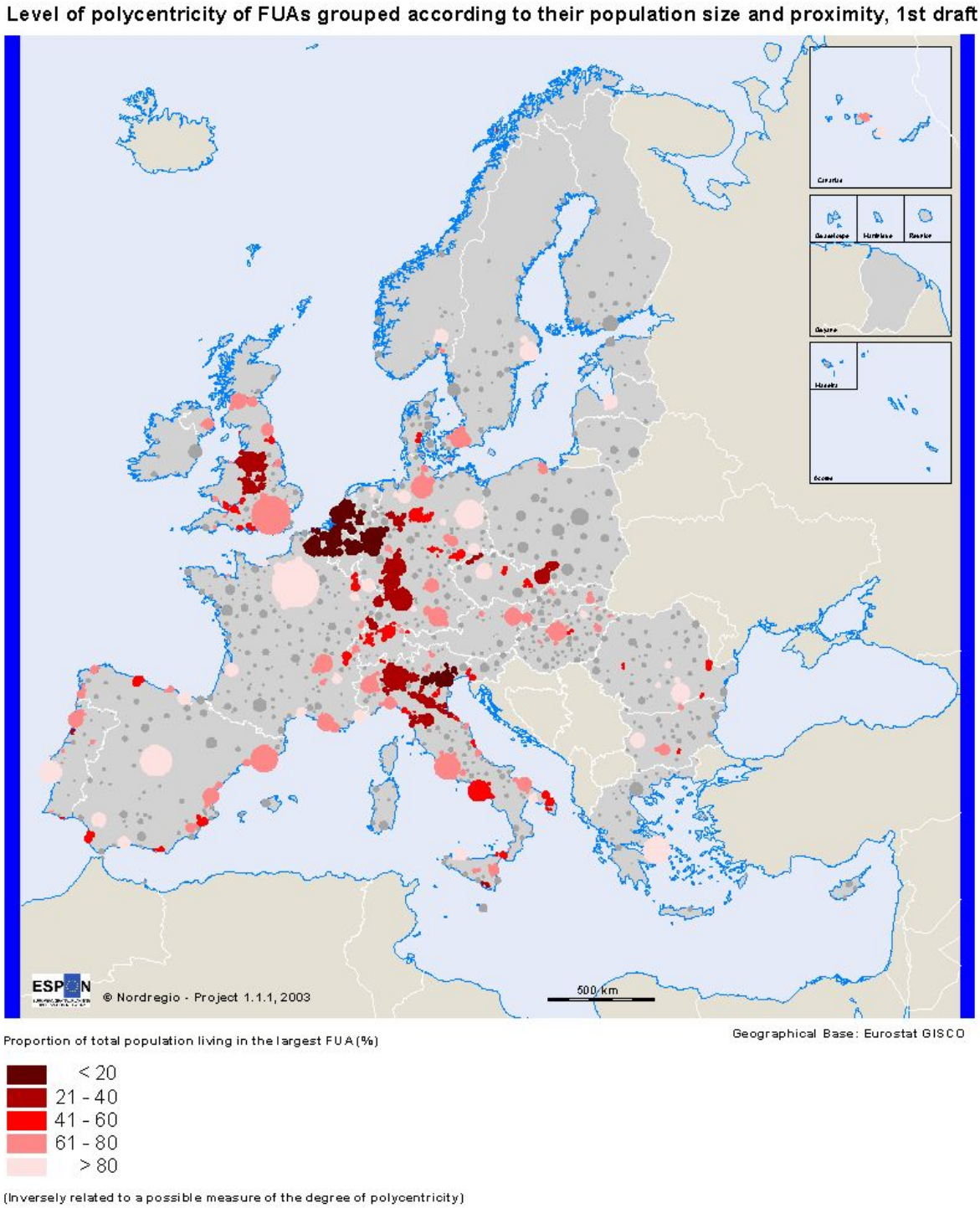
On a more advanced level, the analysis of polycentricity can be used to determine the optimal degree of polycentricity with respect to policy goals such as efficiency (competitiveness), equity (cohesion) or environmental sustainability under different scenarios of macro trends such as the enlargement of the European Union, further integration of the world economy and intensification of the competition between regions and cities and the development of energy cost, transport technology and the further diffusion of telecommunications. It is to be expected that the optimum degree of polycentricity will depend on the constellation of these macro trends.

It is particularly here that co-operation with ESPON 2.1.1 will be important. ESPON 2.1.1 will develop model-based forecasts of the socio-economic development in terms of population and economic activity in 1,329 NUTS-3 regions in the European Union and the acceding countries and Norway and Switzerland under different assumptions about the macro trends indicated above.

4.4 Level of polycentricity

A methodology to group FUAs is based on a simplified version of Reilly's model, in which the potential for interaction between cities decreases according to an inverse function of the square root of each city's population. Based on this, an area of influence proportional to the square root of each FUAs population has been estimated. The factor of proportionality is 1/30 (Area of influence = square root of population / 30).

Those FUAs with overlapping areas of influence have a spatial potential for polycentric integration. With the previously mentioned factor, this produces 149 groups of FUAs. The level of polycentricity may then be estimated by looking at the proportion of the group's population that lives in the most important FUA – the lower this proportion,the higher the degree of polycentricity (see Map 18). The detailed list of cities that are grouped together are presented in Annex 9. This method will be developed further during the second year of the research project.



Map no 18: Level of polycentricity of FUAs grouped according to their population size and proximity, DRAFT

4.5 Year Two of 1.1.1 (Indicators and typologies)

In terms of indicators and mapmaking, the main research questions during the 2003-2004 continuation period of this research will include:

- Making data in databases even more commensurable
- Provision of a profile of the natural and cultural assets of FUA (carried out in co-operation with other ESPON-projects, especially with 1.3.1 and 1.3.2.). This task was not tackled during the first year because resources were directed to making a comprehensive and fully reliable list of FUAs.
- Deepening profiles of FUAs in order to analyse more closely the complementary aspects of neighbouring cities. This can only be done on the basis of a reliable list of FUAs and when more information is collected regarding the level of polycentricity

5 European Urban Networking

5.1 Main objectives

The **objective** of the work on European Urban Networking is to understand and illustrate how the exchange and cooperation networks between urban areas in Europe shape the relations of society to space and reorganise territorial structures.

The **aim** is to understand whether these reorganisational trends support or counteract polycentric structures at the European, national and regional levels.

The majority of work on European cities was undertaken in order to produce knowledge on the cities themselves, to evaluate their strengths and weaknesses, and to estimate their growth rates. This means that a large majority of the studies on European cities constantly produced and reproduced urban typologies.

However, polycentrism could not be reduced to only this one dimension (i.e. the morphological). One should be aware of the need to always take into account the second complementary dimension of polycentrism, the networking aspect (see Critical Dictionary for further development).

Consequently, in this work, we place our study in the context of the relational logic of territories. Taking M. Castells' (1998) expression we would rather privilege the « space of flows » than the « space of places ». As such, polycentrism is analysed through the capacity of cities to network i.e. their capacity to be included in multiple networks of relations.

Until now, the analysis of city networks in Europe and of their organisation remains incomplete. As such, it is perhaps better to focus on a few networking expressions that act in favour of the emergence of a polycentric integration of urban areas in Europe. Our work is thus directed towards specialized and thematic networks and co-operation, and is directed by the following two questions:

- How do specialized and thematic networks in Europe contribute to the emergence, or to the reinforcement, of new functional models of organisation?
- How do these types of networking contribute to the outcomes of polycentric organisation at the European and national levels?

5.2 Indicators on networking

Three complementary ***networking indicators*** have been gathered and developed. They help us to demonstrate those positions and answer the questions.

Air traffic

The first concerns the networking linked to *air traffic* (ICAO database).
As air traffic is a synthetic indicator of various societal trends (tourism, business trips….), it is thus a major indicator of European territorial dynamics.

It also provides an indication as to the spatial integration of Europe in wider world networks. Indeed many internal differentiations in the European space are related to the flows between Europe and the rest of the world. Air flows help to identify the main European gateway cities.

Students exchanges

The second indicator concerns the networking linked to *student exchanges* (in the ERASMUS programme).

The emergence of the knowledge-based society demonstrates the importance of access to information and to knowledge. Thus, for regional development and spatial planning, access to knowledge becomes as vital as access to transport infrastructures.

Trans-border and trans-national cooperation

The third indicator developed in this work concerns the networking linked to *trans-border and trans-national co-operation* (in the context of INTERREG programme).

Occurring at different territorial scales, such cooperation becomes a major contribution to the enhancement of polycentrism. Trans-border networks enhance synergies between cities that are in relative spatial proximity. In the INTERREG programme, these networks correspond to cooperation that could occur between cities from both sides of a political border, and are supported by the INTERREG IIA and IIIA programmes.
Transnational networks enhance synergies between cities that are relatively connected i.e. where spatial proximity is not a condition, or pre-condition, of the development of inter-urban cooperation, with these types of networks being supported by INTERREG IIC, IIIB and IIIB.

Our work is on two different scales. The first is placed at the regional or meso regional level. Two examples of such trans-border urban cooperation are taken into account

- between northern France – and Wallonia.
- between eastern France – western Germany and north western Switzerland.

The second scale is that of the transnational level, or what is now called “small Europe”. In this work, CADSES area is analysed (Austria, Greece, the Eastern and Southern Länder of Germany and the Eastern regions of Italy in the European Union, seven candidate countries (Poland, Czech Republic, Slovakia, Hungary, Slovenia, Bulgaria and Romania) and seven non-Member States (Croatia, Bosnia-Herzegovina, Federal Republic of Yugoslavia (FRY), Former Yugoslav Republic of Macedonia (FYROM), Albania, Moldavia and the Ukraine).

5.3 The models of European territorial integration through urban networks

The basic forms of European territorial integration are often reduced to two 'classical' models (Figure 16):

- The centre-peripheries model.
- The national urban systems model.

In both of them, European space is presented in a dichotomous way.

In the centre-periphery model, European space is reduced to one dominant centre with dependant or isolated peripheries. At this stage, we would like to present the centre not as the megalopolis that goes from London to Milan (i.e. the blue banana) but as a polycentric network of cities that includes London, Paris, Frankfurt, Amsterdam and Milan, and could perhaps, in the medium term, be extended to Berlin.

In terms of national urban systems, European spatial organization is seen through the major national centres that dominate secondary/regional centres, in a hierarchical structure.

To reduce the integration processes to these two models of structuration is to say that European spatial integration is limited, fragile and weak!

In fact, the structure of the European territory observed through urban networks is much more diversified than this. Two further integration models do however supplement the previous ones cited above:

- Specialized and thematic urban networks defined by the logic of production supporting territorial integration. The exchanges can be based on complementarities and cooperation between cities but they can also result from competitiveness between cities. The best examples of specialized networks are the scientific, financial and the aeronautical ones.

- Territorial integration is also resulting from the “capitals” networks. The “capitals” are thus political and economic, central and peripheral.

One can say that these two types of networks support the connectivity of the European urban networks because they intensify and diversify inter-urban linkages in Europe. Indeed, these kinds of networks are often less constrained by distance, hierarchy or political borders and barriers.

THE NETWORK OF CAPITALS NOWADAYS CONSTITUTES THE MOST DYNAMIC ENGINE OF TERRITORIAL INTEGRATION AT THE EUROPEAN SCALE. Related to the ESDP, the global integration zones that have to balance European growth should, at least in a first instance, rely on these capitals cities/regions and networks.

At the same time, we should be aware that SPECIALISED and THEMATIC NETWORKS and COOPERATIONS ARE THE MOST CAPABLE VECTORS TO DIVERSIFY FORMS OF URBAN NETWORKING AND TO PROMOTE A LESS POLARISED AND LESS HIERARCHICAL SPATIAL ORGANISATION OF CITIES, leading to a more polycentric structure.

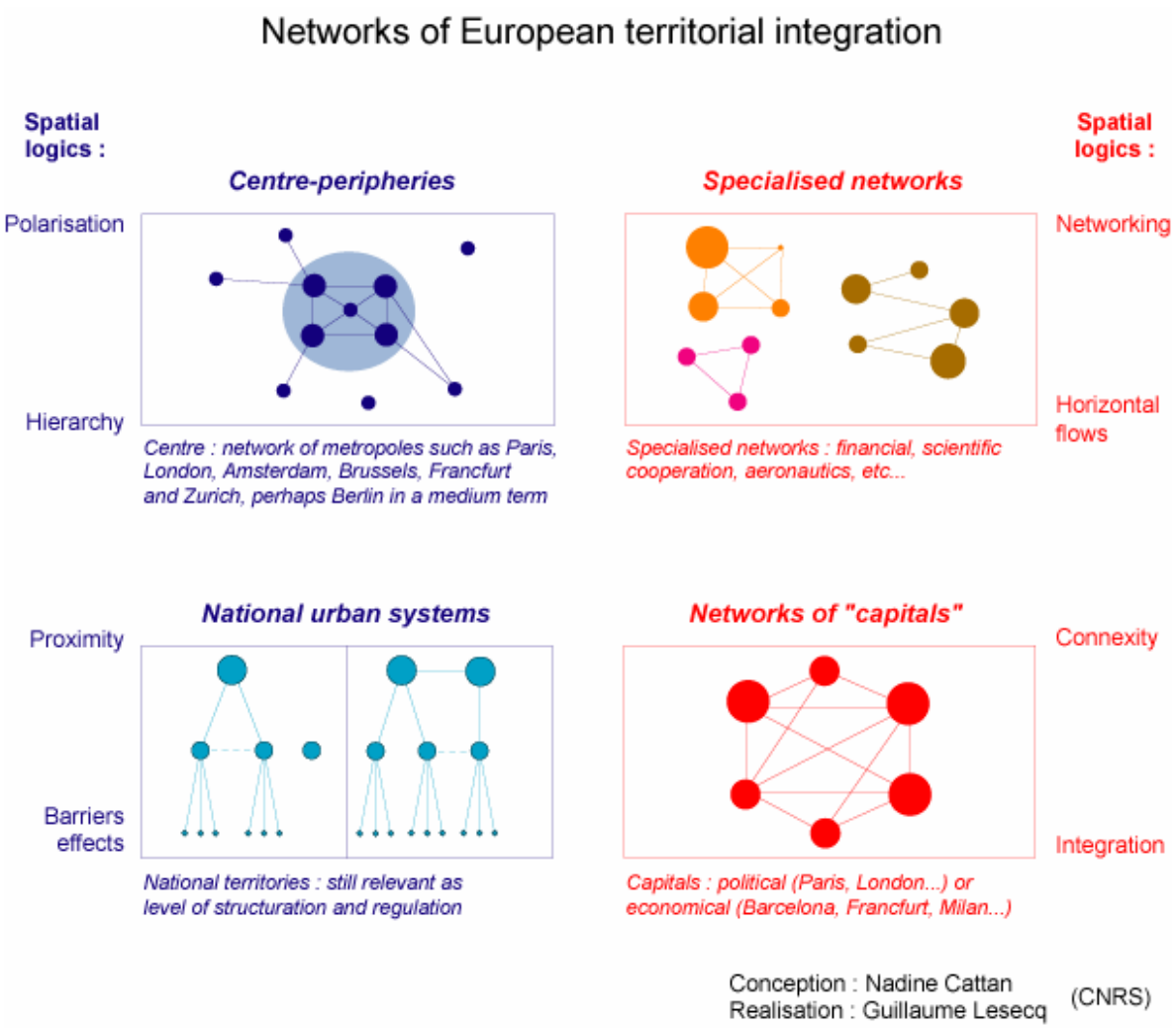


Figure no 16: **Networks of European territorial integration**

Source : N. Cattan, Th. Saint-Julien, 1998

5.4 Main operational learning

Why does the focus on urban networking processes make it possible to answer requests raised by spatial planners, and how is allowance made for advising and proposing development strategies that reinforce the cohesion and the integration of the European space in the context, and with the objective, of achieving a polycentric and sustainable development?

Two major points can be made here:

- The first is to say that the identification of a specific urban level defined by the criterion of size (mainly population to reach a minimum size) is not the best way of defining an urban development strategy. Even where size remains relevant in the attraction of population, enterprises etc…. it does not constitute a comprehensive indicator. This is even more apparent when the challenges faced by the development strategies and planning issues occur on an international scale.
- The second message to be addressed to spatial planners is that they must understand that THE CHALLENGES FOR SPATIAL PLANNING STRATEGIES SHOULD FOCUS MORE AND MORE ON THE NETWORKS AND LESS AND LESS ON THE POLES THEMSELVES.

5.5 The main results

5.5.1 European urban networking linked to university cooperation

Over the last decade, several studies have analysed the territorial impact of university location. “It has become mainstream thinking that universities have to be responsive to local needs of learning and production and to take an active part in forming the institutional *milieu* of so-called *learning regions*” (N. Boje Groth, S. Alvheim, 2001).

In this context, the challenge of cooperation between universities is becoming a priority with regard to regional development strategies. In addition, university networking is becoming a major indicator as regards questions over the emergence of a polycentric structure for Europe’s urban system.

Our initial results on university networking on the European scale concern the exchanges of students in the context of the ERASMUS programme. The majority of studies that have already analysed student flows in Europe have done so with attention paid to the national scale. Nothing has yet been done at the European level, i.e. no study has been undertaken that covers all of Europe, analysing the whole matrix of exchanges between universities at sub-national scales.

Our objective is to study the flows of students in Europe with regard to urban networking. Thus, a huge amount of work on the data has been necessary to transform the ERASMUS files and to discern the urban location of the origins and destinations of the students concerned.

Methodology for identifying the location of student origins and destinations

ERASMUS files provide the university of origin and of destination for each student.

An ERASMUS institutional code identifies each university:

- 3 letters or spaces for the country
- 7 letters for the city
- 2 or 3 numbers for the institution (university, school, institute….)

At this stage of the study, we decided to locate each institution by its administrative address, note should however be taken of the fact that this system has some consequences on the final geographical location of a few institutions, mainly those located in the suburbs of large cities.

Cities' absolute attractiveness for ERASMUS students

The main questions in relation to polycentrism

- How do medium sized cities and regional capitals perform?
- Can the strengths/weaknesses of some cities be explained by regional/national urban structures?

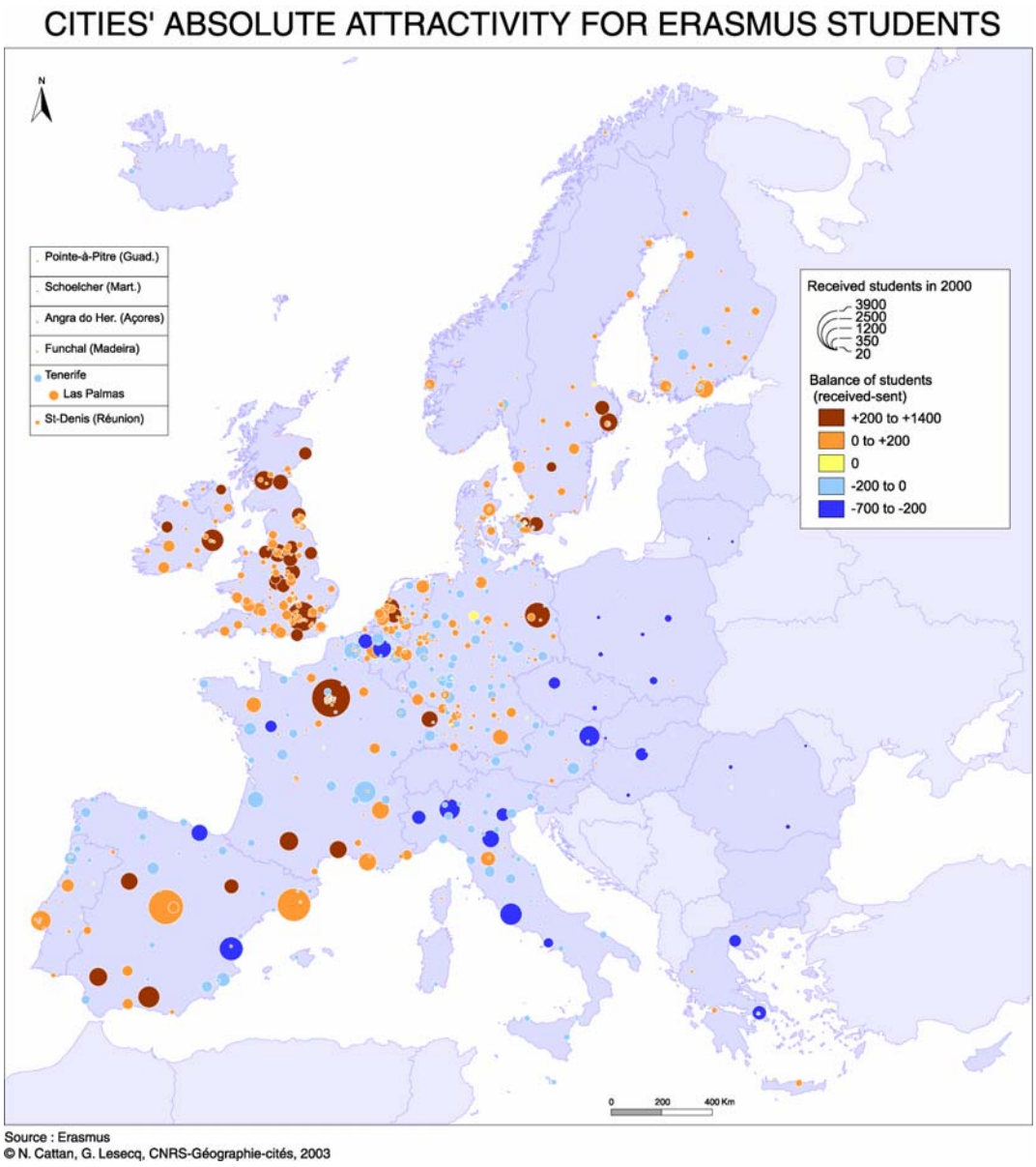
Brief comments

The map shows, for cities where at least one university participates in the ERASMUS programme, the balance of students, i.e. the differences between the students received by the city and those 'exported' (Map 19 and Figure 17).

Among the 14 most attractive cities, 12 correspond to the major national or regional capitals. All of these cities are located in the Western part of Europe. Although they are very attractive, Valencia, Roma, Milano and Wien send more students than they receive. London, Berlin, Dublin and Granada, respectively the 4th, 5th 7th and 10th most attractive cities, have a higher balance of students than Madrid and Barcelona, the 2nd and 3rd most attractive cities.

In general terms, all Swedish, Irish and British cities have a positive balance while Italian cities have a negative balance. By and large, a strong East – West differential is observed with regard to destination attractiveness. Except for Vienna, Rome, Milan, Athens and all of the central-eastern capitals, the other main capitals –political and economic - receive more students than they 'export'.

It is difficult, at that stage of the study, to provide a comprehensive interpretation of these results. Complementary measures thus have to be developed to secure those results and their interpretations.



Map no 19: Cities' absolute attractivity for ERASMUS students

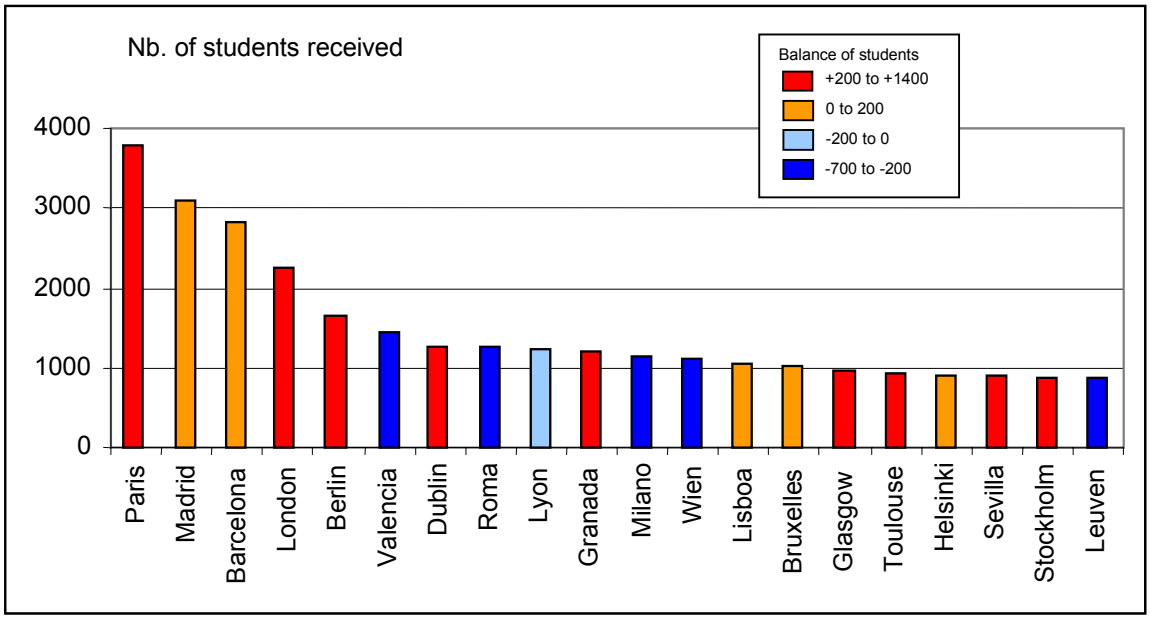


Figure no 17: Number of students received in ERASMUS

Cities relative attractiveness for ERASMUS students

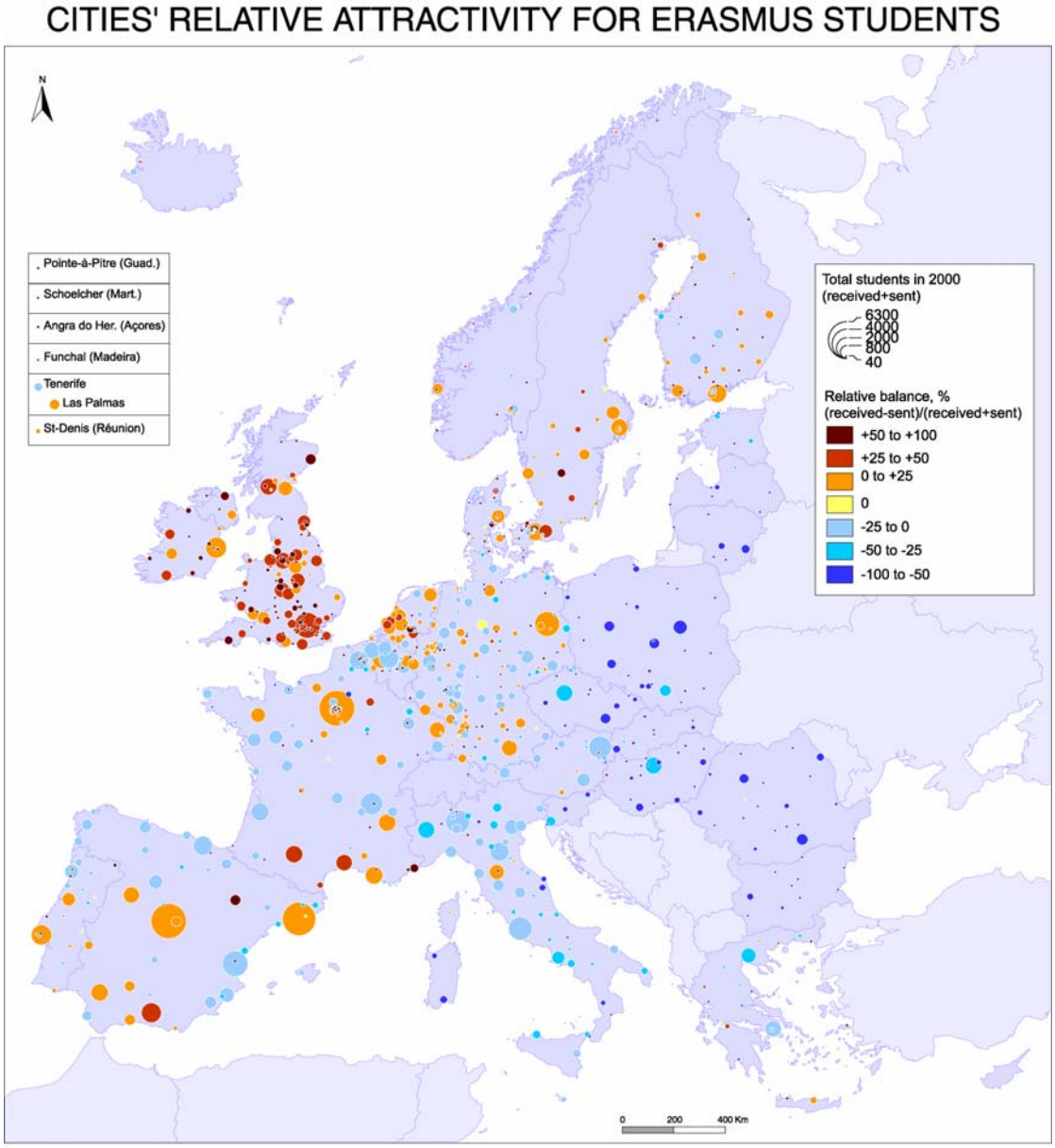
It is not enough to reach a positive balance of students. It is also necessary to develop and maintain equilibrated relations with other cities.

Methodology for the calculation of the orientation of flows
The indicator calculated for the map on “orientation of ERASMUS student flows” enables us to measure the degree of asymmetry of student arrivals and departures. The index can be calculated quite simply. It corresponds to the ratio between
the difference between the students that arrive and those that leave a given city, and the total volume of students (received+exported).

It is expressed as a percentage, varying from –100% to 100%. The closer the index is to 100, the greater is the asymmetry of the network; the closer it is to 0, the greater is the tendency to maintain links of the same intensity in both directions.

In relative terms, London and indeed most other British cities seem to attract more students than other European cities. A few French southern cities, some Spanish, Swedish and Irish cities also show a similar level of performance (Map 20).

However, this index means that those cities have an important asymmetry between their arrivals and departures with regard to the total volume of students exchanged. In that sense, one can argue that this asymmetry is a sign of autarky, and that a better position is given by cities where the asymmetry is less evident, i.e. where the number of students received by a city corresponds to an equivalent number of students exported. This equilibrium of exchanges can be considered as the best warrant of the existence of a real network, and is thus a very encouraging sign as regards the existence of polycentric networking.



Map no 20: Cities' relative attractivity for ERASMUS students

Main ERASMUS networks in 2000

The main questions in relation to polycentrism

- Do some poles polarize the network?
- Are the flows strongly asymmetrical, or are they symmetrical and multi-directional?
- Which models of networks draw the principal flows of students in Europe?

The main flows (i.e. those with more than 40 students), of the ERASMUS network show:

- A polycentric structure at the Western European level that corresponds to the network of capitals.
- A very significant attraction towards Madrid, Barcelona and Valencia that could be partly explained by the sun-worshiping logic of heliotropism and partly by the image those cities provide.
- A very important attraction towards Paris and London

Among the 10 major flows, 6 are polarized by Paris, 3 by Madrid and one by London. It is interesting to underline the fact that two connections are quite symmetrical: they concern Paris and Madrid, on the one hand, and Paris and London, on the other.

Major cities domination and dependence for ERASMUS flows

The main questions in relation to polycentrism

- What are the network structures that describe the major flows of students?
- Do the major flows highlight any privileged transnational associations?

Graph theory provides a simple tool to define the main structure of a given network. It gives an image of the main preferential direction of the major connections of each city. This leads to the identification of the main dominant centres of attraction and, contrarily, those that are dependent.

The methodology can be summarized as follows:

- Identify the major flows sent from a city (A).
- Verify that the city of destination (B) is « larger » than the city of origin (A): size is usually measured by the total number of received flows by the city of destination (B).
- If the city of origin (A) sends its major flow to a city of destination (B) that is larger, THEN (A) is dependant on (B). On the contrary, if (A) sends its major flow to a city of destination that is smaller, THEN (A) is a dominant city.

The first impression given by the major flows is that of a network dominated by Paris. This monocentric structure is however supplemented by an important number of transversal flows linking cities at a meso-regional level and on a wider transnational scale. For example, Madrid has privileged linkages with cities located in Northern France, Belgium and The Netherlands. Major flows also show privileged associations between Italian cities and Spanish ones. Some trans-border flows can, in addition, be highlighted.

What is important to notice here is that the major flows allow us to identify approximately 20 dominant cities i.e. those receiving their first flow from at least one other city. Although the major domination and dependence structure is strongly polarized, the transversal links and the important number of cities receiving the first flow of one other city can be considered as a dynamic sign that supports the emergence of a polycentric structure of urban networking at the European level.

Summary of the main results on ERASMUS networks:

The main flows of student exchanges show (Maps 21 and 22, Table 22 and Figure 18)

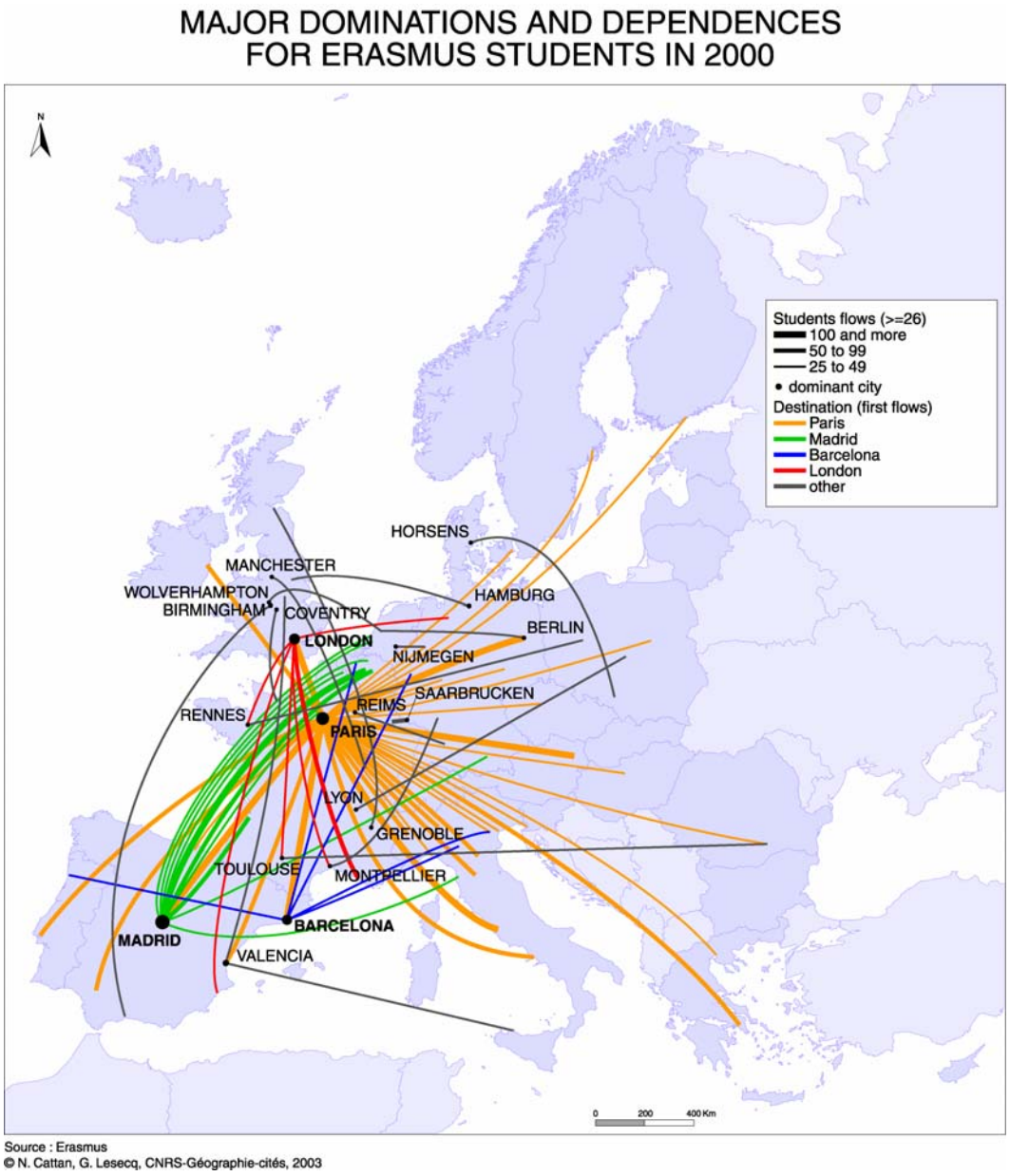
- A polycentric structure at the Western European level that corresponds to the network of capitals.
- A very significant attraction towards Madrid, Barcelona and Valencia that could be partly explained by the heliotropism logic and partly by the image those cities provide.
- A very important attraction towards Paris and London

However, what is important to notice is that although the major domination and dependence structure is strongly polarized, the transversal links and the important number of cities receiving the first flow of one other city can be considered as a dynamic sign that supports the emergence of a polycentric structure of urban networking at the European level.

Map no 21: Main ERASMUS networks in 2000

Table no 22: Main ERASMUS networks

Link	*Rank*	*Students*
Paris > London	1	> 200
Madrid > Paris	2	
Paris > Madrid	3	
Berlin > Paris	4	100 to 200
London > Paris	5	
Barcelona > Paris	6	
Roma > Paris	7	
Wien > Paris	8	
Roma > Madrid	9	
Bruxelles > Madrid	10	



Source : Erasmus
© N. Cattan, G. Lesecq, CNRS-Géographie-cités, 2003

Map no 22: Major domination and dependences for Erasmus students in 2000

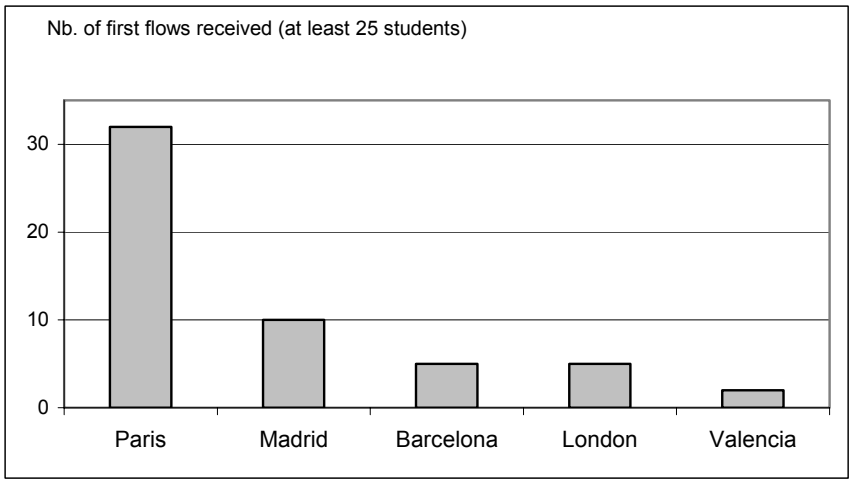


Figure no 18: **Number of first flows (at least 25 students) for ERASMUS students**

5.5.2 European urban networking linked to trans-border and trans-national cooperation

Trans-border cooperation

New relations between EU cities separated by borders have emerged during the last decades in the context of ongoing European integration. It is however not easy to have an overview of these relations because of questions over the availability of data. Relations take different shapes among cities and countries; moreover they are led by different partners (e.g. local municipalities, administrations, civil society, associations, firms).
For this topic, one of the only common EU data sources is the INTERREG CIP. INTERREG's main purpose is to foster cross border links; so a thorough analysis of INTERREG files can provide a picture of cross border urban networks.

The current work presents the methodology that has been designed to analyse the cooperation that occurs in the context of the INTERREG programme. The method is applied to the Franco-Belgian and to the Franco-German-Swiss border areas[1].

Methodology

Based on INTERREG IIA programmes (1994-1999), five trans-border zones have been taken into consideration:

- France-Flanders (73 projects)
- France-Wallonia (142 projects)
- France-Germany-Switzerland (Rhin Supérieur Centre Sud) (94 projects)
- France-Germany (Pamina) (34 projects)
- France-Germany (Sarre-Lorraine-Palatinat) (79 projects)

[1] Some elements of the method came from the Jean-Pierre Renard's work on cross border cooperation between France and United Kingdom. See: Duhamel, S., Renard, JP (2002): Le détroit du Pas-de-Calais et la politique de coopération transfrontalière. *Hommes et Terres du Nord*, 2, p.45-50

There is a large difference between the project databases in the Franco-Belgian case and those in the Franco-German one. The first database provides a description of the project holders, while the second one gives an overview of all the financial contributors. In the first one, there is no hierarchy between the project holders, while in the second one there is always one lead partner per project. As a consequence, the maps produced in both cases are not fully comparable.

In spite of these differences, a common methodology has been worked out. To analyse the types of networking that occur in INTERREG programmes with regard to a polycentric perspective, each project has been analysed within a set of common rules to identify a) the spatial scope of the project, b) the topic of cooperation, c) the kind of partners involved, d) the project results.

Spatial scope of the project

This category is one of the most important as far as polycentrism is concerned, because it allows for the selection of polycentrism-related projects.

The spatial scope may be of 3 kinds:

- **Zonal**. The project aims at fostering exchanges between people belonging to large areas (e.g. INFOBEST in the Franco-German border region, which aims at providing advice on cross border matters to all border people). It does not concern any urban network.
- **Linear**. The purpose of the project is to improve cross border connections (setting up trans-border public bus services, widening and maintaining canals…etc). To some extent this can be associated with polycentrism, for example when 2 municipalities work together on such a project. Nevertheless, these projects are not taken into account in the present paper, though they will be in the next steps of the work.
- **Punctual**. The project leads to the production of common output between well-localized partners. The very purpose of the project is to strengthen the links between them (and not to benefit people from a large area *per se* → zonal). In this paper, analysis will focus on punctual projects because they are immediately linked to urban networking issues.

Topic of cooperation

12 topics have been identified: planning, environment, training, tourism, economy, culture, research, health, transport, agriculture, vocational training and information

These topics have been gathered into 5 categories: training, cultural and natural environment, planning economy and transport, tourism and daily life (health, information)

The types of partners involved

The partners involved in the projects can be of different types:

- local municipalities
- national, regional or sub-regional institutions
- associations
- firms

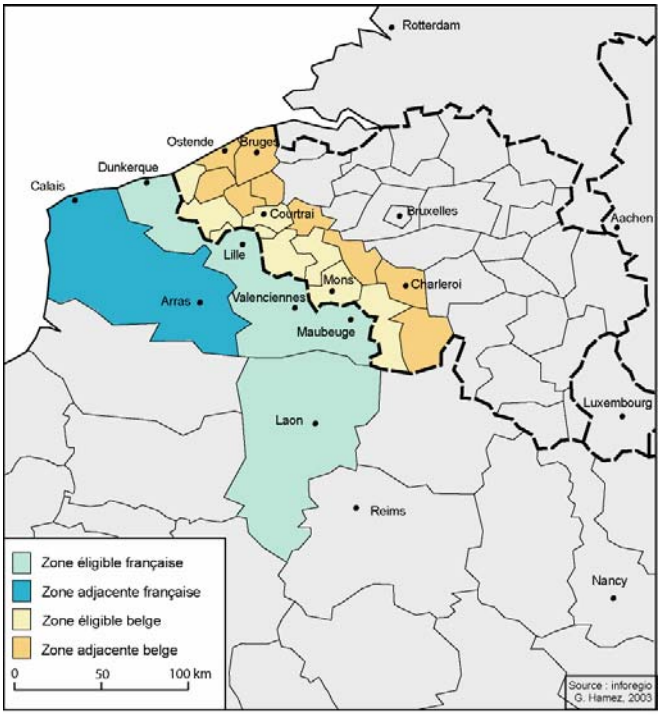
Project results

What are the main outcomes of the project?

- Drawing up of plans, papers, studies;
- information: networking, common marketing, common events, etc.
- working out a common structure (such as the INFOBEST);
- school, university and vocational training;
- setting up light common facilities (rambling paths, TV programmes, web sites and newsletters, etc.)
- setting up heavy common facilities (improving roads, restoring customs houses, etc.)

The main results for the Franco-Belgian border

As regards the Franco-Belgian border (Map 23), a brief view of the results can be provided. The total number of projects was 215.



Map no 23: The Franco-Belgian regions

Spatial scope and the topic of cooperation

The major proportion of the projects concerned (53%) fall into the 'punctual' type category. After this come the 'zonal' type (40%), and finally the 'linear type' (7%). There is a relation between the projects' spatial scope and the topic of cooperation. We have observed that some topics are over-represented in the punctual type, and others are under-represented (Figures 19 and 20).

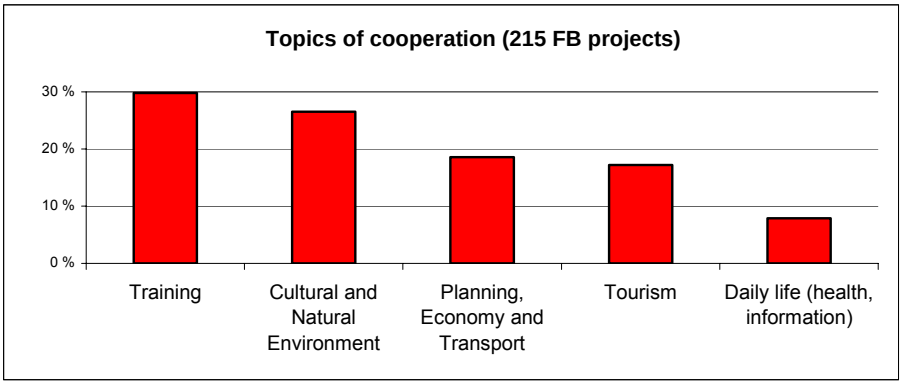


Figure no 19: Topics of cooperation (215 FB projects)

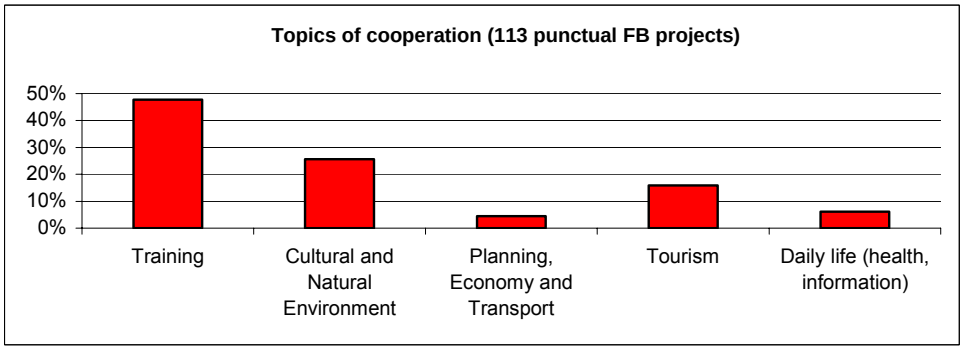


Figure no 20: Topics of cooperation (113 punctual FB projects)

It is possible to analyse more precisely the topic specificity of various projects following their spatial scope, by means of a contingency table in order to highlight the over or under representation of each topic with regard to spatial scope (Table 23). In this Table, the topics of cooperation are crossed with the spatial scope. The figures in italics are calculated from the product of the margins divided by the total. The figures in bold illustrate the difference between the observed figure and the theoretical one.

From table 23, we can infer that the topic of “planning, economy and transport” is over-represented for zonal projects, and under-represented as regards punctual ones. On the contrary, the topic of “training” is over-represented in the punctual projects. In other words, the projects related to polycentrism (i.e. the punctual type) are much more concerned with the topic of training than the global amount of projects, and far less concerned with the topic of “economy”.

Table no 23: Spatial scope and topics of cooperation

Observed *Theoretical* **Deviation**	**Punctual**	**Linear**	**Zonal**	**Total**
Training	54 *33,6* **20,4**	0 *4,8* **-4,8**	10 *25,6* **-15,6**	64
Environment	29 *30,0* **-1,0**	6 *4,2* **1,8**	22 *22,8* **-0,8**	57
Planning, Economy and Transport	5 *21,0* **-16,0**	7 *3,0* **4,0**	28 *16,0* **12,0**	40
Tourism	18 *19,4* **-1,4**	3 *2,8* **0,2**	16 *14,8* **1,2**	37
Daily life	7 *8,9* **-1,9**	0 *1,3* **-1,3**	10 *6,8* **3,2**	17
Total	113	16	86	215

Hamez

Analysis in terms of polycentrism: which towns are involved?

In this part, only the projects related to the punctual type are considered.
An initial overview of the number of projects per town is provided in Figures 21 and 22. At first glance, 3 categories can be identified.

- 4 towns stand out and can be gathered into a *first class*: Lille (F), Valenciennes (F), Mons (B) and Charleroi (B). Each of these towns is involved in more than 24 projects.
- A *second class* is formed by towns involved in more than 5 projects but less than 11. There are 5 towns in this class, 3 Belgian (Tournai, Courtrai, Mouscron) and 2 French (Maubeuge, Dunkerque).
- A *third class* is composed of the 22 towns involved in more than 2 projects but less than 4. There are 10 French towns and 12 Belgian in this category.

Further analysis could be made in respect of this data by means of a gravity model: the weight of each town would be valued following its population and its distance to the border. Then it could be assessed which towns are actually more involved in

cross border interrelations than the model would lead us to expect, and which are under-represented.

Moreover, the border is linguistic between France and Flanders but not between France and Wallonia. The interest of such a model could be an evaluation of the linguistic factor weight in the INTERREG relations.

The different topics of cooperation between towns.

We consider here only the projects of the punctual type. Focus here is on the 4 cities involved in more than 20 projects.

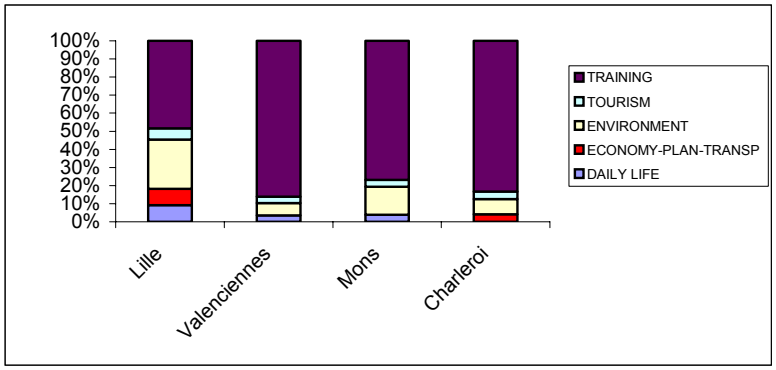


Figure no 21: Topics of cooperation per town

There are few common points between the 4 cities. The only ones being:
the topic of “training” is dominant in each city (more than 50%)
the topic of “environment” is the second most important.

Huge differences do however emerge between the 4 cities as regards their topic-profile, particularly between Lille and the 3 others. Lille’s profile is the most diversified; there are projects in each of the 5 themes. The 3 other cities are much more focused on projects in respect of training (more than 80% of the projects).

At this stage, an explanation can be proposed as regards the size of these towns. There are around 1million inhabitants in Lille, against 206 000 in Charleroi, 92 000 in

Mons and 59 000 in Valenciennes. Moreover, Lille plays the role of a regional capital and consequently provides a lot of services. On the contrary, the profiles of the 3 other cities deal more with heavy industry than with services. The weight of the "training" topic can thus be linked to the numerous institutions of vocational training in these cities.

Which couples of towns?

The 4 largest towns show very different networking profiles:

- Lille is the more diversified town in its exchanges, with links to 13 other towns (and a maximum of 24% of links with another town).
- Charleroi's profile is less diversified though it also looks eclectic: links to 6 other towns (and a maximum of 38% of links with another town).
- Mons' networking profile is more focused on a few other towns, particularly with Valenciennes (70% of its links).
- Valenciennes' profile also looks highly specialised: strong links with only two Belgian towns, Mons and Charleroi.

What is interesting to notice here is that a large number of such cooperative associations emerge between medium and small towns located in the Northern part the area. Although major cities gather an important number of projects, medium and small cities are very active in setting up cooperative projects in the context of the INTERREG programme. This dynamic contributes to the reinforcement of such trans-border urban networks (Map 24).

As an initial conclusion, one can highlight the role of medium and small sized towns in the emergence of a polycentric urban structure and in networking at the local and regional levels.

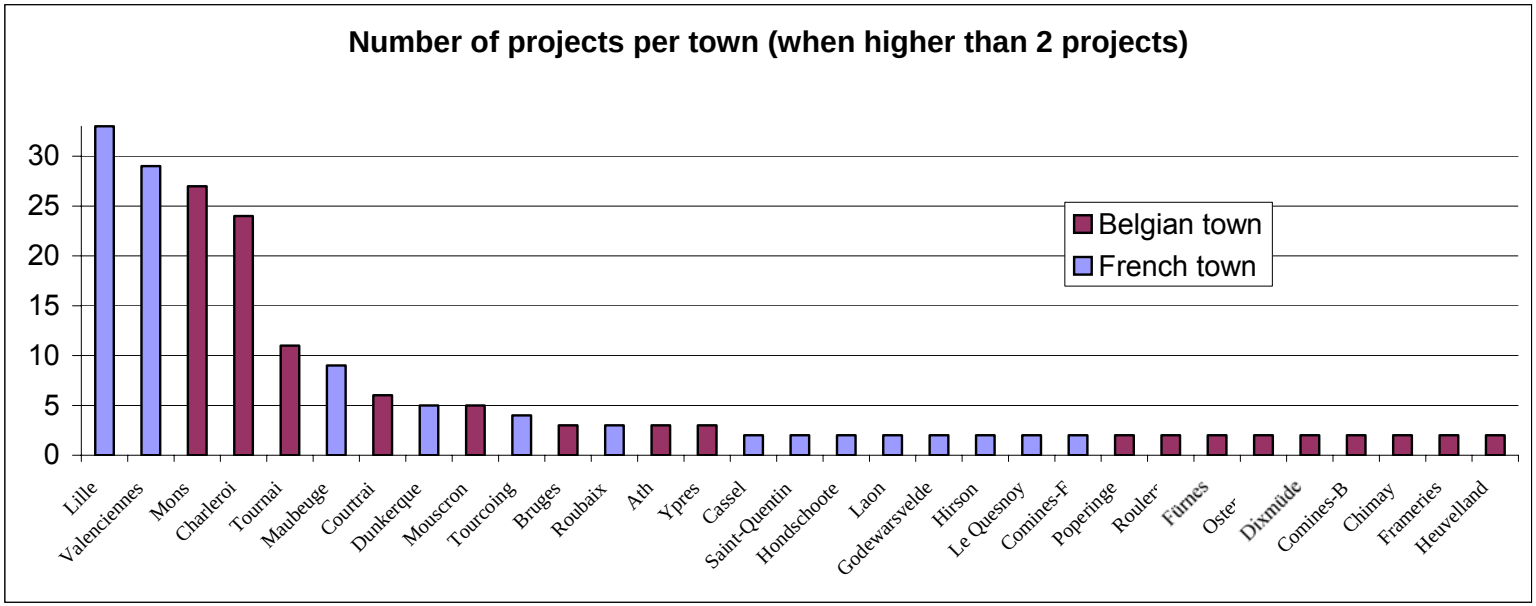
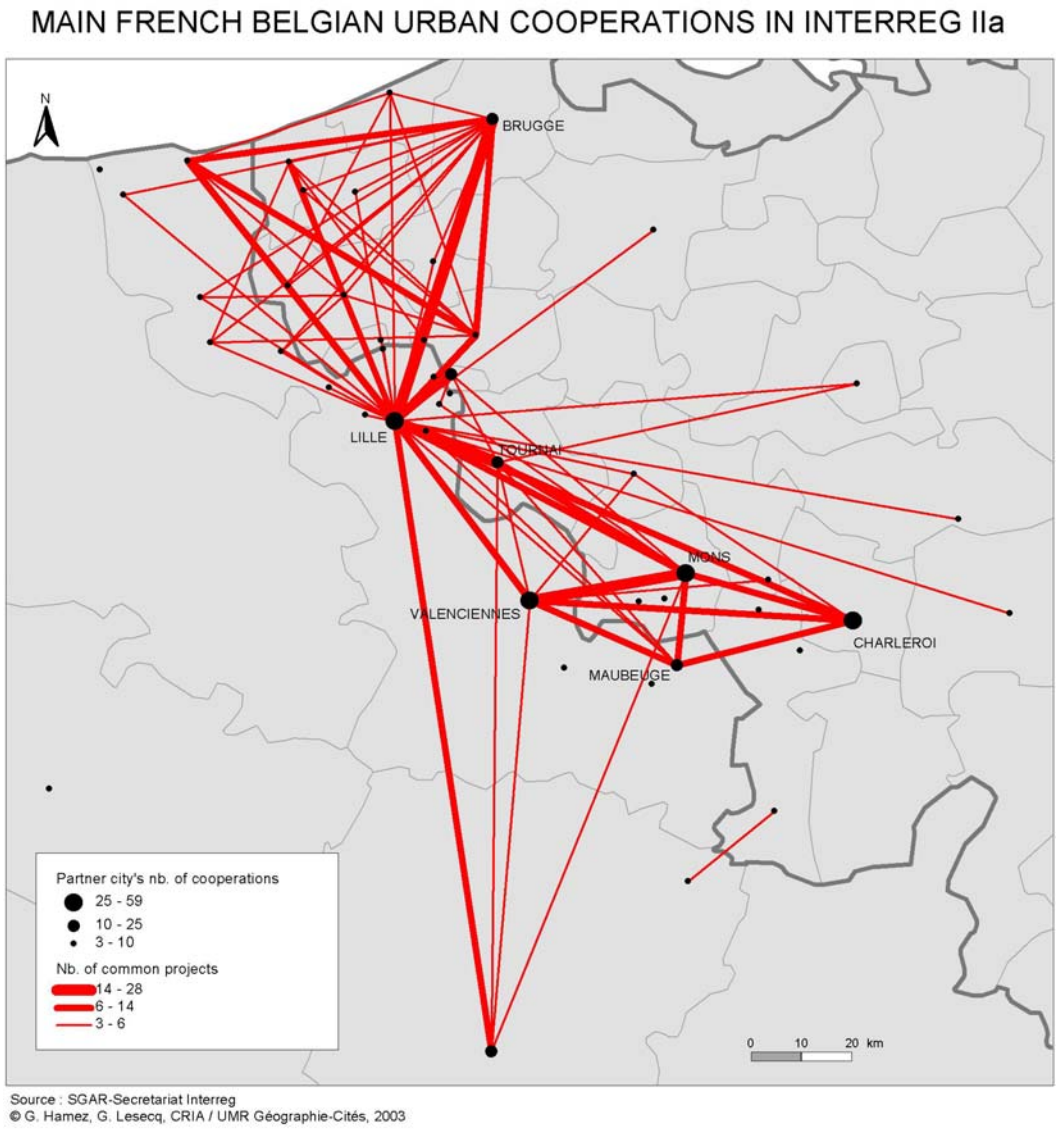


Figure no 22: **The towns involved in more than 2 projects.**



Map no 24: Main French-Belgian urban co-operation in Interreg IIa

The main results for the Franco-German-Swiss border

At this stage of the study, analysis of the Franco-German-Swiss INTERREG file is only beginning. Three INTERREG zones on the Franco-Germany-Switzerland border will be analysed in the final stage: Saar-Moselle, PAMINA and Rhin Supérieur Centre Sud.

The current work takes into account the Rhin Supérieur Centre Sud INTERREG programme and provides for this area the first provisional results.

Total number of INTERREG projects: 94.

The same methodology was used here as for the Franco-Belgian zone to define the spatial scope of the projects. Contrary to the Franco-Belgian area, the proportion of the projects in this area were of the zonal type (70 %). Only 22 % are of punctual type and 8% of the linear type. Although relatively few projects were of the punctual type, we focused our analysis on the 21 projects related to the punctual type in order to provide a comparative set of results to those of the Franco-Belgian area.

Nevertheless, a complete analysis in terms of polycentrism has to take into account some of the projects of the zonal and linear types that could support the emergence of border urban networks.

Analysis in terms of polycentrism: which towns?

A first overview of the number of cooperative associations by town is provided in the Figure 23.

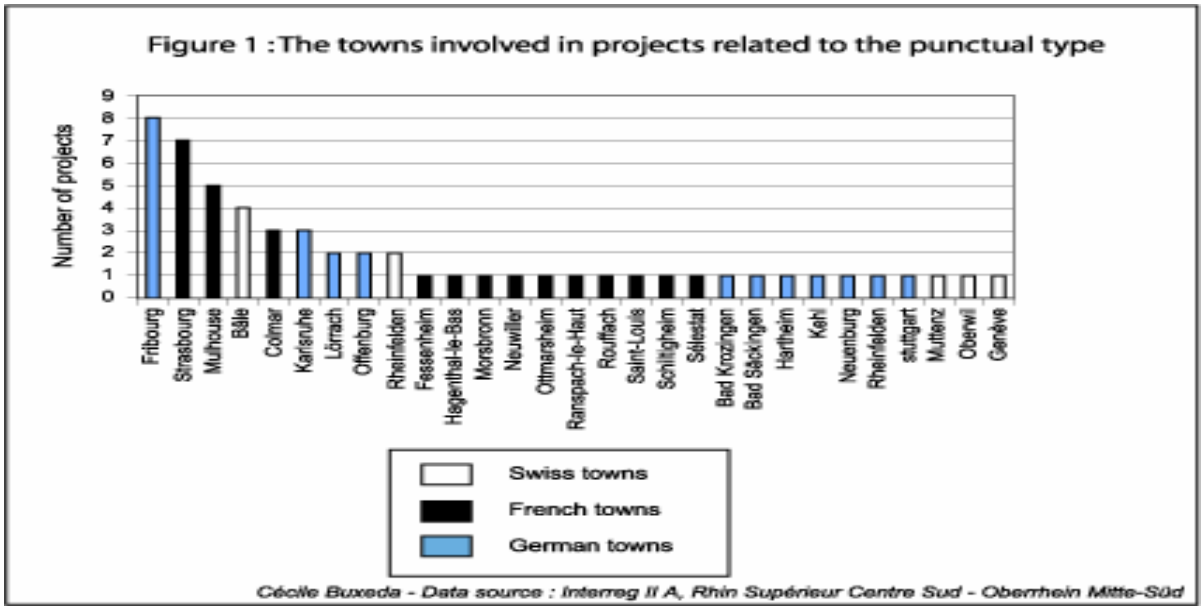


Figure no 23: The towns involved in projects related to the punctual type

Four towns were involved in more than 4 projects: Freiburg-in-Breisgau (G), Strasbourg (F), Mulhouse (F) and Basle (S). Two towns involved in 3 projects can also be cited here: Colmar (F) and Karlsruhe (G). It seems that the most important towns of the zone are involved in INTERREG projects. A gravity model, as explained above, could better highlight the towns that are over or under-represented in the cross border interrelations and networks. The linguistic proximity between the Franco-German border regions – German dialects are commonly used in Alsace - could partly explain some forms of INTERREG relations.

The different topics of cooperation between towns

The number of INTERREG projects of the punctual type in the Rhin Supérieur Centre Sud area were not sufficient in number to attain relevant results on the dominant topics of cooperation for each city. This analysis will be realized in a future step for the entire Franco-German area, i.e. Saar-Moselle, PAMINA and Rhin Supérieur Centre Sud. By and large, the initial impressions suggest that Colmar, Strasbourg,

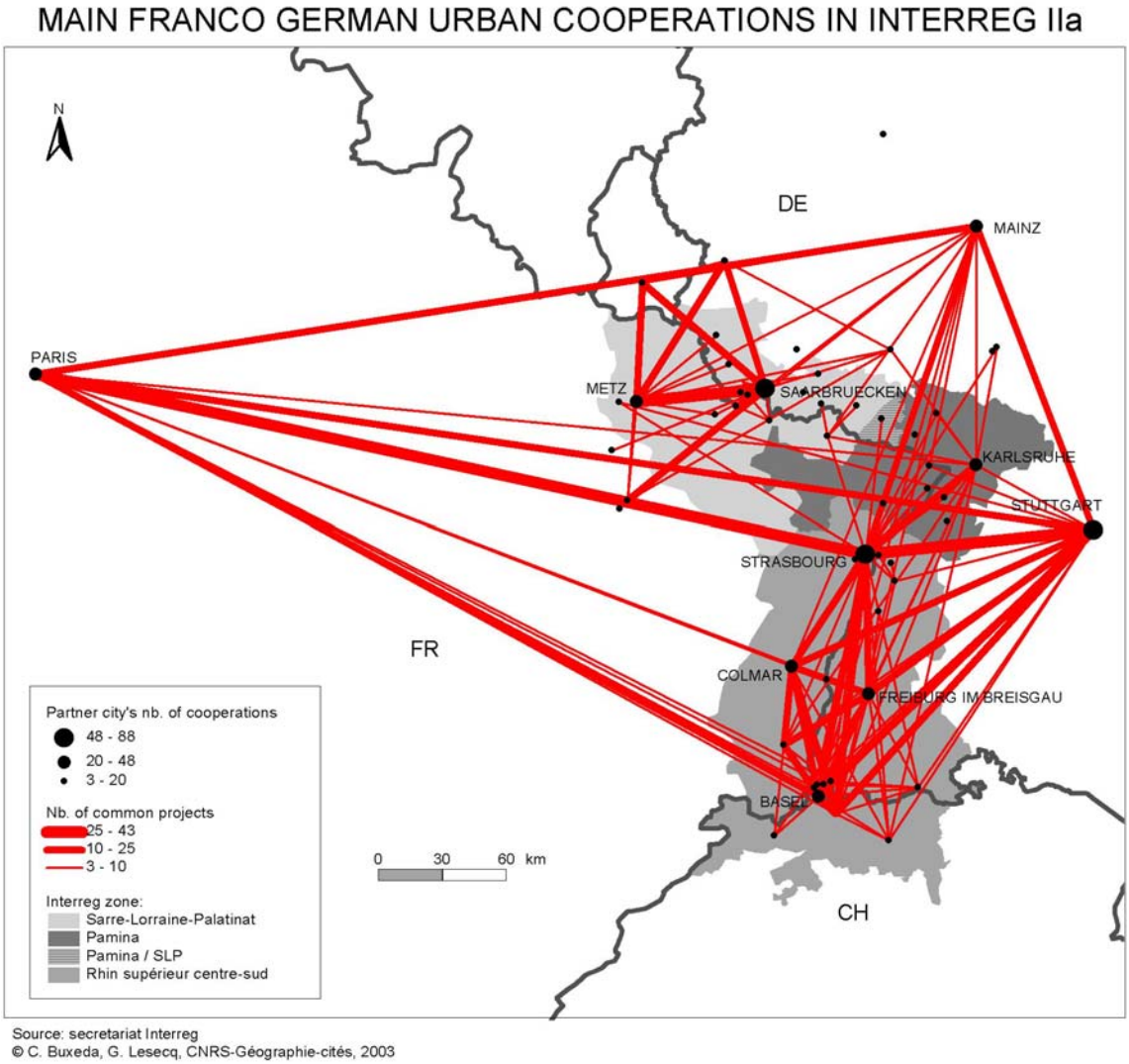
Mulhouse, Fribourg and Karlsruhe seem to have privileged topics of cooperation. These results remain however to be confirmed in light of further investigation.

Which couplets of towns?

Map 25 illustrates the importance of INTERREG networks of cooperation between couplets of towns. Again, only the projects of the punctual type are considered here.

Strasbourg (F) and Mulhouse (F) are the more diversified or complete towns in their exchanges with more than 5 cooperative associations (respectively 6 and 9) with other French and German towns. But, one should notice that Mulhouse has important links (3 projects) with Fribourg (G) and Basel (S) whereas Strasbourg has several main relations with Fribourg (3 projects), Karlsruhe (2 projects) and Basel. The distance effect can help to explain these differences: Strasbourg, being equidistant from Fribourg and Karlsruhe, while Mulhouse is nearer to Fribourg than to Karlsruhe. Fribourg has important relations with each principal Alsatian town (Colmar, Mulhouse, Strasbourg and Basel).

It is interesting to highlight that two main complementary types of networking can be observed here: the first linking the major cities of the area, and the second connecting medium and small sized towns. Both structures are polycentric.



Map no 25. Main Franco-German co-operations in Interreg IIa

Summary of the main results on trans-border cooperation:

What is interesting to notice here is that for both trans-border zones taken into account (France – Belgium and France-Germany-Switzerland) a large number of INTERREG cooperative associations emerge between medium and small towns. So although major cities gather an important number of projects, medium and small cities are very active in setting up cooperative projects in the context of the INTERREG programme.

As a first conclusion, one can highlight the role of medium and small sized towns in the emergence of a polycentric urban structure and in networking at the local and regional levels.

Synthetic diagram for trans-border cooperation linking conceptual (Critical dictionary) and empirical works

In our effort to link our conceptual thoughts developed in Critical Dictionary and those empirical studies, we have built a synthetic diagram clarifying the types of polycentrism produced by such trans-border cooperation.

A first look shows that one can identify three kinds of cross border networks. According to the size of the different cities involved in the trans-border cooperation, their administrative and economic functions, and also their distance to the border, the different types of polycentrism pointed out are all defined in coherence with the definitions provided in Critical Dictionary.

The three main types of networking are as follow (Figure 24):

- The first type corresponds to an ***Integrated polycentrism*** where proximity does not matter. The main cities in terms of population size or administrative functions are in contact through a large number of projects. Their physical proximity to the border or to each other has no major influence on their relations.
- The second type is that of an ***Outcoming polycentrism*** (in proximity). Small and medium-size towns located near the border are increasingly involved in Interreg IIA projects. The closer they are to the border, the more they have some relations with each other.
- The third type of networking through trans border cooperation is related to an ***Intra-urban polycentrism***. When a big city is located close to the border, there are often strong relations between it and the little towns on the other side of the border. This is the case with the French city of Lille, and also with the Swiss city of Basel.

These three strands of urban networks are the most typical that we have found in the France-Belgium and France-Germany contexts. There are numerous other kinds of

relations that do not fit into this model, but in the majority the links were established along one of these three strands. This model is intended to give a foretaste of the expected results, as they will be delivered in the 1.1.1 Final Report.

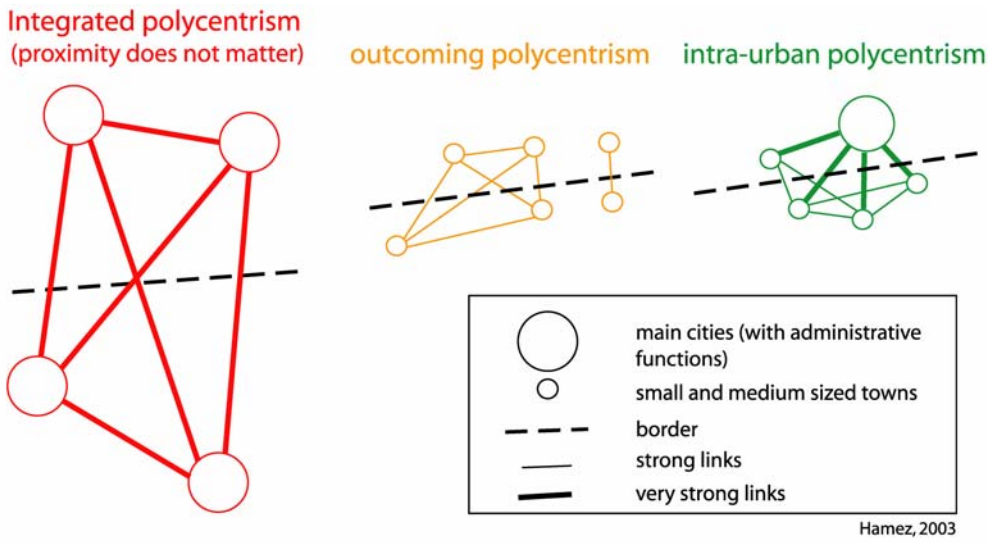


Figure no 24: Three strands of urban networks

Trans-national cooperation

In the early 1990s, 13 Community initiative programmes (CIP) were drawn up by the European Commission with a view to enhancing regional development, particularly in the less advanced regions. Among them, the Interreg CIP was created. At this stage only the border regions could benefit from this programme. Later on, in 1996, seven trans-national co-operation programmes were established in order to test co-operation in spatial planning. In the North-Western Metropolitan Area (NWMA), the Atlantic Area (AA) and the Central European, Adriatic, Danubian and South-East Space (CADSES), the first programming period lasted from 1997 to 2001. Spatial development is the backbone of such co-operative attempts, and many fields of action are required in the numerous projects. As the European Spatial Development Perspective states, the partners involved in projects “are expecting an added value from spatial development”. The latter range from ministries to SMEs, including universities, territorial authorities…There is an official “impetus given to companies, authorities, federations and regional and local authorities to take part in trans-national

co-operation[2]" Therefore, the analysis of the trans-national Interreg projects will provide a representation of the trans-national urban networks and a more precise idea of the actors ruling those networks. As the NWMA and the AA are partially overlapping, a comparison of the networks in the "common" area could help in creating a hierarchy within the network. Drawing a parallel between each trans-national co-operation space will stake out different types of networks.

Methodology

The methodology regarding those large spaces will be close to the cross-border spaces' though it presents some particularities, mainly resulting from the scale change from cross-border to trans-national co-operation spaces.

The sources are the Interreg IIC programmes:

- -NWMA (1997-1999): 45 projects
- -AA (1999-2001): 48 projects
- -CADSES (1997-2001): 45 projects

Three major themes have been selected in order to analyse this specific co-operation network: the spatial scope, the objective of the project and the type of actors involved.

The spatial scope

The spatial scope of a project can be **punctual** if a very located zone is targeted as some cities, bridges, and suburban areas… The project can target a wider zone, trans-national but **partly** comprising the **trans-national** co-operation space. This is the case when Euroregions, trans-border natural parks are involved. Thirdly, the **entire trans-national** co-operation space can be the spatial scope of the projects. It will be met when the objective of a project is to draw guidelines for common spatial development policies to the entire programme's space.

The objective

Most of the time, there are many objectives to a project but the most important one has been maintained, the one presented by the actors as the main project's

[2] (ESDP, 1999, p 39).

objective. They are classified in four categories: **“accessibility”, “economy”, “environment”, and “image”**. The first category means the projects are either contributing to the improvement of the accessibility of the projects’ space and/or contributing to the enhancement of the flow of material or immaterial exchanges between the actors of the same space. The “economy” category groups projects supporting some economic actors or a specific economic field. In the third category, the projects are purchasing the protection of the natural heritage, *i.e.* the environment, an area, the biodiversity, the air or water quality. The last one, “image” gathers the projects improving the attractiveness of the space by protecting the cultural heritage, by acting on the quality on life, on the image exported abroad.

The type of actors

As for the types of actors involved, many items have been synthesised to the 8 remaining items:

- ENTPRI: the firms, SMEs, private cabinets…
- GRIPRI: the groups of private interest (some NGOs, federations, private interest unions…)
- ORCONS: public consulary organisms (Chambers of commerce and Industry, of Agriculture, ports managed by a CCI…)
- GRIPUB: the groups of public interest (development agencies, urban spatial development agencies, foundations, some NGOs, some natural parks…)
- COLLOC: the local collectivities (town or city municipalities, groups of towns, agglomerations…)
- COLREG: the county or regional authorities (county, region, Länder, Kranj, judete, *i.e.* at the NUTS II or III level)
- UNIVER: the universities and public research centres (technical universities, specialised institutes…)
- ORETAT: the state organisms (ministries, ports, public establishments, decentralised state services in water management, environment protection…)

Initial results for the CADSES

Foreword: the limits of the method applied to the CADSES example.

The CADSES is the only trans-national space (of this study) involving non- EU actors, namely acceding countries and third countries. Coupled with the fact that a joint secretariat did not exist during this programming period the data has yet to be centralized and as such remains scattered. This is the main reason why some data is missing, but it is hoped that it will all be available by the time of the final report.

This is what we call a filter. The latter can be defined as everything that impacts on our ability to effectively compile the results of this study, *i.e.* a loss of information. We can call the lack of data a technical filter. Some of the actors have not been identified. Among the 45 projects, 8 show "missing partners":

- A8 Bridge lifeline Danube (1 German actor missing)
- B2 Co-operative network (1 Romanian and 1 Bulgarian actors missing)
- B6 INTEMIGRA (1 Albanian actor missing)
- C7 Water management (1 Hungarian and 1 Austrian actors missing)
- D4 CEDN (there are 1 Austrian, 1 Romanian, 1 Bulgarian, 1 Czech, 1 Slovakian, 1 Polish, 1 Hungarian, 1 Moldovian, 1 Danish, 1 Estonian, 1 Lithuanian 1 Latvian, 1 Ukrainian, 1 Slovenian, 1 Russian and 1 Byelorussian actors missing)
- D5 Knowledge management (1 Slovenian and 1 Greek actor missing)
- D7 Community radio (3 Italian and 2 Austrian actors missing)
- D9 Environmental conservation (2 Austrian, 1 Czech, 1 Slovakian and 1 Hungarian actors missing)
- E5 River Elbe tourism (1 Yugoslavian actor missing)
- E 10 IMRA (1 Polish, 1 Hungarian and 1 Greek actor missing)

The results in terms of actors' dynamism or cities' representation will have to be a little tempered by this unfortunate missing information. The second source of information loss is what we can call a political filter. The projects are being implemented within the framework of the Community Initiative Programme *Interreg IIC CADSES* that imposes some constraints. At first there is a constraint as far as the

lead partners are concerned. The CIP stipulates that the head of each project must be occupied by an actor from the EU member states in co-operation with some actors from the acceding and third countries. The former are financed by the ERDF[3], the latter by different funds related to their geo-political status. This is the reason why no lead partner will be from the acceding or third countries, consequently no comments can be made in the sense of a lack of incentive or an apprehension towards investment in their counterparts. Another constraint regards the outcomes of the projects. They cannot be of expensive realisations, infrastructures being an example, as they do not benefit from enough allocations. The projects range from 20 452 to 4 460 591 euros for a total of 21,5 million euros.

In the Operational programme Interreg CADSES for the period 1997-2000, the objective is namely to "emphasize the development of a strategic vision for the spatial planning of the areas in question". The term "vision" advocates that it is more a programme of reflection or guidelines for future actions, than one of concrete realisations as constructions. This is part of the difficulty of evaluating the spatial impact of co-operations. The last constraint could be the definition of measures in which the projects has to fit, but they are so widespread that all the fields of actions can find an appropriate framework:

- Measure A: Initiatives for the launching of a co-operative spatial planning process.
- Measure B: Promoting co-operation for the establishment of more balanced and polycentric urban systems and settlement patterns.
- Measure C: Development of multimodality in transport systems and parity of access to infrastructures.
- Measure D: Co-operation for the improvement of access to knowledge and information.
- Measure E: Prudent management and development of natural and cultural heritages.
- Measure F: Technical Assistance.

[3] European Regional Development Fund

As far as the analysis is concerned, we will focus in particular on the impact of this co-operation on a polycentric urban network. Therefore we will initially present the actors' cities network, the different types of actors involved, the existence of privileged partners, the presence of geographically distinct sub-networks. We will argue that it is a polarized network. In the second part, we will focus on the thematics of the different spatial scope of the projects in order to assess the impact of those projects on polycentric spatial organisation. This will widen a little the polycentric approach, from an urban to a more global polycentric spatial organisation.

The actors

Map 26 presents the links between the cities in terms of the actors' residency. Links representing at least two common participations were represented, as the map would otherwise not support the totality of links. Those representing only one common participation of two actors reached 579 (cf. Table24).

Table no 24: Number of links between two cities by the number of projects

Number of links	579	127	33	17	9	4	2	1	0	0	1
For x projects	1	2	3	4	5	6	7	8	9	10	11

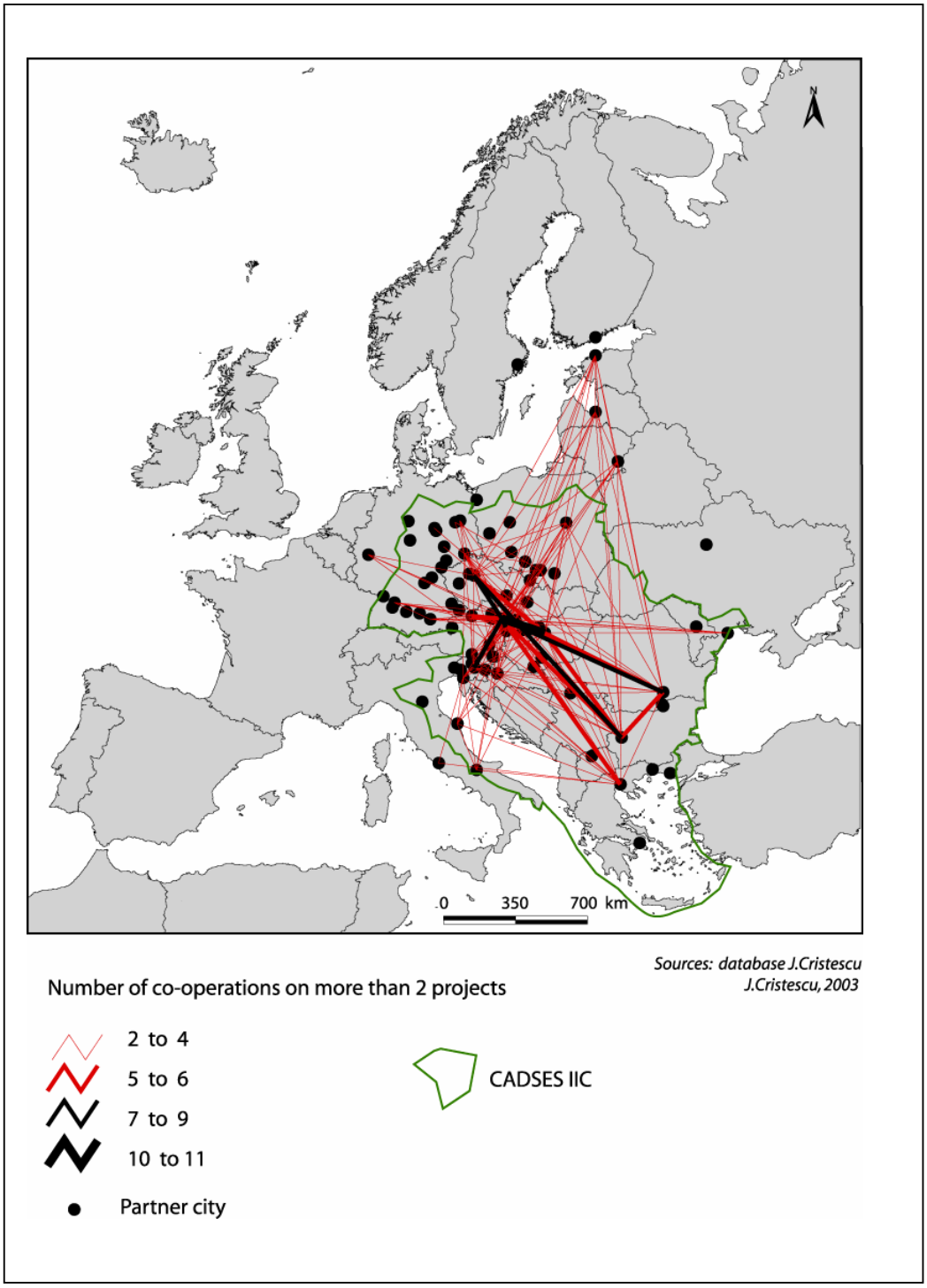
This network shows that between cities the highest amount of projects reached 11 participations. In other words, Vienna and Budapest are partners in 11 out of 45 projects. They can be considered as the most active cities in the programme. On the contrary, there are many cities that participate in only one project, and they are the most peripheral cities, namely the ones from outside the CADSES. This is easy to understand, as generally speaking they are not supposed to become involved in this co-operation space as they are already more intensively involved in other inter-regional European co-operation spaces. Within the framework of CADSES they are welcome, but their participation should remain the exception rather than the rule. Between those extremes, we can see that the network has its centre in the area of Vienna-Budapest-Bratislava. This confirms that there is only one network, centred in the CADSES. Some could imagine that there would be two main sub-networks: one involving mainly member states and the other regrouping mainly acceding countries.

The network we identified had a core of cities and some concentric belts of cities where actors are located. The belts are not perfect rings as the first is a grouping of north-eastern Italian cities such as Trieste and Venice, Ljubljana in Slovenia, the German city of Dresden and the Czech capital Prague all located in the western half of a circle around the core. Still in this first group, though further removed stands Bucharest, the Romanian capital. If it were not for this last city, there would only be a western half circle. Bucharest stretches the belt to the east without any relay in the space in between. The reason for such a distortion is of course that Bucharest is located in the eastern part of Romania, indeed, in the eastern part of the CADSES area. It seems that the reason for such an involvement is that ministries are the relay between the European commission and the local actors and they do not have enough contacts at the local level so that local actors, or at least those beyond the capital could involve themselves in some projects. Romania is now slowly emerging into the post-Communist era and from a highly centralized state organisation and there still are higher connections at the government level. Therefore Romanian actors are predominantly ministries, or counties, which are decentralised bodies very close to the government, and research institutes used to undertake studies for different ministries. The important participation of the city of Dresden has been taken into account in the decision to locate the joint technical secretariat of the following Interreg IIIB-CADSES programme.

A second belt is located in the periphery of the first one, towards the end of the CADSES. Here we find actors from northern Germany, Poland, the Baltic countries, Ukraine and the Republic of Moldova (only from the capital), Bulgaria, Greece and the Balkan countries. The fact that only Chisinau is involved in projects is due to the recent political conflict that reached its apogee in may 2002 but has been lasting for a decade, since the independence of the NIS countries. In general some Moldavian actors began to launch projects, but the communist government abruptly decided not to support their participations with the consequence that they had to withdraw from all their projects. There is a gradient of decreasing dynamism as we draw near the external borders, except in the direction of Greece. Greek actors, especially those from Thessalonica are the dynamic element in this southern part of the CADSES area, thus acting as “the link between the Orient and the Occident.”

One has to admit that there is a gap between the involvement of the cities of UE member states and the others. We explained one of the reasons for this in the foreword. Another comes from the discrepancies between the administrative structures of the two types of countries. Most of the firsts one have a functioning NUTS II and III organisation. Germany and Austria also have federal institutions along with those of the different Länder, which are very important in terms of local affairs. Italian autonomous regions have almost the same competencies and thus the same importance as the Länder. Moreover, they often participate as a national network, by this we mean it is not rare to find three or four regions participating in the same project, one is never involved on its own. The numerous actors from these countries is the result of the joint effect of the Operational Programme constraints and the administrative structuration.

This is also easier for actors to work with homologues, which are at the same level of organisation and used to co-operation with each other, compared to the acceding countries. The latter are still in the process of capacity building, in terms of their administration capabilities, as well as in all the fields of action (political, economical, social, cultural…). A clue being that among the acceding countries' actors, those most represented are the ministries and some research institutes very close to the government. They appear to be privileged partners as if they were the only ones having the capability to undertake such a partnership.



Map no 26. The CADSES city network

Figure 25 classifies the actors by type of organism and by the different countries involved. The initial results concentrate on 412 different actors, not including the missing ones, located in 105 cities, mostly from the CADSES. Some actors located in cities from outside the co-operation space, such as Stockholm, Helsinki, the Baltic capitals, and Rome were also taken into account as they participated in some projects in an active way. The Operational Programme promotes co-operation between member and non-member states even outside the CADSES but in this case they cannot benefit from the attached financial assistance package.

Two countries distinguish themselves with regard to the number of actors involved: they are of course Germany and Austria. In third place we find the Hungarian actors, more so than even Italy or Greece (only 16 partners), despite their EU memberships. Further behind we have the Czech Republic followed by Poland and Romania, then Slovenia with 20 partners, and Slovakia. There is then a further gap between this first group and another one gathering the rest of the CADSES countries and some "exteriors".

In terms of activity, the best- represented actors are the universities and public research centres, themselves often hosted by universities. This shows that the knowledge potential concentrated in these organisations is recognized by the partners. Though this may also be due to the fact that academics have their own network and are able to mobilize it when they want to. Then at the regional and county level, public collectivities are in second position. This is due to their proximity to the population along with their proximity to the places of power. This is why the local collectivities such as the municipalities are not as visible because on the one hand they are closer to the population and better know their needs, while on the other, they are too far away from the centres of power. Nonetheless is the participation of cities important enough to be indicative of the impact on a polycentric urban network organisation. One however has to notice here that small or medium enterprises are not set aside. Many countries see that at least one SME is involved in projects, often small consultancy private cabinets. They are a little more involved (with a difference of 5 partners) in the co-operation than the state organisations such

as ministries, cabinets, decentralised state services (regional environmental agencies, county water management agencies…). They participate widely in the different projects as they generally have the first contacts with the European Commission, and they communicate intensively with each other. The public groups of interest are represented almost as much with many NGOs and public federations (of municipalities, of counties or regions) among them. They are increasingly present on the international scene and strongly supported by European bodies such the committee of the Regions and the European committee of the Local and Regional Authorities. Those represented least are the consular organisations and the private interest groups. Even if some projects are targeted to elevate the level of public-private partnership, these two types of private organisations do not seem to want to become too involved. The private sector remains under represented, and even then only by firms such as the ones cited above. In many countries, however there are unidentified partners (under the “unknown” item) that could rebalance this divide, though it is not to be expected that this would significantly change the trend analysed thus far.

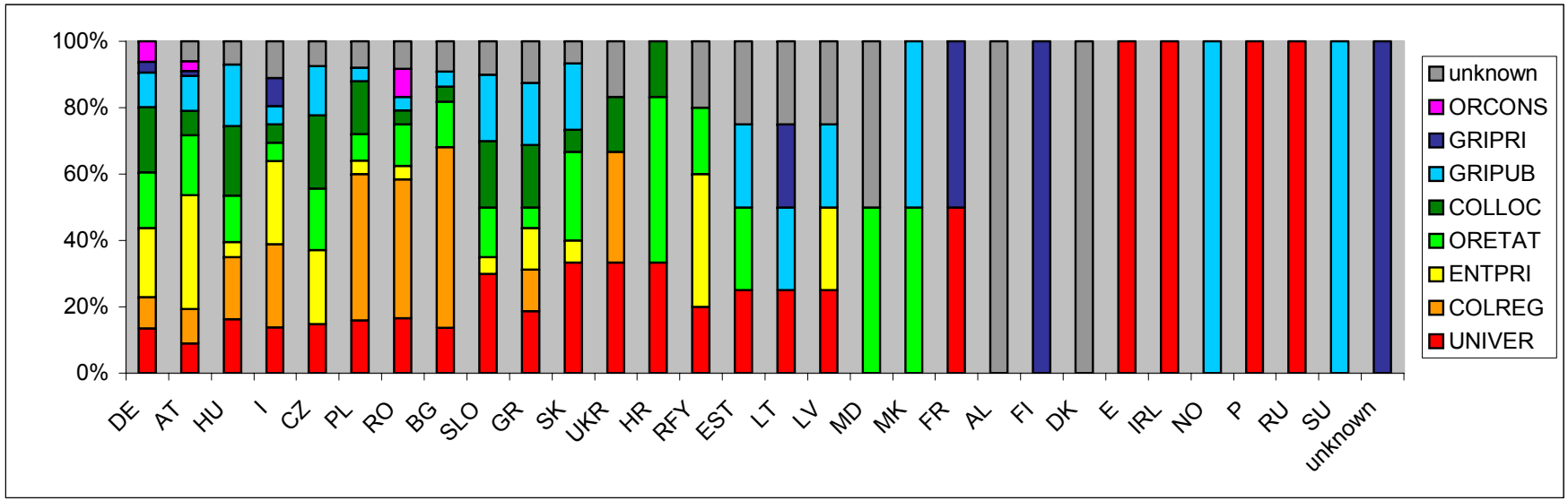


Figure no 25: Types of actors by countries

The projects

Table 25 crosses the spatial scope of the projects with their main objective. It clearly shows that co-operation on a part of the trans-national CADSES is an utmost preoccupation. One would have thought that considering the general aim of the Interreg IIC programmes, there would not have been punctual projects but they are almost as numerous as the projects with the total CADSES scope. This means that some projects put in the forefront specific small spaces that have a crucial role in spatial planning. Under the totally trans-national spatial scope, we accepted projects setting aside countries such as those from the Balkans or countries with temporary political problems (Moldova, Ukraine). If not engulfing those countries, there would have only been two projects within the entire CADSES with such a spatial scope, namely Vision Planet and ESTIA aiming respectively at establishing a common vision for the spatial development of the CADSES and at strengthening the spatial policy integration and co-ordination among the CADSES.

Table no 25: Spatial scope of each project considering its objective

	Spatial scope			
Project objective	**Punctual**	***Partly trans-national***	**Totally trans-national**	**Total**
Accessibility	2	**13**	4	19
Economy	4	7	2	13
Environment	0	10	1	11
Image	1	0	1	2
Total	7	30	8	45

One has to remember that among the measures of the Operational Programme, one is specifically aiming at the enhancement of a polycentric city network (measure B), so we can tell that this is an obvious and official objective. Looking closer, we can assess that the best represented objective is that of the enhancement of accessibility and material or immaterial exchanges in a portion of the co-operation space. The enhancement of accessibility testifies to the fact that there is a willingness to strengthen the network between people with a greater ability to reach the different places of the co-operating area. This often begins with links between the main cities,

the building of river bridges being also boundaries. Such links are concrete elements of a polycentric spatial organisation. If the outcome of the project cannot be the building of a bridge, it can be the emergence of the necessity to built such a bridge. Most of these projects come under measure B, while some projects come under other measures, mainly measure C, having an impact on the urban polycentrism. For example, we can find many projects aimed at the strengthening of the city network with medium size cities by launching the basis of a future polycentric organisation as they create a network of actors between cities and smaller localities, often from rural areas. Some others focus on the solving of the problems of the suburbs' via targeted spatial development plans, while at the same time reaping the benefit of the experience of others in Central and Eastern Europe.

We should also assess the importance of environmental issues, as they are the second best represented objective of the projects. We should however note here that these projects are not all to be found under measure E focused on "Prudent management and development of natural and cultural heritages" but rather they are disseminated among all other measures. If many projects are targeted on organisations along the Danube this also fulfils the objective of the establishment or enhancement of a network. It is characterised by its linear more than its polycentric shape, but it relies on the Danube cities as dynamic poles. The Danube and other rivers of the CADSES are also federating the actors in a touristic objective, the latter being under the "economy" category.

Only two projects are directed towards positive communication with regard to the project area, or what we can call territorial marketing. The first one[4] also aims at a balanced urban settlement organisation even if it targets very localised zones (large housing estates of five cities). The second one[5] looks at demographic studies aimed at forecasting the future development of different regions and helping the most neglected among them to be attractive again.

[4] "Further development of large housing estates in Central and Eastern Europe"

[5] "CEDN"

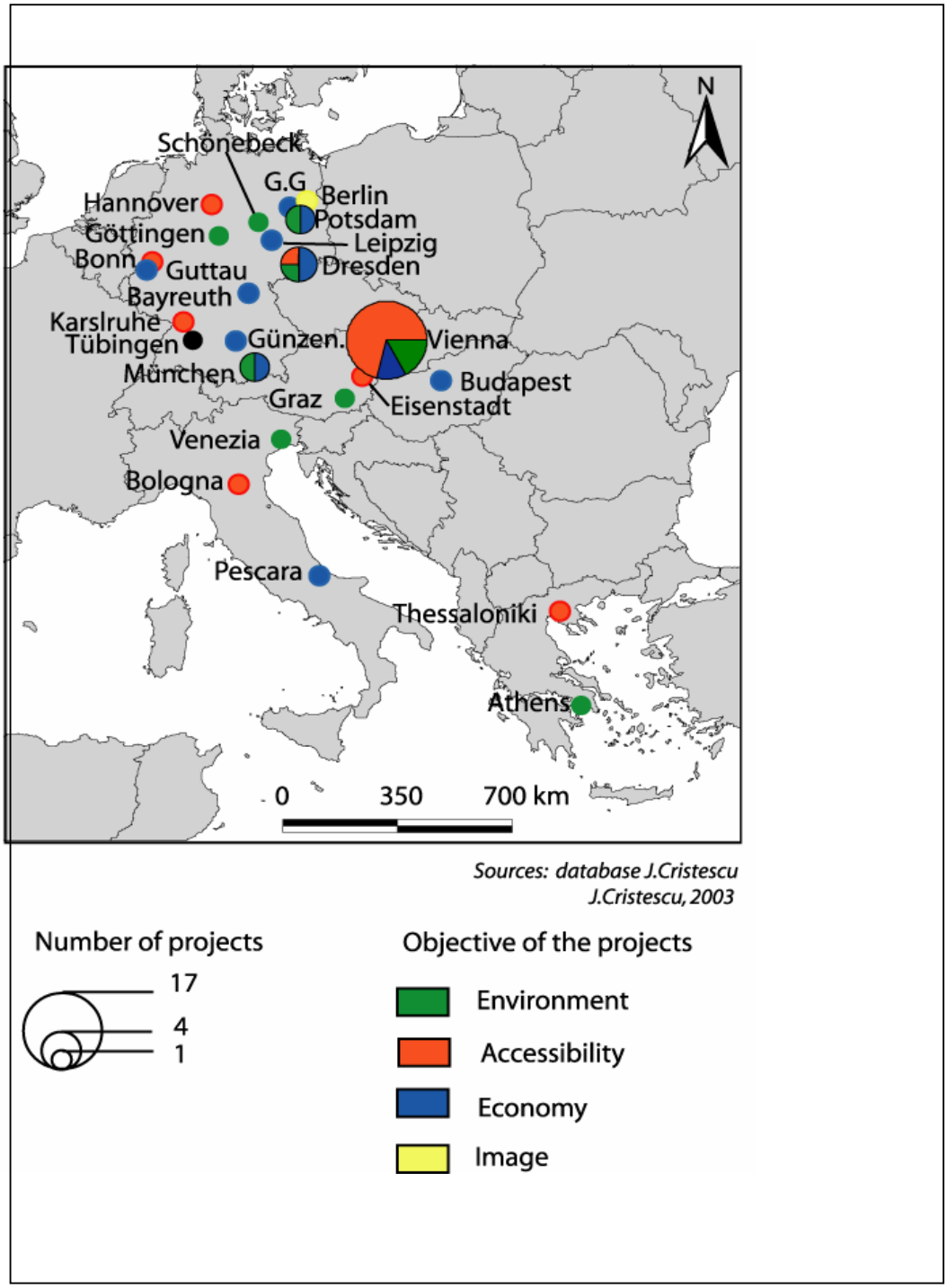
There is no reference to any urban system organisation as a hint to achieve the objective in this case. Consequently only the first project can be considered as taking part in and promoting an urban polycentric organisation.

Map 27 attempts to locate the projects by their different objectives. Each project is represented in the city of the lead partner. The city of Vienna clearly hosts the highest amount of lead partners (17). Dresden is in second position, though with only 4 lead partners. Apart from the Vienna partners, the majority of the others are located in Germany, even in some small cities like Gro Glienicke (G.G), Guttau or Günzenhausen (Gunzen.). Hence can we assess that the leadership and the management is west-oriented, but this has been explained in the foreword through the political filter with the Operational Programme obligation of positioning UE member as lead partners. It is hoped that when the ten acceding countries join the EU, lead partners will diffuse eastwards.

In respect of the “accessibility” objective, but also with those of “economy” and “environment”, we can see that the projects participate to different extents in an urban polycentric organisation, though it is at the programme level, as a whole, that we can better assess this impact. We saw that most of the actors are from the cities, important enough to have their own universities, state decentralised agencies and city hall departments to tackle different topics such as spatial planning, environmental protection. Nevertheless, even if less numerous, other actors are located in rural areas; national parks , rural counties, localities. These also establish networks and they are not necessary linked to the urban ones. They are not waiting for potential help from the cities, these actors get directly involved in projects.

This must remind us that polycentrism, as a spatial organisation is not only targeted towards cities. It is more global, indeed its objective is to make the rural areas benefit from the cities’ economic growth in terms of employment, better public equipment and services. Stronger relations between cities and their surrounding hinterlands is another aim of polycentrism. The objective is

to achieve complementarity between the cities and the rural area to lupt against urban centralisation and the idea that growth can later be spread in all directions. It is not a matter of mechanical diffusion, but rather of a dynamism of exchanges that has to be supported by many actors.



Map no 27: The localisation of the lead partners by project objectives

5.5.3 European urban networking linked to air traffic

Air traffic is a synthetic indicator of different societal trends. Consequently, it is an important vector of spatial integration that could occur at the European, as well as at the world level. However, this dynamic of integration does not concern the various territories in the same way.

The objective of this work is to describe the models of integration that occur at the European level and moreover to highlight the role of Europe in the various global integration processes. This allows for a definition of the main European gateways for air traffic.

Our data comes from the ICAO database. A statistical test has demonstrated that the passenger flows between two cities are symmetrical. Over a one-year period, there is no significant variation between the outward and the return flows. Consequently, our database on air- flows is a symmetric matrix. One remark should however be made here with regard to the flows that connect Italian cities: due to a lack of information from some important air carriers in the 2000 ICAO database, air flows connecting Italian to other cities have been taken from the 1996 ICAO database.

Domination and dependence for air traffic

The main questions in relation to polycentrism

- What are the dominant cities for air networking in Europe?
- What are the main privileged associations at the meso-regional and European scales?
- Can we identify huge differences in the evolution of the dominant structure defined by the major connections of each city over the last decade?

Graph theory provides a simple tool to define the main structure of a given network. It gives an image of the main preferential direction of the major connections of each city. This leads to the identification of the main dominant centre of attraction and those that are dependent.

The methodology can be summarized as follows:

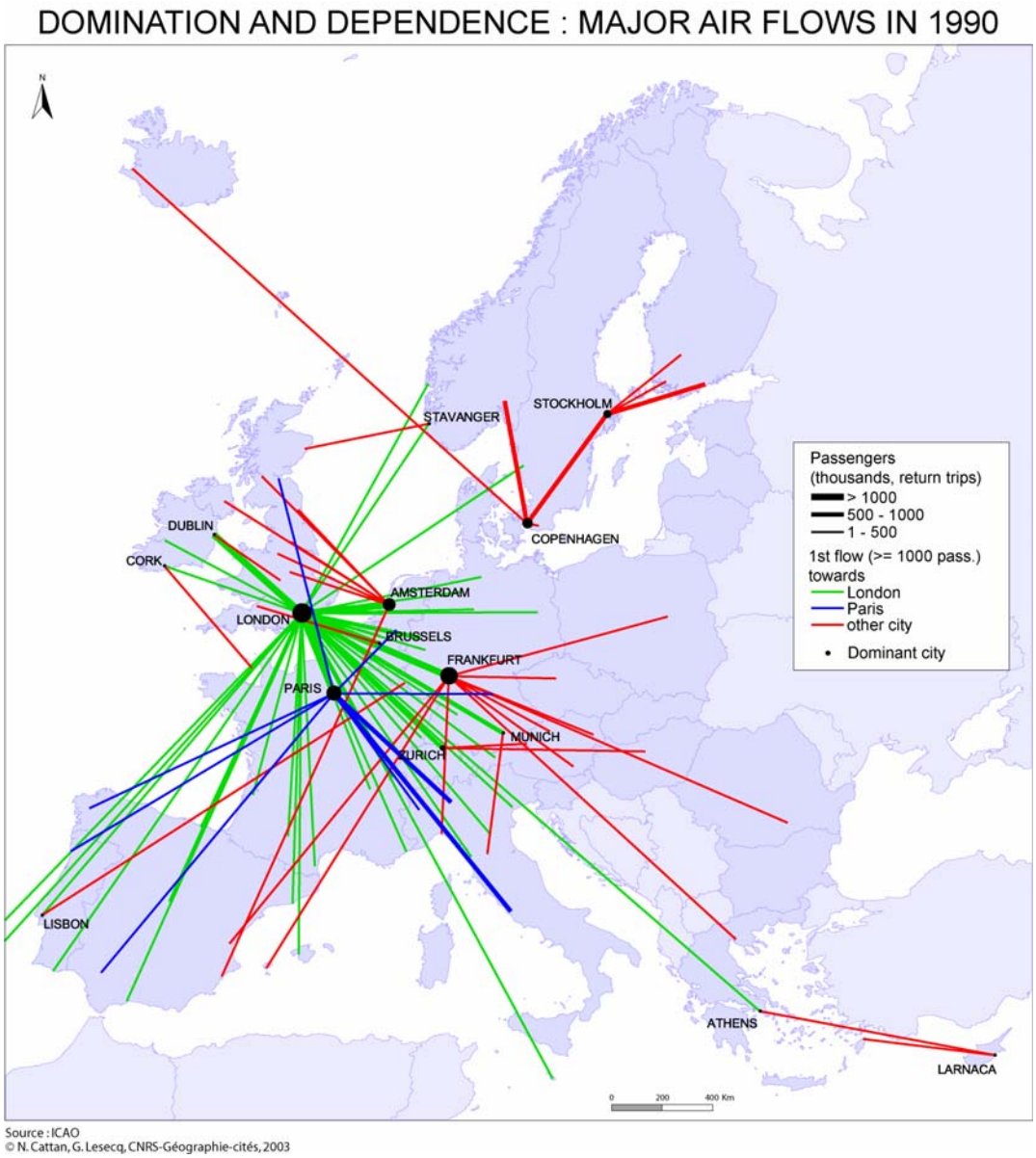
- Identify the major flows sent from a city (A).
- Verify that the city of destination (B) is « larger » than the city of origin (A): size is usually measured by the total number of received flows by the city of destination (B).
- If the city of origin (A) sends its major flow to a city of destination (B) that is larger, THEN (A) is dependent on (B). On the other hand, if (A) sends its major flow to a city of destination that is smaller, THEN (A) is a dominant city.

In 1990 there were four main dominant cities - London, Frankfurt, Paris and Amsterdam - in terms of the structure of air networks at the European level. Two dominant cities at the meso-regional level could also be identified: Copenhagen and to lesser degree, Athens. In terms of preferential links, Frankfurt is the gateway for all of the central European cities (except for Budapest), Paris attracts several southern European cities, several British cities are dependant on Amsterdam, and London dominates all of the networks.

By 2000 the situation had changed markedly. Frankfurt had lost its privileged position as the gateway for the central European cities, while London and Paris had maintained their respective roles as dominant cities at the European level. In Northern Europe, Stockholm and Copenhagen consolidated their dominant role at the meso-regional scale.

By and large, it seems that the central theme arising from these networks shows that over the last decade we have witnessed a trend towards flow

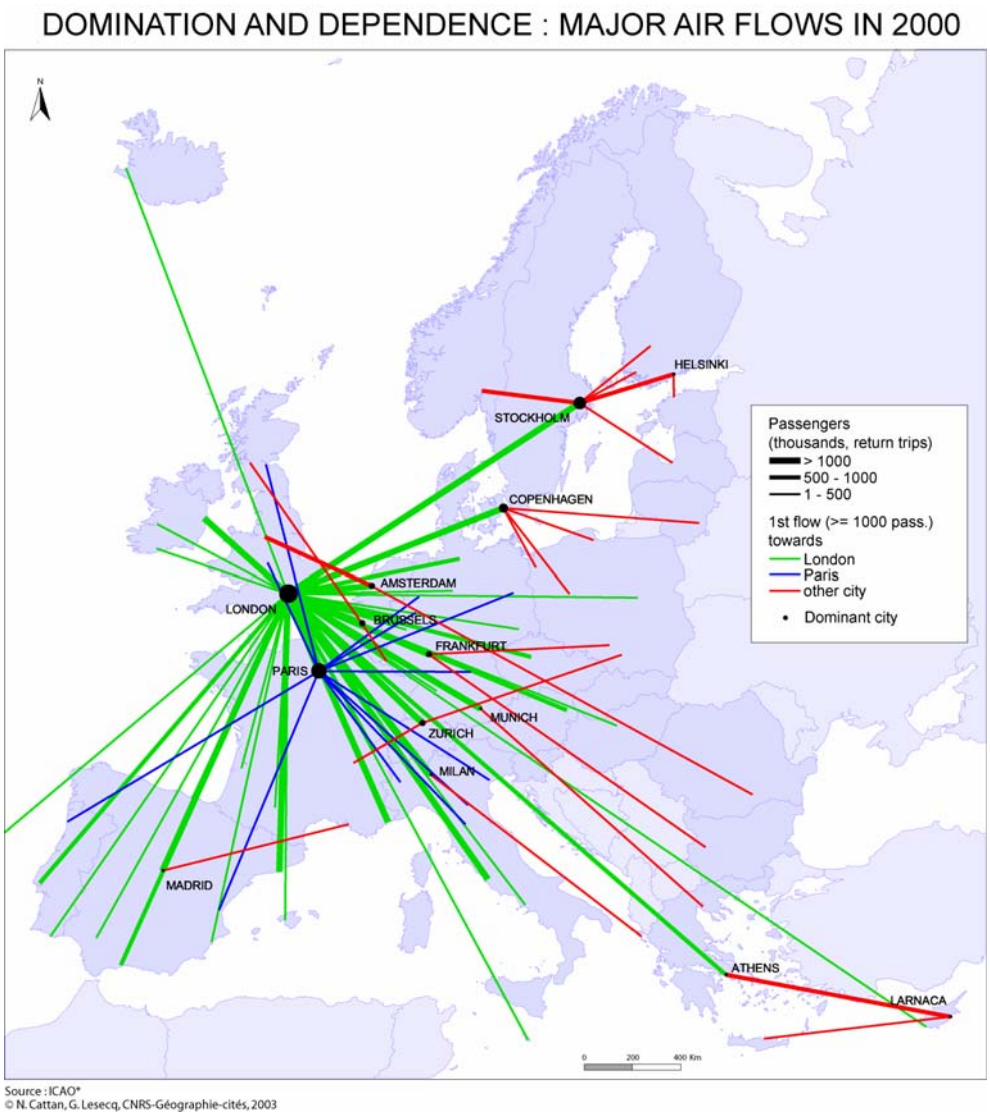
polarization around London and Paris, reducing the number of main central capitals from 4 to 2. It is as if, in 1990 the major air flows provided a more balanced image of the structure of the dominant European centres than does the one provided ten years later (Maps 28 and 29, Tables 26 and 27).



Map no 28: Domination and dependence: Major air flows in 1990.

Table no 26: Dominant cities 1990

Dominant city	*Number of dependant cities (≥ 2)*
London	43
Frankfurt	10
Paris	9
Amsterdam	7
Copenhagen	4
Stockholm	3
Zurich	2



Map no 29: Domination and dependence: Major air flows in 2000.

Table no 27: Dominant cities 2000

Dominant city	*Number of dependant cities (≥ 2)*
London	45
Paris	12
Stockholm	5
Copenhagen	4
Amsterdam	2
Brussels	2
Frankfurt	2
Zurich	2

* Due to a lack of information from some important air carriers in the ICAO files, 2000 dataset for Italy have been replaced by 1996 dataset

Evolution of air flows

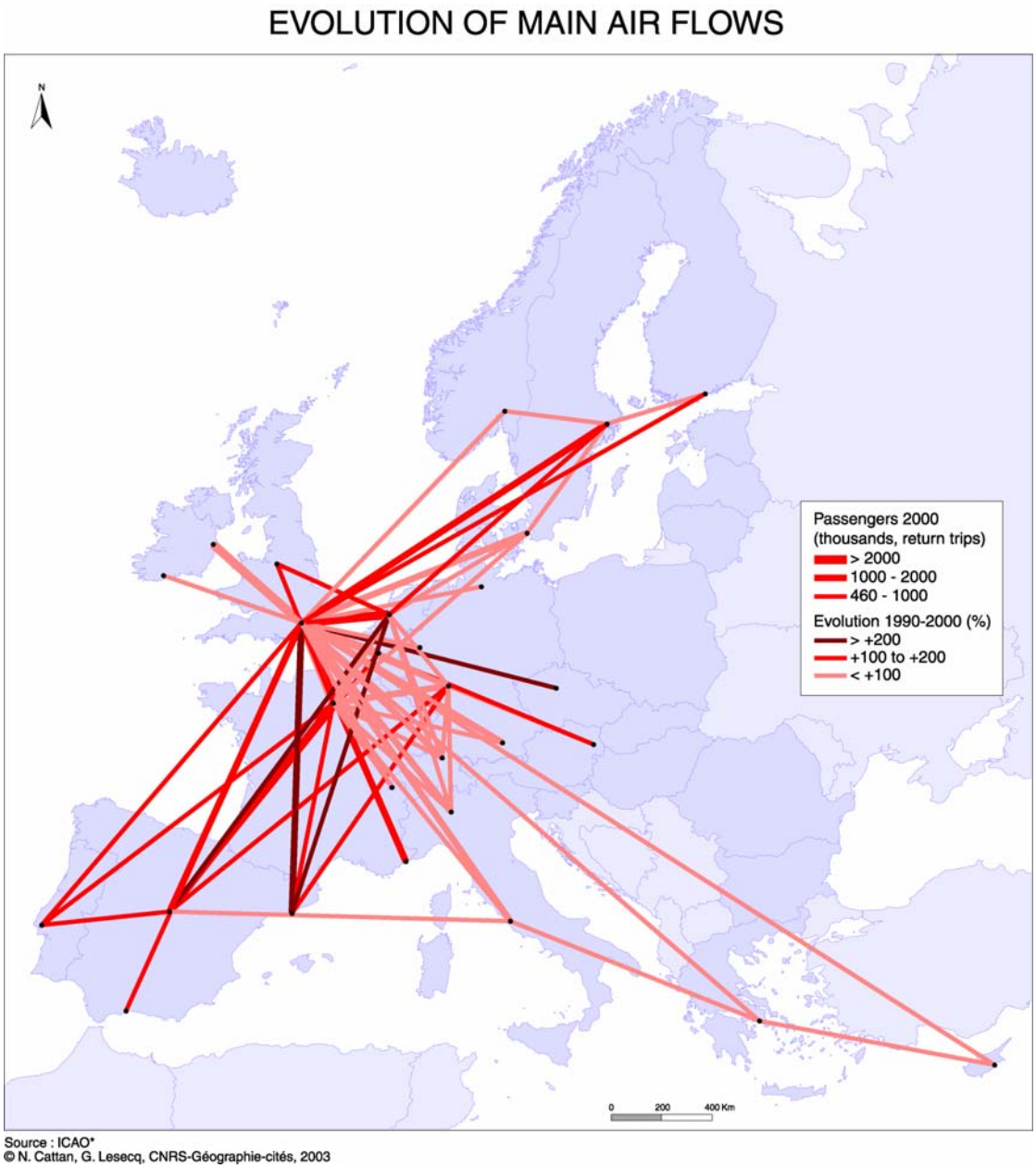
The main questions in relation to polycentrism

- Which networks are increasing faster than others?
- How leading networks can support or enhance polycentric structures at the European level?
- What are the major conclusions that can be drawn from these evolutions?

The map of leading networks, which corresponds to the relative evolution of the number of passengers between 1990 and 2000 on the main European networks, seems to confirm the impression given by the previous maps i.e. the reinforcement of the leading position of London and Paris in terms of increases in the number of passengers.

However the principal lesson provided by this map can be summarized as follows: the European centre-peripheries model cannot alone describe the complexity of the organization of European urban networks. The density of connections is still maximal between the cities of the European axis. But one should notice that the relations between the “peripheral” capitals –political and economic- are also important. In addition, the increased number of passengers is at its highest between the peripheral capitals and the central capitals.

These results suggest then that the integration of urban networks in Europe through air connections is increasing, even if this integration is still carried out according to a pyramidal mode. The leading networks are those that link peripheral capitals to central ones, in particular to London and Amsterdam (with more than 200%) and to Paris (more that 100%) (Map 30).



Due to a lack of information from some important air carriers in the ICAO files, 2000 dataset for Italy have been replaced by 1996 dataset

Map no 30: Evolution of main air flows

Evolution of European air passengers

The main questions in relation to polycentrism

- Are the highest increases in air traffic related more to the largest cities?
- Does the dynamics of air traffic enable us to confirm the tendency towards the better integration of other cities?

The localization of the principal airports highlights the major duality of European space: a centre with many peripheries. The comparison between the two giants is interesting: concerning the number of European passengers, London concentrates more than thousand, while Paris reaches a disappointing 20.

The evolution of air traffic shows that many peripheral capitals such as Lisbon, Madrid, Barcelona, Prague, Munich, Berlin and Warsaw are increasing their traffic more quickly than are the central capitals. This means that those cities are not only growing faster but that they are also becoming dynamic vectors of European integration. Do these strong increases however let us predict a reduction in the urban inequalities with regard to air traffic?

Gateways for Europe

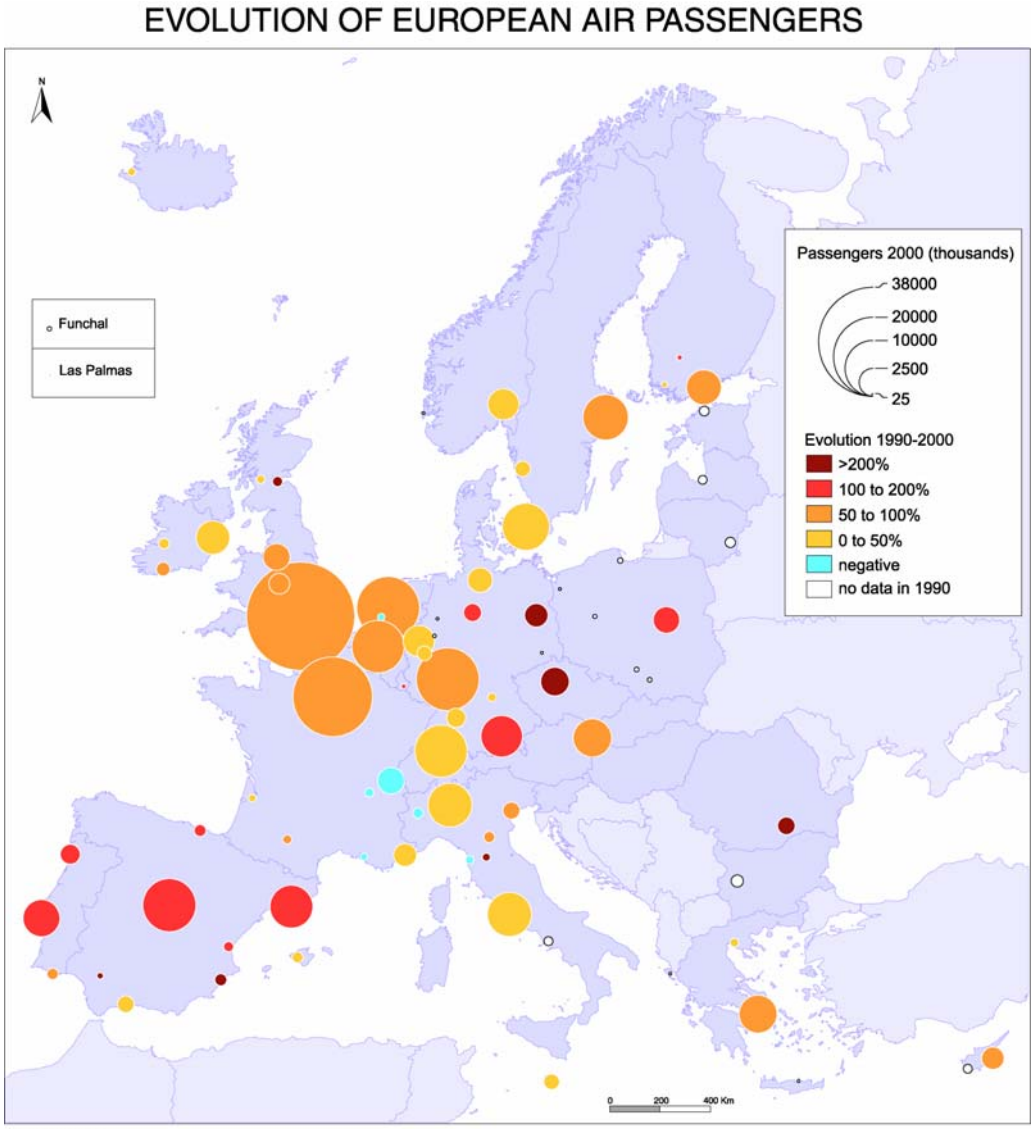
The main questions in relation to polycentrism

- Where do the processes of internationalisation occur in Europe?
- What are the main European gateways for air traffic?
- How do cities perform in terms of air traffic internationalisation ?

Cities are the points at which the internationalisation processes of a territory begin and materialize. Because of its relatively rapid capacity to reply in terms of supply and demand, air traffic is a relevant indicator in the quest to evaluate the international capacity of European cities.

The two maps of the “Gateways in Europe” consider the degree of international opening as a percentage of international (extra-European) traffic in terms of overall traffic (European and extra-European). The maps show that in terms of the number of extra-European passengers, three cities can be considered to be major European gateways, namely: London, Frankfurt and Paris. However, with more than 40% of extra-European passengers, London and Frankfurt have the highest degree of international opening. During the last decade, Amsterdam has however doubled its number of extra-European passengers (Maps 31 and 32, Figure 26).

What is important to note here however is that Madrid and Rome share with Paris, Zurich and Amsterdam a similar percentage of extra-European passengers. This means that the peripheral capitals do actively contribute to the integration of the European space within an international network.



Map no 31: Evolution of European air passengers

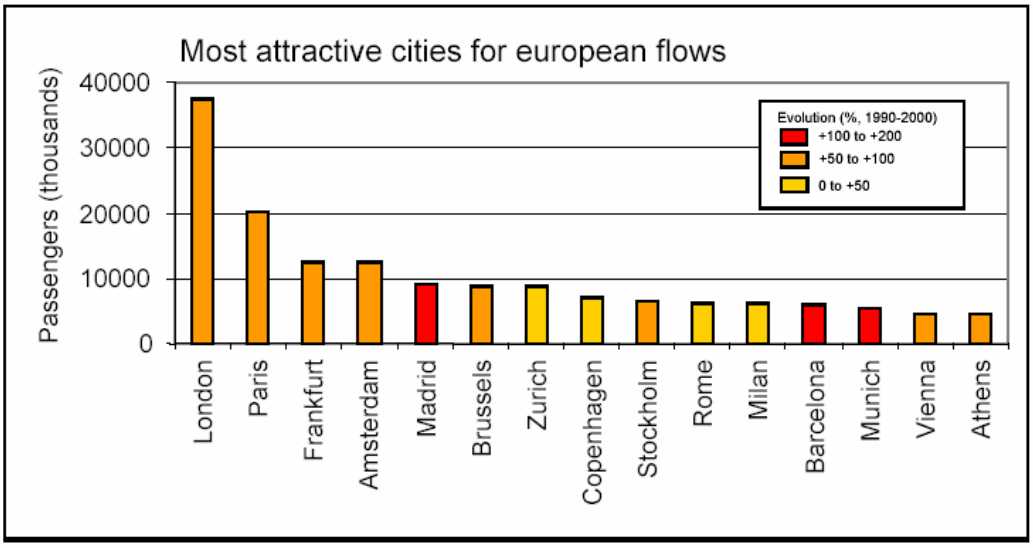
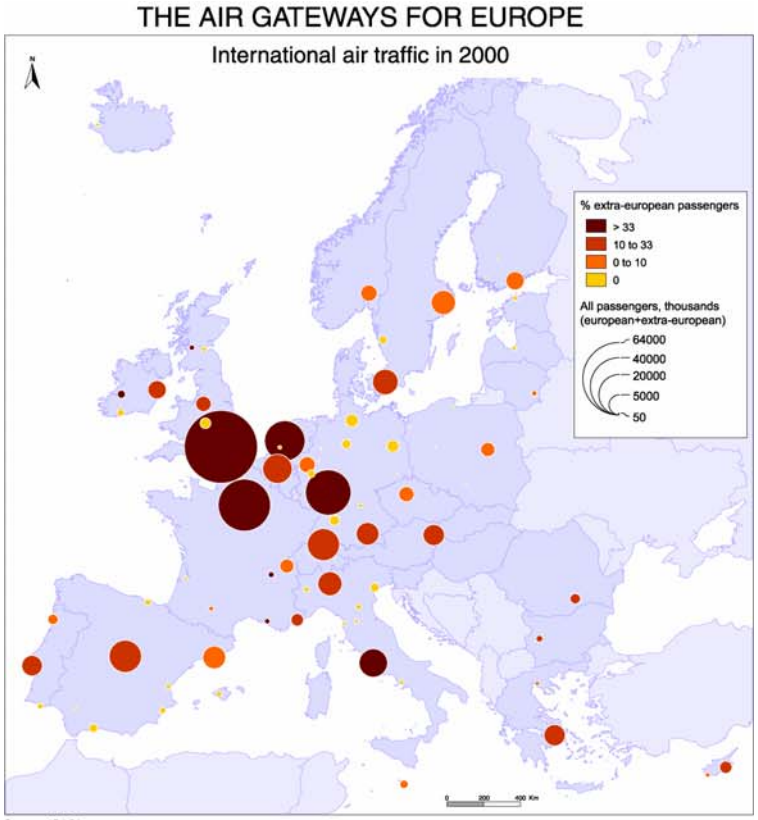


Figure no 26: Most attractive cities for European flows

THE AIR GATEWAYS FOR EUROPE



Source : ICAO*
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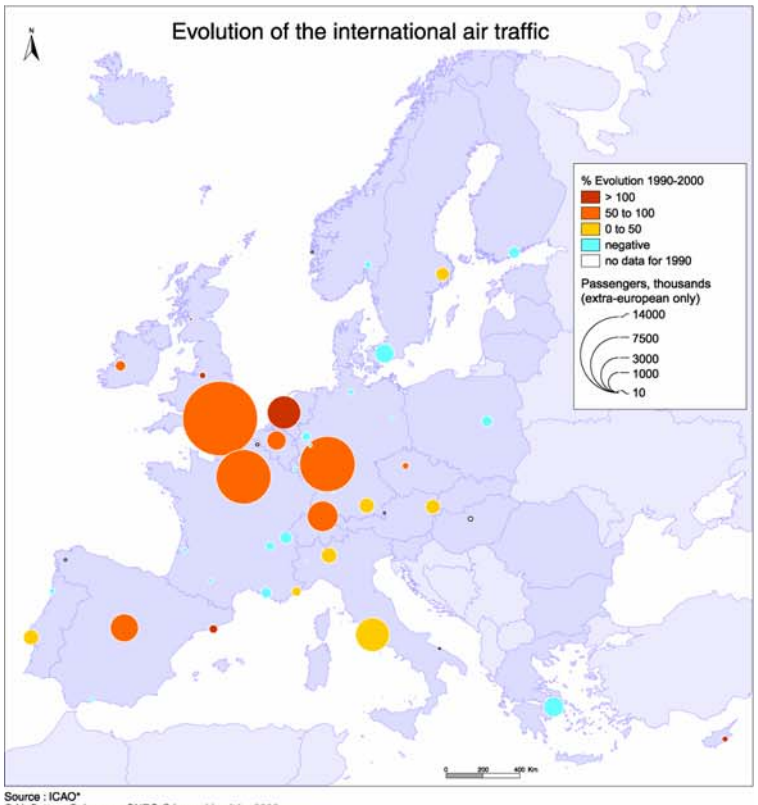

Source : ICAO*
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* Due to a lack of information from some important air carriers in the ICAO files, 2000 datas for Italy have been replaced by 1996 datas

Map no 32: The air gateways for Europe

World air traffic and crossroads

The main questions in relation to polycentrism

- How does Europe perform in the World system of exchanges?
- Does the world air network draw a polycentric image of the world networking system?

Charting the major air links on a world level makes it possible to highlight privileged associations between places. The world air traffic map shows that the majority of major international flows occur in the Northern hemisphere. Major flows go to, and return from, a few poles, reinforcing the North-South contrast. These poles and world air crossroads can be identified to coincide with the principal *metropoles* that are the national capitals, such as London and Tokyo, or to important economic capitals such as New York.

It is interesting to note here that “regional” processes of integration are visible across different parts of the planet, mainly in Southern and Latin America and in South-Eastern Asia, showing the importance of proximity linkages and demonstrating that distance continues to play a role in networking processes.

By and large, one can say that the map of world air traffic shows a European metropolitan polycentrism structure in a World metropolitan polycentrism organisation. Among the 15 strongest flows, 5 are European. This means that Europe participates actively in the world system of exchanges (Table 28).

Table no 28: Highest flows

Link	**Rank**	*Passengers (return trips)*
London - New York	1	> 3 millions
Amsterdam - London	2	
Dublin - London	3	> 2 millions
Hong Kong - Taipei	4	
Paris - London	5	
Kuala Lumpur - Singapore	6	
Tokyo - Seoul	7	
Singapore - Bangkok	8	
Hong Kong - Bangkok	9	
Frankfurt - London	10	> 1,6 millions
Hong Kong - Tokyo	11	
Tokyo - Honolulu	12	
Hong Kong - Singapore	13	
Madrid - London	14	
Paris - New York	15	

Europe in the world system

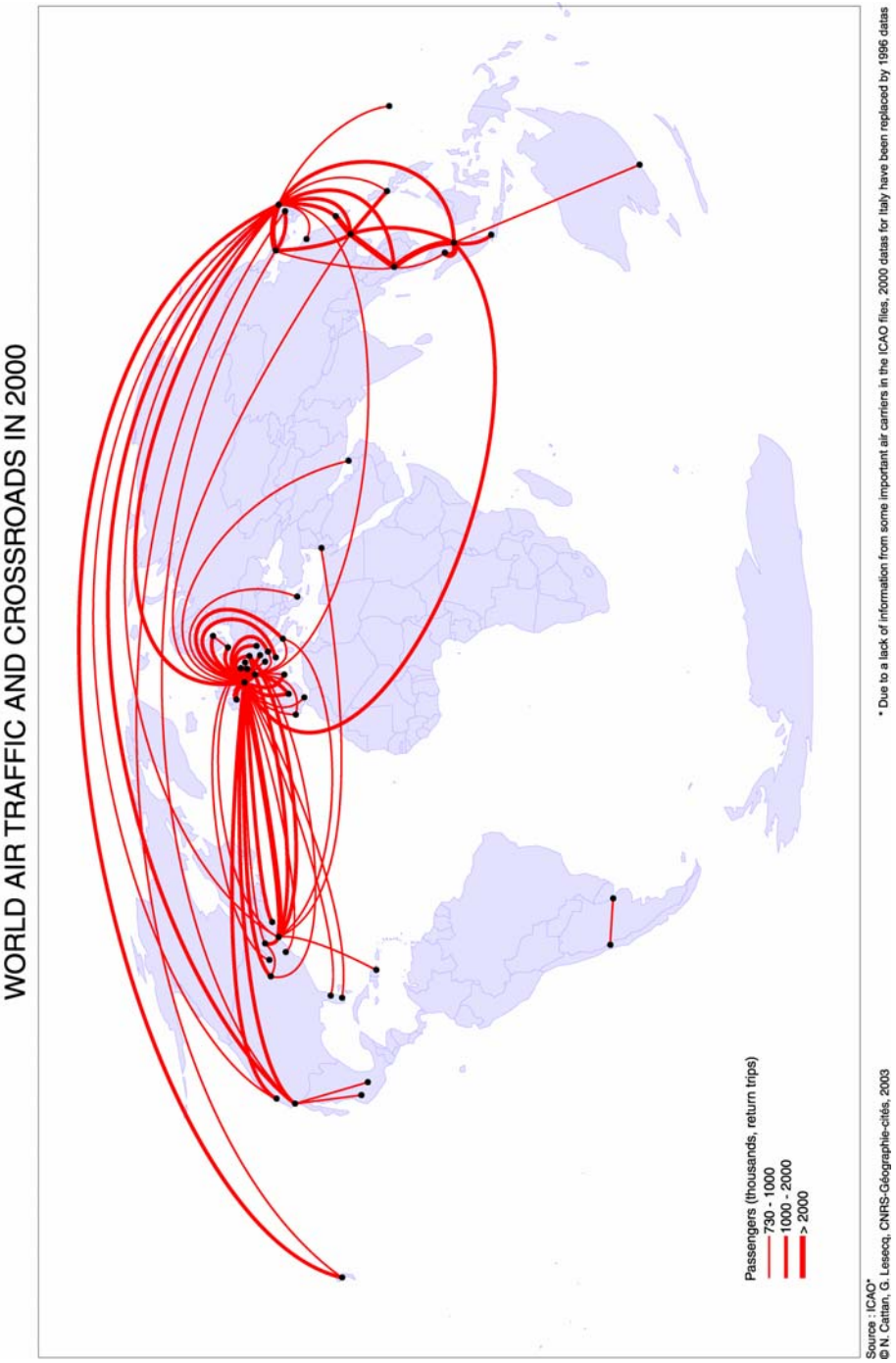
The main questions in relation to polycentrism

- What are the major European gateways?
- What are the most significant air routes that link Europe to the rest of the world?

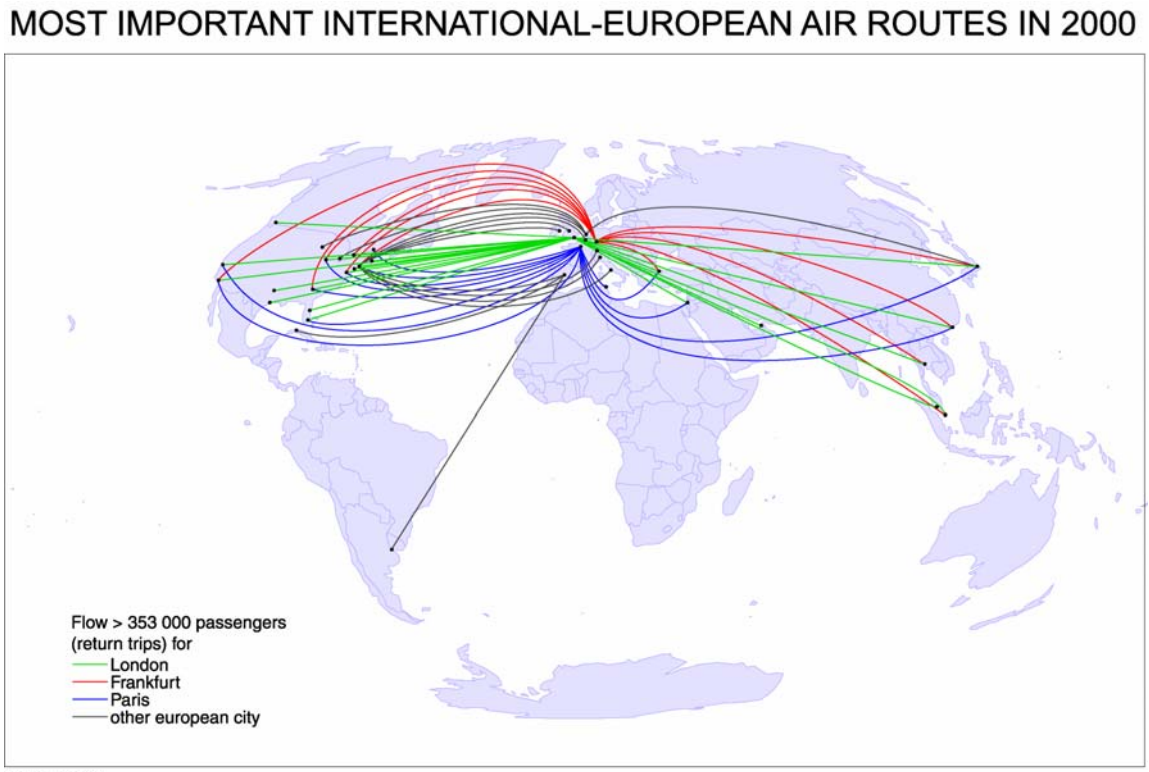
Many internal differentiations in the European space are related to the flows between Europe and the rest of the world. The most important international-European air flows help us to identify the main European gateway cities and to determine whether those cities develop preferential linkages with other specific world cities or world regional areas, or whether, to the contrary, they are involved in various multi-directional world networks.

The most significant flows link European cities to Northern American and South Eastern cities. The position of London as THE gateway between Europe and the rest of the world is clearly manifest. More than half of the 20 most significant flows that link Europe to the rest of the world are through London (Map 33).

However, two other important gateways can be identified: Paris and Frankfurt. Note should also be made of Madrid to a lesser degree; however its connections are the only ones to show significant links with “Southern” cities i.e. Havana and Buenos Aires, due to historical, linguistic, etc. factors. Whatever the reasons are, Madrid could qualify as an alternative European gateway! Among the most important international-European flows, one should also notice the connections between three Italian cities and New York.



Map no 33: World air traffic and crossroads in 2000



Map no 34: Most important international – European air routes in 2000

Table no 29: Most important international – European air routes in 2000

Link	Rank	**Passengers (return trips)**
London-New York	1	> 3 millions
Paris-New York	2	1 to 2 millions
London-Chicago	3	
London-Los Angeles	4	
Frankfurt-New York	5	
London-Boston	6	
London-San Francisco	7	
London-Singapore	8	
London-Tokyo	9	
London-Washington	10	800 000 to 1 million
London-Hong Kong	11	
London-Toronto	12	
Amsterdam-Detroit	13	
Rome-New York	14	
London-Dubai	15	
Amsterdam-New York	16	
Paris-Tokyo	17	
London-Miami	18	
London-Orlando	19	

* Due to a lack of information from some important air carriers in the ICAO files, 2000 dataset for Italy have been replaced by 1996 dataset

Summary of the main results on air traffic

By and large it seems that over the last decade we can plot a trend towards increasing polarization flows around London and Paris, reducing the number of main central capitals from 4 to 2.

However the principal lesson provided by the map of the relative evolution of the number of passengers between 1990 and 2000 on the main European networks is as follows: the European centre-peripheries model cannot alone describe the complexity of the organization of European urban networks. Of course, the density of connections is still maximal between the cities of the

European axis, but one should notice that the relations between the "peripheral" capitals –political and economic- are also important. In addition, the increased number of passengers is at its highest between the peripheral capitals and the central capitals.

Consequently, the evolution of air traffic shows that many peripheral capitals such as Lisbon, Madrid, Barcelona, Prague, Munich, Berlin and Warsaw are increasing their traffic more quickly than are the central capitals. This means that those cities are not only growing faster but that they are also becoming dynamic vectors of European integration.

These results then suggest that the integration of urban networks in Europe, through air connections, is increasing, even if this integration is still carried out according to a pyramidal mode.

Synthetic diagram for air traffic linking conceptual (Critical Dictionary) and empirical works

In our effort to link our conceptual thoughts in Critical Dictionary and those empirical studies we have built a synthetic diagram clarifying the types of polycentrism produced by the air flows. As with trans-border cooperation, several types of polycentrism underlie the network of cities sketched by air exchanges. These types have all been developed and described in Critical Dictionary from a conceptual and theoretical point of view.

The first model of integration of European urban networks through air traffic is that of the networks of *"central" capitals,* and as such this can be termed, ***integrated polycentrism*.** Capitals can be political, such as Paris and London, or economic such as Frankfurt.

The second model concerns the networks that link the peripheral capitals to the central ones (for example: Madrid to London and Paris, or Stockholm to London….) AND ALSO the flows that link the peripheral capitals themselves (such as the flows between Lisbon, Madrid, Barcelona, Roma, Athens from one side and Stockholm, Oslo, Copenhagen, Helsinki from the other). This model of integration corresponds to what we term, ***Outcoming polycentrism.***

These two models combine and provide a type of integration that we have further qualified as ***Metropolitan polycentrism.***

The third model of urban networking through air traffic corresponds to the exchanges that link the cities from candidate countries to EU cities. These connections are done according to a model of integration that corresponds to the concept of ***integrated monocentrism***. What is interesting is that some acceding cities are connecting directly to the central capitals, while others first connect to the closest EU capital, drawing a regional model of integration (as for example the Baltic cities do towards Stockholm).

Consequently, we have to underline **that various types of polycentrism** are occurring in Europe. And one cannot understand the processes of territorial integration without taking into account the complexity of all of these various types (Figure 27).

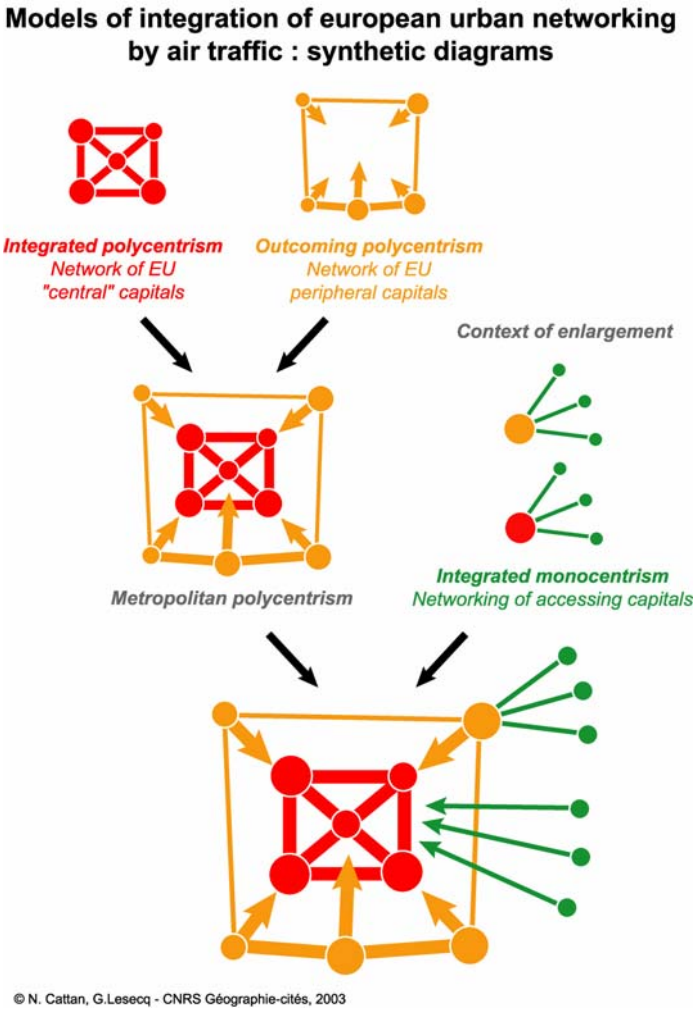


Figure no 27: Models of integration of European urban networking by air traffic: synthetic diagrams

For the final report, our objective is to

- CHARACTERIZE THE VARIOUS FORMS OF POLYCENTRISM at the regional, national and European levels
- ELABORATE SYNTHETIC DIAGRAMS OF NETWORKING
- FORMULATE CONCRETE IDEAS TO ENHANCE NETWORKING between urban areas

6 Territorial Governance

6.1 The context

6.1.1 The changing governance relationships

Urban governance frameworks are changing as a result of globalisation and socio-economic restructuring across Europe. National boundaries are being over-run by economic activity, environmental change and technology. The linear top-down decision-making model no longer works effectively and the borders between levels of government are becoming increasingly irrelevant. There is widespread recognition that a new form of governance, which involves working across boundaries within the public sector as well as between the public, private and community sectors, is now underway. Many European cities and regions are either experiencing the shift, or the need for a shift, from the traditional model of hierarchical power to a system where power is divided and shared between a variety of stakeholders. Governments are no longer the exclusive holders of authority. The discourses of the current governing bodies are peppered with terminologies such as: civil society, partnerships, network, cohesion and integration. These transformations have led to a number of developing processes, the most visible of which are the multiplicity of actors and interests involved in decision making and the fragmentation of responsibilities.

Creating horizontal and vertical co-operation between various levels of government, as well as between government and non-public bodies, and achieving integration between disparate responsibilities have now become the central focus of effective governance. This is particularly the case with regard to the polycentric development of Europe. Promoting economic competitiveness in European polycentric urban regions needs both ‘hard’ infrastructure, such as an efficient transport and telecommunication network between and within the regions, and ‘soft’ infrastructure, including in particular an effective institutional network. The existence of effective governance

relationships is an important prerequisite for developing and sustaining the economically, socially and environmentally balanced regions across Europe. The institutional structure and the nature of mechanisms for decision-making, co-operation and power partitioning can significantly influence the direction of a balanced European territory and the successful implementation of policy options. Moreover, while industry, businesses and households operate on the basis of functionally defined areas particularly in polycentric urban areas, governance institutions are often organised and operate on the basis of administratively defined areas such as communes, municipalities, boroughs or Kreise. In order to overcome the potential problems of such a mismatch, the ESDP emphasises the need to build up co-operation and partnerships between towns and cities and their surrounding rural areas. Joint working arrangements which are capable of cutting across the administrative and sector boundaries are seen as effective ways of creating integration and co-ordination in the midst of diversity and of the multiplicity of: actors, interests, powers, responsibilities and institutions. There is a need for effective harmonisation and co-ordination of the operation of these institutions in order to develop their capacity for capturing the opportunities that are embedded in, and that arise from, the polycentric development of the European regions.

6.1.2 Co-operation: a central thrust of the ESDP

The ESDP along with several other European, national and regional policy documents argue that, in the same way as clustering and networking play an important role in business competition and in the economic competitiveness of firms, cities and regions can also become successful if they develop associational structures in their social relationships. The ESDP states that, “in smaller towns in less densely settled and economically weaker regions, co-operation between urban centres to develop functional complementarity may be the only possibility for achieving viable markets and maintaining economic institutions and services” (ESDP, 1999: para: 76). It also emphasises that, “a pre-requisite [therefore] is the voluntary nature of the co-operation and the equal rights of the partners (op cit, para. 74). It is argued that by encouraging

interaction between neighbouring cities and towns and by pooling together and sharing labour market and infrastructure facilities amongst them, economic innovation will be enhanced and functional synergies will be created (Figure 28).

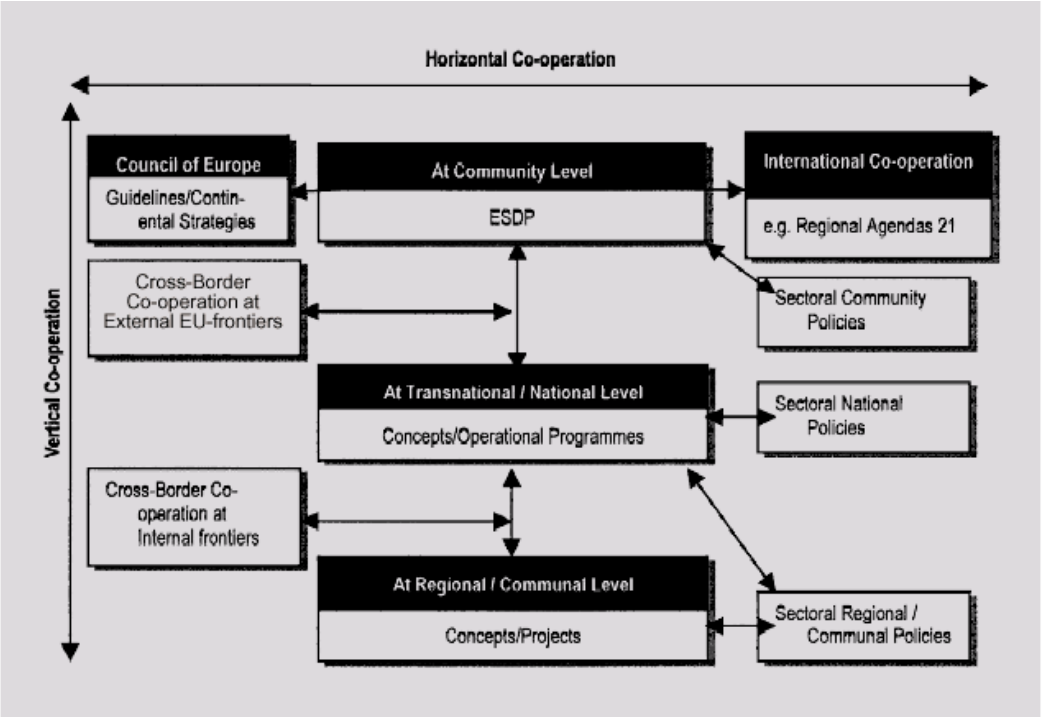


Figure no 28: Vertical and Horizontal Co-operation

Source: ESDP, 1999:36

6.1.3 Models of Partnership

There is a diversity of organisational formats to describe partnerships. Box 1 provides a typology of partnerships focusing on type, the process of mobilisation, the territorial coverage, partners, and purpose (Table 30).

Across Europe, partnerships range in style and format from those that are partnerships of municipalities (Sweden) to public-private sector partnerships, managed by local public officials and local authorities (UK/France). Different

types of partnerships vary across territory, reflecting political systems, economic conditions, social composition and cultural heritage. At a very general level, European partnerships are likely to be either managed or dominated by the state, where public officials 'orchestrate action' and 'apply resources' (Savage, 1998, 182). Despite this largely public sector-led partnership style and format, we need to be aware that forms of collective actions that aim to work within a partnership framework have input from more than one agency. This is not merely the semantic point that partnerships involve more than one partner, but that partnerships come in different forms.

Table no 30: Typology of Partnerships

Type	Site of Mobilisation	Territorial Coverage	Partners	Purpose
Development	Local	Single site or small area	Private developer Local authority Public agency	Joint development
Development Trust	Local	Neighbourhood	Community organisations Local authority	Community regeneration
Joint Agreement Company	Local, but may be response to national policy	Defined area of regeneration	Public, Private and Voluntary sectors	Strategy preparation – implementation through third party
Promotional	Local	Urban, Region	All sectors, but often private sector-led	Place marketing and promotion
Agency	National, Regional	Urban, Regional, sub-regional	Public sector-led with private sector, voluntary sector representation	Various – depends on lead agency terms of reference and objectives
Strategic	Regional, Local	Sub-regional, metropolitan	All sectors	Broad strategy development, accessing funding, agenda setting, consensus ruction

Source: adapted from Bailey, 1995:30

In terms of the broad dimensions or purposes of partnerships, partnerships are seen to be either deliberative/strategic or operational/instrumental in purpose. The former relates to partnership working that is operating a

strategic or agenda setting level of policy development, while the latter is focused on partnership activity that is designed around the implementation or delivery of specific programmes of action.

The dimensions of partnership should be seen as lying at ends of a partnership continuum, with the potential for movement and transition through dimensions as the partnership develops. So, for example, a partnership may begin as a co-operation between state and market actors but move to incorporate community elements within its structure. As its composition changes so its purpose may also change from strategic-agenda setting to localised implementation, or some combination of each (Balloch and Taylor, 2001, 6). Equally, partnerships may be seen as residing on a 'spectrum of commitment' of working arrangements that stretch from competition to co-ordination, and co-ordination to co-evolution (Pratt et al, 1998).

6.2 Polycentric governance in Europe

6.2.1 Introduction

As mentioned earlier, the key to the development and promotion of polycentricity in Europe is the existence or development of effective institutional co-ordination and co-operation. In other words, effective political polycentrism is a significant part of effective functional polycentrism. The literature review has shown that many European cities and regions have developed a variety of horizontal and vertical co-operation forms either on single issues of mutual interest or on wider strategic issues. We can therefore argue that while current research may not be conclusive about the degree of functional polycentrism in different areas, there is already evidence of a degree of political polycentrism at various spatial scales. This is illustrated by the proliferation of institutional networks, partnership arrangements and governance interrelations.

One of the key objectives of this work package is to examine the level and nature of this political polycentrism in different European countries. The aim is to provide a review of the scale and scope of partnership arrangements that cut across administrative boundaries and sectors and include governmental and non-governmental bodies. Our focus is on those partnerships and networks that have a wider place-based strategic remit.

6.2.2 Mapping institutional co-operation at different scales of polycentrism

In order to achieve this objective, a series of questionnaire surveys of a sample of existing partnerships will be undertaken during the course of the study, with the first already completed and analysed. These will focus on recent and current institutional networking and partnership arrangements whose focus is on developing or implementing a joint spatial strategy for their area. They will be undertaken at three spatial scales, which have been defined by the project team. These include:

Inter-municipal co-operation at the level of Functional Urban Areas (FUA)
Inter-FUA co-operation at the level of polycentric regions (PR)
Trans-national co-operation at the level of Europe as whole (PE)

For the first spatial scale*,* a questionnaire survey of a sample of current inter-municipal partnerships has been undertaken. The methodology used and the early analyses are outlined in the next Chapter.

For spatial scale two we will conduct a questionnaire survey of a sample of partnership arrangements in polycentric areas consisting of three or more neighbouring FUAs, which are located either within one member state or across the border of two or more member states. The samples will be selected from the FUAs, which will be identified and classified by the relevant work packages of the project. The aim is to select at least one example from each typology of FUAs. A questionnaire will be designed and sent to key partners in each sample through the relevant project team member. Progress

on this survey depends on progress made by the relevant work packages on identification of FUAs.

For spatial scale three**,** i.e. European polycentrism, we will carry out a similar approach though this will be based on fewer samples of trans-national co-operation. The samples will be selected from relevant INTERREG projects.

At all three scales, the analysis will draw on the survey results in order to:

- Examine the extent and nature of institutional networking (i.e. political polycentrism) at various spatial scales
- Identify barriers and opportunities to multi-governmental, inter-sectoral and cross-boundary co-operations
- Highlight examples of good practice in developing and sustaining effective governance relations

6.3 Polycentric governance at the level of functional urban areas

6.3.1 Rational for a questionnaire survey of inter-municipal partnerships

A recent OECD study (2002) examined the relevance of the functional delineation of regions on the basis of travel-to-work to policy formulation. It concluded that in many countries functional urban regions (FURs) are used as the basis for examining and monitoring socio-economic trends and territorial disparities as well as for identifying regions in need of regional aid. However, official recognition of FURs as a unit of policy implementation varies considerably from one country to another. In some countries, such as Austria, Denmark and Switzerland, FURs are used as a framework for the implementation of policies relating mainly to the labour market and to transport. In other countries, such as Finland, France, Germany, Italy and the UK, FURs are used for setting up criteria for receiving financial aid from

national and European agencies but, it should be noted that support is not paid to FURs since they do not constitute administrative units. In Norway, the concept of FUR has played a significant role in the discussions over regionalism and regional policy. Examples of countries that do not use FURs as their official units for policy implementation include: Portugal, Sweden and the Czech Republic (OECD, 2002).

With the exception of countries such as Austria, Denmark and Germany (who use FURs for labour policies) in most other European countries functional regions have no power over or responsibilities for making strategies or implementing policies. Similarly, no funding is provided for FURs, apart from in countries such as Austria, Denmark, Finland, the Czech Republic and Hungary (op cit).

Although the survey undertaken by the OECD does not include all European countries, it provides a clear indication that in most countries in Europe (as well as in Canada and USA) there is no formal structure of governance operating at the level of FUAs. However, as mentioned above, there has been a proliferation of inter-municipal co-operations particularly among the constituent members of functional urban areas across Europe.

In order to examine the extent and nature of such co-operation, a questionnaire survey of a sample of current inter-municipal partnerships was undertaken. The questionnaire (see Annex 1) was sent to all the members of the Trans-national Project Group working on ESPON Project 1.1.1 in early February 2003. Respondents were asked to provide at least two examples of inter-municipal co-operation. Given that most of the team members have the responsibility to provide information for more than one European country, it was hoped that full coverage of the EU (of 29) would be provided. In cases where it was not possible to cover a specific country by the TPG partners, the questionnaire was sent to the relevant members of the ESPON monitoring committee via the project's Lead Partner.

6.3.2 Questionnaire response rate

By July 2003, 30 completed questionnaires from 21 EU countries (covering 72.4% of countries covered in the project) had been returned (see Table 31), of which 4 are related to partnership working on the trans-national scale. The remaining parts of this report provide the key analyses and findings of the survey in relation to inter-municipal co-operation at the level of functional urban areas.

6.3.3 Partnership formation

The first part of the analysis herein covers the formation of these partnerships in order to ascertain when and how they were established, and to identify the nature of the different partnerships in terms of their size, composition, working practices and organisational structure (See Table 32).

Motivation and initiation

We were also interested in the original motivations for the establishment of the partnerships. This is summed up in Figure 29 below. What is clear from this Figure is that for the majority of respondents, addressing common issues and challenges as well as building co-operation and capacity between local partners were seen as the key reasons for the establishment of partnerships. Of less importance was the objective of securing external funding sources for specific projects. This finding is perhaps not surprising given that the majority of responding partnerships are focused on achieving strategic spatial development objectives, rather than on localised place-specific projects or programmes of action. It also represents the widely acknowledged view that building partnerships (at least in the initial stages of development) requires common (often uncontested) policy goals and objectives. What is equally clear is that motivations for continuing to participate in partnership work are open to change. As partnerships develop and new challenges arrive, as policy goals are achieved, and as the economic and political climate changes, so motivations are reassessed and evaluated in the light of new circumstances.

Table no 31: Questionnaire responses on Partnerships and Networks, July 2003

Project partners	Countries to be covered	Countries covered	Name of partnership/s
DFLRI	Denmark	Denmark (2)	• The Triangle Region (TTR) • National Centre Midt-Vest (NCMV)
OIR - IRSSP	Austria Bulgaria Czech Republic Hungary Romania Slovakia Slovenia Switzerland	Austria/ Hungary/ Slovakia (1)	• Joint Regional Development Strategy for the Vienna, Bratislava and Gyor Regions (JORDES)
CNRS-UMR	France	France (1)	• Inter-regional mission for spatial planning (MIIAT)
Dept. URP Athens	Greece Cyprus Malta	Greece (2)	• Development Society of the Pireaus Region Municipalities (ANDIP) • Development Company of the Western Macedonia (ANKO)
DIT Torino	Italy	Italy (2)	• Strategic Plan North Milan Development (SPNM) • Patto Territoriale del Sangone (PTS)
OTB	Netherlands Belgium Luxembourg Germany	Netherlands (2) N/B (1) L/G/B/F (1) Germany (2)	• Samenwerkingsverband Randstad (SR) • Vereniging Deltametropool (VDM) • Rhine-Scheldt Delta (RSD) • Saar-Lor-Lux (SLL) • Bergisches Stadtedreieck Remscheid – Solingen – Wuppertal (BSW) • Kommunalverband Ruhrgebiet (KVR)

CUDEM	UK Ireland	UK (2)	• South Yorkshire Forum (SYF) • Greater Manchester Strategic Planning Officers Group (GMPG)
Nordregio	Finland Sweden Estonia Latvia Lithuania Poland Norway	Finland (1) Sweden (1) Estonia (1) Latvia (2) Lithuania (2) Poland (2) Norway (3)	• Saimaa city co-operation (SCC) • Council of Stockholm-Malar region (CSM) • SINA project (SINA) • Baltic Palette (BP) • Latgale Region Development Council (LRD) • Western Lithuania 2020 (WL) • Metropolis Vilnius-Kaunas (MVK) • The Union of Copper Basin Municipalities (UCB) • Snieznik Municipalities Association (SMA) • Action programme for regional development in Oslo city and Akershus country (OSLO) • Valdres Industrial Development Ltd. (VID) • The Regional Council for the Hamar Region (HAMAR)
Quart. Porto	Portugal Spain	Portugal (1) P/S (1)	• Association of Municipalities of the Lima River Valley • Braganca/Zamora Co-operation Work Community
Total	**29**	**21**	**30**

Table no 32: The nature of the Partnership

Country	Partnership	Q2; Start date	Q3/4; How was it initiated? EU prog N/R national/ regional prog PO partners own prog	Q5; Number and Type of Partners involved? M Municipality P Private V Voluntary oth Other, T Total	Q6; Fixed or Open Membership	Q7; Position of partners in their organisations	Q8; Frequency of meetings	Q9; Timescale of the partnership	Q10; Sub-divisions
Denmark	TTR	1992	PO, within the framework of a N/R	8M, 1P, 1oth 10T	Fixed	Senior management (mayors)	Quarterly	Permanent	Yes
	NCMV	2000	N/R and PO	4M, 4T	No comment	Senior management (mayors) and opposition politicians	Quarterly	Permanent – with 3 year working periods	Yes – focus groups
Austria/ Hungary/ Slovakia	JORDES	2002	EU	7M, 4oth, 11T	Fixed	Senior and Middle management	Quarterly	Time limited – three years	Yes
France	MIIAT	1997	N/R	9oth, 9T	Open	Senior management	Monthly/ Quarterly	Long-term	Yes – policy groups
Greece	ANDIP	1989	PO	6M, 6T	Fixed	Senior, middle management and junior staff	Quarterly	Long-term	No

	ANKO	1991 (from 1985 in another form)	PO	4M, 1oth, 5T	Fixed	Senior and Middle management	Monthly	Long-term	No
Italy	SPNM	1999/ 2000	PO	4M, 1P, several V, 5+T	Fixed legally, but informally open	Senior management	Monthly	Long-term	Yes
Italy	PTS	1999	PO on the basis of a national programme	9M, 74P, 25oth, 108T	Fixed	Various	Bi-monthly	To end in 2005, may continue in some form	Yes - 2 working groups
Netherlands	SR	2002	PO	4M, 8oth, 12T	Fixed, with limited option for new members	Senior management and some elected	Quarterly	Long-term	Yes
	VDM	2000	PO	28M, 6P, 3V, 1oth, 38T	Open	Senior management and Politicians	Annually, Sub-networks more often	Long-term (8 yearly reviews)	Yes
Netherlands/ Belgium	RSD	1999	PO	14M, 14P, 2V, 8oth, 38T	Open	Senior and Middle management	Monthly	Until 2006, but hope to extend	Yes
Luxembourg/Germany/ Belgium/ France	SLL	1980	N/R and PO	9M and several P and oth, 9+T	Open	Various	Quarterly, sometimes more often	Long-term	Yes
Germany	BSW	1991/92	PO	3M, several P and V, 3oth, 6+T	Open, though stable	Middle management	Quarterly	Project – time-limited Approach – long-term	Yes
	KVR	?1992	PO	53M, 53T	Fixed	Senior management	Quarterly	Long-term/ Permanent	Yes

UK	SYF	1998	PO	4M, some P , and V, 80oth, 84+T	Open	Senior management	Bi-monthly, full forum quarterly	Indefinite	Yes
	GMSG	1986	PO	10M, 1oth, 11T	Fixed	Middle management	Monthly	Long-term	No
Finland	SCC	2001	N/R and PO	3M and 2oth, 5T	Open	Various	Bi-monthly	Until 2009	Yes
Sweden	CSM	1992	PO	40M, 5oth, 45T	Open	Senior management in working groups and politicians	Bi-monthly to quarterly	Long-term	Yes
Estonia	SINA	2001	PO	4M, 1P, 5T	Open	Middle management	Quarterly	Long-term	Not given
Latvia	BP	1998	EU	6M, several oth, 6+T	Open	Senior and middle management	Quarterly	Probably long-term	Yes
	LRD	1998	PO	8M, 8T	Fixed	Senior management	Monthly	Long-term	Yes
Lithuania	WL	2002	N/R	11M, 2oth, 13T	Open	Senior management	Not set	Long-term	Yes
	MVK	2002	PO	2M, 2oth, 4T	Open	Senior management	Monthly	Long-term	Yes
Poland	UCB	1994	PO	8M, 8T	Fixed	Senior management	Monthly	Long-term	Yes
	SMA	1998	PO	4M, 4T	Fixed	Senior management	Quarterly	Long-term	No
Norway	OSLO	2000	N/R and PO	2M, 2P, 4oth, 8T	Fixed	Middle management	Quarterly	Long-term	No, except for imple-menting agencies
	VID	1990	N/R	7M, 7T	Fixed	Senior management, county mayors	Quarterly	Long-term	Yes

	HAMAR	1998	PO	4M, 4T	Fixed	Senior management	6 monthly and monthly working groups	Long-term	No
Portugal	LIMA	1994	PO	4M, 4T	Fixed	Not applicable	Monthly	Long-term	Yes
Portugal/ Spain	B/Z	2000	EU	11M, 2oth, 13T	Open	Inapplicable, public member institutions	Bi-monthly	Long-term	Yes

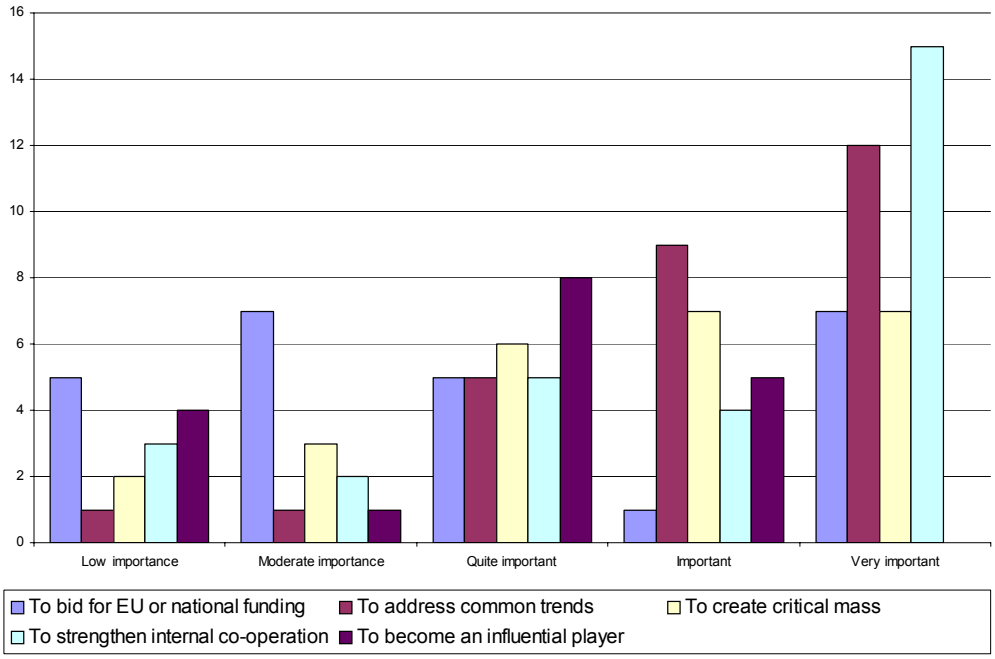


Figure no 29: Motivation for the Establishment of the Partnership

Initiation

The majority (73%) of the partnerships viewed here were initiated by the partners themselves (Figure 30). However, some networks have been formed in response to a national or regional programmes (such as the Inter-regional Mission for Spatial Planning: MIIAT in France), while in the case of Baltic Palette Partnership in Latvia, the incentive for the partnership came from a number of EU initiatives including Interreg, Phare and Tacis. The high level of bottom-up partnerships provides a clear indication of the growing demand for inter-municipal co-operation between neighbouring authorities for developing integrated and territorially based strategies. It also indicates that although the concept and boundaries of FURs may not have been firmly established, the need for cross-boundary and multi-level governance relationships has already been acknowledged by local governments in Europe.

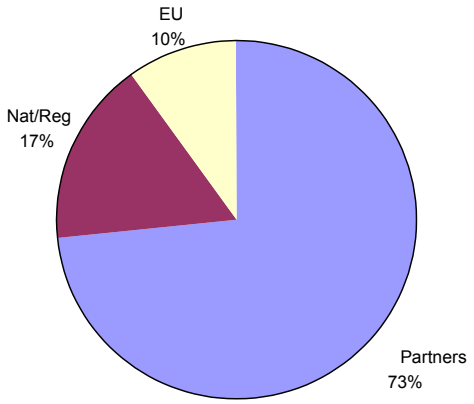


Figure no 30: **Initiation of the Partnership**

Starting date

It is clear from the survey results that the late 1980s and early 1990s marked the beginning of a growing number of inter-municipal partnerships across Europe. While some partnerships have been in place for more than a decade (such as the Greater Manchester Strategic Planning Officers Group, which was set up to fill the gap left by the abolition of a formal government structure, namely the Metropolitan County Councils), others have been established more recently (such as Western Lithuania 2020, which was established in 2002 to consolidate municipal and other resources and raise the profile of the area as a whole) (Figure 31).

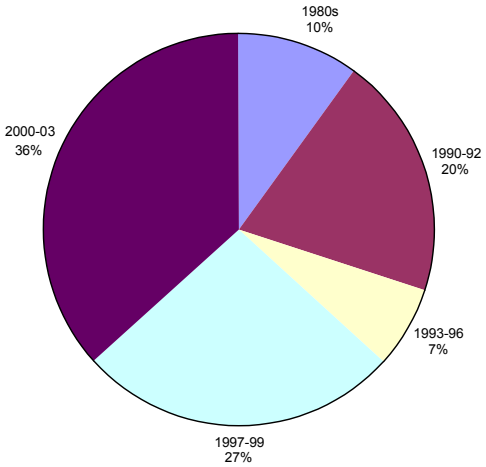


Figure no 31: Establishment of the Partnership

6.3.4 Size and composition of the Partnership

The size and composition of the partnerships range from small, single-sector networks (such as the National Centre Midt-Vest in Denmark and the Association of Municipalities of Lima River Valley in Portugal, each with only four partners from the municipalities) to large, multi-sector networks (such as Patto Territoriale del Sangone in Italy with 108 partners from the municipalities, the private sector and other agencies). These multi-sector partnerships, with partners from local government (municipalities), the private and voluntary sectors and other public and private agencies make up the majority of networks. However, given that the focus of the survey was on partnerships that involve municipalities, the returns include cases where municipalities are the sole partners, some of which have as many as 53 municipalities (Kommunalverband Ruhrgebiet in Germany). Overall, as seen in Figure 32 below, municipalities provided the largest number of partners followed by the 'other' category (for details of partnership composition, see Q5, Table 32).

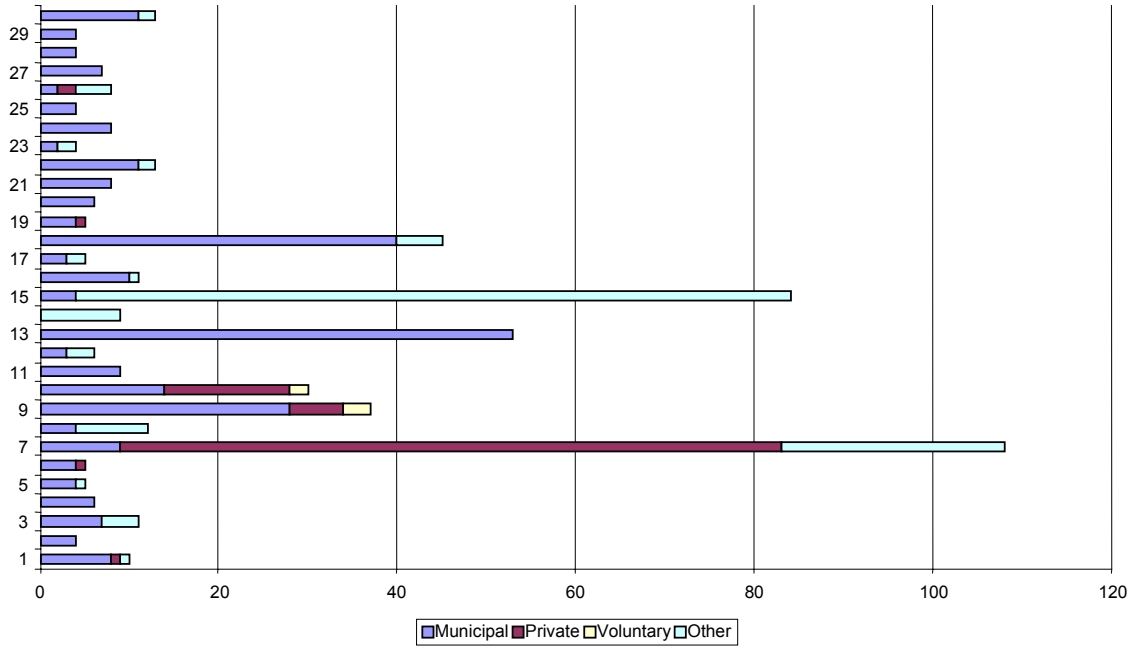


Figure no 32: Partners involved

Another key difference in the nature of partnerships that have been analysed is the extent to which they are open to new members/partners. Many partnerships (43%) have a porous boundary and are open to new partners. This means that the size and composition of the networks can change over time, while others (53%) have hard edges in terms of both membership numbers and composition. It is interesting to note that all single-sector partnerships, which consist of municipalities, have fixed memberships, an indication of a more formal structure of networking. However, the opposite is not true, i.e. not all multi-sector partnerships have adopted an open membership approach.

6.3.5 Working practices and organisational structures

All partnerships have regular meetings, ranging from as frequently as twice a month (Saimaa City Co-operation in Finland) to annually (Vereniging Deltametropool in the Netherlands) with the majority meeting every three

months (quarterly). This is an indication of the dynamics of the partnership and the level of interest and commitment from the partners to the partnership agenda.

The great majority (72%) of the individual partners hold senior management positions in their own organisations. This in some cases includes the city mayors (for example in The Triangle Region in Denmark), and in others, elected politicians (for example in the Council of Stockholm-Malar Region in Sweden). As noted in Interim Report 2, one of the key factors in the networks' success is the credibility and 'weight' carried by individual partners in their own organisations, which strengthens the ability of the network to mobilise resources to achieve goals and objectives.

Almost all partnerships, with the exception of Patto Territoriale del Sangone in Italy (which will end in 2005 but may continue in some form thereafter) and Saimaa City Co-operation in Finland (which will end in 2009), have a long-term life span. Many are permanent arrangements (such as the two Danish partnerships) with varying cycles of review. This is a promising sign because a long- term horizon with a reasonable lead -time enables the partnership to mature and develop a common language and understanding between the partners.

Another important observation, which relates to the effectiveness of the networks, is that the majority of the partnerships have put in place clear organisational structures based on a number of sub-divisions such as: 'focus groups' in National Centre Midt-Vest in Denmark, 'policy groups' in Inter-regional Mission for Spatial Planning in France, and 'working groups' in Patto Terr del Sangone in Italy.

Overall, given the combination of clear working structures, regular meetings and long -term horizons, the outcome of the survey points to a high degree of stability within, and credibility of, these partnerships. Although many have emerged through the partners' own initiatives and on a voluntary basis, they seem to have developed established effective working relationships.

Furthermore, given the seniority of the individual partners involved, they also have developed a potentially influential 'voice' for their areas (Table 33).

Table no 33: Key characteristics of the Partnerships' nature and working practices

Commonalities	Differences
Voluntary/ partners' own initiative	Newly established v. old network
Long term life span	Single-sector v. multi-sector
Organisational sub-divisions	Small v. large membership
Regular meetings	Fixed v. open memberships
Senior partners	

6.3.6 Powers and resources of the Partnership

The second part of the analyses deals with the power and resources of the partnerships (see Table 34). As noted in the literature review in Interim Report 2, power is understood not in terms of power over the actions of others but in terms simply of the power to act, to be able to mobilise available resources to implement the objectives of the partnership. Similarly, resources not only include financial resources but also human resources and access to other forms of support including management and administrative support.

Decision-making powers

The great majority of partnerships (73.3%) do not have the executive power to implement their objectives. However, it was noted that they can influence the policy-making processes and seek implementation by making recommendations to the decision-making bodies. Furthermore, some seek to implement their strategies by lobbying (CSM), or through undertaking

Table no 34: Powers and resources of the Partnership

Country	Partnership	Q11; Accountability to higher tier body	Q12; How does the partnership seek implementation?	Q13; Regular source of funding? If so, short-term or long-term?	Q14; Who provides the funding?	Q15; How is the secretariat for the partnership arranged?
Denmark	TTR	No comment	By making recommendations	Yes, annual	Municipalities	Employed staff jointly paid by the partners
	NCMV	No comment	By making recommendations	Not regular, changes annually	Municipalities	Employed staff jointly paid by the partners
Austria/ Hungary/ Slovakia	JORDES	Yes, regional governments	By making recommendations and some own executive powers	Regular for life of the partnership	National, Regional and Municipalities	Employed staff jointly paid by the Austrian partners
France	MIIAT	Yes	By making recommendations	For at least another 4 years	Government	State representative in each region
Greece	ANDIP	No	By making recommendations, implementation sought through the realisation of studies, programmes.	Yes, annual	Six shareholders, the municipalities. Also national, regional, private and others.	Employed staff jointly paid by partners
	ANKO	No	By making recommendations, implementing programmes and studies	No	Municipalities	Employed staff jointly paid by partners
Italy	SPNM	Yes, to municipalities	By making recommendations, joint official decisions and guidelines.	Linked to the duration of the planning work.	Municipalities	The technical secretariat with flexible involvement of the external advisors.
	PTS	Yes, Turin province and indirectly, National Government	By making recommendations	No comment	Partners, National Government and EU Structural Funds	Employed staff paid by partners

Netherlands	SR	No	Executive powers over some co-operative issues and programmes. On other issues makes recommendations.	Long-term	Joint funding by the partners (municipalities and provinces 40%, regional authorities 20%).	Employed staff jointly paid by the partners.
	VDM	No	By making recommendations and 'sharing a vision and responsibility'	Yes, membership fees, can be topped up	Regional govt., municipalities, private bodies	Employed staff jointly paid by the partners.
Netherlands/ Belgium	RSD	No	By making recommendations, then commitment to implement	Regular until 2006	Joint funding by partners	Employed staff jointly paid by the partners
Luxembourg /Germany/ Belgium/ France	SLL	No, but individuals may be	Recommendations and executive powers	Not regular	Ad hoc funding	Partly in rotation, partly on an ad hoc basis
Germany	BSW	No	By decision of the city councils	Yes, on-going	Mainly by the participating cities. Also partly by regional, national or EU and/or co-financed by the private sector.	Employed staff paid by the municipalities
	KVR	Yes, national government - Ministry of Interior of Westphalia	Through its own executive powers	Yes, based on yearly contributions by partners	Joint funding based on a levy set in law	Employed staff jointly paid by the partners
UK	SYF	No	By making recommendations	No, on-going contributions	Joint funding, proportional to size of partner	Rotates between partners who host it on a part-time secondment basis.
	GMSG	Yes, Association of Greater Manchester Authorities	By making recommendations	No	No comment	By one of the partners

Finland	SCC	Yes, Local city boards and councils	By making recommendations	No comment	Mainly municipalities, also national government	Employed staff jointly paid by partners
Sweden	CSM	No	It lobbies, but has no executive powers	Members provide most of the funding, implied regularity	Regional, municipalities and other partners	Employed staff jointly paid by partners
Estonia	SINA	No comment	By making recommendations	Not given	Municipalities and others	Employed staff jointly paid by partners
Latvia	BP	Yes, national - Ministry of Finance and Regional Development	Implementation through partners' executive bodies	No regular source of funding, now to last 'til 2004	Mainly EU (Interreg, Phare and Tacis) and municipalities and joint funding of partners	Rotates among the partners who host it in turn
	LRD	Yes, Ministry of Finance and other funders	By making recommendations and through its own executive powers	Regular, government based and membership fees	National government and municipalities	One directly employed person, otherwise rotating
Lithuania	WL	Yes, Regional Government	By making recommendations	Regular source of funding	National, regional, municipalities, private, other and international funds	By one of the partners
	MVK	Yes, National Government	By making recommendations to respective municipalities and other organisations	No regular source of funding	National, regional, municipalities, private, other and international funds	By employed staff jointly paid by the partners
Poland	UCB	Yes, National Government and Regional Audit Office	By making recommendations	Regular, long-term - Member fees	Joint funding by all partners	Employed staff jointly paid by partners
	SMA	Yes, National Government and Regional	By making recommendations	Regular, long-term - Member fees	Joint funding by all partners	Employed staff jointly paid by partners

Norway	OSLO	No	By making recommendations	Regular, long-term, but still dependent on yearly national and local budgets	All parties	Rotates between partners
	VID	Yes, Regional Government	Through responsibility for industrial development and its own initiatives	Annual grants from the regional council and income from own projects	Municipalities	Employed staff paid by the partners
	HAMAR	Yes, Regional Government	The partners are the decision makers	Municipalities pay per inhabitant	Regional Government and Municipalities	By one of the partners
Portugal	LIMA	Yes, Regional member city councils	Execution of certain responsibilities e.g. application phase and management in issues such as taxes recommendations	Not clear if regular or the length of time guaranteed	Transfers from city councils and EU co-funding	Employed staff jointly paid by the partners
Portugal/ Spain	B/Z	Yes, Regional government	Each project is supervised by the respective municipalities	Presumably regular, length of time not given	Based on contribution from the municipalities and also EU co-funding	Employed staff jointly paid by the partners

studies and specific programmes (ANDIP), or through having specific responsibility (as does VID through its responsibilities for industrial development). Some have a mixture of these approaches in their attempt to create shared agendas and strategies for their areas.

Resources

In terms of the regularity of funding, 26.6% are funded annually, while 30% are funded over a longer financial cycle. The majority of this funding is guaranteed for the life of the partnership and/or tied to specific projects or initiatives (see for example, JORDES, OSLO B/Z), but there are a smaller number of cases where funding is *ad hoc* and more precariously balanced (for example, MVK, BP, GMSG). The sources of partnership funding include member subscriptions, higher tier governmental support (regional, national and EU structural funds) and local/municipal investment. What is evident is that the overwhelming majority of partnerships (80%) are financially supported by the public sector at the various spatial scales of the state.

With regard to human resources, 66.6% employ full-time staff that are paid jointly by all partners. A smaller number (26.6%) adopt a rotation system where-by staff are seconded from partner organisations and work for the partnership on a part-time basis.

Accountability

As shown in Figure 33, the majority (63%) of partnerships are accountable to a statutory authority, which is either a national government department (as in Latgale Region Development Council which is accountable to the Ministry of Finance in Latvia), or a regional government. This even includes those partnerships that have been established through the partners' own initiatives (such as Metropolis Vilnius Kaunas which is accountable to Latvia's national government). However, there are a number of partnerships (37%), which

represent a degree of self-governance and are not accountable to any higher tier authorities (such as South Yorkshire Forum in the UK).

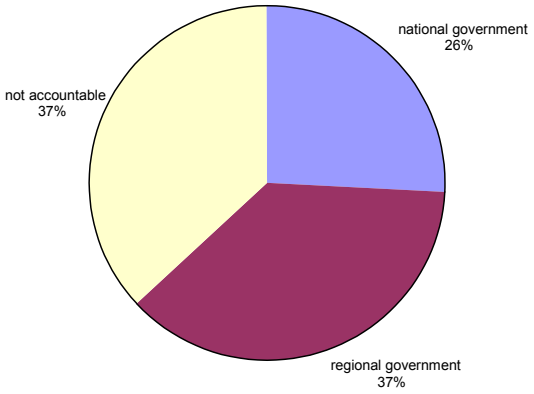


Figure no 33: **Accountability to a higher tier body**

6.3.7 Objectives and achievements of the Partnership

Table 35 is a summary of the findings of our research into the objectives and achievements of partnerships. Our commentary here is based on this table and is structured around a brief discussion of two themes: objectives and achievements of the partnerships.

Objectives

Table 36 highlights the fact that there is a range of objectives that partnerships have been set, or have set for themselves. We have consolidated these objectives into the following (not mutually exclusive) categories:

- Strategic development
- Project orientation
- Networking

- Advocacy

Most of the partnerships appear to be working towards the establishment of clearly identified *strategic objectives*. These range from attempts to better integrate regional and municipal development strategies (for example TTR, MIIAT, KVR, GMSG), to fostering balanced development within regions (see for example SYF, SR, RSD, SLL), to the development of more co-ordinated inter and intra-municipal development strategies (see VDM, SMA, LIMA).

Partnerships that are only focussed on *specific (often time-limited) projects* are less heavily represented. The Saar-Lor-Lux provides an example of a more-project-based partnership with its focus on creating a single regional labour market within its spatial remit, and its attempts to develop transport and educational links within the partnership area. Similarly, the SINA project in Estonia represents collaboration between private and public sector partners in the construction of a waste separating plant in Narva.

As far as *networking* and *advocacy* are concerned, most partnerships have an implied objective to region-build and promote the partnership and its area of activity, or to establish more integrated relationships between institutions and organisations internal and external to the partnership. In relation to networking for example, Valdres Industrial Development Limited (VID) in Norway has the objective of being a link and contact point between different levels of government, the private sector, and regional development funding regimes. In contrast the advocacy role performed by MIIAT in France is more about creating the conditions for effective regional development, with its objective to develop better co-operation between national and regional government.

Table no 35: The purpose and achievements of the partnership

Country	Partnership	Q18; Aims and objectives of the partnership	Q19; What concrete results has the partnership achieved?	Q20; Has a joint spatial strategy been produced? If so, what are the key elements?	Q26; Is this model of partnership a common practice, or unusual?
Denmark	TTR	Broaden the function and focus of 'National Centre'. Co-ordinate regional and municipal strategies.	Recognition by national government.	Yes, it will be a ten-year plan co-ordinating strategies put forward by each of the municipalities into a spatial strategy for the whole region.	With one other network (National Center Midt-Vest) unique configurations and possible pioneers.
	NCMV	Find solutions to regional challenges using shared expertise.	Joint projects and planning (including joint board for economic development) and mutual support.	Yes, it was a prerequisite from the Government when the group were given status as a National Centre. Strategy for physical planning currently being produced.	Since the 1990s it became more common to set up networks of cities and municipalities.
Austria/ Hungary/ Slovakia	JORDES	To initiate a common growth process on the cross border regional level leading to the formation of a prime region in the polycentric system of regions.	A tri-lateral working team has been established as a foundation for making well-informed decisions about settlement policy and infrastructure investments.	This is under development.	Cross-border co-operation is common practice under Interreg, but not joint decision-making.
France	MIIAT	Renew co-operation between State and regions and give an added value to each regional action.	Not yet	Yes, tourism has been identified as a core activity.	It is already in practice at the State level, through inter-ministerial work.
Greece	ANDIP	Supplement the gap between existing bodies to support the productive potential of the region, increase choices and co-ordinate programs of intervention.	Technical support, training programmes, research, new computer networks and planning and implementation of programmes.	Yes, which include; transport, urban renewal, environmental protection infrastructures and training.	This model of partnership/ Network is a common practice in Greece.
	ANKO	Exploit the resources of the region to its competitive advantage. Encourage balanced development and decentralisation.	Realisation of development programs with the integration of a variety of actors.	Yes, which include; employment training, transport system improvement, urban development and environmental protection.	It is common practice.

Italy	SPNM	Urban regeneration, economic recovery, territorial marketing, social cohesion and retaining of environmental quality.	Common sense of belonging for residents, realisation of some projects, attraction of external investments and new activities.	Yes. Most important for this; defining new area identity, developing infrastructure for sustainable mobility, managing urban transformations and re-converting productive land in residential areas, defining environmental compensation to improve urban life and promoting institutional co-operation.	This is uncommon.
	PTS	To address the decline of the region and develop the potential, e.g. the SME networks in the car industry.	Documents about common strategies, public information point opened and support of Government.	A strategy has been developed, but the focus is economic. Spatial factors within it relate to human formation and environmental sustainability. Improving the urban network and complementarities of urban functions is being considered.	Several territorial pacts and area contracts exist, also 3 thematic pacts (concern agriculture and fisheries).
Netherlands	SR	Foster a balanced, dynamic development of the Randstat, with high-quality rural and urban environments and strengthen its international competitiveness.	Little concrete as yet, but the establishment of SR shows a clear awareness of the need for co-operation in regional strategy.	Not as yet, but a vision has been produced of what one may look like. It argues for renewal and strengthening of co-operation and expansion to all policy areas important for the future of the Delta Metropolis. Also for modesty in terms of power structures and selectivity in project development.	It is unique and innovative.
	VDM	Strengthen key features of the Metropolis, e.g. diversity of economic activities, develop 'a configuration of well-connected vital cities encircling a Green Heart'.	The building of a coalition of different actors. The production of futuristic publications and maintaining the Randstad on the public and political agenda.	Yes, several 'spatial visions' on the development of parts of the Randstad have been produced; these focus on 'synergy', integrating social, economic, cultural and sustainability issues. In the statutes of the VD, spatial planning is the prime instrument for achieving its' objectives.	It is a new and relatively unique network.
Netherlands/ Belgium	RSD	To enhance the economic and spatial development of the region and to give opportunities to public and private actors to stimulate a more optimal balance in living and working environments.	The databank on business locations and network discussions on four themes: the logistical-industrial system, the eco-system, the tourist and leisure system and the urban system.	Yes, but it is a non-binding document relating to ideas liable to bring about innovative regional policy developments.	This model is quite unique.

Luxembourg/Germany/ Belgium/ France	SLL	To create one regional labour market, strengthen regional identity and harmonise transport and higher education in the four areas.	The visibility and acceptance of the region and co-operation in the development of joint social, economic and environmental projects.	No, regional planning is not an explicit objective of the partnership.	Cross-border partnerships are quite common, but this degree of political involvement fairly unique.
Germany	BSW	Co-operate to strengthen the particular qualities of the region to restructure it and provide lasting employment, solve social problems and help the environment.	New forms of regional and city networking have been created, also new ways of co-operation between public and private actors and many more.	Yes, for polycentricity one key aspect is the 'RSW Circle Line' connecting the three cities to be used as a guide to future development, as an 'associating element' and as an 'action field' of its own.	It is unique.
	KVR	Develop and promote regional initiatives, engage in planning for leisure, landscape, transport etc.	Many, but most successful have been in the preservation of natural areas and the improved management of waste.	No, no longer a core activity, regional planning competencies been transferred to another institution.	Most of the metropolitan regions have installed a body to co-ordinate and develop the region, but competencies and organisation vary.
UK	SYF	To find the most effective spatial arrangements for achieving economic transformation of the South of Yorkshire.	Some consensus between competing bodies, representing different interests has been achieved. So far only in the form of a study.	No, but planning to produce a sub-regional component to Regional Planning Guidance by the end of 2004.	At least 4 comparable partnerships are in operation in England and Wales.
	GMSG	To co-ordinate planning policy across the region and respond to the wider regional agenda.	It has produced and reviewed a 'Greater Manchester Planning Framework' – a major influence on the development of planning policy for the NW.	Yes, Urban regeneration, sustainable communities, countryside enhancement, green belt protection.	Not aware.
Finland	SCC	Fuse three municipalities into one, produce a leading 'foster cluster area', improve high tech employment and provide a contact point between Finland and Russia.	Joint planning and service provision has begun.	Yes, building the network of 'aerial' centres of competence and high levels of facilities for living, working and transportation.	It is new.
Sweden	CSM	To improve better focus in its activities, especially transport, housing, higher education and international marketing.	Better knowledge about the conditions in the region and good networks established.	No	It is uncommon.

Estonia	SINA	Implementation of a joint project.	First stage of the project was completed; construction of waste separating plant in Narva town.	No comment	Not known
Latvia	BP	To develop a dynamic, sustainable, innovative region, not hampered by its borders. To create integration by a wide co-operation.	Five widely spread reports on e.g. infrastructure. European Commission now holds the project up as a model for interregional co-operation.	Not an aim of this project. Importance of common strategies has been recognised, but they differ from region to region due to diversities.	The only one of its kind – covering so many co-operation areas.
	LRD	Organisation and management of long term development plans and strategies. Representation of the region at the national level.	Adopted regional development strategy and some projects underway including Latgale Spatial Plan.	Yes, now altered to be called Latgale Urban Development Strategy. Also the spatial plan has been developed in the framework of an international programme.	Planning Regional Development Councils are obligatory by law since last year.
Lithuania	WL	To bring sustainable economic growth to the region, increase the choices and standard of living of the population. Consolidate resources and raise the profile of the area.	Currently the projects of territories planned 5-10 years ago are being implemented.	Preliminary joint strategy; infrastructure development as a stimulus to economic development, cross-border partnerships, support to rural development and transport as part of the economic development axis.	One of only a few examples.
	MVK	To join the potential of the cities, encourage co-operation between business, education and administration and increase external competitive abilities of the state.	A public organisation 'Dipolis' was set up for the support of metropolis Vilnius-Kaunas development.	Preliminary joint strategy has been produced. Key fields of co-operation are listed as transport, the economy, administration and tourism.	Unusual
Poland	UCB	Co-operation and joint actions for multi-sectoral development objectives.	The concept of common marked tourist routes and waste management.	Yes, so far just related to waste management.	It is common practice.
	SMA	To elaborate an integrated development strategy for the municipalities.	Establishment of Tourist Information Centres, the 2000 Spatial Development Concept and a positive image.	Yes, the basic goal of which is the transformation of the tourist infrastructure and developing economic programmes.	It is common practice.

Norway	OSLO	To improve conditions for developing business activity in the region.	Many projects have been started, but none carried through or evaluated.	The Strategy as such relates to business development.	Joint programmes like this are unique.
	VID	To be a contact point between the county, the regional development fund and other organisations and to engage in regional development.	Establishment of a network of firms, a local 'industrial park/garden' and regional 'value-added-programmes' for food, wood, etc.	Yes, for restructuring local regional industries, enhancing entrepreneurship and developing a common residential, service and labour market in the region.	It is unusual and often used as an example to other regions.
Norway	HAMAR	To develop co-operation between the partners and better use untapped regional resources.	Formalised co-operation, fixed meeting points, initiation and follow-up of projects.	Yes, but for one of the four regions on the basis that this is likely to be the most attractive residential area. Plans to be up-dated every four years.	Three quarters of Norwegian municipalities participate in regional co-operation, but this one is unusually active.
Portugal	LIMA	To contribute to the development of its territorial space through the instrument of inter-municipal co-operation. Implementation to be achieved through sectoral objectives in the economy, culture, tourism, transport and the environment.	A consortium of business associations and a regional energy and environment agency are now operational. Also waste solutions have been found collectively, the building of road accessibilities and a network of business parks and nodes.	Yes and it has been essential to the action achieved. See actual plan for details.	Institutionally partnerships are common, but the practice varies considerably.
Portugal/ Spain	B/Z	To develop joint projects and mitigate the border effect.	The development of a set of coherent trans-border joint actions.	No comment	It is a very recent practice that has come to be generalised.

Table no 36: Objectives of the Partnership

Objectives	Comment	Partnership
Strategic Development	To find the most effective spatial arrangements for achieving the economic transformation of South Yorkshire To address the decline of the region and develop the potential of SME networks	SYF (UK) PTS (Italy)
Project Orientation	Collaboration between private and public sectors in the creation of a waste separating plant To develop joint projects and mitigate the border effect	SINA (Estonia) B/Z (Portugal/Spain)
Networking	To co-ordinate planning policy across the region To join the potential of cities and encourage Co-operation between business, education and Administration	GMSG (UK)
Advocacy	Renew co-operation between the national government and the regions Development and promotion of regional initiatives	MIIAT (France) KVR (Germany)

Achievements

While only 36% of respondents claim that the partnership work in which they are engaged is common practice, nearly all respondents reported varying levels and types of partnership achievements. Table 37 highlights the range and type of 'concrete results' that each partnership considers itself to have achieved over its life to date. We have organised these achievements into the following categorisations:

- Formation of a strategic framework
- Project implementation
- Capacity building
- Knowledge transfer
- Place marketing and promotion

A number of partnerships claim to have been successful in developing wider *strategic frameworks* for development. For example, in the UK, the GMSG has created a strategic planning framework for the ten local authorities in Greater Manchester. This has had a major influence on the development of

regional planning policy for the North West of England. Similarly, the Latgale Region Development Council (LRD) in Latvia has produced an adopted regional development strategy and is working on the development of the Latgale Spatial Plan. Currently, 60% of respondents have developed a Spatial Strategy while a smaller number have indicated that they intend to produce such a strategy in the future.

Project implementation is less well represented in the list of achievements, and is not surprising, given the limited partnerships that claim to be project oriented in terms of objectives. However, some partnerships claim project based successes and these include the Rhine-Scheldt Delta (RSD) in the Netherlands (establishment of a databank on business locations and networks), the Kommunalverband Ruhrgebiet (KVR) in Germany (preservation of natural areas and improvements in waste management), and SINA in Estonia (the construction of a waste separating plant in Narva).

Capacity building achievements are better represented, with many partnerships claiming to have improved 'mutual support and understanding', established foundations for 'well informed decision-making', developed a 'common sense of belonging', created 'new forms of city and regional networking' and 'formalised co-operation'.

Perhaps more interesting is the extent to which some partnerships claim to have engaged in *knowledge transfer*, revealing the extent to which partnership work provides an opportunity for individual as well as collective knowledge enhancement. Even those partnerships that reported little in the way of 'concrete' outcomes (see SR in the Netherlands and CSM in Sweden) commented on the significance of the existence of the partnership as a mechanism for sharing information and knowledge.

What is equally clear from the responses of the partnerships is that the majority claim some form of *promotional* success for their partnership. This is apparent either in terms of the awareness of the partnership within the region

(see for example GMSG, SLL, LRD), or of the region externally through the activities of the partnership (see BP, SMA, TTR as illustrative examples).

Table no 37: Achievements of the Partnership

Achievements	Comment	Partnership
Formation of strategic framework	The development of a an adopted regional strategy Establishment of tri-lateral working teams	LRD (Latvia) JORDES (Austria/Hungary/Slovakia)
Project implementation	Establishment of a data-bank on business networks Delivery of technical support and training programmes	(RDS) Netherlands ANDIP (Greece)
Capacity building	Developing a 'common sense of belonging' The building of a coalition of different actors	SPNM (Italy) VDM (Netherlands)
Knowledge transfer	Better knowledge about regional conditions between partners Production of common strategy documents, public information office opened	CSM (Sweden) PTS (Italy)
Place marketing and promotion	Greater visibility and public acceptance of the region Greater external awareness outside the region of the activities of the partners and the region	SLL (Luxembourg/Germany/Belgium/France) SMA (Poland)

6.3.8 Areas of success

Tables 5, 6, and 7 summarise the responses gained from the partnerships on issues of success. In particular they focus on the areas of success of the partnership, the factors contributing to the success of the partnership, and the factors inhibiting partnership success. Figure 34 below illustrates the areas where partnerships consider the most to have been achieved.

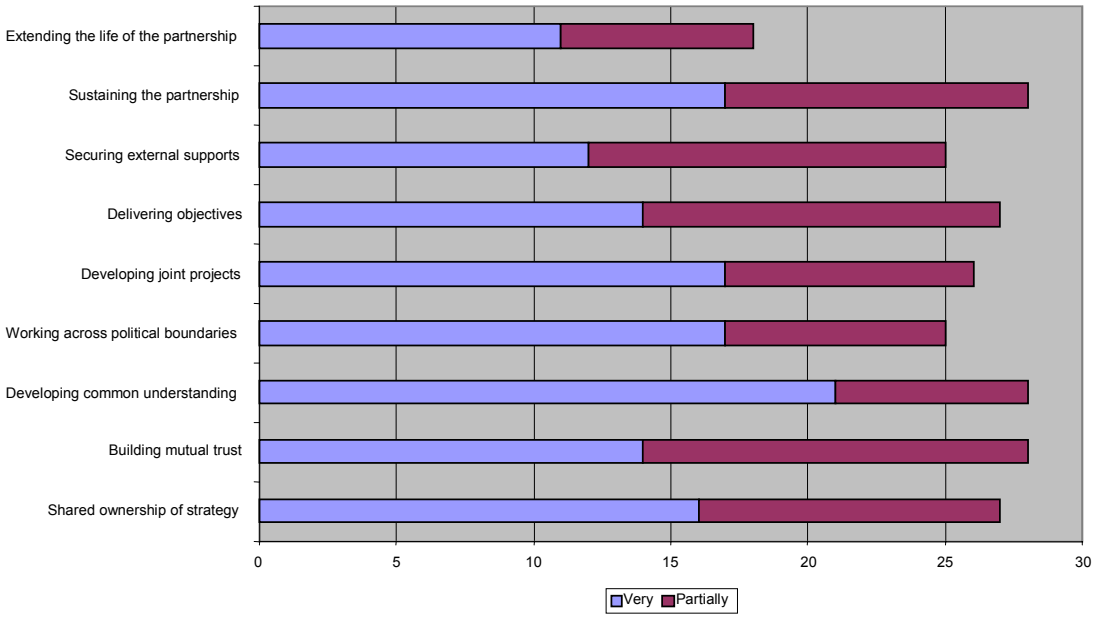


Figure no 34: Relative areas of success

What is clear from Table 38, 39 and 40 is that most partnerships believe that they have been very successful, or partially successful, in developing a common understanding among partners, a critical factor in securing good working relationships. Respondents also claim to have been very, or partially, successful in sustaining the partnership, developing a shared strategy for the partnership and working across political boundaries. This list reveals the

extent to which successes are being conceptualised and articulated in terms of relationships and improved inter-organisational understanding.

Table no 38: Q21 Areas of success

	Denmark		Fr	Greece		Italy		Neth'lds		N/B	L/G/B/F	Germany		UK		Fin	Sw	Est	Latvia		Lith'a		Poland		Norway			Port	P/S
Successful in the following areas?	**TTR**	**NCMV**	**MIIAT**	**ANDIP**	**ANKO**	**SPNM**	**PTS**	**SR**	**VDM**	**RSD**	**SLL**	**BSW**	**KVR**	**SYF**	**GMSG**	**SCC**	**CSM**	**SINA**	**BP**	**LRD**	**WL**	**MVK**	**UCB**	**SMA**	**OSLO**	**VID**	**HAMAR**	**LIMA**	**B/Z**
Shared ownership of strategy	V		P	P	P	V	P	V	V	V	P	P	P	V	V	V	P	P	N	V	V	V	P	P	V	V	V	V	V
Building mutual trust	P		P	V	V	P	P	P	V	P	V	V	V	P	P	V	P	V	V	V	P	V	P	P	P	P	V	V	V
Developing common understanding	V	V	P	V	V	V	N	V	V	V	V	P	P	V	V	V	P	V	V	V	V	V	V	P	P	P	V	V	V
Working across political boundaries	V	V	V	P	V	P	N	P	V	V	V	V	V	P	V	V	P	P	V	N	P	P	V	N	N	V	V	V	V
Developing joint projects	V	V	V	V	V	P	P	P	V	P	V	V	V	N	N	V	P	V		P	V	V	P	V	V	V	P	P	V
Delivering objectives	V	V	V	V	V	V	P	P	V	P	P	P	V	N	P	V	P	P	V	V	V	V	P	P		V	P	P	P
Securing external supports	V	V	N	V	V	V	P	P	P	V	P	P	P	V	N	P	N	V	P	P	P	P	P	N	V	V	P	V	V
Sustaining the partnership	V	V	P	V	V	V	P	V	V	I	V	V	P	P	V	P	P	V	V	V	P	P	V	P	V	P	V	P	V
Extending the life of the partnership			N	V	V	P	V	V	I	I		V	V	I	V	N		V	V	V	P	P	P	N	N	P	P	P	V

Legend; V Very, P Partially, N Not at all, I Inapplicable
JORDES Not completed for this partnership as 'this is an on-going process and cannot be evaluated yet'

Table no 39: Q22 Key factors contributing to the success of the Partnership?

Key factors	Denmark		A/H/S	Fr	Greece		Italy		Neth'lds		N/B	L/G/B/F	Germany		UK		Fin	Sw	Est	Latvia		Lith'a		Poland		Norway			Port	P/S	Total %
	TTR	NCMV	JORDES	MIIAT	ANDIP	ANKO	SPNM	PTS	SR	VDM	RSD	SLL	BSW	KVR	SYF	GMSG	SCC	CSM	SINA	BP	LRD	WL	MVK	UCB	SMA	OSLO	VID	HAMAR	LIMA	B/Z	
Resource availability	X	X	X	X			X		X				X	X	X				X	X				X		X	X	X	X		**53.3**
Access to expertise			X	X	X	X	X	X				X		X		X		X	X	X	X					X	X	X	X	X	**60**
Partner pro-activity	X	X	X	X		X		X		X	X		X	X		X	X	X		X	X	X	X					X	X		**63.3**
Sense of mutual trust					X	X	X	X			X		X	X					X	X	X		X			X					**40**
History of joint work							X	X						X		X															**13.3**
Effective leadership				X				X			X				X	X	X					X	X			X		X	X	X	**40**
Motivated individuals			X		X	X		X	X	X	X		X	X	X	X		X			X	X		X	X			X	X		**60**
Shared agenda	X	X			X	X	X		X	X	X	X	X		X	X		X		X						X	X	X	X		**60**
Support from higher tier government	X	X		X	X	X		X				X		X			X		X								X				**36.6**

NB- PTS Answers re pro-activity and motivated individuals relate only to certain partners and support from higher tier government was not evident at this early stage.

Table no 40: Q23 Inhibiting factors

Key factors	Denmark		A/H/S	Fr	Greece		Italy		Neth'lds		N/B	L/G/B/F	Germany		UK		Fin	Sw	Est	Latvia		Lith'a		Poland		Norway			Port	P/S	Total %
	TTR	NCMV[1]	JORDES	MIAT[2]	ANDIP	ANKO	SPNM	PTS	SR[3]	VDM	RSD	SLL	BSW	KVR	SYF	GMSG	SCC	CSM	SINA	BP	LRD	WL	MVK	UCB	SMA	OSLO	VID	HAMAR	LIMA	B/Z	
National/Regional policy context				X				X			X	X	X	X	X			X	X	X	X						X	X	X		**46.6**
National Legal/Tax System												X	X								X			X							**13.3**
Limited resources			X		X	X		X				X	X			X		X	X	X	X	X	X	X	X	X	X			X	**60**
Limited knowledge																						X	X							X	**10**
Lack of motivation										X		X						X										X			**13.3**
Parochial attitude					X	X	X							X	X	X	X	X				X							X		**13.3**
Lack of trust																X	X														**6.6**
Little experience of joint working															X				X			X	X							X	**16.6**
Weak leadership					X		X							X		X		X	X									X			**23.3**
Disagreement on key issues	X										X					X	X	X	X									X			**23.3**

1 The quite long distances and lack of functional complementarity.

2 At the moment the focus is on decentralisation, not inter-regional co-operation.

3 None of the factors seem to be inhibiting *per se*, the Randstat is a well -established partnership.

Figure 35 follows a similar conceptual trajectory. Here, more than 60% of respondents highlight the development of a shared agenda and motivated and committed individuals within the partners as the key to success. Partner pro-activity and expertise is also rated highly in contributing to successful partnerships, with 60% of respondents highlighting these criteria. Only 13% cite a history of joint working as a critical factor in contributing to successful working. This reveals the extent to which a commitment to partnership working around clearly defined objectives that are shared by all is capable of overcoming previous antagonisms or a lack of co-operation. It may also be a reflection of the seriousness of problems and issues to which a partnership has to respond, or around which it is necessary to co-operate.

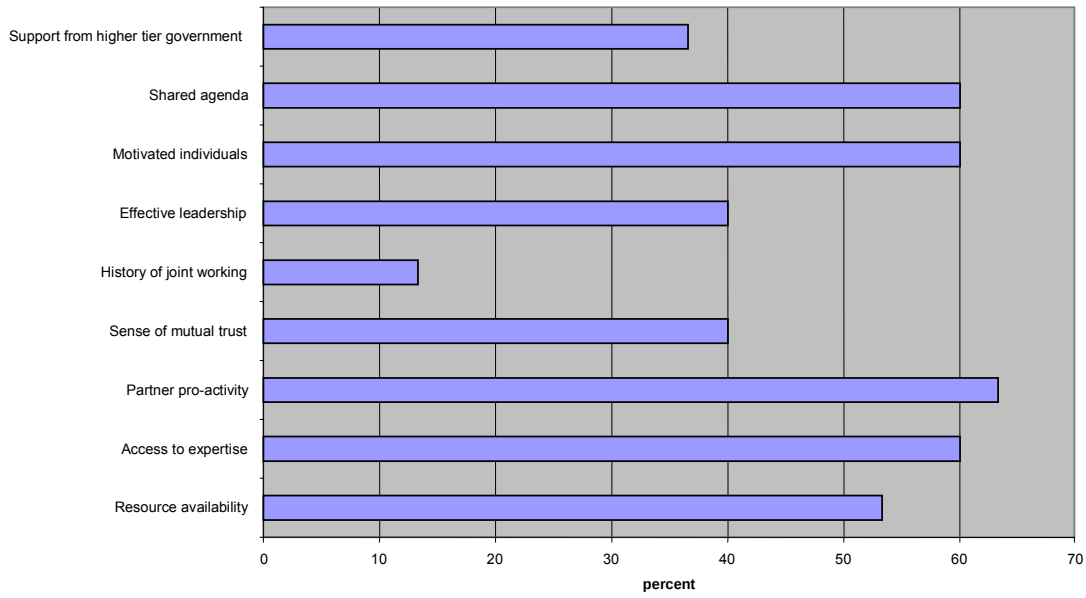


Figure no 35: Key factors contributing to the success of the Partnership

Figure 36 is illustrative in that it highlights the extent to which resources (financial and human) are critical in the successful development of partnership working. 60% of respondents (18 cases) claim that limited resources is a key factor in inhibiting partnership development. Almost 47% of respondents (14 cases) also highlighted the importance of the national and regional policy context for successful partnership working. This demonstrates the importance of political commitment from higher tiers of government and a policy terrain that is conducive to inter-organisation and institutional co-operation.

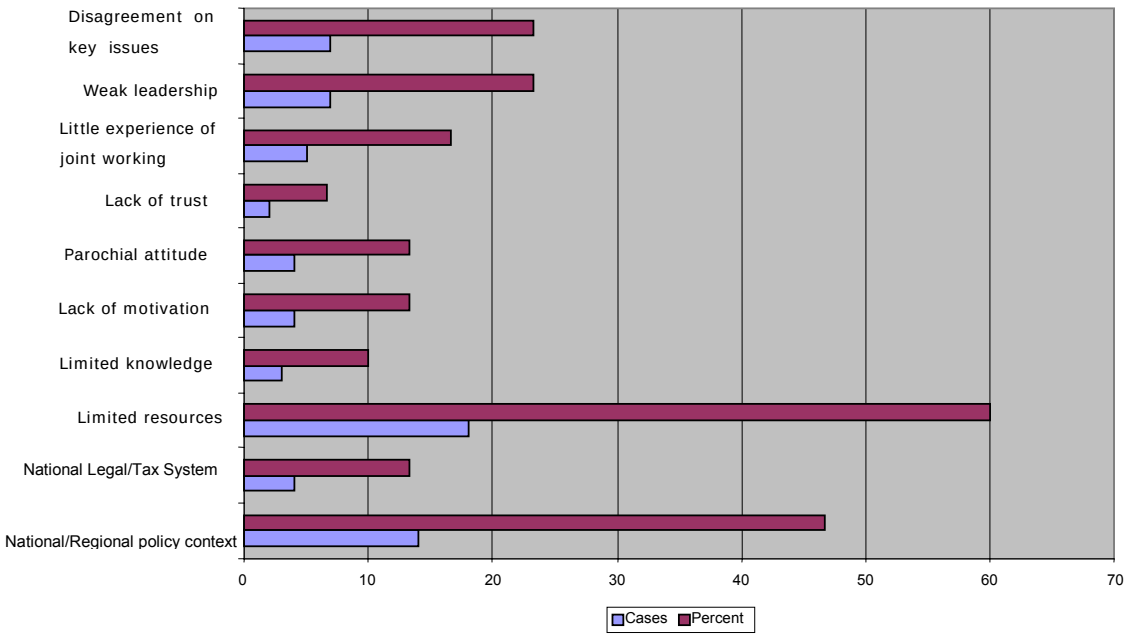


Figure no 36: Areas of difficulty

6.3.9 Strengths and weaknesses

The partnerships were asked to comment on what they felt were their strengths and weaknesses. As with other responses, comments received revealed a wide range of strong and weak areas (See Tables 41, 42 and 43).

In terms of *strengths*, we have organised the responses into three broad categories of importance (see Box 5 provides a brief illustration of this), including:

- Networking and co-ordination
- Knowledge transfer
- Interdependence

For *weaknesses*, our categorisations (See Box 7 for illustration of this) are:

- Lack of resources
- Lack of political will/commitment
- Limited partner experience

Table no 41: Q24 Key weaknesses and strengths

Country	Partnership	Weaknesses	Strengths
Denmark	TTR	Internal special interest among the larger municipalities with their own agenda could weaken the partnership. Economic development focus on regions larger cities may mean smaller municipalities not getting enough out of the network.	The shared commitment seems to be stronger than the disagreements. The participating municipalities have made a joint plan for the general development of the region.
	NCMV	No comment.	Support from national government.
Austria/ Hungary/ Slovakia	JORDES	Differing funding periods and application procedures for the partners.	Political interest in the outputs of the project. Co-operation will help to withstand repressive framework conditions.
France	MIIAT	Co-operation was only looked at as something that might be of an added value for all regions.	The added-value factor for pulling the regions together and making the project possible.
Greece	ANDIP	Limited resources and weak leadership (weakened since early years). Parochial attitude has increased and mutual trust lessened over the past 3-4 years.	Building up access to knowledge and expertise, pro-active stance of partners, previous collaboration, motivated individuals and support from higher tier government.
	ANKO	Poor resources.	Previous collaboration and the other factors listed in question above.
Italy	SPNM	Not explicit, but hard political competition between some mayors of the municipalities, especially at the 'supra-local national arena'. The marketing strategy has provoked a demand that has been difficult to satisfy for land for new activity locations.	Organisation and social capabilities, negotiating process, accountability, and mutual trust between citizens and policy makers. Good external advisors and infrastructure endowment.
	PTS	Political instability in the area.	The creation of a stable co-ordination agency (Assot).

Netherlands	SR	The capacity for implementation, democratic legitimisation, the problem of making decisions in the interests of the region as a whole and an imbalance favouring the position of the four large cities and excluding some large municipalities.	The participation of all major public policy making bodies, motivated members, the endorsement of the need for such a regional urban network and shared understanding of threats and opportunities and the strength of the Randstat as a planning concept.
	VDM	The noncommittal character of the body and its dependence on the initiatives of the members.	Informal meetings can have a positive impact on participation.
Netherlands/Belgium	RSD	The Dutch national government is not represented and there is disagreement on key issues.	Public/private partnership and the ability to work across political boundaries. The clear identity of the region and united vision on the future of the Delta.
Luxembourg/Germany/ Belgium/ France	SLL	Decision making capacity is limited, unanimity is required reducing progress to the most reserved partner. Funding is ad hoc.	The many different sub-networks provide for co-ordination towards the thematic or territorial issue addressed. Access to expertise, shared agenda and government support.
Germany	BSW	Financing of projects and difficulties of regional politicians building up strategic concepts.	Trust and ten years of experience of joint working and co-operation with little or no funding.
	KVR	The weak political position of the KVC government – delegates from local parliament with no mission for the regional level.	Planning and operational departments in one organisation. Secured funding from a regional levy (guaranteed in law) and ability to obtain funds from other levels (federal, EU). Good professional skills.
UK	SYF	Shared agenda much more in evidence in some members than others. Limited support from government.	Some highly committed members willing to put in a lot of extra time.
	GMSG	No specific resources available. Work relies on individuals carrying out tasks in addition to their 'day jobs'.	Professional values, desire to work together, strong inter-dependency of districts.
Finland	SCC	Problem of gaining the trust of the inhabitants.	A strong vision and motivation to create something totally new.
Sweden	CSM	Only consensus issues can be dealt with. Poor unfocused leadership.	Good networks and new knowledge exists.

Estonia	SINA	Little experience of joint working and lack of resources.	Common views on regional development strategy, mutual trust and similar cultural background.
Latvia	BP	It is implied that socio-economic and political disparities are not taken sufficiently into account. Technical and financial management can work as an obstructive factor when trying to find common interests.	Project partners have declared their good will for co-operation and have defined common vision. Project is professionally oriented and involves politicians.
	LRD	The lack of participation of private players and lack of resources for development.	Understanding interdependence, 'regional thinking' and close relationships to the executive body – LRDA.
Lithuania	WL	Some areas will probably get more out of the partnership than others, the strong urban centres are most likely to benefit. The partnership unlikely to be able to halt the desertification of the rural areas.	The Siauliai-Klaipeda part of the metropolitan axis will be encouraged to develop.
	MVK	Vilnius is at an advantage in the partnership and its strength in strategic planning will allow it to make beneficial decisions for itself.	Kaunas and Vilnius have the chance to exchange their experiences.
Poland	UCB	Lack of financial resources for large projects can't be realised. Weak connections with other sub-regional institutions. Small tradition of working together and little attention given to voluntary local government co-operation.	Functional space (copper mining area) connecting the municipalities and enhancing willingness to co-operate. High local tax incomes and sense of mutual reliance.
	SMA	Limited financial resources don't allow critical mass for activity. Too small staff and membership limited to municipalities. Peripheral location.	Environmental and natural values of the sub-region. The location and Phare support.
Norway	OSLO	Limited scope and resources.	Mutual dependence and shared understanding of common challenges.
	VID	Financial uncertainty and the lack of legal underpinning for industrial development.	Co-ordination of resources, goals and objectives.
	HAMAR	Struggle of power between county and municipalities, conflict between government levels. Have to set the tempo according to the weakest link, which is slowing the process.	Enough power has been assembled to attain implementation, where there is enough willpower. The working committee of the Regional Council has become an everyday part of the policy development process in the region.

Portugal	LIMA	Resistance from Central Administration to strengthening inter-municipal co-operation structures and reinforcing their role especially in the management of EU funds. Lack of career prospects for participants.	Solidarity and support from political leadership, technical capacity and positive image within and beyond the territorial space.
Portugal/ Spain	B/Z	Peripheral situation in relation to the Central Administrations of both countries.	Low dynamism in economic activities.

Table no 42: Strengths of Partnerships

Strengths	Comment	Partnership
Networking and Co-ordination	The creation of a stable co-ordination agency Co-ordination of resources, goals and objectives	PTS (Italy) VID (Norway)
Knowledge Transfer	Building up access to knowledge and expertise Developing knowledge of the environment and values associated with the environment	ANDIP (Greece) SMA (Poland)
Interdependence	Mutual dependence and shared understandings of common challenges Professional values, desire to work together and the development of strong district interdependency	OSLO (Norway) GMSG (UK)

Table no 43: Weaknesses of Partnerships

Weaknesses	Comment	Partnership
Lack of Resources	Difficulty in financing projects No specific resources available – work requires 'good will' of partners	BSW (Germany) GMSG (UK)
Lack of Political Will/Commitment	Political instability in the area The struggle for political power between different levels of the state	PTS (Italy) HAMAR (Norway)
Limited Partner Experience	Lack of participation of private sector Little experience of joint working	LRD (Latvia) SINA (Estonia)

6.3.10 Recommendations for the way forward

Table 44 provides a summary of the responses of the partnerships in relation to ways of improving their activity. Predominantly, the responses represent recommended improvements to the specific partnership in question rather than more generic recommendations for improving the performance of partnership arrangements in general.

Key recommendations for the way forward

1. The need for more robust political and policy frameworks
2. Greater political commitment form higher tiers of government
3. Continued and improved resource allocation
4. Improvements in the co-ordination of partnerships – both internally and externally

However, there are four general observations that can be drawn from this variety of response. Firstly, it is clear that partnerships require more *robust political and policy frameworks* if they are to operate successfully. A significant number of partnerships argued for greater political commitment from higher tiers of government, something that would be further supported by a programme of directed resources. As one partnership commented: *"We need….a new legal framework by the national government, orientated to facilitate the inter-municipal co-operation with direct or indirect incentives"* (SPNM). Related to this is the issue of *resources* (funding), which was also seen as critical to continued and improved partnership working. Indeed, many partnerships commented on the lack of financial investment in their work, particularly from higher tiers of government: *"New legislation and more money would help"* (BSW). Another key issue is the ability of a partnership to integrate its programme of action with existing *EU funding* regimes. As one partnership commented*: "the harmonisation of INTERREG, PHARE and TACIS programme procedures is an essential part that will help run the project in a more effective way"* (BP). A final point to note is that

improvements in the *co-ordination* of partnerships, by the partners themselves and from outside interests who may have an impact on its activities, is considered essential to successful partnership working.

Table no 44: Q25 Recommendations for improvement of the Partnerships

Country	Partnership	Selective Quotations
Germany	BSW	"New legislation and more money would help."
	KVR	More effective regional work requires regional planning competency. Access to a special regional development fund and a high professional, business led leadership would make a difference.
Greece	ANDIP	"It is rather a question of political will"
	ANKO	As above, political commitment seems to be the key.
Italy	SPNM	"..a new legal framework by the national government, orientated to facilitate the inter-municipal co-operation with direct (funding) or indirect incentives (e.g. tax reduction for activity relocating)."
	PTS	To improve the connectivity and efficiency of the discussion table. To improve the coherence between aims, strategies and political actions.
Netherlands	SR	"The implementation procedures of decisions needs to be worked out. A transfer of competencies from the members to the partnership could increase the organising capacity of the partnership."
	VDM	Not applicable, it has a successful function as it stands.
Netherlands/ Belgium Luxembourg/Germany/ Belgium/ France	RSD	A legal cross-border entity to the organisation.
	SLL	An overall strategic vision document to guide the actions of the network and better methods for decision- making. A budget for implementation and more permanent funding.

UK	SYF	"More time to work on it. More money to implement it. Going from the study to the strategy needs staff time and cost, full-time workers would help, rather than relying on people's good will. Not sure how long they can continue as they are."
	GMSG	More resources and better organisation.
Finland	SCC	"We'll try to increase the mutual trust by working together (especially the politicians), looking to the future by working together, inviting the inhabitants for discussions, by using the web-sites and e-dialogue etc."
Sweden	CSM	Better leadership and better organisation.
Estonia	SINA	Strengthen motivation of municipalities' leaders to mutual co-operation.
Latvia	BP	Harmonisation of Interreg, Phare and Tacis programme procedures is an essential part that will help to run the project in a more effective way. Activities that are defined and implemented in order to achieve projects aims and vision should be more result oriented, that will motivate project partners on an individual as well as an institutional level.
	LRD	More commitment from the national government to regional development issues, adding the private sector and other relevant regional players to the partnership and including national representatives into the regional partnership.
Lithuania	WL	Adoption of negotiated rather than hierarchical governance. Improved motivation, by providing more opportunities for co-operation. Strengthen administrative abilities.
	MVK	To involve society. To promote partnership in other municipalities, situated in the zone of the metropolis. To participate in international events. To co-ordinate interests and functions of the city partners.
Poland	UCB	Employing more innovative staff oriented at the implementation of new development projects and at gaining external funds. Learning from partnerships elsewhere.
	SMA	Changing the special purpose association form to a normal association to enable participation of other institutions. Transferring know-how from other successful associations around the world.
Norway	OSLO	Extend the scope and increase the resources.

	VID	Secure long-term funding.
Portugal	HAMAR	More distinct targeted decisions, less control activities in the implementation of decisions and more delegation to daily management and administration.
	LIMA	Recognition from Central Administration of the role of inter-municipal co-operation structures, through delegation of attributions and competencies and adequate financial resources. Although the dominant discourse has defended this position, the practice has been very different.
Portugal/ Spain	B/Z	Contribute to the reinforcement of knowledge and mutual trust and give greater responsibility in defining local investments.

NB- TTR and NCMV (Denmark), JORDES (Austria/Hungary/Slovakia) and MIIAT (France) gave no comment at this point.

6.4 Selected examples of partnership working

Austria: Joint Regional Development Strategies for Vienna/ Bratislava/ Gyor Region (JORDES)

Nature and composition

JORDES was established in April 2002 and initiated by the municipalities of Vienna, Lower Austria, Burgenland, Bratislava and Gyor. It has 7 municipal partners and a further 4 from other public agencies.

Why a partnership/ joint strategy?

The partnership is partially funded under the auspices of the Interreg IIIA programme with the objective of developing a coherent cross-broader regional development strategy.

Working practices

JORDES partners are drawn from middle and senior management positions. The partnership meets quarterly, and is time-limited to three years.

Powers and resources

JORDES is accountable to regional government. It both recommends decisions but also has limited decision-making powers. It is co-funded through EU funding regimes as well as contributions from national, regional and municipal government.

Aims and objectives

JORDES' objective is to initiate a common growth process at a cross-boarder regional level with the intention of developing a 'prime region' in a 'polycentric system of regions'.

Concrete achievements

A tri-lateral working team has been established as a foundation for making decisions about settlement policy and infrastructure investment.

Areas of success

Too early to be evaluated.

Strengths of the partnership and promoters of success

There is considerable political interest in the project and its potential outputs. This has been underpinned by partner pro-activeness and expertise, together with resource availability.

Weaknesses of the partnership and barriers to success

The funding arrangements of the programme have proved problematic for the partners to manage.

Recommendations

Too early to establish recommendations.

Denmark: The Triangle Region (TTR)

Nature and composition

The Triangle Region (Trekantomradet) partnership was formed in 1993. The TTR was established as a reformed partnership of six municipalities of the south eastern part of Jutland (the Band-City Project) with the addition of two new municipalities. In 1993 the partnership was selected as a prime example of inter-city networking by the Danish Minister for the Environment.

Why a partnership/ joint strategy?

The TTR was formed following the recommendation of the Danish Environment Ministry to strengthen the Band-City project.

Working practices

The TTR partnership comprises the senior managers of the six municipalities. The leadership of the partnership rotates between the mayors of the municipalities. The TTR meets quarterly.

Powers and resources

TTR has no executive powers but seeks implementation of its decisions through recommendations to the municipalities and other organisations. It has a regular source of funding that is delivered annually by the municipalities. TTR also employs staff paid for jointly by all partners.

Aims and objectives

The aim of TTR is to act as a 'national centre' for urban networking and to co-ordinate municipal and regional development strategies.

Concrete achievements

The TTR partnership has been successful in being designated a 'national centre' for urban networking.

Areas of success

The TTR partnership has been very successful in developing shared ownership of its strategy, developing common understanding, working across political boundaries, securing external support, and delivering on its objectives.

Strengths of the partnership and promoters of success

The strengths of the partnership are in its ability to create a climate of shared ownership of objectives and to establish a joint plan for the strategic development of the region. This has been helped by the resources available to TTR, partner pro-activity, and support from national government.

Weaknesses of the partnership and barriers to success

A focus on economic development interests within the larger municipalities may mean that the smaller municipalities become minor players in the network. This issue has not been helped by some internal disagreement on the economic development agenda.

Recommendations

The TTR (with the National Centre Midt-Vest) are unique forms of partnership in Denmark. They have the potential though to be pioneers in establishing more effective forms of municipal networking.

Further information

www.trekantomraadet.dk

Estonia: SINA Project (SINA)

Nature and composition

SINA was established in 2001 as a long- term partnership, initiated by the municipalities of Sillamae and Narva. It involves four municipalities and one private sector organisation, but is open to any interested party.

Why a partnership/ joint strategy?

The partnership was formed to become an influential player and strengthen internal co-operation between the partners while creating a critical mass through the pooling of resources. Bidding for EU and national funding played a minor part in triggering partnership initiation . The complementarity of urban functions between the cities was not a key driver in the move towards co-operation.

Working practices

The partners are mainly middle managers in their own organisations and they meet four times a year.

Powers and resources

SINA has no executive powers, but seeks implementation of its decisions through making recommendations to respective municipalities and other organisations. It has a regular budget provided by the municipalities and other sources. The secretariat consists of employed staff paid jointly by the partners.

Aims and objectives

SINA's current aim is to implement a joint project, which is the construction of a waste separation plant in Narva town.

Concrete achievements

Thus far, SINA has completed the first stage of the project. As yet, they have not produced a spatial strategy for the area.

Areas of success

SINA has been most successful in building mutual trust, developing common understanding of key regional issues, developing joint projects, securing external funding and support, and sustaining the partnership over time. They have also been partially successful in achieving shared ownership of the strategy, working across political boundaries and delivering the objectives of the partnership.

Strengths of the partnership and promoters of success

The strength of the partnership relates to its common views on regional development strategy, mutual trust and similar ethnic composition. The key factors that have helped its success are: availability of resources, access to knowledge and expertise, as well as a sense of mutual trust and support from higher tier government.

Weaknesses of the partnership and barriers to success

The weaknesses of the partnership are its limited experience of joint working and the insufficient resources it can deploy. The key factors that have hindered the success of the partnership are a lack of national and regional policy context, limited resources, little previous experience of joint working, weak leadership and disagreement on key issues.

Recommendations

To make the partnership work more effectively, there is a need to motivate the leaders of the municipalities to cooperate more effectively.

Finland: Saimaa City Co-operation (SCC)

Nature and composition

SCC was established in 2001 for a period of 8 years by three municipalities of Lappeenranta, Imatra, and Joensuu as part of a national /regional programme. It also involves partners from two regional development companies.

Why a partnership/ joint strategy?

The partnership was formed to strengthen internal co-operation between the partners, create a critical mass of resources and efforts, address common threats and opportunities, and to enable the partnership area to become 'an influential player'. The complementarity of urban functions between the cities was not a key driver in the development of cooperation.

Working practices

The partners are at different levels of seniority and include politicians as well as officers. They meet every two weeks. The partnership consists of a management group (members of the city board), a steering group (mayors) and a number of thematic working groups.

Powers and resources

SCC is accountable to local city boards and councils, but has no executive powers, though it can influence the decision-making process by making recommendations to respective municipalities and other organisations. It has a regular budget, which is reviewed annually. This is funded partly by national government but mostly by the municipalities involved. The secretariat is provided by the development managers and municipal officials.

Aims and objectives

SCC aims to merge the three municipalities into one, called Saimaacity. This, with its 100000 inhabitants and an enlarged business service sector, will become the seventh growth centre in Finland. It will make the South Karelia Region one of the world's leading forest cluster areas. In addition, it will build upon the existing strong links with neighbouring Russia and the advantages of an established Free Trading Zone between the two countries.

Concrete achievements

SCC has been able to promote the true meaning of regional co-operation and joint working. It has also produced a joint strategy with other smaller municipalities. This is called, the South Karelia Growth Centre Programme. All public services-such as education, health, fire, ICT, waste management and recreational activities around Lake Saimaa- have been merged together.

Areas of success

SCC has been most successful in achieving shared ownership of the strategy, developing a common understanding of some key regional issues, working across political boundaries, developing joint projects and delivering the objectives of the partnership. However, it is not intended to extend the life of the partnership in its current form after the establishment of the new city.

Strengths of the partnership and promoters of success

The strength of the partnership is its vision and motivation to create something totally new and to lead the way in making changes in the administrative structure of local government in Finland. The key factors that have helped its success are: the pro-activeness of the partners, effective leadership, motivated individuals and support from a higher tier government.

Weaknesses of the partnership and barriers to success

The key factors that have hindered the success of the partnership are continuing parochial attitudes, lack of trust and disagreement on some key issues.

Recommendations

To make the partnership work more effectively, the partnership plans to work together, especially with politicians in a series of seminars to develop mutual trust. It also aims to develop a better dialogue with members of the public through better use of the website and 'e-dialogue'.

Further information www.saimaankaupunki.fi and www.koske.fi

France: Mission Interministerielle Interregionale d'Amenagement du Territoire (MIIAT – Grand Sud-Est)

Nature and composition

The MIIAT Grand Sud-Est was formed in 1997. The following regions are part of this MIIAT: Rhone-Alps, Provence-Alpes-Cote d'Azur and Languedoc-Roussillon. It was established by the Delegation a l'amengement du territoire et a l'action regionale (DATAR) and the prefet co-ordinateur for the Rhone-Alps.

Why a partnership/ joint strategy?

At the regional level the DATAR was seeking to encourage the co-operation of neighbouring regions underlying the necessity of macro-regional planning within a European perspective.

Working practices

The partners are senior managers from the regions and DATAR. The secretariat is formed from sate representatives from each region.

Powers and resources

The MIIAT is responsible to DATAR, who is also one of the partners. The MIIAT has no executive power but can make recommendations to its respective municipalities. The partnership is funded through DATAR and has had funding for the last four years.

Aims and objectives

The objective of the MIIAT is to renew co-operation between the central state and the regions and to provide added-value to regional development programmes.

Concrete achievements

None as yet recorded, although all MIIATs have produced documents detailing their work and priorities. These documents are currently undergoing a consultation phase with regional and local stakeholders.

Areas of success

MIIATs have been successful in developing working practices across political boundaries, and in developing joint projects for future action.

Strengths of the partnership and promoters of success

The strength of these partnerships is in their ability to add-value to regional development projects and to bring together a wide range of regional public and private sector actors. This has been helped by support form central government, together with the availability of resources and expertise.

Weaknesses of the partnership and barriers to success

National and regional policy is weakening regional co-operation brought about by the MIIATs. There is now a greater focus on decentralisation and regionalisation than on inter-regional co-operation.

Recommendations

No comment

Germany: Kommunalverband Ruhrebiat (KVR)

Nature and composition

The KVR (as it is currently constituted) was formed in 1997 but has a history that dates back to the 1920s. The KVR covers 53 municipalities in total and is a fixed partnership.

Why a partnership/ joint strategy?

The partnership has its roots in the desire to co-ordinate the growth of the mining industry in the region. It has since evolved into an organisation that has competencies in planning, urban development, industrial development and infrastructural development.

Working practices

The KVR has three meeting platforms – the Verbandssammlung ('parliament'), the Verbandsausschu (board of association), and the Verbandsdirektor (director). The Verbandssammlung meets four times a year, as does the Verbandsausschu.

Powers and resources

The KVR is responsible to the Ministry of the Interior of Nordrhein Westphalia *land*. The KVR has its own executive powers over issues such as nature conservation, environmental protection and waste management. The KVR is funded by partner contributions. Each member of KVR pays a yearly subscription. Staff are employed by KVR, and are paid for by partner contributions.

Aims and objectives

The purpose of KVR is to develop and promote regional initiatives and engage in planning for leisure, landscape, transport, waste management, regional marketing and tourism promotion.

Concrete achievements

The most concrete achievements have been in the fields of nature and environmental conservation and in improved waste management.

Areas of success

KVR has been most successful in building mutual trust among partners, working across political boundaries, developing joint projects and delivering on its objectives.

Strengths of the partnership and promoters of success

A key strength of the partnership has been its ability to bring planning and operational activities into one organisation, and to secure funding from a range of sources. The key to this success has been access to expertise, partner pro-activeness, a history of joint working, and support from higher tiers of government

Weaknesses of the partnership and barriers to success

A key weakness of the KVR is that some delegates from the municipalities do not support its regional level agenda. This has not been helped by the parochial attitude of some of its partners and some weak political leadership in KVR.

Recommendations

More effective regional work requires KVR to have a regional planning competency as well as access to more funding tied to regional development.

Greece: Development Society of the Piraeus Region Municipalities (ANDIP)

Nature and composition

ANDIP was formed in 1989 and is a partnership of six municipalities in the Piraeus region. This is a fixed membership network of local authorities.

Why a partnership/ joint strategy?

The partnership was formed to develop and integrate the development work of the six municipalities and to establish a more coherent and co-ordinated response to economic and social change.

Working practices

The partners are from a range of positions in their respective local authorities. ANDIP meets on a quarterly basis.

Powers and resources

ANDIP has no executive powers but seeks implementation of its decisions through recommendation to its partner organisations. The secretariat is employed through contributions from all partners. ANDIP is funded though partner contributions as well as by contributions from national and regional government.

Aims and objectives

ANDIP has three main objectives: to develop the productive potential of the regions; to increase the diversity of economic activity in the region; and to co-ordinate programmes of intervention.

Concrete achievements

Key areas of achievement have revolved around the provision of training programmes, the development of knowledge on the region, and the development of new computer-based networks.

Areas of success

ANDIP has been successful in building mutual trust and understanding, developing joint projects and securing external support.

Strengths of the partnership and promoters of success

The strength of ANDIP lies in its capacity to develop knowledge and expertise within the region. This has been helped by the pro-active stance of the partners, the previous efforts at working together, and support from higher tiers of government.

Weaknesses of the partnership and barriers to success

Weaknesses revolve around the limited resource base of the partnership and a weakening of the political leadership of the partnership since its inception.

Recommendations

To make the partnership more effective there is a need for stronger political commitment and leadership from with the partner organisations.

Further information

www.andip.gr

Italy: Patto Territoriale del Sangone (PTS)

Nature and composition

PTS was established in 1999 by nine municipalities in the province of Turin on the basis of a national programme – the 'programmazione negoziata' (negotiated programming). It has nine municipal partners, 74 private sector partners and 25 from other public agencies and organisations. This composition is now fixed but with potential for growth in the future.

Why a partnership/ joint strategy?

The partnership was formed to tackle problems of economic and social decline and restructuring, and to bid for EU and national funding to develop strategic responses for socio-economic change.

Working practices

The partnership is made up of a range of individuals who occupy middle to senior positions in their respective organisations. The partnership meets bi-monthly. PTS is a time limited partnership until December 2005, but the expectation is that it will continue its work beyond this date.

Powers and resources

PTS is accountable to Turin Province, and indirectly, to national government. It has no executive powers but seeks implementation of its decisions by recommendation. Funding for PTS is provided by the partners as well as by inputs from national and European government. PTS also employs staff paid for by partner contributions.

Aims and objectives

PTS aims to tackle the high rate of unemployment in the region and to develop and regenerate the region, with a focus on SME networks in the automobile industry.

Concrete achievements

The publication of a common strategy, the opening of a public information office, and continued support form higher tiers of government.

Areas of success

PTS has been most successful in developing a shared strategy for the region, extending the life of the partnership and building mutual trust among the partners.

Strengths of the partnership and promoters of success

The greatest strength of PTS has been the creation of a co-ordination agency (ASSOT). Key to this success has been access to expertise, partner pro-activeness, mutual trust, motivated individuals and support from higher tiers of government.

Weaknesses of the partnership and barriers to success

A key weakness for PTS has been the political instability of the area. This has not been helped by the weak central resourcing of the project, or by the weak and unstable national/regional political and policy context.

Recommendations

To make the partnership work more effectively, there is a need to improve the quality of discussion on development issues, and to improve the connection between aims, strategies and political action.

Latvia: Latgale Planning Region Development Council (LRD)

Nature and composition

LRD was first established in 1998 as a voluntary organisation consisting of the district councils of Balvi, Daugavpils, Ludza, Preili, Rezekne, Kraslava and Jekabpils; city municipalities of Daugavpils and Rezzekne; and the Union of Latgales regional towns. At that time, it was open to other partners. Following new legislation on regional development in 2002, it has been re-organised, given a legal status and become one of the five similar planning regions in Latvia. In its current form its membership is fixed and includes only the municipalities and the district councils.

Why a partnership/ joint strategy?

The partnership was formed mainly to bid for EU funding but also to create a critical mass through the pooling of resources and efforts in an attempt to become an 'influential player' at the national and EU level. The complementarity of urban functions between the cities was not a key driver in cooperation, partly because of the limited number of cities in the region.

Working practices

The partners are at the senior management level and meet monthly. The structure of the partnership consists of its political arm in the form of a Council (LPRDC) represented by the politicians, 5 thematic committees working on issues such as economic development and infrastructure, and its executive arm in the form of the Latgale Regional Development Agency (LRDA), comprising of employed staff.

Powers and resources

The Council is partly accountable to the Ministry of Finance and to the other funding providers. The LRDA as a non-profit limited company has executive powers and is responsible for implementing the Council's decisions. The Council also seeks to implement its decisions by making recommendations to respective municipalities and other organisations. The partnership has regular financial resources funded through membership fees and state funding. The secretariat for the Council rotates among the partners with support provided from the Agency.

Aims and objectives

LRD aims to develop long -term development plans and strategies, to represent the region on the national political scene and to make decisions about the future development of the region.

Concrete achievements

LRD has produced a number of strategies and programmes including Latgale Regional Development Strategy in 2000, Latgale Urban Development Strategy in 2001, Rural Partnership Programme, and Latgale Spatial Plan (within the framework of an international project) as well as improving the partnership capacity for working with pre-accession funds.

Areas of success

LRD has been most successful in achieving shared ownership of their strategies, building mutual trust, developing common understanding of key regional issues, delivering their objectives, securing political and external financial support and extending the life of the partnership beyond what was initially expected. However, it has not yet succeeded in working successfully across political boundaries.

Strengths of the partnership and promoters of success

The strengths of the partnership are in its understanding of the interdependence of Latgale municipalities, 'regional thinking' and close relationships to its executive body (LRDA). The key factors that have helped the success of the partnership are: the availability of resources in terms of staff time and funding, access to knowledge and expertise, the pro-activeness of the partners, a sense mutual trust, and motivated individuals.

Weaknesses of the partnership and barriers to success

The major weakness of LRD is the non-participation of the private sector. This is to be overcome by the enlargement of the regional partnership. The key factors that have hindered the success of the partnership are the lack of a clear national and regional policy context as well as of a clear legal and taxation system, and the lack of resources for development.

Recommendations

To make the partnership work more effectively, there is a need for further commitment from national government with regard to regional issues, involvement of the private sector and other relevant regional bodies as well as representatives from national government.

Further information www.latgale.lv/en/index.php

Lithuania: Western Lithuania 2020 (WL)

Nature and composition

WL was established in 2002 by two Counties of Klaipeda and Taurage as part of a long -term national programme. It consists of the above Counties, three city municipalities of Klaipeda, Palanga and Neringa (in the County of Klaipeda) and eight district municipalities (4 in Klaipeda County: Klaipeda, Kretinga, Silute and Skuodasits, and 4 in Taurage County: Jurbarkas, Pagegiai, Silale and Taurage). The partnership is open to other partners and is committed to building up a working relationship with the private sector to market Western Lithuania as an ideal link between western and eastern Europe.

Why a partnership/ joint strategy?

The partnership was formed mainly to strengthen internal co-operation between the partners, address common threats and opportunities and to help the region become an 'influential player'. Biding for EU and national funding played a minor role in the formation of the partnership. The key concern is the economic disparities between fast growing Klaipeda city, which is performing well above the national average (core regional city) and the lagging Taurage County and the north east and southern parts of Klaipeda County, which are performing well below the national average (peripheral areas).

Working practices

The partners are at the senior management level and meet about four times a year. The partnership consists of two groups each working on different sectoral issues.

Powers and resources

WL is accountable to the regional government, has no executive powers and seeks to implement its decisions by making recommendations to respective municipalities and other organisations. The partnership has no regular sources of funding but receives *ad hoc* financial resources from all levels of government as well as from international bodies. The secretariat for the partnership is provided by one of the partners.

Aims and objectives

WL's current aim is to transform the economy of the region and promote growth, improve the standard of living and raise the profile and image of the area on the European and world stage.

Concrete achievements

Its key achievement thus far is the implementation of the territorial projects that were planned 5-10 years ago. In Addition, a preliminary joint strategy for the area was produced in 2001 whose key elements include the promotion of Kllaipeda as part of the primary national transport and economic axis of Klaipeda-Kaunas-Vilnius, and also the secondary economic development axis of Klaipeda-Telsiai-Siauliai-Panevezys-Kaunas- Vilnius. Other elements of the strategy include the promotion of WL as the motor for tourism development, support for rural centres and cross-border partnerships.

Areas of success

WL has been most successful in achieving shared ownership of their strategies, developing common understanding of key regional issues, developing joint projects and delivering their objectives. It has also been partially successful in building mutual trust, working across political boundaries and securing political and external financial support as well as in extending the life of the partnership beyond what was initially expected.

Strengths of the partnership and promoters of success

The strength of the partnership is in the development of the Siauliai-Klaipeda part of the Lithuanian metropolitan axis, which is to be achieved by being part of the region-wide economic dynamics. The key factors that have helped the success of the partnership are: the pro-activity of the partners, effective leadership and motivated individuals.

Weaknesses of the partnership and barriers to success

The major weakness of WL is the danger of unbalanced development across the region and the creation of a disproportionate economic gain for fast growing Klaipeda and the desertification of villages due to increasing rural-urban migration. The key hindering factors for the success of the partnership are limited resources, knowledge and expertise, parochial attitudes and little experience of joint working.

Recommendations

To make the partnership work more effectively, there is a need to adopt negotiated rather than hierarchical governance, to strengthen the administrative abilities of Taurage County and to provide more motivation and more opportunity for cooperation with Taurage.

The Netherlands: Vereniging Deltametropool (VDM)

Nature and composition

In 1996, the aldermen responsible for spatial planning in the municipalities of Amsterdam, Rotterdam, Den Haag and Utrecht jointly declared their ambition to transform the Randstad into a Deltametropolis. This later resulted in the founding of the Vereniging Deltametropool, in 2000 by the twelve municipalities and four chambers of commerce

Why a partnership/ joint strategy?

The VDM was formed to transform the Randstad into a Deltametropolis, strengthening the economic and social diversity of the region.

Working practices

The VDM is a long-term partnership comprising senior managers and politicians from its constituent organisations. The VDM meets annually, however its sub-groups meet on a more frequent basis.

Powers and resources

The VDM has some executive decision-making powers, but in other areas it has to make recommendations to its partner organisation and institutions.

Aims and objectives

The key objective of the VDM is to strengthen the key features of its territorial area. It has focused on diversifying economic activity.

Concrete achievements

The VDM has built a coalition of a range of actors. It has produced a range of publications and has kept the issue of the development of the Randstad on both the political and public agendas.

Areas of success

VDM has been successful in developing a shared strategy for development, building mutual trust among partners, working across political boundaries, and developing joint projects.

Strengths of the partnership and promoters of success

The strength of the partnership is in its ability to create a positive shared attitude on the development of the Randstad. This has been helped by partner pro-activity and the existence of motivated individuals in the partnership.

Weaknesses of the partnership and barriers to success

Weaknesses revolve around the informal nature of the partnership and its dependence on the individual motivation of partners to participate in projects.

Recommendations

It is a relatively successful partnership, but needs to supplement its reliance on the participation of individuals in the partnership if it is to maintain its success.

Further information

www.deltametropool.nl

Norway: Action programme for Regional Development in Oslo city and Akershus County (OSLO)

Nature and composition

OSLO was established in 2000, and was initiated by the City of Oslo and Akershus County. It is comprise of 2 municipalities, 2 private sector organisations and 4 public agencies.

Why a partnership/ joint strategy?

OSLO was established to improve the region's capacity to develop its business activity, which was consider weakly developed.

Working practices

The partners are mainly from middle management positions in their respective organisations. OSLO meets quarterly to consider its programme of action.

Powers and resources

OSLO has no executive decision-making powers but seeks implementation of its decisions by recommendation. The partnership is funded by contributions from all partners, while its secretariat rotates between partners.

Aims and objectives

The key aim of this partnership is to improve the conditions for developing business activity in the region.

Concrete achievements

Although many projects have been initiated, there are currently no projects completed or evaluated.

Areas of success

OSLO has been successful in developing a sense of shared ownership of the key objective, along with securing external funding and support for its projects.

Strengths of the partnership and promoters of success

A key strength of the partnership is its development of partners' recognition of the shared ownership of its work and the mutual understanding of the challenges facing the partnership. This has been helped by resource availability, access to expertise, effective leadership and a shared agenda.

Weaknesses of the partnership and barriers to success

The weakness of this partnership is that it is limited in scope and has had to work with limited resources.

Recommendations

To make the partnership more effective, it needs to broaden its sphere of activity and seek more resources for its continued operation.

Poland: Snieznik Municipalities Association (SMA)

Nature and composition

SMA was established in 1998 as a long -term partnership by the four urban-rural municipalities of Bystrzyca Klodzka, Ladek Zdroj (urban), Miedzylesie and Stronie Slaskie through the partners' own initiative. Its membership is exclusive to municipalities in the Snieznik Massif (a mountain range in the Sudetes).

Why a partnership/ joint strategy?

The partnership was formed mainly to strengthen internal cooperation between the partners and to bid for EU funding. Creating a critical mass of resources and efforts and addressing common threats and opportunities were also major triggers for the formation of the Association.

Working practices

The partners are at a senior management level and meet four times a year. There are no working groups and the Association's office is run by one member of staff.

Powers and resources

SMA is accountable to the national government through its representatives in Voivodship offices. It has no executive power and seeks to implement its decisions via recommendations to respective municipalities and other organisations. The Association's long term funding is provided through membership fees and its secretariat is paid for by the representative members.

Aims and objectives

SMA's objective is to develop an integrated development strategy for the area with a particular focus on tourism. It also aims to collect and analyse data, and commission studies for the benefit of all member municipalities.

Concrete achievements

SMA has been able to secure funding from PHARE to produce the Masyw Snieznika / Kralicky Sneznik Spatial Development Concept in 2000. It has also established Tourist Information Centres and created a positive image of the SMA.

Areas of success

SMA has been most successful in developing joint projects but also partially successful in achieving shared ownership of the strategy, building mutual trust and developing common understanding of key regional issues. However, it has not been successful in working across political boundaries or in securing sufficient external financial and political support. "Compared to other associations in Poland, this one is not very successful".

Strengths of the partnership and promoters of success

The strengths of the partnership relate to its connected functional space which enhances the motivation of the municipalities to cooperate; its shared objectives; and its location within Glacensis Euroregion provides it with the opportunity to bid for Phare-CBC funding, as well as with valuable environmental assets. The key factor of the relative success of the partnership is the existence of motivated individuals.

Weaknesses of the partnership and barriers to success

The weaknesses of the partnership relate to limited financial and staff resources and the restrictive legal framework, which inhibits the expansion of the association beyond the municipalities. The location of the area within the Polish peripheral border area is also seen as a weakness. The key factors inhibiting the success of the partnership are: limited resources particularly given the small budget of the member municipalities. "Only one person is employed … this does not enable undertaking new tasks effectively".

Recommendations

To make SMA work more effectively there is a need to: change the legal framework of the association to enable its expansion, increase its resources, enable the transfer of 'know-how' from other similar associations /partnerships and increase its chance of obtaining external funding.

Further information

www.zgs.ta.pl

Portugal: Association of Municipalities of the Lima River Valley (LIMA)

Nature and composition

LIMA was established in 1994 as a long term partnership by four City Councils: Arcos de Valdevez, Ponte da Barca, Ponte de Lima and Viana do Castelo, through the partners' own initiative. Its membership is exclusive to the municipalities. However, following a new rule for metropolitan areas, the membership of neighbouring municipalities may be considered, especially those of Urban Communities.

Why a partnership/ joint strategy?

The partnership was formed mainly to create a critical mass of resources and efforts and address common threats and opportunities. Biding for EU funding was also a consideration. A key driver of cooperation and funding of the Lima, given its diversity, is the search for complementarities between the inland and coastal areas, mountain and valley areas and different urban functions.

Working practices

The member partners are at different levels of seniority, and include politicians as well as officers. They meet every two weeks. LIMA deals with functions that are seen as suitable for inter-municipal cooperation as identified by its members. Working groups are formed as and when needed on specific subjects such as culture and leisure, libraries and intervention in mountain areas.

Powers and resources

LIMA is accountable to its members, has no executive power and its recommendations, on for example the harmonisation of taxation are non-binding. However, it plays a role in the application phase and management of projects such as infrastructure provisions but the final implementation is the responsibility of the City Councils, who, along with EU, are also the main sources of funding for LIMA.

Aims and objectives

LIMA's general aim is to contribute to the development of the area as a whole through inter-municipal cooperation, with a particular focus on accessibility and infrastructure development, tourism and environment and economic growth.

Concrete achievements

One of LIMA's key successes is its ability to extend the partnership beyond inter-municipal co-operation and develop successful informal links with other institutions such as: Lima Valley Entrepreneurial Council (representing businesses) and Viana de Castelo Polytechnic Institute. LIMA has also been successful in securing funding from Community initiative SAVE to establish a wider network: Regional Energy and Environment Agency of the Lima Valley. LIMA has also succeeded in addressing issues that affect the area as a whole such as waste management, water treatment, accessibility and development of a network of business parks.

Areas of success

LIMA has been most successful in achieving shared ownership of the strategy, building mutual trust, developing a common understanding of key regional issues, working across political boundaries, and securing external financial and political support. It has also been partially successful in developing joint projects, delivering the objectives of the partnership and extending the life of the partnership.

Strengths of the partnership and promoters of success

The strengths of the partnership are its solidarity and support from political leaders, its technical capacity and its positive image both internally and externally. The key positive factors are: the availability of resources, access to knowledge and expertise, the pro-activeness of the partners, effective leadership, motivated individuals and a shared agenda.

Weaknesses of the partnership and barriers to success

The weaknesses of the partnership are: the reluctance of the central administration to facilitate inter-municipal cooperation and to delegate responsibility for management of Community funds to them; a lack of direct financial transfers from the centre, which would have made the associative structure more robust; the negative effect of these on job opportunities which may lead to the 'brain drain' from the partnership. Factors hindering the success of the partnership include therefore the lack of a national and regional policy context, and continuing parochial attitudes.

Recommendations

To make LIMA work more effectively, there is need for the recognition of inter-municipal cooperation by the Central Administration and adequate financial support. “Although the dominant discourses has for some time defended this position, the practice has been very different”.

Further Information www.valima.pt

Sweden: Council of Stockholm-Malar Region (CSM)

Nature and composition

CSM was established in 1992 as a long- term partnership, initiated by the County Council of Sormland. It involves 40 municipalities, five county councils and a number of other public and private sector agencies. It is open to the expansion of its membership.

Why a partnership/ joint strategy?

The partnership was formed to strengthen some form of polycentric structure. It was triggered by the existence of an Interreg project (Baltic Pallet) in which the Council was a member and shared the office with the secretariat. The complementarity of urban functions between the cities was not a key driver of cooperation. In fact, the dominance of Stockholm region and its growth seems to conflict with the aspirations of those municipalities that are further away from Stockholm. Others are happy to accommodate the overspill from Stockholm region.

Working practices

The partners are mainly politicians with those in working groups consisting of senior people. Some meet every two weeks and others quarterly. The partnership is structured around a Governing Board and four Committees for Planning and Transport, Environment, Culture and Tourism, and Trade, Business and R&D. The first two committees are the most active ones. In addition, there are two groups, one for International and Baltic Sea Region Cooperation and the other for dealing with the Interreg Baltic Palette Project.

Powers and resources

CSM is not accountable to a higher tier authority and has no executive powers, though it can influence the decision-making process by making recommendations to respective municipalities and by lobbying other sources of power and influence. It has a regular budget through joint funding with the regional government, municipalities and private sector partners making the highest contributions. The secretariat is also paid jointly by the partners.

Aims and objectives

CSM aims to provide a better focus for its activities particularly in the areas of transport, housing, higher education and international marketing.

Concrete achievements

CSM has been able to extend its networking and provide better knowledge about the trends in Stockholm Malar Region. However, they have not produced a spatial strategy for the region.

Areas of success

CSM has been partially successful in achieving shared ownership of the strategy, building mutual trust, developing common understanding of key regional issues, working across political boundaries, developing joint projects and delivering the objectives of the partnership. It has not been successful at all in securing external financial or political support.

Strengths of the partnership and promoters of success

The strength of the partnership is its networking activities and access to existing knowledge. The key factors that have helped its success are: access to knowledge and expertise, pro-activity of the partners, motivated individuals and a shared agenda.

Weaknesses of the partnership and barriers to success

The weakness of the partnership is based on the fact that it has a poor and unfocused leadership group. The key factors that have hindered the success of the partnership are a lack of national and regional policy, limited resources, a lack of general motivation, parochial attitudes, weak leadership and disagreement over key issues.

Recommendations

To make the partnership work more effectively, there is a need for better leadership and better organisation.

Further information www.malardalsradet.se/

United Kingdom: South Yorkshire Forum (SYF)

Nature and composition

SYF was established in 1998 for an indefinite period of time following a 'bottom-up' initiative by 4 local authorities of Barnsley, Rotherham, Sheffield and Doncaster. It involves about 80 partners from the public, private and voluntary sectors, and is open to expansion. Some partners are members of its Steering Group, such as 3 key regional bodies and the Objective 1 Programme Directorate.

Why a partnership/ joint strategy?

The partnership was formed to strengthen internal co-operation between the partners and to address common threats and opportunities. The complementarity of urban functions between the cities was a key driver in cooperation. As such, the drawing up of integrated plans for the 4 urban centres, which are potential competitors, was important.

Working practices

The partners are at the senior management level and meet four times a year. It consists of an executive group, a steering group and a number of working groups (partnerships).

Powers and resources

SYF is a freestanding partnership and is not accountable to a higher tier authority. SYF has no executive powers but can influence the decision-making process by making recommendations to respective municipalities and other organisations. It has regular financial resources funded jointly by all partners with the Regional Development Agency making the largest contribution. Its secretariat rotates among the partners with Barnsley Council providing secondment on a part time basis.

Aims and objectives

SYF aims to identify the most effective spatial arrangements for achieving the economic transformation of the sub-region.

Concrete achievements

SYF has scored both technical and political achievements partly through building consensus around a study which has produced scenarios for the future spatial development of the sub-region, and partly through consideration of not only economic but also of social and environmental factors. The Forum will produce a sub-regional component to Regional Planning Guidance for the Yorkshire and Humber Region by the end of 2004.

Areas of success

SYF has been most successful in achieving shared ownership of the study, developing common understanding of key sub-regional issues and securing external financial support. However, it has not succeeded in developing joint projects.

Strengths of the partnership and promoters of success

The key factors that have helped the success of the partnership and are its key strengths are: availability of resources in terms of staff time and funding, access to knowledge and expertise, effective leadership, motivated individuals and a degree of shared agenda between at least some of the partners.

Weaknesses of the partnership and barriers to success

The key factors that have hindered the success of the partnership and are its key weaknesses are: lack of clear national and regional policy context, the parochial attitudes of some partners and little previous experience of joint working.

Recommendations

To make the partnership work more effectively, there is a need for further support in terms of funding and staff time to turn the study into a joint strategy.

7 The Application of Polycentricity in Europe

7.1 Key objectives

The key objective of studying the application of polycentricity is to determine if and how this concept is applied in the ESPON study area. Basic criterion to answer this question: are there policies in operation or being promoted addressing the distribution of economic and/or economically relevant functions over the urban system?

Central to this work package is the concept of application. The use of this concept has its theoretical foundations in the so called decision centred view of (spatial) planning. This view on planning sees the prime function of strategic policy documents as the ESDP (the origin of the polycentricity concept) not as *prescribing* future courses of action but more in terms of *enriching* decision situations with conceptual frames, which can improve the quality (outcome) of decisions being taken. We can add to this that the ESDP is a non-binding document (which counts for most strategic planning documents even on the level of countries). Above that, the meaning of the polycentricity concept is too fuzzy to serve as a prescription for concrete policy decisions.

The notion of application also pays tribute to the wide internal diversity in the ESPON area, in terms of spatial and political diversity but also in terms of planning history. This means there must be room left for decision-making attuned to the concrete situation.

As the key objective of the whole ESPON 2006 programme is to find out whether future EU policies of spatial relevance ought to be changed, work package 2 wants to determine whether below the EU level conceptions of policies are pursued which are fundamentally different from present EU policies. The concept of polycentricity has, in theory, potentially the biggest implication for EU regional policies. Crucial to this policy at the moment is how areas are selected which are eligible for EU financial support (note this is not the same as the allocation of

budget per member state). In the present regulations, especially in relation to objective 1 regions, a prime allocation criteria is the difference between – to simply put it – the actual wealth in a region and the EU average. One could say that for the bulk of the budget quite a mechanic procedure is followed: areas are, according to the criteria, weak and thus eligible for support or they are not. As such the present regional policy of the EU is often characterized in academic literature as more resembling policies from the nineteen seventies than present theories on the prime movers of national and regional economic development. European regional policy – albeit recognizing the crucial role regions are playing in economic development – continues to give support to economically disadvantaged regions. An alternative would be to invest (at least a part) of the funds in regions with sound endogenous capital, which presumably would result in – coined in popular terms – give the highest return for tax payers' money. So in establishing whether in the EU of 27+2 countries polycentric policies are pursued it is important to determine which theoretical models on spatial-economic development are pursued and what this could mean for future EU regional policy. Because it is very unlikely that the future regulations governing the structure funds will list polycentricity as one of the goals, the considerations above are relevant for the content of the operational programmes which have to be drawn up by Member States.

7.2 Research method

To determine the present state of affairs in the EU of 27+2 countries a key method of research has been the issuing of a questionnaire (see the second interim report). Providing a satisfactory response (quantitatively and qualitatively) using a questionnaire is a good method to get 1) recent information; 2) comparative information resulting from the use of an overall format. The level of response is shown in Table 45.

Table no 45: Received questionnaires

Member State	*No. of questionnaires*	*Availability other sources*
1. Austria	2	+
2. Belgium	2	+
3. Denmark	1	+
4. Finland	1	+
5. France	1	+
6. Germany	1	+
7. Greece	2	+/-
8. Ireland	1	+
9. Italy	2	+
10. Luxembourg	1	+
11. The Netherlands	1	+
12. Portugal	1	+/-
13. Spain	1	+/-
14. Sweden	1	+
15. UK	2	+
16. Bulgaria	1	+/-
17. Cyprus	1	+/-
18. Czech Republic	delayed	+
19. Estonia	1	-
20. Hungary	1	+/-
21. Latvia	2	+/-
22. Lithuania	1	+/-
23. Malta	1	+/-
24. Norway	2	+
25. Poland	2	+/-
26. Romania	1 (limited)	+/-
27. Slovakia	Delayed	+/-
28. Slovenia	1 (limited)	+/-
29. Switzerland	1 (limited)	+/-

+ = 2 or more useful sources; +/- = 1 or 2 reasonable sources; - = no other sources

The analysis of the response is under way. Most of the responses are extremely useful. A lot of interesting material has been added to the filled in questionnaires. For each country a report will be produced. The length depends partly on the question whether a policy aiming at polycentric development is pursued and for another part on the quality of the response to the questionnaire. Table 46 gives insight in the current state of analysis, plus the research format synthesized in tabular form.

Table no 46: Current state of analysis and the research format

Country	Most relevant scale for polycentricity	Key objectives/ concepts	Application	Main documents and key policy subject	Embeddedness
Ireland	National	- Better balance of social, economic and physical development between the regions - Correct for negative effects of growth in capital and under-utilization of resources and potential in other areas (rural exodus). - More balanced distribution of people and employment across the country - Development of 'gateways'	Communication (NSS) and Programming (NDP)	- National spatial Strategy for Ireland (2002) (Department of the Environment & Local Government) - National Development Plan 2000-2006 (2000) - Reference is made to the ESDP	- Polycentricity is fundamental principle in spatial planning policy (referred to as balanced regional development) - Relatively new concept
United Kingdom	Regional	Differ between regions. Examples in West-Midlands and the North West - Development region as node in the international transport network - Development of a joined-up multi-centred regional structure with distinctive, complementary roles of places and areas -Development of main cities to ensure their international competitiveness	Communication	- Regional Planning Guidance (Regions)	- Embeddedness varies from relatively strong in some regions (for instance Northern Ireland) to weak in others. - Relatively new concept
Greece	National	- Improvement of competitiveness and developmental dynamics of certain regional urban centres ('gates', 'nodes' in (trans)national networks) - Improvement of main cities to better compete in a European context + Diffusion of benefits of the development of main national centres - Functional specialization of cities in the national urban system - Prevent rural exodus - Decentralisation	Programming	- National Framework of Spatial Planning and Sustainable Development (NFSPSD) (2002) (Ministry of Environment, Spatial Planning and Public Works) - Development Plan of Greece (DPG) 2000-2006 (2000) (Ministry of Economy) - Reference is made to the ESDP	- History of 'polycentric' policies since 1960s - Polycentricity major aim
France	National and Regional/Supra-local	- Nested polycentrism - Better balance and equity - Prevent (potential) 'territorial fractures' - Local co-operation (agglomerations, *pays*) on projects (project territory)	Communication Stimulation (covenants)	- Aménager la France de 2020 (2nd ed. 2002) (DATAR) - Orientation Laws (Pasqua, 1995; Voynet, 1999) (Ministry of Planning/DATAR)	- Long history of polycentric thinking
Malta	National	- No polycentric policies	Programming	Structure Plan (1990)	- No Polycentric policies
Cyprus	National	- Equal development of coastal towns/settlements and their hinterland versus the inland capital	N/a	- None	- Polycentricity is not a major concern; planning is preoccupied with land use regulation and local urban growth management

7.3 Reporting the cases

Reacting upon questions brought forward by ECPs after issuing the second 1.1.1. interim report it has been decided to produce a report for every country and not just focusing on a sample of the survey. Every country report – together forming the appendixes of the final report – reflects an analysis using a common research format. This format has the following parts:

Most relevant scale of policy: national or sub-national. Since the concept of polycentricity and policies that can be interpreted as aiming at polycentricity do not have a fixed scale, it is important to assess which level of scale is addressed. There will be a high correlation with the structure of administration in a country: federal regionalized or unitary government.

Key objectives and key concepts: There are two main questions here: 1) which dimensions of polycentricity are addressed: morphological and or relational dimensions?; 2) which spatial concepts or spatial categories are distinguished. For instance: gateways/growth poles/development corridors etc. This is the most crucial part of the analysis. What are the basic goals of the policy in question and (if any) which policy concepts are used? For instance: are we dealing with classic policies directed at spreading (economic) development to backward regions or are policies concentrated at a limited number of (urban) regions?

Application: which are the most important instruments used to implement the key objectives and key concepts? Is the policy mainly consisting of discourse (framework/Leitbild etc.) and/or instrumented, i.e. elaborated through policy instruments (subsidies; decisions to relocate government offices; regulations etc.) Could the policy be labeled as programming or as communication? If planning/policy is to be perceived as communication, then the principal function is the provision of interpretative frameworks, of spatial structures, or spatial developments. The effect of planning must then mainly be sought in changes in the reference framework of actors. Planning/policy as programming has to do with the ambition to give active implementation to the policy goals.

Main policy documents and key policy subjects: it is important to determine which policy domain(s) are crucial in pursuing policies aimed at polycentric development (for instance: economic policy or spatial planning policy?) i.e. what is the key policy subject (i.e. who is the problem owner) and what is the general institutional position of this subject in the government administration. Are there strategic policy/planning documents drawn up and what is their status? Are policy documents statutory or informal and non binding?

Embeddedness: this concerns the historic dimension. How 'old' is the policy? Has polycentricity been a policy goal before, such as in the French case? (i.e. the concept of métropoles d'équilibre from the nineteen sixties). There is also the geographical dimension: polycentricity might be a policy goal for just a part of a country, as could be the case in federal countries.

It is already certain that the reports/chapters on some countries will remain rudimentary as the result of the available information. If secondary literature is readily available this will be used as well but up to a certain limit. In the annex an example is shown of a country report.

7.4 Preliminary conclusion

As the analysis of the source material is only partly under way, no definite conclusions can be presented. However some *preliminary* conclusions might be given.

Scale of the policy

In federal and regionalized states there is no consistent policy aiming at a polycentric development of the national territory. This means the various regions follow their own course. In a federal state like Germany or a regionalized state as Spain policy formulation is at regional level (Bundesländer) is aided by non-binding policy frameworks at the national level. In many unitary states there is some sort of polycentricity policy at the national level.

Key objectives and key concepts

Polycentricity policies in general have one of the two following key objectives: 1) counterbalance overconcentration in the capital region (clear examples are Ireland and Finland); 2) improvement of the (international) competitive position of the main urban regions (for example: Flanders, the Netherlands, Germany and the UK). It remains to be seen whether this differentiation runs exactly parallel with a highly centralized or polycentric pattern of urbanization in a country or region (comparison outcome WP 1 and WP 2).

Possible policy recommendation: In WP1 four types of urban systems are discerned according to the level of centricity: integrated monocentrism, outcoming polycentrism, metropolitan polycentrism and integrated polycentrism. These qualifications are related to the present structure of the urban system within a country. Similarly the main policy objectives pursued in a country can be distinguished, using the same categories. What can be noted is that in some cases there is a wide gap between the present state and the desired state of the urban system. For instance, in Ireland the ambition is to turn the actual situation (to be characterized as integrated monocentrism) into integrated polycentrism. Although there might be legitimate domestic political reasons behind this ambition it remains to be seen whether this policy might have a chance of becoming effective. For instance: the necessary available government resources at the long run are not available; market forces (which currently have produced integrated monocentrism) are unlikely to produce another urban pattern. The general recommendation here could be – since spatial and/or regional-economic policies in no country have ever been capable of drastically alter the spatial-economic structure – a phased policy has to be pursued. For instance: countries characterized by persistent integrated monocentrism might benefit most from a moderate policy objective like metropolitan polycentrism.

In general it might be possible to design portfolios of relevant policy instruments if a country wants to ‘jump’ from one category of the present state of the urban system to another. For instance: in the case of integrated monocentism it makes sense to invest in large scale infrastructure because otherwise no ‘spreading’ of economic development is likely to occur at any rate. If, seen from the objective of polycentricity, a country or region has reached a much more ‘mature’ state (for

instance: metropolitan polycentrism), other, more soft policy measures are becoming highly relevant.

Application

In the majority of cases (i.e. countries) the policy can only be coined in terms of communication. This is the case in certain federal states like Germany, where the authority for developing well instrumented policies lies at the level of the region (Bundesländer). The same is also the case in countries where there is a policy domain advocating polycentric development, but this particular domain does not 'possess' the necessary policy instruments. This is for instance typical for the Netherlands where spatial planning (ruimtelijke ordening) has this characteristic.

Countries with a more centralistic policy tradition (see chapter 6) are capable of pursuing policies with a well developed portfolio of policy instruments (for example: France with its tradition of aménagement du territoire combined with the instrument of contrats de plan).

One obvious recommendation here is that at the national level there is political agreement to work into the direction of a (more) polycentric development of the national territory, capacity building at lower levels of scale becomes necessary. This means some sort of devolution. Also: co-ordination with the government administration is needed. If polycentricity (in one of the three basic forms of WP 1) is to be brought about a concerted effort of national and regional government is needed. This means 'horizontal' and 'vertical' co-operation.

Main policy documents and key policy subjects

At the present in many countries it is from national spatial planning that polycentricity is advocated. In most countries spatial planning can only deploy regulatory frameworks, mostly concerning land-use at regional level. However soft instruments – like a policy document – can become powerful instruments.

In those case where spatial planning is advocating the policy objective of polycentricity, but this objective is politically not accepted yet, this policy domain should use the maximum of communicative power available: issuing documents with sound narrative qualities; invest in spatial visioning; invest in research; start a

political discussion to put the subject on the agenda; disseminate ESPON-results (!) on the national level; form coalitions, for instance with the private sector. Most importantly: build bridges with sectoral departments with spending power (Infrastructure/public works; Regional-economic policy; all depending on the arrangements within the government).

It seems the concept of polycentricity is very much still a concept rooted in government administration (national/regional) and not taken up by the private sector (there is no mentioning in the questionnaire of alliances between government and the private sector). Spatial decision-making by the private sector (where to invest?; where to locate or relocate?) is highly decisive whether polycentric development will be brought or not. It is therefore crucial to involve the private sector in polycentricity policies, for instance through the involvement of national business organizations. Needed are powerful economic argumentations in favor of polycentric development (for instance: long term advantages of using the economic potential of the entire national territory; the long term disadvantage of over-concentration etc.).

Embeddedness

Policies aiming at a polycentric development of the national territory are characterized by colliding spatial scales. Polycentricity is a selective approach: attempts to stimulate the endogenous potential of certain regions/urban centres might stimulate domestic centre/periphery antagonism (for instance: Metropolregion Berlin versus rural Brandenburg). Colliding perceptions of polycentricity might be another cases. For instance: small scale polycentricity pursued by Barcelona in the urban regions versus large scale polycentricity pursued by the junta of Catalunya (both examples drawn from secondary literature).

It seems that political conflicts around polycentricity are, at first sight, unavoidable. But potential conflicts can be softened by: 1) well argued discussions; 2) the drawing up of complementary policy instruments for those areas/regions not favored by polycentricity policies (through, for instance, policies a directed at the improvement of urban-rural partnerships etc.). The main recommendations here though is that, in order to arrive at effective policies, persistency over time is

needed, especially in those cases where there is a big gap between the present situation and the desired situation. Polycentricity has to become embedded in overall policy for some time, without becoming doctrinal, i.e. not being able to learn. Effective polycentric policies are learning policies. Communicative approaches may play a key role in this process.

Example of a application of policentricity country report: the Irish case

Rationales

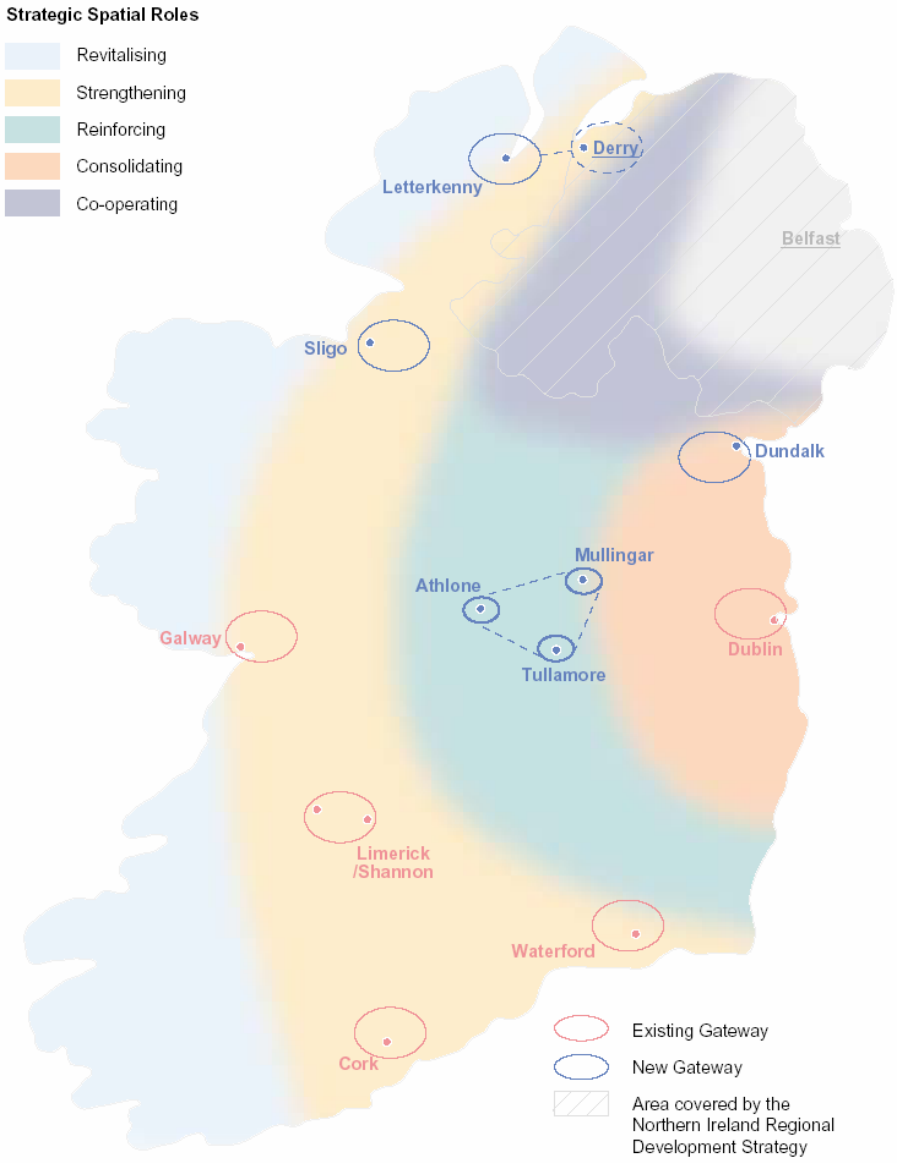
The aim of Ireland's national planning policy is to achieve a better balance of social, economic and physical development between the regions. This objective follows from a rather recent concern about the current monocentric spatial structure. In other words, the country is overly dependent on the capital region, the Greater Dublin Area. This monocentric spatial structure has been enforced during the last decade. Dublin witnessed rapid development, but underdevelopment continued in other areas of the country. This leads to problems such as congestion around the capital, rising commuting distances, environmental pressure as well as pressure on Dublin's housing market. At the same time, the development potential of other regions diminishes relative to that of Dublin, as for instance young people migrate to Dublin and employment opportunities and available services decrease. It is expected that this monocentric structure will continue to be enforced in the period to 2020. For instance, forecasts predict 75% population growth in Dublin.

The National Spatial Strategy is to counteract this trend, trying to achieve a better balance to correct for the negative affects of growth in Dublin and under-utilisation of resources and potential in the other areas. A more balanced distribution of people and employment across the country and a better balance of regional development should be the major results.

Elaboration

The policy will encourage polycentric development by attempting to support the development of urban centres other than Dublin, and encouraging their interaction. In the policy, The idea is that these gateways function as 'strategically placed engines of growth' by drawing together people, business activity, services, infrastructure and amenities. Next to five existing gateway-cities (Dublin, Cork, Limerick/Shannon, Galway, Waterford), four new national level gateways are identified: These include Dundalk and Sligo, as well as Letterkenny/Derry and Athlone/Tullamore/Mullingar (see Map 35). The latter two can be considered as examples of the application of polycentricy on the scale of urban regions, as they form so-called urban networks or polycentric urban regions. The planning document refers to these urban networks as 'linked' gateways. A linked gateway requires two or more strong towns to work in partnership to promote social and

economic development in their region. To assist the proposed 'polycentric type development', the policy document also identifies nine strategically located medium sized 'hubs'. These will support and be supported by the gateways and will link out to the wider rural areas. Despite the focus on these gateways and hubs, the document also makes clear that achieving a better balanced regional development does not mean that Dublin's growth should stop as this would risk Ireland's development as a whole, but to emulate its economic role by increasing the drawing power of other urban regions.



Source: National Spatial Strategy.

Map no 35: Existing and new centres in the desired polycentric spatial structure for Ireland.

Implementation/Instruments

Given the character of the policy as a strategic and therefore not operational plan, the policy itself is weakly equipped with instruments and other means to achieve its objectives. However, as a framework, it directs investments in for instance infrastructure, public transport, communication systems and energy. The implementation of the strategy therefore depends on the adoption of its principles by other policy sectors. The Minister of Environment and Local Government bears responsibility for this. As the 'Executive Authority' he will 'roll out' the implementation through regional and local authorities. This will begin with the preparation and adoption of regional planning guidelines.

Conclusion

Polycentricity is a fundamental principle in the Irish spatial planning and should give directions for investments in other public and private sectors. It is translated as 'balanced regional development'. Though the policy is rich in being bold, wide-ranging and ambitious – for instance claiming that the policy will be firmly rooted in 2006 –, specific for different kind of regions and rich in ideas, it is weak in terms of firm and feasible operational policy. Its implementation is dependent on the power that can be exerted to other policy domains to adopt its principles. Moreover, it appears to be rather top-down in telling regional authorities what they may and may not consider in planning terms.

Allain R., Baudelle G., Guy C. (dir.), 2003, Le polycentrisme, un projet pour l'Europe, Presses Universitaires de Rennes, 306p.

Allen J., Massey D. , Pryke M. , 1999, Unsettling cities. London Routledge.

Antikainen, Janne & Perttu Vartiainen (2002). Finnish districts and regional differentiation. Fennia 180: 1–2, pp. Helsinki.

Aschan-Leygonie C., 1998, *La résilience d'un système spatial : l'exemple du Comtat. Une étude comparative de deux périodes de crises au XIXe et au XXe siècles*, Thèse de doctorat, Université de Paris I, 401 p.

Ascher F., 1995, Metapolis ou l'avenir des villes. Paris Odile jacob.

Bailey, N. (1995) *Partnership Agencies in British Urban Policy.* London: UCL Press.

Balloch, S., and Taylor, M. (eds) (2001) *Partnership Working. Policy and Practice*, Bristol, Policy Press.

Baudelle G., 2001, « L'Europe de demain sera-t-elle polycentrique ? », *Territoires 2020*, *Etudes et prospectives*, 3, DATAR, pp. 125-136.

Baudelle G., Castagnède B. (dir.), 2002, Le polycentrisme en Europe, La tour d'Aigues, DATAR, 266p.

Baudet-Michel S., 1998, La diffusion des services aux entreprises dans les systèmes urbains ouest-allemands, français et britanniques, thèse, Université Paris1.

Béguin Hubert (1979), *Méthodes d'analyse géographique quantitative*. Paris, Litec, 252 p.

Berroir S., Cattan N., Occeli S., Rabino G.A., Saint-Julien Th., 2000, Modèles régionaux et réorganisations des hiérarchies territoriales. Revue d'Economie Régionale et Urbaine.

Berroir S., Cattan N., Occeli S., Rabino G.A., Saint-Julien Th., 2000, Modèles régionaux et réorganisations des hiérarchies territoriales. Revue d'Economie Régionale et Urbaine.

Bretagnolle Anne (1996), « Étude des indices de concentration d'un population ». *L'Espace Géographique*, n°2, pp. 145-157.

Bretagnolle Anne (1999), Les systèmes de villes dans l'espace-temps : effets de l'accroissement des vitesses de déplacement sur la taille et l'espacement des villes. Thèse de doctorat, Université Paris I.

Brundtland (Report), 1998, *Notre avenir à tous***,** Nations Unies, Commission mondiale sur l'environnement et le développement, Montréal : les Editions du Fleuve.

Brunet R., 1996, L'europe des réseaux, in Pumain D., Saint-Julien dir., Networks in Europe, John Libbey Eurotext.

Brunet R., 1997, *Territoires de France et d'Europe, raisons de géographe*, Belin, Paris, 319 p.

Building and Social Housing Foundation, 2002, New Frontiers in Good Urban Governance, Consultation, 28-30 June 2000, St. George's House, Windsor Castle, London.

C.R.P.M., 2002, Etude sur la construction d'un modèle de développement polycentrique et équilibré du territoire européen, C.D. Rom, www.crpm.org

Camagni R., Organisation économique et réseaux de villes, in Derycke coord, Espace et dynamiques territoriales. Paris :Economica.

Castells M. 1999, The information age: economy, society, and culture. 3 Vol Malden-Oxford, Blackwell.

Castells M., Hall P., 1994 Technopoles of the world. The making of twenty-first century industrial complexes. London, Routledge.

Castells M., Hall P., 1994 Technopoles of the world. The making of twenty-first century industrial complexes. London, Routledge.

Castells, M. (1989): The Informational City. Oxford: Basil Blackwell.

Cattan N., 1995, Attractivity and internationalisation of major European cities, the example of air traffic, Urban Studies, 32 (3), p.303-312.

Cattan N., Pumain D., Rozemblat C., Th. Saint-Julien, 1999, Le système des villes européennes. Paris, Economica, 243 p.

Cattan N., Saint-Julien Th., 1998, « Modèles d'intégration spatiale et réseau des villes en Europe occidentale », *L'Espace géographique*, 1, pp. 1-10.

Centre de documentation et d'urbanisme, 1998, *Villes et développement durable*, Paris : Ministère de l'Equipement, des Transports et du Logement,112 p.

Christaller, W. (1933): Die zentralen Orte in Süddeutschland. Jena. New edition: Darmstadt: Wissenschaftliche Buchgesellschaft, 1968.

CPMR (2002): Study on the construction of a polycentric and balanced development model for the European territory, Conference of Peripheral Maritime Regions of Europe, Peripheries Forward Studies Unit.

Daniel P., Moulaert F., ed, 1991, The changing geography of advanced producer services. London, Belhaven. Veltz P., 1996, Mondialisation, villes et territories.. Paris, PUF

Dematteis G., 1985, Contro-urbanizzazione e strutture urbane reticolare, in G. Bianchi e I. Magnagni eds, Sviluppo multiregionale : teorie, metodi, problemi, Milano, Franco Angeli, p. 121-133.

Dematteis G., 1996, Towards a unified metropolitan urban system in Europe, in Pumain D., Saint-Julien dir., Networks in Europe, John Libbey Eurotext.

Drennan M. P., 1992, Gateway cities: the metropolitan sources of US. Producer service exports. Urban Studies, vol 29-2, 217-35.

Emelianoff C. Theys J., 2001, « Les contradictions de la ville durable », *Le Débat*, 113, Paris : Gallimard, pp.122-135.

ESDP (1999) *Towards Balanced and Sustainable Development of the Territory of the of the European Union*, (Agreed at the Informal Council of Ministers responsible for Spatial Planning in Potsdam, May, 1999), Brussels: European Commission.

ESPON 1.1.1 (2003): The Role, Specific Situation and Potentials of Urban Areas as Nodes of Polycentric Development. Second Interim Report of ESPON 1.1.1. Stockholm: Nordregio.

ESPON 3.1 (2003): From Project Results to 'ESPON Results'. A Draft Guidance paper Prepared by ESPON 3.1 for the First Lead Partner Meeting in Brussels, 26 February 2003. Bonn: Federal Office for Building and Regional Planning.

Faludi A., Waterhout B., 2002, The making of the European Spatial Development Perspective. No masterplan, London-Routledge, 204p.

Fujita, M., Krugman, P., Venables, A.J. (1999): The Spatial Economy: Cities, Regions and International Trade. Cambridge, MA: MIT Press.

Grasland C., 1999, *Spatial integration: Quo Vadis? Some proposals for a clarification of the concept of spatial integration*, ESDP-France, Working paper.

Howard, E. (1898). Garden Cities of To-Morrow. Reprinted (1946): London: Faber & Faber.

Knox P., Taylor P. , 1995, World cities and in a world system. N Y, Cambridge University Press.

Krugman, P. (1991): Geography and Trade. Leuven: Leuven University Press.

Kunzmann K. R. and Wegener M., 1991, The pattern of urbanization in Western Europe 1960-1990. Report for the Directorate General XVI of the Commission of the European Communities.

Kunzmann, K., Wegener, M. (1991): The Pattern of Urbanisation in Western Europe 1960-1990. Report to DG XVI of the European Commission. Berichte aus dem Institut für Raumplanung 28. Dortmund: Institute of Spatial Planning, University of Dortmund.

Levy J., Lussault M. (dir), 2003, « Développement durable », *Dictionnaire de la Géographie et de l'espace des sociétés*, Paris : Belin, pp. 249-251.

Lösch, A. (1940): Die räumliche Ordnung der Wirtschaft. Jena. New edition: Stuttgart: Fischer, 1962.

Myrdal, G. (1957): Economic Theory and Underdeveloped Regions. London: Duckworth.

OECD (2002) *Redefining Territories : The Functional Regions*, Paris: OECD.

Perroux, F. (1955): Note sur la notion du pôle de croissance. Economique Appliquée 1955, 307-320.

Peyrony J., 2002, Le schéma de développement de l'espace communautaire, Paris, La documentation française, DATAR, 103p.

Pratt, J., Gordon, P. and Pampling, D. (1998) *Working Whole Systems: Putting theory into practice in organisations*, London: Kingsfund.

Pumain D., Saint-Julien Th. (coord), 1996, European Urban Network. John Libbey Eurotext limited,

Pumain D., Saint-Julien Th., 2001, Analyse spatiale, tome 2, Interaction spatiale. Paris Colin, collection CURSUS.

Pumain D., Saint-Julien Th., 2001, Interaction spatiale. Paris Colin, collection CURSUS.

Pumain D., Saint-Julien Th., Van Der Haegen (ed), 1991, Cities in movement . Urban systems on the eve of the 21st century. Acta Geographica Lovaniensa, 31, 230 p.

Ratti R., 1995, La problématique de la frontière et du développement des régions-frontières, Colloque Kehl, inédit, 12 p.

RECLUS (189): Les Villes Européennes. Rapport pour la DATAR. Paris: La Documentation Française.

Reitel B., Zander-Cayetanot P., 1998, Les stratégies d'aménagement des principales municipalités d'un espace transfrontalier, le Rhin Supérieur, *Hommes et Terres du Nord*, n°1, pp. 25-33.

Saint-Julien Th., 2001, Processus de diffusion spatiale modélisations du changement. In Sanders L (coord.), Modèles en analyse spatiale. Paris Hermes.

Sassen S., 1991, The global city, New York, London, Tokyo.Princeton University Press.

Sassen S., 1999, Global financial centers. Foreign AllairsVol 78-1, 75-87.

Sassen S., 2000, Cities and their crossborder networks. Tokyo, United Nations.

Sassen S., 2000, Cities in a world economy. London, Pine Forge Press; 182 p.

Savage, H.V. (1998) in Pierre, J. (ed) *Partnerships in Urban Governance-European and American Experience*, London, MacMillan. References

Savitch H, 1996, Cities in a global areas. NY, John Hopkins Press.

Schepers, H.J. (1942): Raumordnung im Generalgouvernement. In: Teut, A., Ed. (191967): Architektur im Dritten Reich 1933-1945. Berlin/Frankfurt/Vienna: Ullstein.

Schulz Ch., 2002, L'agglomération Saarbrücken - Moselle-est : ville-frontière ou villes frontalières ?, in REITEL B., ZANDER P., PIERMAY JL, RENARD JP (coord.), Villes et frontières, Paris, Economica, Anthropos : collection VILLES, pp.51-62.

Scott A., 1998, Regions and the World Economy: The Coming Shape of Global Production, Competition and Political Order, Oxford: Oxford University Press.

Scott A., 2001, Global City-Regions: Trends, Theory, Policy, Oxford: Oxford University Press.

Scott A., Moulaert F., 1997, Cities, Enterprises and Society on the Eve of the 21st Century, London: Pinter.

Scott A., Storper M., 1886, Production, work, territory. Boston, Allen and Unwin.

Veltz P., 1996, Mondialisation, villes et territoires. Paris, PUF

Wegener, M., Eskelinnen, H., Fürst, F., Schürmann, C., Spiekermann, K. (2002): Criteria for the Spatial Differentiation of the EU Territory: Geographical Position. Forschungen 102.2, Bonn, Bundesamt für Bauwesen und Raumordnung.

Annex 1. ESPON 1.1.1 Coding key

		Importance in the European urban network				
		Global	**E**uropean	**N**ational	**R**egional	**L**ocal
Functions	Population	1 % E +	1 000 000 + (up to 1% E)	250 000 – 999 999	50 000 – 249 999	20 000 – 49 999
	Industry	Industrial gross value added (GVA) Above 20 000 Million Euros	Industrial GVA 7 500 – 19 999 Million Euros	Industrial GVA 2 500 – 7 499 Million Euros	Industrial GVA 1 000 – 2 499 Million Euros	Industrial GVA less than 1 000 Million Euros
	Tourism	More than 100 000 beds in the region	More than 100 beds per 1000 inhabitants (total more than 10 000 beds) or 50 000 – 99 999 beds	15 000 – 49 999 beds	5 000 – 14 999 beds or 25 – 99 beds per 1000 inhabitants	Less than 5000 beds or 25 beds per 1000 inhabitants
	Transport	≥ 5 % E +	1 – 4,99 % E	≥ 5 % N (less than 1 % E)	2 – 4,99 % N	Airport or port, but less 2 % N
	University	University (≥ 500 000 students in FUA)	University (50 000 – 499 999 students in FUA)	University (10 000 – 49 999 students in FUA)	University (5000 – 9 999 students in FUA)	University (less than 5000 in FUA)
	Decision-making centre	≥ 5 % E +	2 – 4,99 % E	≥ 10 % N (less than 2 % E)	2 – 9,99 % N	Top-company Headquarter(s), but less than 2 % N
	Administrative status	EU – capital (Brussels)	National capitals (highest category according to national definition)	..	Provincial and/or regional capitals	Only service function (local authority)

E refers to value in Europe (= values of 29 ESPON-countries)
N refers to national value

In each function FUA gets following scores
Global = 5
European = 4
National = 3
Regional = 2
Local = 1

Overall code applied in typology of FUAs is based on average of scores
MEGA = 2,5 and above
transnational / national = 1,5 to 2,49
regional / local = less than 1,5

Following exceptions were applied:

- Those FUAs with more than 750 000 inhabitants and urban core (agglomeration) population above 500 000 inhabitants (both conditions had to be fulfilled) were classified as European FUAs
- FUAs with less than 100 000 inhabitants can not score global in tourism or transport functions

Economic base:

Orientation	**Criteria**	**Code**
Strong primary production specialisation	share of primary production in gross value added 10% or more	1
Primary production specialisation	share of primary production in cross value added 5…9,99%	2
Strong industrial specialisaton	share of industrial production in gross value added 50% or more	3
Industrial specialisation	share of industrial production in gross value added 37,5…49,9 %	4
Diversified	Primary production less than 5% Industrial production less than 37,5% Service production less than 75%	5
Service specialisation	share of service production in gross value added 75…79,9%	6
Strong service specialisation	share of service production in gross value added 80% or more	7

First the strong specialisations are defined (primary [1], industry [3], service [7]) = dominating sectors. Higher specialisation rate (location quotient) determines orientation in case region has two similar level specialisations.

Average economic structure (EU-15, not including UK. PT, IE): Primary production 2,4%, industry 28,1%, services 69,6%

Annex 2. FUA - thematic country reports

COUNTRY REPORT - AT

Function significance	Number of FUAs	
population		Austria is monocentric in the sense that it is strongly dominated by Vienna and the country lacks strong or medium-sized FUAs. Average FUA population: 120 367, 35% of Austria's inhabitants live in FUAs. The low share of people living in FUAs in relation to total population is on the hand due to the national interpretation of functional urban area (same as core city) and on the other to the Austrian settlement structure being based on units smaller than FUAs. There is strong population growth in small FUAs, though cities above 100 000 inhabitants have declining populations.
global	0	
european	1	
national	0	
regional	7	
local	16	
total score	34	
transport		The transport structure is also dominated by Vienna, though it has one national and three regional nodes. The transport structure is however rather more balanced than the settlement structure.
global	0	
european	1	
national	1	
regional	3	
local	1	
total score	14	
tourism		Tourism makes Austria polycentric. It has two FUAs of European significance, three of transnational/national significance, and a dozen of regional significance. Austria's position as regards tourism in the ESPON-countries is strong.
global	0	
european	2	
national	3	
regional	12	
local	7	
total score	48	
industry		Industry is also rather more polycentric than the settlement structure, i.e. the FUAs' position in the national network in terms of industrial (manufacturing) functions makes their position stronger in the national network than would be the case if we were to refer only to population mass.
global	0	
european	1	
national	7	
regional	14	
local	2	
total score	55	
knowledge		The knowledge structure is again more balanced (polycentric) than that of the settlement structure, though universities are concentrated in the larger FUAs. Vienna's Universities have more than 50 000 students. Four other FUAs have larger universities. The total number of FUAs with higher education institutes is eight.
global	0	
european	1	
national	4	
regional	1	
local	2	
total score	20	
decision-making		Austria has no FUA with a significant role as a business decision-making centre at the global or European level. Vienna is a national node. Seven smaller FUAs have a role as business decision-making centres on the regional level, and 14 have some top 500 companies.
global	0	
european	0	
national	1	
regional	7	
local	14	
total score	31	
administration		Vienna is the capital city (European significance in administration). As a federal state, the administrative role of some FUAs is strengthening their position in the national urban network, compared to their position according mass criterion. There are 20 regional capitals.
global	0	
european	1	
national	0	
regional	20	
local	3	
total score	47	
Typology		Austria has one MEGA, five FUAs with transnational or national significance and eighteen FUAs with regional or local significance. The total number of functionally significant functional urban areas is 24.
MEGA	1	
Transnat./nat.	5	
regional/local	18	
total	24	

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - BE

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	
european	0	
national	13	Belgium is polycentric, it has two large centres and a balanced number of small and medium-sized FUAs. Average FUA population: 336 969, 69% of inhabitants live in FUAs. Strongest growth is in medium-sized cities.
regional	8	
local	0	
total score	55	
transport		
global	1	
european	2	
national	0	Antwerp is a global node in maritime transport. Air traffic is dominated by Brussels. Two FUAs score in terms of local significance. Being a small country, the transport system is polycentric.
regional	0	
local	2	
total score	15	
tourism		
global	0	
european	0	
national	1	Belgium lacks FUAs with a significant role in tourism at the global or European levels. Brussels is the strongest node. Four FUAs score at the regional level. Tourist oriented cities located on the coast balance the urban structure.
regional	4	
local	16	
total score	27	
industry		
global	0	
european	1	
national	6	Antwerp is the strongest industrial node, scoring on the European level. Six FUAs score on the national level, and seven on the regional level. Three FUAs are industrial in economic structure.
regional	7	
local	7	
total score	43	
knowledge		
global	0	
european	1	
national	7	The total number of FUAs with higher education institutes is 16. Brussels has most students, while seven other FUAs have more than 10 000 students.
regional	0	
local	8	
total score	33	
decision-making		
global	0	
european	1	
national	1	Brussels has a significant role as a business decision-making centre on the European level. Antwerp is another important node. Four FUAs have regional significance. Another 15 FUAs have at least one top-500 company headquarters.
regional	4	
local	15	
total score	30	
administration		
global	1	
european	0	
national	0	Brussels is an EU capital (global significance in administration). There are seven regional capitals. The remaining FUAs have only local service functions.
regional	7	
local	13	
total score	32	
Typology		
MEGA	2	Belgium has two MEGAs, eight FUAs with transnational or national significance and 11 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 21.
Transnat./nat.	8	
regional/local	11	
total	21	

COUNTRY REPORT - BG

Function significance	Number of FUAs
population	
global	0
european	1
national	2
regional	28
local	0
total score	66

Bulgaria is rather monocentric. Sofia is the dominant city, and BG has two other medium-sized cities. The remaining FUAs have less than 200 000 inhabitants. Average FUA population: 155 291, 63% of inhabitants live in FUAs. All FUAs are declining, with the smallest FUAs losing most of their population.

transport	
global	0
european	0
national	3
regional	0
local	0
total score	9

Bulgaria has no FUA with a significant role as a transport node at the global or European levels. Air traffic is channelled through three FUAs. In addition to Sofia, Burgas and Varna have significance as national nodes.

tourism	
global	0
european	0
national	4
regional	2
local	25
total score	41

Bulgaria lacks an FUA with a significant role in tourism on the global or European levels. Four FUAs have national, and two FUAs regional significance in tourism. Tourist oriented cities located on the coast balance the urban structure, though in general, tourism is not yet an important factor in making Bulgaria more polycentric.

industry	
global	0
european	0
national	0
regional	1
local	30
total score	32

Sofia is also the largest industrial node in the country. The remaining FUAs have only minor industry or no industry at all. Sofia is the only FUA with a diversified production structure. Other FUAs are primary production oriented.

knowledge	
global	0
european	1
national	4
regional	5
local	1
total score	27

Sofia has more than 50 000 students in higher education institutes, which gives the city the status of being a significant knowledge node on the European level. Four other FUAs have large universities. The total number of FUAs with higher education institutes is 11. Three of these 11 FUAs have less than 100 000 inhabitants.

decision-making	
global	0
european	0
national	1
regional	7
local	22
total score	39

Bulgaria has no FUA with a significant role as a business decision-making centre on the global or European levels. Sofia is a national decision-making centre. Seven other FUAs have 2 to 10 percent of top-500 companies, and 22 FUAs have at least one, but less than 10, top-500 companies.

administration	
global	0
european	1
national	0
regional	26
local	4
total score	60

Sofia is the capital city (European significance in administration). The network of regional capitals is rather dense. There are 26 regional capitals, and only four FUAs do not have a significant role in administration.

Typology	
MEGA	1
Transnat./nat.	3
regional/local	27
total	31

Bulgaria has one MEGA, three FUAs with transnational or national significance and 27 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 31.

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - CH

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	Switzerland has a rather balanced settlement structure. The country remains dominated by Zürich, but it has four medium-sized FUAs and a large number of small FUAs. Average FUA population: 96 473, 63% of inhabitants live in FUAs. The largest growth is to be found in small FUAs.
european	0	
national	5	
regional	16	
local	27	
total score	74	
transport		
global	0	Zürich is the main node in transport, being European node. Geneva is another strong node in the transport network (national significance). Bern and Lugano have small airports.
european	1	
national	1	
regional	0	
local	2	
total score	9	
tourism		
global	0	No data available
european	0	
national	0	
regional	0	
local	0	
total score	0	
industry		
global	0	No data available
european	0	
national	0	
regional	0	
local	0	
total score	0	
knowledge		
global	0	Three FUAs have more than 10 000 students, but there is no knowledge node of European significance. The total number of FUAs with higher education institutes is nine. The university system is concentrated in the larger FUAs, making the country more monocentric.
european	0	
national	3	
regional	2	
local	4	
total score	17	
decision-making		
global	0	Zürich has a significant role as a business decision-making centre on the European level. The business decision-making centre is not the same as the administrative centre however, which makes the country more polycentric. Bern, Basle and Zug have more than 50 national top-500 company headquarters. Four other FUAs have a regional significance in business decision-making. The total number of FUAs with at least one company headquarters is 40, as such, decision-making is the function that most favours polycentricity in Switzerland.
european	1	
national	3	
regional	4	
local	32	
total score	53	
administration		
global	0	Bern is the capital city (European significance in administration). There are 18 regional capitals.
european	1	
national	0	
regional	18	
local	29	
total score	69	
Typology		
MEGA	2	Switzerland has two MEGAs, three FUAs with transnational or national significance and 43 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 48.
Transnat./nat.	3	
regional/local	43	
total	48	

COUNTRY REPORT - CY

Function significance	Number of FUAs	
		total score is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	
european	0	
national	1	Cyprus has four FUAs, all of which are growing rapidly. Average FUA population: 132 579, 69% of inhabitants live in FUAs.
regional	2	
local	1	
total score	8	
transport		
global	0	
european	0	
national	2	The transport system is bipolar as air traffic is channelled to two FUAs one at each end of the island.
regional	0	
local	0	
total score	6	
tourism		
global	0	
european	1	
national	1	Limassol has European significance in tourism, Paphos has national significance, and Larnaca regional significance. The capital FUA is the weakest as regards tourism. In other words tourism is genuinely increasing polycentricity.
regional	1	
local	1	
total score	10	
industry		
global	0	
european	0	
national	0	Four FUAs on Cyprus do not have any significant role as industrial nodes.
regional	0	
local	4	
total score	4	
knowledge		
global	0	
european	0	
national	0	Nicosia is the only FUA with higher education institutes, but it only scores on the local level.
regional	0	
local	1	
total score	1	
decision-making		
global	0	
european	0	
national	2	Cyprus has no FUA with a significant role as a business decision-making centre on the global or European levels. Companies are mainly located in Nicosia and Limassol, though some are located in two other FUAs.
regional	2	
local	0	
total score	10	
administration		
global	0	
european	1	
national	0	Nicosia is the capital city (European significance in administration), the other three FUAs function as regional capitals.
regional	3	
local	0	
total score	10	
Typology		
MEGA	0	
Transnat./nat.	4	Cyprus has no MEGA, but four FUAs with transnational or national significance (the total number of functionally significant functional urban areas is four).
regional/local	0	
total	4	

COUNTRY REPORT - CZ

Function significance	Number of FUAs
population	
global	0
european	2
national	2
regional	20
local	1
total score	55

The Czech Republic has two large FUAs (Prague and Ostrava) and a couple of medium-sized cities. The largest growth is in FUAs with a population between 100 000 and 200 000 inhabitants. Average FUA population: 246 777, 60% of inhabitants live in FUAs. Large cities are losing population.

transport	
global	0
european	0
national	1
regional	0
local	2
total score	5

The Czech Republic has no FUA with a significant role as a transport node on the global or European levels. The transport system is rather monocentric. Prague is the most important transport node, though Brno and Ostrava have regional airports.

tourism	
global	0
european	0
national	5
regional	7
local	13
total score	42

The Czech Republic lacks an FUA with a significant role in tourism on the global or European levels. Five FUAs score at the national level, and seven FUAs have regional significance. Tourist oriented FUAs are FUAs other than those that score highly in other functions. In that sense this favours a division of labour between cities and polycentricity.

industry	
global	0
european	0
national	0
regional	0
local	25
total score	25

Most of FUAs in the Czech Republic are industrially oriented. However, gross value added in industries is low, and not one FUA scores even on the regional level.

knowledge	
global	0
european	1
national	4
regional	3
local	4
total score	26

Prague is also the main node in the knowledge system. Four other FUAs have major universities. The total number of FUAs with higher education institutes is 12. The university system is as balanced as the settlement structure requires.

decision-making	
global	0
european	0
national	1
regional	5
local	7
total score	20

The Czech Republic has no FUA with a significant role as a business decision-making centre on the global or European levels. Prague is a national decision-making centre. Five other FUAs have 10 to 50 top-500 company headquarters. Seven more FUAs have some headquarters.

administration	
global	0
european	1
national	0
regional	12
local	12
total score	40

Prague is the capital city (European significance in administration). There are 12 regional capitals, and 12 FUAs do not have any significant administrative role. The public administrative system is as balanced as the settlement structure requires, and does not favour polycentricity.

Typology	
MEGA	1
Transnat./nat.	4
regional/local	20
total	25

The Czech Republic has one MEGA, four FUAs with transnational or national significance and 20 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 25.

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - DE

Function significance	Number of FUAs
population	
global	0
european	9
national	34
regional	119
local	24
total score	400

Germany has a large number of FUAs. Average FUA population: 263 645, 59% of inhabitants live in FUAs. There is no correlation between size and population change, but there are significant structural changes taking place in eastern Germany.

transport	
global	3
european	3
national	1
regional	3
local	14
total score	50

Germany has a number of global and European transport nodes both in air traffic and in maritime transport, three of these score at the global level, while three have European significance. Ever part of the country has a strong node, enabling a balanced and polycentric national urban network to exist.

tourism	
global	0
european	1
national	6
regional	42
local	137
total score	243

Germany does not have a global node in tourism. Small tourist oriented FUAs and a number of MEGAs score at the European and national levels. 42 FUAs have regional significance. The tourist oriented FUAs are FUAs other than those that score highly in other functions. In that sense this favours the division of labour between cities and polycentricity. However in general in Germany tourism does not have a major role in terms of polycentricity.

industry	
global	0
european	4
national	36
regional	57
local	89
total score	327

Germany is a highly industrialised country, with a very polycentric industrial network. It is in fact due to polycentricity that the country does not have one global node in industry, even though neighbouring FUAs score highly, especially in the heavily industrialised west. Four FUAs have European significance (Berlin, Hamburg, Munich and Stuttgart). 36 FUAs have national, and 57 regional significance.

knowledge	
global	0
european	5
national	37
regional	12
local	9
total score	164

Five FUAs have more than 50 000 students in higher education institutes, and there are 37 other major university cities. The total number of FUAs with higher education institutes is 63. In a polycentric country this relatively scattered university system does not work to increase polycentricity.

decision-making	
global	1
european	3
national	1
regional	2
local	179
total score	203

The central business decision-making centre is not the same as the major administrative centre, which makes the country even more polycentric. Munich is the only FUA considered to be globally significant as a business decision-making centre. However, polycentricity does not do justice to the importance of cities located in e.g. Rhine -Ruhr area, where top companies are scattered to a number of FUAs.

administration	
global	0
european	1
national	0
regional	112
local	73
total score	301

Berlin is the capital city (European significance in administration). As a federal state, the administrative role of some FUAs strengthens their position in the national urban network, as compared to their position according to mass criterion. There are 112 FUAs that have some role in regional administration. Some of them are state capitals of the *länder*.

Typology	
MEGA	8
Transnat./nat.	35
regional/local	143
total	186

Germany has eight MEGAs, 35 FUAs with transnational or national significance and 143 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 186.

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - DK

Function significance	Number of FUAs
population	
global	0
european	1
national	3
regional	20
local	11
total score	64

Denmark is dominated by Copenhagen, while it also has three medium-sized cities. In addition, it has a large number of small FUAs. Average FUA population: 149 505, 97% of inhabitants live in FUAs. Only a few of the FUAs are currently losing population. There is a relatively good correlation between size and population change, as in all Nordic countries.

transport	
global	0
european	1
national	2
regional	1
local	0
total score	12

The transport system is rather monocentric. Copenhagen is a European transport node, serving as both anair traffic and a maritime transport node. Two FUAs have national, and one has regional significance in transport.

tourism	
global	0
european	0
national	1
regional	4
local	30
total score	41

Denmark lacks an FUA with a significant role in tourism on the global or European levels. Copenhagen is also the main node as regards tourism. Other major cities have regional significance. Denmark has only few tourist oriented FUAs, and only one of them scores on the regional level.

industry	
global	0
european	0
national	1
regional	12
local	22
total score	49

The industrial structure is quite polycentric. Copenhagen is also the main location for industry, but 12 other FUAs have a gross value added between 1 and 2.5 billion euros yearly (regional significance).

knowledge	
global	0
european	1
national	2
regional	1
local	1
total score	13

Copenhagen is also a node in the European knowledge system. Two other FUAs have major universities. The total number of FUAs with higher education institutes is seven, in other words the university system is very monocentric.

decision-making	
global	0
european	0
national	1
regional	4
local	25
total score	36

Denmark has no FUA with a significant role as a business decision-making centre on the global or European levels. Copenhagen is a national decision-making centre. Four FUAs have between 10 and 50 of headquarters of top-500 companies. Furthermore, 25 other FUAs have some business headquarters. The decision-making system is rather polycentric.

administration	
global	0
european	1
national	0
regional	9
local	25
total score	47

Copenhagen is the capital city (European significance in administration). There are nine regional capitals. 25 FUAs do not have any significant role in administration. The administrative system is quite centralised, but in a small country the service area of administrative centres cannot be any smaller.

Typology	
MEGA	1
Transnat./nat.	3
regional/local	31
total	35

Denmark has one MEGA, three FUAs with transnational or national significance and 31 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 35.

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - EE

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	
european	0	
national	1	Estonia is dominated by Tallinn. Average FUA population: 98 110, 69% of inhabitants live in FUAs. All but one of these FUAs is however losing population.
regional	4	
local	5	
total score	16	
transport		
global	0	
european	0	
national	1	Estonia has no FUA with a significant role as a transport node on the global or European levels. Transport is very monocentric, as Tallinn is the only node in the country.
regional	0	
local	0	
total score	3	
tourism		
global	0	
european	0	
national	0	Estonia lacks an FUA with a significant role in tourism on the global or European levels. Tallinn is the strongest tourism node, but it does not score more highly than the regional level. The remaining FUAs have only a local role.
regional	1	
local	9	
total score	11	
industry		
global	0	
european	0	
national	0	As with all of the Baltic States, industry in Estonia is rather weak. There is no one FUA with more then 1 billion euros gross value added.
regional	0	
local	10	
total score	10	
knowledge		
global	0	
european	0	
national	2	The knowledge system in Estonia is bipolar. Tallinn and Tartu are the two university FUAs in Estonia. Other FUAs have no higher education institutes.
regional	0	
local	0	
total score	6	
decision-making		
global	0	
european	0	Estonia has no FUA with a significant role as a business decision-making centre on the global or European levels. Top-500 companies are located mainly in Tallinn, though over 50 are also to be found in Tarto, which maintains its position in the national urban network. Two other FUAs have over 10 headquarters, and three have some companies.
national	2	
regional	2	
local	3	
total score	13	
administration		
global	0	
european	1	
national	0	Tallinn is the capital city (European significance in administration). The rest of the FUAs are regional capitals.
regional	9	
local	0	
total score	22	
Typology		
MEGA	1	Estonia has one MEGA, one FUA with transnational or national significance and eight FUAs with regional or local significance. The total number of functionally significant functional urban areas is ten.
Transnat./nat.	1	
regional/local	8	
total	10	

COUNTRY REPORT - ES

Function significance	Number of FUAs	
population		
global	1	Spain has two large FUAs, but also a balanced network of other large and medium-sized FUAs. Average FUA population: 274 279, 75% of inhabitants live in FUAs. Strongest growth is to be found in small FUAs, large FUAs are losing population.
european	3	
national	21	
regional	85	
local	0	
total score	250	
transport		
global	0	The transport structure is polycentric. There are four nodes that have European significance, as well as four nodes with a national role. In large countries such as Spain an extensive network of smaller nodes is necessary.
european	4	
national	4	
regional	3	
local	15	
total score	49	
tourism		
global	1	Tourism makes Spain polycentric. It has one FUA (Mallorca) that has global significance and nine FUAs with European significance. Dozens of coastal FUAs are strongly tourist oriented (40 have regional significance). Spain's position in tourism in ESPON-countries is strong.
european	9	
national	14	
regional	40	
local	46	
total score	209	
industry		
global	2	The industrial structure is also polycentric. Spain is the only country that has two global nodes in industry (Madrid and Barcelona). Valencia has European significance in this regard. 13 FUAs have a national role and 43 other FUAs have a gross value added between 1 and 2.5 billion euros yearly.
european	1	
national	13	
regional	43	
local	49	
total score	188	
knowledge		
global	0	Six FUAs have more than 50 000 university students. Furthermore there are 25 other university-FUAs. The total number of FUAs with higher education institutes is 40. The university system is as polycentric as the settlement structure requires.
european	6	
national	25	
regional	4	
local	5	
total score	112	
decision-making		
global	0	Spain has no FUA with a significant role as a business decision-making centre on the global or European levels. As regards decision-making, the country is bipolar: both Madrid and Barcelona have important national roles. These two centres overshadow the smaller FUAs as decision-making centres. Only six other FUAs have a regional significance, with 41 having a local significance.
european	0	
national	2	
regional	6	
local	41	
total score	59	
administration		
global	0	Madrid is the capital city (European significance in administration). 18 FUAs are regional capitals, the rest have only local significance. The area and the number of people that these regional centres serve is rather large, making urban system more monocentric.
european	1	
national	0	
regional	18	
local	91	
total score	131	
Typology		
MEGA	5	Spain has five MEGAs, 27 FUAs with transnational or national significance and 78 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 110.
Transnat./nat.	27	
regional/local	78	
total	110	

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - FI

Function significance	Number of FUAs	
		total score is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	Finland has a typical Nordic urban system: one dominating FUA, Helsinki, a few medium-sized FUAs, and a few dozen small FUAs. Average FUA population: 116 786, 79% of inhabitants live in FUAs. There is a relatively good correlation between size and population change in FUAs.
european	1	
national	2	
regional	17	
local	15	
total score	59	
transport		
global	0	Helsinki is the most important transport node, having European significance. Two harbour FUAs are important in terms of maritime transport. In a country with such long travel distances there are many small nodes in the transport system (similar to NO and SE).
european	1	
national	2	
regional	2	
local	11	
total score	25	
tourism		
global	0	Finland has no FUA with a significant role as a tourism node on the global or European levels. There are two FUAs that have national, and nine that have regional significance in tourism. Small FUAs are not as attractive tourist destinations as their mass criterion would suggest. In Finland tourism does not favour polycentricity.
european	0	
national	2	
regional	9	
local	24	
total score	48	
industry		
global	0	Helsinki is the main node in industry. Four other FUAs score on the national level, and 11 have regional significance. The urban system is based on scattered industrial nodes, i.e. the system is more polycentric due to industrial functions.
european	1	
national	4	
regional	11	
local	19	
total score	57	
knowledge		
global	0	Helsinki has more than 50 000 students attending its universities. Five other FUAs have large universities. The total number of FUAs with higher education institutes is 20.The university system makes the urban system more polycentric.
european	1	
national	5	
regional	4	
local	10	
total score	37	
decision-making		
global	0	Finland has no FUA with a significant role as a business decision-making centre on the global or European levels. Helsinki is the national decision-making centre. Four other FUAs have regional significance, and 11 FUAs have some headquarters of top-500 companies.
european	0	
national	1	
regional	4	
local	11	
total score	22	
administration		
global	0	Helsinki is the capital city (European significance in administration). There are 18 regional capitals. 16 FUAs do not have a significant role in administration. Administrative functions balance the national urban network (favours polycentricity).
european	1	
national	0	
regional	18	
local	16	
total score	56	
Typology		
MEGA	1	Finland has one MEGA, nine FUAs with transnational or national significance and 25 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 35.
Transnat./nat.	9	
regional/local	25	
total	35	

COUNTRY REPORT - FR

Function significance	Number of FUAs	
population		
global	1	
european	3	France is strongly dominated by Paris. Three other FUAs have populations over 1 000 000 inhabitants. Average FUA population: 200 196, 71% of inhabitants live in FUAs. Strong growth takes place in all size-classes (small, medium-sized and large), while only small FUAs are losing population.
national	30	
regional	103	
local	74	
total score	387	
transport		
global	1	
european	2	Paris is a global transport node. Twe FUAs have significance on the European level as hubs for maritime transport. Nice is an important national node. There is an extensive network of small airports and harbours.
national	1	
regional	4	
local	32	
total score	56	
tourism		
global	1	
european	4	As regards tourism, the weight of the urban system is in the south, where four FUAs with European significance are located. Paris has a global position in tourism. Four FUAs have European, 21 national and 54 regional significance. Tourist oriented FUAs are often FUAs other than those that score higher in other functions.
national	21	
regional	54	
local	131	
total score	323	
industry		
global	0	
european	0	No data available
national	0	
regional	0	
local	0	
total score	0	
knowledge		
global	0	
european	12	The university system is very polycentric. 12 FUAs have more than 50 000 university students, located in all parts of country. In addition there are 22 other important university-FUAs. The total number of FUAs with higher education institutes is 98.
national	22	
regional	18	
local	46	
total score	196	
decision-making		
global	1	
european	0	Paris has a significant role as a business decision-making centre on the global level. At the same time it is (like London in UK) dominant also in the national field, and there is only one other FUA with regional significance, and 46 FUAs with local significance as decision-making centres.
national	0	
regional	1	
local	46	
total score	53	
administration		
global	0	
european	1	Paris is the capital city (European significance in administration). The administrative role of some FUAs is strengthening their position in the national urban network, particularly when compared to their position according to mass criterion. Administration is very polycentric. 181 FUAs can be considered as regionally significant in administrative functions.
national	0	
regional	181	
local	29	
total score	395	
Typology		
MEGA	7	France has one MEGA, 41 FUAs with transnational or national significance and 163 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 211.
Transnat./nat.	41	
regional/local	163	
total	211	

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - GR

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	Greece is dominated by Athens, and has Thessaloniki as its second-city. Other FUAs are small. Average FUA population: 154 312, 65% of inhabitants live in FUAs. Almost all FUAs are growing, with the smallest are growing relatively faster.
european	2	
national	0	
regional	19	
local	24	
total score	70	
transport		
global	0	Athens is the main transport node, having European significance. Other important nodes have significance mainly due to their tourist flows.
european	1	
national	2	
regional	1	
local	0	
total score	12	
tourism		
global	0	Tourism is making Greece more polycentric. Many FUAs' positions in the national tourism network makes their position stronger than that which their population mass would normally allow. In total eight FUAs have European, three national and 11 regional significance. Tourist oriented FUAs are usually FUAs other than those that are score highly in other functions.
european	8	
national	3	
regional	11	
local	23	
total score	86	
industry		
global	0	Athens is also the main node in industry, having European significance. One FUA has national and three regional significance. Industry is thus quite concentrated to a few centres. Most of the FUAs in Greece rely on primary production in terms of their economic structure.
european	1	
national	1	
regional	3	
local	40	
total score	53	
knowledge		
global	0	Both Athens and Thessaloniki have universities of European significance. Seven other FUAs have large universities. The total number of FUAs with higher education institutes is 23. The university system is making Greece more polycentric.
european	2	
national	5	
regional	7	
local	9	
total score	46	
decision-making		
global	0	Greece has no FUA with a significant role as a business decision-making centre on the global or European levels. The headquarters of top-500 companies are located in Athens and in Thessaloniki. Komotini and Larisa are other two FUAs that boast regional significance.
european	0	
national	2	
regional	2	
local	28	
total score	38	
administration		
global	0	Athens is the capital city (European significance in administration). The administrative role of some FUAs is strengthening their position in the national urban network, as compared to their position in accordance with mass criterion. 35 FUAs have regional significance in administration.
european	1	
national	0	
regional	35	
local	9	
total score	83	
Typology		
MEGA	1	Greece has one MEGA, seven FUAs with transnational or national significance and 37 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 45.
Transnat./nat.	7	
regional/local	37	
total	45	

COUNTRY REPORT - HU

Function significance	Number of FUAs
population	
global	0
european	1
national	2
regional	54
local	20
total score	138

Hungary has one dominant city, Budapest, supported by a dense network of small and medium-sized cities. Average FUA population: 105 418, 81% of inhabitants live in FUAs. The largest cities are losing population, growth is however occurring in a dozen or so of the small and medium-sized cities.

transport	
global	0
european	0
national	1
regional	0
local	0
total score	3

Hungary has no FUA with a significant role as a transport node on the global or European levels. The transport system is highly monocentric. Budapest is the only node in country.

tourism	
global	0
european	1
national	2
regional	25
local	49
total score	109

Budapest is the also the strongest node in terms of tourism, having European significance. Two other small FUAs are highly tourist –oriented, having a national significance. 25 FUAs have a regional significance. Tourist oriented FUAs are usually FUAs other than those that are score highly in other functions. In that sense this favours the division of labour between cities and polycentricity.

industry	
global	0
european	0
national	1
regional	0
local	76
total score	79

Budapest is the only significant node as regards industry. Other FUAs do not score higher than the local level, even though some of these FUAs are strongly industry oriented. In other words, industry is also highly monocentric.

knowledge	
global	0
european	1
national	4
regional	1
local	3
total score	21

Budapest is a node in the European knowledge system, as it is the seat of a number of major higher education institutes. Four other FUAs have major universities. The total number of FUAs with higher education institutes is nine. Compared to other measured functions, institutes providing higher education make the Hungarian system more monocentric (more concentrated).

decision-making	
global	0
european	0
national	1
regional	4
local	31
total score	42

Hungary has no FUA with a significant role as a business decision-making centre on the global or European levels. Budapest is a national centre for business decision-making. Four other FUAs have 2 to 10 percent of large companies in Hungary. 31 other FUAs have some headquarters.

administration	
global	0
european	1
national	0
regional	19
local	57
total score	99

Budapest is the capital city (European significance in administration). There are 19 regional capitals. The remaining FUAs have only a local service function.

Typology	
MEGA	1
Transnat./nat.	4
regional/local	72
total	77

Hungary has one MEGA, four FUAs with transnational or national significance and 72 FUAs with regional or local significance. The total number of functionally significant functional urban areas is 77.

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - IE

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	
european	1	
national	0	Ireland has only six FUAs, dominated by Dublin. Average FUA population: 207 411, 37% of inhabitants live in FUAs. All FUAs are growing strongly, with the smallest growing more rapidly than the large cities in percentage terms.
regional	3	
local	3	
total score	13	
transport		
global	0	
european	1	
national	2	Dublin is the main transport node, having European significance. Other nodes of national significance are Cork and Limerick.
regional	0	
local	0	
total score	10	
tourism		
global	0	
european	0	Ireland has no FUA with a significant role as a tourism node on the global or European levels. Four FUAs score on the national level, and some FUAs' weight as regards the tourism function is stronger than that which their population mass would suggest. It can be argued that tourism is the main function driving Ireland to become more polycentric.
national	4	
regional	3	
local	0	
total score	18	
industry		
global	0	
european	1	Industry is somewhat more polycentric than the settlement structure. In both tourism and industry some FUAs' positions in these national networks make their position stronger in the national network as a whole over and above that which their mass would otherwise suggest.
national	2	
regional	2	
local	2	
total score	16	
knowledge		
global	0	
european	0	
national	4	The total number of FUAs with higher education institutes is four, none of them having less than 50 000 students. Dublin is the strongest node, the other three are the next largest cities.
regional	0	
local	0	
total score	12	
decision-making		
global	0	
european	0	Ireland has no FUA with a significant role as a business decision-making centre on the global or European levels. Dublin is the national decision-making centre. Cork has regional significance. Two FUAs in Ireland have no top-500 company headquarters.
national	1	
regional	1	
local	3	
total score	8	
administration		
global	0	
european	1	
national	0	Dublin is the capital city (European significance in administration). Administrative functions do not make Ireland more polycentric, only Waterford has regional significance in administrative terms.
regional	1	
local	5	
total score	11	
Typology		
MEGA	1	Ireland has one MEGA, three FUAs of transnational or national significance and three FUAs of regional or local significance. The total number of functionally significant functional urban areas is seven.
Transnat./nat.	3	
regional/local	3	
total	7	

COUNTRY REPORT - IT

Function significance	Number of FUAs
population	
global	0
european	5
national	27
regional	201
local	20
total score	523

Italy has highly developed urban system. It is polycentric in sense that it has three poles and a large number of medium-sized cities as well as a vast number of small cities. Average FUA population: 181 116, 79% of inhabitants live in FUAs. However, most of the FUAs are losing population, the number of FUAs with less than 500 000 inhabitants is growing.

transport	
global	0
european	7
national	1
regional	5
local	5
total score	46

The transport system is also polycentric. There are a number of important air traffic nodes as well as smaller FUAs acting as transport hubs with European significance (the total number of FUAs in this class is seven). One FUA has national significance. In addition, 10 FUAs have smaller airports or harbours.

tourism	
global	1
european	12
national	26
regional	80
local	134
total score	425

Tourism is rather more polycentric than the settlement structure, i.e. the FUAs' position in the national network as regards the tourism function makes their position stronger than that which their population mass would suggest. Rome is a global magnet. In addition, Italy has twelve FUAs of European significance, most of them located in north of the country.

industry	
global	1
european	5
national	30
regional	88
local	129
total score	420

Milan is a global node in terms of manufacturing. Five other FUAs are of European, 30 national, and 88 of regional significance. About four fifths of these FUAs are located in northern Italy, as such, this does not favour polycentricity at the national level, only at the regional level.

knowledge	
global	0
european	0
national	10
regional	9
local	22
total score	70

Italy has no FUA of European significance in terms of knowledge. 10 FUAs have national significance. The total number of FUAs with higher education institutes is 41. Higher education institutes are distributed evenly across all parts of the country, but the number of FUAs with these functions is rather small compared to the total number of FUAs in Italy.

decision-making	
global	0
european	1
national	1
regional	4
local	95
total score	110

In decision-making terms Italy is polycentric. Milan has a significant role as a business decision-making centre on the European level. The business decision-making centre is not same as the administrative centre, which makes the country more polycentric. Rome is the national decision-making centre.

administration	
global	0
european	1
national	0
regional	19
local	233
total score	275

Rome is the capital city (European significance in administration). There are 19 regional capitals, the remaining FUAs have only local significance. The area and number of people that regional centres serve is rather large.

Typology	
MEGA	6
Transnat./nat.	19
regional/local	228
total	253

Italy has six MEGA, 19 FUAs of transnational or national significance and 228 FUAs of regional or local significance. Total number of functionally significant functional urban areas is 253.

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - LT

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	Lithuania has eight FUAs with a balanced structure. Average FUA population: 191 049, 42% of inhabitants live in FUAs. There is a relatively good correlation between size and growth, though only in a negative sense: small FUAs are growing, while larger FUAs are losing population.
european	0	
national	2	
regional	4	
local	2	
total score	16	
transport		
global	0	Lithuania has no FUA with a significant role as a transport node on the global or European levels. The transport system is bipolar. Vilnius is the main node in terms of air traffic, while Klaipeda fulfils a similar function in terms of maritime traffic. Other FUAs do not have any significance in terms of transport functions.
european	0	
national	2	
regional	0	
local	0	
total score	6	
tourism		
global	0	The tourism sector is very weak in Lithuania. Lithuania is the only country where not one FUA scores higher than the local level.
european	0	
national	0	
regional	0	
local	8	
total score	8	
industry		
global	0	All eight FUAs have a gross value added of less than 1 billion euros annually. Industry has no significant role in making the country more polycentric.
european	0	
national	0	
regional	0	
local	8	
total score	8	
knowledge		
global	0	The knowledge system is bipolar. In Vilnius and Kaunas the universities are large (more than 10 000 students). In total, Lithuania has four FUAs with higher education institutes.
european	0	
national	2	
regional	2	
local	0	
total score	10	
decision-making		
global	0	Lithuania has no FUA with a significant role as a business decision-making centre on the global or European levels. Both Vilnius and Kaunas are important business decision-making centres in Lithuania. The remaining FUAs have some headquarters of main companies.
european	0	
national	2	
regional	4	
local	2	
total score	16	
administration		
global	0	Vilnius is the capital city (European significance in administration). The remaining FUAs are regional capitals.
european	1	
national	0	
regional	7	
local	0	
total score	18	
Typology		
MEGA	1	Lithuania has one MEGA, two FUAs of transnational or national significance and five FUAs of regional or local significance. The total number of functionally significant functional urban areas is eight.
Transnat./nat.	2	
regional/local	5	
total	8	

COUNTRY REPORT - LU

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	
european	0	
national	0	Luxembourg is a bipolar country (two FUAs), both growing. Average FUA population: 129 951, 58% of inhabitants live in FUAs.
regional	2	
local	0	
total score	4	
transport		
global	0	
european	0	
national	1	Luxembourg has no FUA with a significant role as a transport node on the global or European levels.
regional	0	
local	0	
total score	3	
tourism		
global	0	
european	0	
national	0	Neither of Luxembourg's two FUAs have a significant role in tourism.
regional	1	
local	1	
total score	3	
industry		
global	0	
european	0	
national	1	Industry is rather more polycentric than the settlement structure, i.e. Esch-sur-Alzette's position in terms of the industrial (manufacturing) function makes its position stronger in the urban network than that which its population mass would suggest.
regional	1	
local	0	
total score	5	
knowledge		
global	0	
european	0	
national	0	Only one of Luxemburg’s two FUAs has a higher education institute, but it has only local significance.
regional	0	
local	1	
total score	1	
decision-making		
global	0	
european	0	
national	1	Luxembourg has no FUA with a significant role as a business decision-making centre on the global or European levels. Most of the companies are located in Luxembourg FUA.
regional	0	
local	1	
total score	4	
administration		
global	0	
european	1	
national	0	Luxemburg is the capital city (European significance in administration). Esch-sur-Alzette has only local service functions.
regional	0	
local	1	
total score	5	
Typology		
MEGA	1	Luxembourg has one MEGA and one FUA with regional or local significance. Thus, the total number of functionally significant functional urban areas is two.
Transnat./nat.	0	
regional/local	1	
total	2	

COUNTRY REPORT - LV

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	Latvia has six FUAs, and is strongly dominated by Riga. The remaining FUAs have less than 200 000 inhabitants. Average FUA population: 214 862, 73% of inhabitants live in FUAs. All FUAs are losing population.
european	1	
national	0	
regional	4	
local	3	
total score	15	
transport		
global	0	Latvia has no FUA with a significant role as a transport node on the global or European levels. Transport is very monocentric: Riga is the only node.
european	0	
national	1	
regional	0	
local	0	
total score	3	
tourism		
global	0	Latvia lacks an FUA with a significant role in tourism on the global or European levels. Riga is the strongest tourism node, but it does not score higher than the regional level. The remaining FUAs have only a local role.
european	0	
national	0	
regional	1	
local	7	
total score	9	
industry		
global	0	As with all the Baltic States, industry in Latvia is still rather weak. There is no one FUA that has more then 1 billion euros gross value added.
european	0	
national	0	
regional	0	
local	8	
total score	8	
knowledge		
global	0	The knowledge system is rather polycentric. Riga higher education institutes have more than 50 000 students in addition, there are two FUAs with medium-sized higher education institutes. The total number of FUAs with higher education institutes is seven.
european	1	
national	0	
regional	2	
local	4	
total score	12	
decision-making		
global	0	Latvia has no FUA with a significant role as a business decision-making centre on the global or European levels. Riga is a national node for business activity, but some of the large companies are also scattered to other FUAs.
european	0	
national	1	
regional	0	
local	7	
total score	10	
administration		
global	0	Riga is the capital city (European significance in administration). There are five regional capitals, though two FUAs have only a local service function.
european	1	
national	0	
regional	5	
local	2	
total score	16	
Typology		
MEGA	1	Latvia has one MEGA, no FUAs of transnational or national significance and seven FUAs of regional or local significance, totalling eight functionally significant functional urban areas in country.
Transnat./nat.	0	
regional/local	7	
total	8	

COUNTRY REPORT - MT

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	
european	0	
national	1	Malta as country can be considered as one FUA. The population on Malta Island as a whole is growing, as is the population of Valletta's urban harbour (the core of the FUA).
regional	0	
local	0	
total score	3	
transport		
global	0	
european	1	
national	0	Transport is of course channelled through only one urban node. Valletta harbour has European significance.
regional	0	
local	0	
total score	4	
tourism		
global	0	
european	0	
national	1	Tourism is important for Malta. However, in European comparison it does not score on the European level, only on the national level.
regional	0	
local	0	
total score	3	
industry		
global	0	
european	0	
national	0	Industry in the Valletta FUA has less than 1 billion euros gross value added, so it has only local significance.
regional	0	
local	1	
total score	1	
knowledge		
global	0	
european	0	
national	0	Valletta has a higher education institute, and it has regional significance.
regional	1	
local	0	
total score	2	
decision-making		
global	0	
european	0	
national	1	Malta has no FUA with a significant role as a business decision-making centre on the global or European levels. The Valletta urban area is naturally the location for headquarters operating in Malta.
regional	0	
local	0	
total score	3	
administration		
global	0	
european	1	
national	0	Valletta is the capital city (European significance in administration).
regional	0	
local	0	
total score	4	
Typology		
MEGA	1	
Transnat./nat.	0	Malta has one FUA, which is classified as MEGA.
regional/local	0	
total	1	

COUNTRY REPORT - NL

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	
european	2	The Netherlands is very polycentric (structure similar to BE). A large number of their FUAs are medium-sized. Average FUA population: 259 403, 63% of inhabitants live in FUAs. Almost all FUAs are growing with the smaller ones growing relatively faster, though the medium-sized cities are also growing rapidly.
national	14	
regional	23	
local	0	
total score	96	
transport		
global	1	
european	1	Rotterdam is a global node in terms of maritime transport. Amsterdam has European significance as an air traffic node. In such a small country there cannot be many transport nodes, but three other FUAs have local significance (small airport or harbour).
national	0	
regional	0	
local	3	
total score	12	
tourism		
global	0	
european	0	The Netherlands has no FUA with a significant role as a tourism node on the global or European levels. Amsterdam and Maastricht are the main nodes on the national level. 10 FUAs have regional significance. In such a polycentric country tourism is more monocentric than the other sectors.
national	2	
regional	10	
local	27	
total score	53	
industry		
global	0	
european	2	Rotterdam and Dordrecht are the main industrial nodes (European significance). The Netherlands is genuinely polycentric, and has a developed division of labour between its cities, as different cities score highly in different functions. Nine FUAs have national significance and 14 FUAs regional significance.
national	9	
regional	14	
local	14	
total score	77	
knowledge		
global	0	
european	1	Amsterdam has the most students in the Netherlands (European significance). 12 other FUAs have large universities. The total number of FUAs with higher education institutes is 24. The Netherlands is a polycentric country and this feature is supported by its scattered university system.
national	12	
regional	5	
local	6	
total score	56	
decision-making		
global	0	
european	1	Amsterdam has a significant role as a business decision-making centre on the European level. Rotterdam is the second-city in decision-making terms, functioning as national node. Four other FUAs have 2 to 10 percent of the top-500 company headquarters. In other words, business decision-making is rather more centralised to the large FUAs.
national	1	
regional	4	
local	26	
total score	41	
administration		
global	0	
european	1	Amsterdam is the capital city (European significance in administration). 11 FUAs have regional capital functions and 27 FUAs have only local service functions.
national	0	
regional	11	
local	27	
total score	53	
Typology		
MEGA	2	The Netherlands has two MEGA, 14 FUAs of transnational or national significance and 23 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 39.
Transnat./nat.	14	
regional/local	23	
total	39	

COUNTRY REPORT - NO

Function significance	Number of FUAs	
population		
global	0	Norway is dominated by Oslo and in addition it has three medium-sized cities and few dozen small FUAs. Average FUA population: 102 352, 81% of inhabitants live in FUAs. Growth is occurring in all size-classes.
european	1	
national	2	
regional	15	
local	18	
total score	58	
transport		
global	0	Oslo is the main transport node with European significance. In a country with such long distances there are number of smallish airports. In a country with long travel distances there are many small nodes in the transport system (similar to FI and SE).
european	1	
national	3	
regional	4	
local	4	
total score	25	
tourism		
global	0	In Norway Lillehammer FUA is highly tourist oriented (European significance). Oslo scores on the national level. 13 FUAs have regional significance. In Norway tourism favours a rather more polycentric structure as compared to the other Nordic countries.
european	1	
national	1	
regional	13	
local	21	
total score	54	
industry		
global	0	No FUA scores on the global or European levels. Oslo and Bergen are the main nodes as regards industry. Four other FUAs score on the regional level. The industrial function does not have an effect on polycentricity in Norway.
european	0	
national	2	
regional	4	
local	30	
total score	44	
knowledge		
global	0	Oslo is the main node in the knowledge system, but it does not score on the European level. Two other FUAs also have national significance. The university system is dominated by small universities with less than 5000 students each, while the total number of FUAs with higher education institutes is 20.
european	0	
national	3	
regional	1	
local	16	
total score	27	
decision-making		
global	0	Norway has no FUA with a significant role as a business decision-making centre on the global or European levels. Oslo is the main location for major companies. Five other FUAs have 2 to 10 per cent of top-500 companies.
european	0	
national	1	
regional	5	
local	27	
total score	40	
administration		
global	0	Oslo is the capital city (European significance in administration). 13 FUAs are considered as regional capitals, 22 FUAs have only regional local service functions (most of them located near Oslo).
european	1	
national	0	
regional	13	
local	22	
total score	52	
Typology		
MEGA	2	Norway has two MEGA, four FUAs of transnational or national significance and 30 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 36.
Transnat./nat.	4	
regional/local	30	
total	36	

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - PL

Function significance	Number of FUAs	
population		
global	0	Poland has a balanced and developed urban structure. There are two large FUAs and a large number of medium-sized cities. Average FUA population: 406 446, 51% of inhabitants live in FUAs. Polish FUAs are larger (population) than in most of the other countries. The large FUAs are losing population, only cities with less than 500 000 inhabitants are growing, some of them very rapidly.
european	5	
national	17	
regional	25	
local	1	
total score	122	
transport		
global	0	Poland has no FUA with a significant role as a transport node on the global or European levels. Four FUAs are of European significance. Warsaw is the main node, the others are nodes in maritime transport. Four FUAs have regional significance and three FUAs have small airports with more than 50 000 passengers annually.
european	0	
national	4	
regional	4	
local	3	
total score	23	
tourism		
global	0	Poland has no FUA with a significant role as a tourism node on the global or European levels. Warsaw is also the main node also as regards tourism. Six FUAs have regional significance. Tourism is not as polycentric as other functions in Poland.
european	0	
national	1	
regional	6	
local	41	
total score	56	
industry		
global	0	Warsaw has European significance as an industrial node, being the only FUA in the acceding countries at this level. Eight other FUAs have national significance, and a further eight FUAs score on the regional level. The industrial function does not affect polycentricity in Poland.
european	1	
national	8	
regional	8	
local	31	
total score	75	
knowledge		
global	0	The university system in Poland is very polycentric (most polycentric in Europe). Nine FUAs have universities with more than 50 000 students. In addition, there are 14 large university-FUAs. The total number of FUAs with higher education institutes is 45.
european	9	
national	14	
regional	12	
local	10	
total score	112	
decision-making		
global	0	Poland has no FUA with a significant role as a business decision-making centre on the global or European levels. Warsaw and Katowice are national decision-making nodes. Five other FUAs have 2 to 10% of top-500 companies in the country. 30 other FUAs have some headquarters. Business decision-making is much more concentrated in Poland than the other functions.
european	0	
national	2	
regional	5	
local	30	
total score	46	
administration		
global	0	Warsaw is the capital city (European significance in administration). There are 17 regional capitals. 30 FUAs have local service functions. The area and the number of people that regional centres serve is rather large.
european	1	
national	0	
regional	17	
local	30	
total score	68	
Typology		
MEGA	5	Poland has five MEGA, 14 FUAs of transnational or national significance and 29 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 48.
Transnat./nat.	14	
regional/local	29	
total	48	

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - PT

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	Portugal is bipolar country, and it has a large number of small FUAs, most of them located near to large cities. Average FUA population: 131 664, 60% of inhabitants live in FUAs. Large cities growing, some of the small FUAs are losing population extremely quickly.
european	2	
national	0	
regional	14	
local	30	
total score	66	
transport		
global	0	Lisbon is a European node in transport. Porto has national significance, as do two small FUAs as nodes for maritime transportation. In general the transport infrastructure favours polycentricity in the country.
european	1	
national	3	
regional	1	
local	0	
total score	15	
tourism		
global	0	Portugal has no FUA with a significant role as a tourism node on the global or European levels. In addition to Lisbon, Funchal FUA has national significance in tourism. In addition, nine FUAs have regional significance. Tourist oriented FUAs are FUAs other than those that score highly in other functions. In that sense it favours the division of labour between cities and polycentricity. However in Portugal the effect of tourism in terms of polycentricity is smaller than in other countries in Mediterranean area.
european	0	
national	2	
regional	9	
local	35	
total score	59	
industry		
global	0	Lisbon and Porto are the strongest industrial nodes as well, but there are 17 other FUAs where gross value added in industry is more than 1 billion euros per year. The industrial structure is more polycentric than that which the settlement structure would suggest.
european	0	
national	2	
regional	17	
local	27	
total score	67	
knowledge		
global	0	The two main FUAs (Lisbon and Porto) also have the main universities of European significance. These two FUAs have large universities. The total number of FUAs with higher education institutes is 24.
european	2	
national	2	
regional	4	
local	16	
total score	38	
decision-making		
global	0	Portugal has no FUA with a significant role as a business decision-making centre on the global or European levels, moreover, business decision-making is divided between Lisbon and Porto. Three other FUAs have regional, and 23 local, significance.
european	0	
national	2	
regional	3	
local	23	
total score	35	
administration		
global	0	Lisbon is the capital city (European significance in administration). The number of FUAs that are considered to have regional significance in administration is 33. Thus, the administrative role of some FUAs is strengthening their position in the national urban network, as compared to their position according to mass criterion.
european	1	
national	0	
regional	33	
local	12	
total score	82	
Typology		
MEGA	2	Portugal has two MEGAs, five FUAs of transnational or national significance and 39 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 46.
Transnat./nat.	5	
regional/local	39	
total	46	

COUNTRY REPORT - RO

Function significance	Number of FUAs
population	
global	0
european	1
national	7
regional	38
local	13
total score	114

Romania is dominated by Bucharest, and has seven FUAs with 280 000 to 320 000 inhabitants. Average FUA population: 144 052, 38% of inhabitants live in FUAs. All but two FUAs are losing population.

transport	
global	0
european	0
national	2
regional	0
local	1
total score	7

Romania has no FUA with a significant role as a transport node on the global or European levels, though, in addition to Bucharest, Timisoara has the role of an transport node with national significance. Traffic flow in Constanta harbour is still rather weak.

tourism	
global	0
european	1
national	0
regional	7
local	51
total score	69

Romania has one FUA by the Black Sea (Constanta) of European significance in tourism. In other functions Bucharest is very dominant, as such, tourism is an important field in terms of polycentricity.

industry	
global	0
european	0
national	1
regional	5
local	53
total score	66

Bucharest is the strongest industrial node, scoring on the national significance level. Five other FUAs have a gross value added of more than 1 billion euros annually. Overall, industry does not affect polycentricity.

knowledge	
global	0
european	3
national	9
regional	10
local	7
total score	66

The knowledge system is very polycentric. In addition to the capital, eleven FUAs have major universities, distributed over all parts of country. The total number of FUAs with higher education institutes is 29. The knowledge system makes the national urban system more polycentric.

decision-making	
global	0
european	0
national	1
regional	5
local	32
total score	45

Romania has no FUA with a significant role as a business decision-making centre on the global or European levels. Bucharest is the most important node in national decision -making and also in the private sector. Five other FUAs have regional significance in decision-making, while the top-500 companies are scattered across 32 other smaller FUAs.

administration	
global	0
european	1
national	0
regional	40
local	18
total score	102

Bucharest is the capital city (European significance in administration). 40 FUAs have regional administration functions. The network of regional capitals is rather dense.

Typology	
MEGA	1
Transnat./nat.	9
regional/local	49
total	59

Romania has one MEGA, nine FUAs of transnational or national significance and 49 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 59.

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - SE

Function significance	Number of FUAs
population	
global	0
european	1
national	4
regional	27
local	15
total score	85

Sweden is dominated by Stockholm, but it is a polycentric country in the sense that it has number of growing strong medium-sized cities and few dozen smaller FUAs with functional significance. Average FUA population: 168 657, 89% of inhabitants live in FUAs. There is a relatively good correlation between size and population change.

transport	
global	0
european	1
national	3
regional	2
local	11
total score	28

Stockholm is the most important transport node with air traffic scoring on the European level. Other large cities also score highly, mainly due to maritime traffic. In a country with such long travel distances there are many small nodes in the transport system (similar to FI and NO). The transport system makes the urban system in the country more polycentric.

tourism	
global	0
european	0
national	3
regional	13
local	31
total score	66

Sweden has no FUA with a significant role as a tourism node on the global or European levels. The same nodes that are the backbone of the urban system are also the most important nodes as regards tourism. Small FUAs are not as attractive tourist destinations as their mass criterion would suggest. Sweden is an example of country in the north where tourism does not increase polycentricity (cf. Mediterranean countries).

industry	
global	0
european	3
national	1
regional	22
local	21
total score	80

The strongest FUAs are also the most important nodes as regards industry, all having European significance. However there are 23 other FUAs that have more than 1 billion euros value added in industry every year (having at least regional significance in industry). In other words, the urban system is based on scattered industrial nodes. However, most of these FUAs have a diversified economic structure, so that they are not only dependent on industry.

knowledge	
global	0
european	1
national	9
regional	11
local	5
total score	58

Stockholm is the main node of the knowledge system. Nine other FUAs have large universities. The total number of FUAs with higher education institutes is 26. The university system makes the urban system more polycentric.

decision-making	
global	0
european	1
national	0
regional	3
local	32
total score	42

Stockholm has a role in business decision-making on the European level, being the only FUA outside pentagon that has attained this status. Three other FUAs have 2 to 10% of top 500 companies. Furthermore, 32 other FUAs have some major companies.

administration	
global	0
european	1
national	0
regional	18
local	28
total score	68

Stockholm is the capital city (European significance in administration). There are 18 regional capitals and 28 FUAs that have only regional service functions.

Typology	
MEGA	3
Transnat./nat.	12
regional/local	32
total	47

Sweden has three MEGA, 12 FUAs of transnational or national significance and 32 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 47.

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

COUNTRY REPORT - SI

Function significance	Number of FUAs	*total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	In a small country there cannot be many urban nodes, and here the urban structure is rather balanced. There is a steady population development trend in all FUAs. Average FUA population: 167 981, 52% of inhabitants live in FUAs
european	0	
national	1	
regional	4	
local	1	
total score	12	
transport		
global	0	Slovenia has no FUA with a significant role as a transport node on the global or European levels. The transport system is ultimately monocentric, Ljubljana being the only major node in the country.
european	0	
national	2	
regional	0	
local	0	
total score	6	
tourism		
global	0	The weight of tourism in Slovenia is still light. Koper is a small FUA with a high tourism orientation, but it does not score higher than the regional level of significance.
european	0	
national	0	
regional	1	
local	5	
total score	7	
industry		
global	0	Ljubljana is also the strongest industrial node, but gross value added in manufacturing has only regional significance. Three FUAs have an industrial orientation in economic structure but their industry does not add value more than 1 billion euros yearly.
european	0	
national	0	
regional	1	
local	5	
total score	7	
knowledge		
global	0	Ljubljana has more than 50 000 students in higher education institutes. Maribor also has a major university. Koper also has a role in the university system. In other words the knowledge system makes the country more polycentric.
european	1	
national	1	
regional	0	
local	1	
total score	8	
decision-making		
global	0	Slovenia has no FUA with a significant role as a business decision-making centre on the global or European levels. The capital city is also the most important decision-making centre in country. In terms of polycentricity it is important that all other FUAs have 2 to 10% of major companies in the country.
european	0	
national	1	
regional	5	
local	0	
total score	13	
administration		
global	0	Ljubljana is the capital city (European significance in administration). The remaining FUAs are regional capitals. Administration maintains the polycentric structure, but does not increase polycentricity.
european	1	
national	0	
regional	0	
local	5	
total score	9	
Typology		
MEGA	1	Slovenia has one MEGA, one FUA of transnational or national significance and four FUAs of regional or local significance. The total number of functionally significant functional urban areas is 6.
Transnat./nat.	1	
regional/local	4	
total	6	

COUNTRY REPORT - SK

Function significance	Number of FUAs	*t total score* is based on following scores: global = 5; European = 4; national = 3; regional = 2; local = 1
population		
global	0	Slovakia is rather polycentric. Most of the weight of the urban system is in medium-sized cities. Average FUA population: 129 210, 64% of inhabitants live in FUAs. Most of the FUAs are growing, but there is no discernable relation between size and population change.
european	0	
national	2	
regional	16	
local	9	
total score	47	
transport		
global	0	Slovakia has no FUA with a significant role as a transport node on the global or European levels. The transport system is very monocentric. Bratislava is the only node in the transport system.
european	0	
national	1	
regional	0	
local	0	
total score	3	
tourism		
global	0	Slovakia has no FUA with a significant role as a tourism node on the global or European levels. The tourism sector is still rather weak, only four FUAs score on the regional level.
european	0	
national	0	
regional	4	
local	23	
total score	31	
industry		
global	0	Of all of the 27 FUAs in the country 12 have an economic base in industry. However only five of these had a gross value added above 1 billion euros in 2000. Industry is however the function that makes Slovakia's urban structure more polycentric.
european	0	
national	0	
regional	12	
local	15	
total score	39	
knowledge		
global	0	Bratislava has major higher education institutes and there are three other FUA universities with more than 10 000 students. The total number of FUAs with higher education institutes is eight.
european	1	
national	3	
regional	3	
local	1	
total score	20	
decision-making		
global	0	Slovakia has no FUA with a significant role as a business decision-making centre on the global or European levels. Bratislava is also a decision -making centre for the private sector. In terms of polycentricity it is also important that 21 other FUAs have some of the largest companies in the country.
european	0	
national	1	
regional	13	
local	8	
total score	37	
administration		
global	0	Bratislava is the capital city (European significance in administration). There are seven regional capitals, 19 FUAs have only local service functions.
european	1	
national	0	
regional	7	
local	19	
total score	37	
Typology		
MEGA	1	Slovakia has one MEGA, six FUAs of transnational or national significance and twenty FUAs of regional or local significance. The total number of functionally significant functional urban areas is 27.
Transnat./nat.	6	
regional/local	20	
total	27	

COUNTRY REPORT - UK

Function significance	Number of FUAs	
population		
global	1	The United Kingdom is strongly dominated by London, which is growing strongly. Average FUA population: 208 008, 51% of inhabitants live in FUAs. The low share of people living in FUAs in relation to the total population is in this case due to the national interpretation of functional urban area (same as core city). There is no correlation between size and population development. Data quality is poor, due to the changes in statistical units used.
european	2	
national	17	
regional	93	
local	33	
total score	283	
transport		
global	1	London is a global node in transport. Three FUAs score on the European level, Manchester is an important node in air traffic, and two FUAs are significant maritime nodes. 19 FUAs have regional or local significance. Transport is rather more monocentric than that the settlement structure would suggest.
european	3	
national	0	
regional	4	
local	15	
total score	40	
tourism		
global	1	London is also a global node in tourism. Torquay in the southwest is a highly tourism oriented FUA. 33 FUAs score on the national level, and 68 have regional significance. Tourism is making the UK more polycentric as most of the tourist oriented FUAs are located on the south coast and in the north.
european	1	
national	33	
regional	68	
local	43	
total score	287	
industry		
global	0	No data available
european	0	
national	0	
regional	0	
local	0	
total score	0	
knowledge		
global	0	The university system in the UK is polycentric and balanced with the national urban structure. The total number of FUAs with higher education institutes is 54. Five universities have more than 50 000 students and as many as 40 FUAs have a medium-sized university.
european	5	
national	40	
regional	5	
local	4	
total score	154	
decision-making		
global	1	London is a global decision-making centre every fifth TOP500 company in Europe has their headquarters in London. The UK is monocentric in terms of decision-making. Other FUAs are shadowed by London - there is no other FUA that would be transnational/national decision-making centre.
european	0	
national	0	
regional	2	
local	46	
total score	55	
administration		
global	0	London is the capital city (European significance in administration). 19 FUAs are considered to have significance as regional administrative centres. The area and number of people that regional centres serve is rather large. As a result, administrative functions make the urban system more monocentric rather than more polycentric. 129 FUAs have only local service function.
european	1	
national	0	
regional	19	
local	126	
total score	168	
Typology		
MEGA	4	The United Kingdom has four MEGAs, 30 FUAs of transnational or national significance and 112 FUAs of regional or local significance. The total number of functionally significant functional urban areas is 146.
Transnat./nat.	30	
regional/local	112	
total	146	

total score is based on following scores:
global = 5; European = 4; national = 3; regional = 2; local = 1

Annex 3. National FUA lists
(5 = global significance; 4 = European significance; 3= national significance; 2 = regional significance; 1 = local significance)

AT - AUSTRIA

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
AT001	AMSTETTEN	1	0	2	2	0	1	2	regional/local	industrial
AT002	BADEN-TRAISKIRCHEN	1	0	2	3	0	2	2	regional/local	industrial
AT003	BREGENZ	1	0	1	2	0	1	2	regional/local	industrial
AT004	DORNBIRN	1	0	2	2	0	2	2	regional/local	industrial
AT005	FELDKIRCH-RANKWEIL	1	0	1	2	0	1	2	regional/local	industrial
AT006	GRAZ	2	2	2	3	3	2	2	transnational/national	diversified
AT007	INNSBRUCK	2	2	4	2	3	1	2	transnational/national	diversified
AT008	BRUCK/MUR-KAPFENBERG	1	0	2	2	0	1	2	regional/local	industrial
AT009	KLAGENFURT	2	1	4	2	2	1	2	transnational/national	diversified
AT010	KLOSTERNEUBURG	1	0	1	2	0	1	1	regional/local	industrial
AT011	KREMS AN DER DONAU	1	0	2	2	1	1	2	regional/local	primary
AT012	LEOBEN	1	0	2	2	1	1	2	regional/local	industrial
AT013	LEONDING	1	0	1	3	0	0	1	regional/local	industrial
AT014	LINZ	2	2	2	3	3	2	2	transnational/national	industrial
AT015	MOEDLING	1	0	2	3	0	2	2	regional/local	industrial
AT016	SALZBURG	2	3	3	2	3	2	2	transnational/national	diversified
AT017	SANKT POELTEN	1	0	1	1	0	1	2	regional/local	industrial
AT018	STEYR	1	0	2	2	0	1	2	regional/local	strong industrial
AT019	TRAUN	1	0	1	3	0	0	1	regional/local	industrial
AT020	VILLACH	2	0	3	2	0	1	2	regional/local	diversified
AT021	WELS	2	0	1	3	0	2	2	regional/local	industrial
AT022	WIEN	4	4	3	4	4	3	4	MEGA	service
AT023	WIENER NEUSTADT	1	0	2	2	0	1	2	regional/local	industrial
AT024	WOLFSBERG	1	0	2	1	0	1	2	regional/local	industrial

BE - BELGIUM

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
BE001	AALST	3	0	1	2	1	1	1	regional/local	diversified
BE004	ANTWERPEN	3	5	2	4	3	3	2	MEGA	diversified
BE013	BRUGGE	3	4	2	2	1	1	2	transnational/national	diversified
BE014	BRUXELLES/BRUSSEL	3	4	3	3	4	4	5	MEGA	strong service
BE015	CHARLEROI	3	1	1	3	0	2	1	transnational/national	diversified
BE022	GENT	3	0	1	3	3	2	2	transnational/national	diversified
BE024	HASSELT	3	0	1	3	3	1	2	transnational/national	industrial
BE028	IEPER	2	0	1	1	0	1	1	regional/local	primary
BE031	KORTRIJK	3	0	1	3	1	2	1	transnational/national	industrial
BE032	LA LOUVIERE	2	0	1	1	0	1	1	regional/local	diversified
BE033	LEUVEN	3	0	1	2	3	1	2	transnational/national	service
BE034	LIEGE	3	1	1	3	3	2	1	transnational/national	diversified
BE041	MECHELEN	3	0	1	2	1	1	1	regional/local	diversified
BE044	MONS	2	0	1	1	3	1	2	regional/local	service
BE045	MOUSCRON	2	0	1	1	0	1	1	regional/local	diversified
BE046	NAMUR	3	0	1	1	3	1	2	transnational/national	service
BE048	OOSTENDE	2	0	2	1	1	1	1	regional/local	strong service
BE050	ROESELARE	2	0	1	2	1	1	1	regional/local	industrial
BE053	SINT NIKLAAS	2	0	1	2	1	1	1	regional/local	diversified
BE059	TOURNAI	2	0	1	1	1	1	1	regional/local	diversified
BE061	VERVIERS	3	0	2	2	0	1	1	regional/local	diversified

BG - BULGARIA

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
BG001	ASENOVGRAD	2	0	1	1	0	1	1	regional/local	strong primary
BG002	BLAGOEVGRAD	2	0	1	1	3	1	2	regional/local	strong primary
BG003	BURGAS	2	3	3	1	2	2	2	transnational/national	primary
BG004	DIMITROVGRAD	2	0	1	1	0	1	2	regional/local	strong primary
BG005	GABROVO	2	0	1	1	2	1	2	regional/local	strong primary
BG006	KAZANLAK	2	0	1	1	0	1	2	regional/local	strong primary
BG007	KYUSTENDIL	2	0	1	1	0	1	2	regional/local	strong primary
BG008	KARDZHALI	2	0	1	1	0	1	2	regional/local	strong primary
BG009	LOVECH	2	0	1	1	0	1	2	regional/local	strong primary
BG010	MONTANA	2	0	1	1	0	1	2	regional/local	strong primary
BG011	PAZARDZHIK	2	0	1	1	0	1	2	regional/local	strong primary
BG012	PERNIK	2	0	2	1	0	1	2	regional/local	strong primary
BG013	PLEVEN	2	0	1	1	1	2	2	regional/local	strong primary
BG014	PLOVDIV	3	0	2	1	3	2	2	transnational/national	strong primary
BG015	RAZGRAD	2	0	1	1	0	1	2	regional/local	strong primary
BG016	RUSE	2	0	1	1	2	1	2	regional/local	strong primary
BG017	SHUMEN	2	0	1	1	2	2	2	regional/local	strong primary
BG018	SILISTRA	2	0	1	1	0	1	2	regional/local	strong primary
BG019	SLIVEN	2	0	1	1	0	2	2	regional/local	strong primary
BG020	SOFIA	4	3	3	2	4	3	4	MEGA	diversified
BG021	STARA ZAGORA	2	0	1	1	2	2	2	regional/local	strong primary
BG022	DOBRICH	2	0	3	1	0	1	2	regional/local	strong primary
BG023	VARNA	3	3	3	1	3	2	2	transnational/national	primary
BG024	VIDIN	2	0	1	1	0	0	2	regional/local	strong primary
BG026	YAMBOL	2	0	1	1	0	1	2	regional/local	strong primary
BG027	HASKOVO	2	0	1	1	0	1	2	regional/local	strong primary

BG029	TARGOVISHTE	2	0	1	1	0	1	2	regional/local	strong primary
BG030	VELIKO TARNOVO	2	0	1	1	3	1	2	regional/local	strong primary
BG037	PETRICH	2	0	1	1	0	1	1	regional/local	strong primary
BG038	KARLOVO	2	0	1	1	0	1	1	regional/local	strong primary
BGX01	VRACA	2	0	1	1	0	1	1	regional/local	strong primary

CH - Switzerland

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
CH001	BASEL	3	0	NA	NA	2	3	2	transnational/national	NA
CH002	BERN	3	1	NA	NA	3	3	4	MEGA	NA
CH003	BIEL (BE)	2	0	NA	NA	0	1	1	regional/local	NA
CH004	CHUR	2	0	NA	NA	0	1	2	regional/local	NA
CH005	FRIBOURG	2	0	NA	NA	0	1	2	regional/local	NA
CH006	GENEVE	3	3	NA	NA	3	1	2	transnational/national	NA
CH008	LA CHAUX-DE-FONDS	1	0	NA	NA	0	1	1	regional/local	NA
CH009	LAUSANNE	3	0	NA	NA	2	2	2	transnational/national	NA
CH010	LUZERN	2	0	NA	NA	1	2	2	regional/local	NA
CH011	NEUCHATEL	2	0	NA	NA	1	1	2	regional/local	NA
CH012	SCHAFFHAUSEN	2	0	NA	NA	0	1	2	regional/local	NA
CH013	ST. GALLEN	2	0	NA	NA	1	1	2	regional/local	NA
CH014	THUN	2	0	NA	NA	0	1	1	regional/local	NA
CH015	WINTERTHUR	2	0	NA	NA	0	1	1	regional/local	NA
CH016	ZUERICH	3	4	NA	NA	3	4	2	MEGA	NA
CH017	AARAU	2	0	NA	NA	0	2	1	regional/local	NA
CH020	BELLINZONA	1	0	NA	NA	0	1	2	regional/local	NA
CH022	FRAUENFELD	1	0	NA	NA	0	1	2	regional/local	NA
CH025	LIESTAL	1	0	NA	NA	0	0	2	regional/local	NA
CH028	SION	1	0	NA	NA	0	1	2	regional/local	NA
CH029	SOLOTHURN	2	0	NA	NA	0	1	2	regional/local	NA
CH030	STANS	1	0	NA	NA	0	1	2	regional/local	NA
CH031	ZUG	2	0	NA	NA	0	3	2	regional/local	NA
CH032	BADEN	2	0	NA	NA	0	0	2	regional/local	NA
CH033	BRIG	1	0	NA	NA	0	0	1	regional/local	NA
CH034	BRUGG	1	0	NA	NA	0	1	1	regional/local	NA
CH035	BUCHS	1	0	NA	NA	0	1	1	regional/local	NA
CH036	BURGDORF	1	0	NA	NA	0	1	1	regional/local	NA

CH037	CHIASSO-MENDRISIO	1	0	NA	NA	0	1	1	regional/local	NA
CH040	GRENCHEN	1	0	NA	NA	0	1	1	regional/local	NA
CH041	HEERBRUGG-ALTSTATTEN	1	0	NA	NA	0	1	1	regional/local	NA
CH042	INTERLAKEN	1	0	NA	NA	0	0	1	regional/local	NA
CH043	KREUZLINGEN	1	0	NA	NA	0	1	1	regional/local	NA
CH045	LENZBURG	1	0	NA	NA	0	1	1	regional/local	NA
CH046	LOCARNO	1	0	NA	NA	0	0	1	regional/local	NA
CH047	LUGANO	2	1	NA	NA	1	1	1	regional/local	NA
CH049	MONTHEY	1	0	NA	NA	0	0	1	regional/local	NA
CH050	OLTEN	2	0	NA	NA	0	2	1	regional/local	NA
CH051	PFAEFFIKON-LACHEN	1	0	NA	NA	0	1	1	regional/local	NA
CH052	RAPPERSWIL-JONA	1	0	NA	NA	0	1	1	regional/local	NA
CH053	ROMANSHORN-AMRISWIL	1	0	NA	NA	0	1	1	regional/local	NA
CH054	ARBON RORSCHACH	1	0	NA	NA	0	1	1	regional/local	NA
CH056	SIERRE	1	0	NA	NA	0	0	1	regional/local	NA
CH058	VEVEY	2	0	NA	NA	0	1	1	regional/local	NA
CH059	WETZIKON-PFAFFIKON (Z	1	0	NA	NA	0	1	1	regional/local	NA
CH060	WIL	1	0	NA	NA	0	1	1	regional/local	NA
CH062	YVERDON	1	0	NA	NA	0	1	1	regional/local	NA
CH063	ZOFINGEN	1	0	NA	NA	0	0	1	regional/local	NA

CY - CYPRUS

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
CY001	NICOSIA	3	0	1	1	1	3	4	transnational/national	diversified
CY004	LARNACA	2	3	2	1	0	2	2	transnational/national	strong service
CY005	LIMASSOL	2	0	4	1	0	3	2	transnational/national	diversified
CY007	PAPHOS	1	3	3	1	0	2	2	transnational/national	strong service

CZ- CZECH REPUBLIC

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
CZ003	BRNO	3	1	2	1	3	2	2	transnational/national	diversified
CZ005	CESKE BUDEJOVICE	2	0	3	1	2	0	2	regional/local	primary
CZ008	CHOMUTOV	2	0	1	1	0	1	1	regional/local	industrial
CZ010	DECIN	2	0	1	1	0	1	1	regional/local	industrial
CZ011	FRYDEK-MISTEK	2	0	1	1	0	0	1	regional/local	strong industrial
CZ012	HAVIROV	2	0	1	1	0	0	1	regional/local	strong industrial
CZ015	HRADEC KRALOVE	2	0	3	1	1	2	2	transnational/national	industrial
CZ018	JIHLAVA	2	0	2	1	0	1	2	regional/local	strong primary
CZ020	KARLOVY VARY	2	0	3	1	0	0	2	regional/local	industrial
CZ021	KARVINA	2	0	1	1	0	0	1	regional/local	strong industrial
CZ022	KLADNO	2	0	2	1	0	0	1	regional/local	primary
CZ029	LIBEREC	2	0	3	1	2	0	2	regional/local	strong industrial
CZ034	MLADA BOLESLAV	1	0	2	1	0	1	1	regional/local	primary
CZ035	MOST	2	0	1	1	0	1	1	regional/local	industrial
CZ039	OLOMOUC	2	0	1	1	3	0	2	regional/local	industrial
CZ040	OPAVA	2	0	1	1	1	0	1	regional/local	strong industrial
CZ042	OSTRAVA	4	1	1	1	3	2	2	transnational/national	strong industrial
CZ044	PARDUBICE	2	0	2	1	1	1	2	regional/local	industrial
CZ046	PLZEN	3	0	2	1	3	2	2	transnational/national	primary
CZ047	PRAHA	4	3	3	1	4	3	4	MEGA	strong service
CZ048	PREROV	2	0	1	1	0	0	1	regional/local	industrial
CZ050	PROSTEJOV	2	0	1	1	0	0	1	regional/local	industrial
CZ055	TEPLICE	2	0	1	1	0	1	1	regional/local	industrial
CZ060	USTI NAD LABEM	2	0	1	1	2	2	2	regional/local	industrial
CZ066	ZLIN	2	0	2	1	1	0	2	regional/local	primary

DE - GERMANY

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
DE001	AACHEN	3	0	1	2	3	1	2	transnational/national	service
DE002	AALEN	2	0	1	2	0	1	2	regional/local	industrial
DE012	ALTENBURG	2	0	1	1	0	1	2	regional/local	diversified
DE013	AMBERG IN DER OBERPFALZ	2	0	1	1	0	1	2	regional/local	diversified
DE016	ANSBACH	1	0	1	1	0	1	2	regional/local	diversified
DE018	ARNSBERG	2	0	2	3	0	1	2	regional/local	industrial
DE020	ASCHAFFENBURG	2	0	1	1	0	1	2	regional/local	diversified
DE023	AUE	2	0	1	1	0	1	2	regional/local	diversified
DE025	AUGSBURG	3	1	1	3	3	1	2	transnational/national	diversified
DE030	BAD HERSFELD	1	0	2	1	0	1	2	regional/local	diversified
DE034	BAD KREUZNACH	2	0	1	1	0	1	2	regional/local	diversified
DE035	BAD NAUHEIM	2	0	1	2	0	1	1	regional/local	diversified
DE037	BAD OEYNHAUSEN	2	0	1	2	0	1	1	regional/local	diversified
DE044	BADEN BADEN	2	1	2	1	0	1	1	regional/local	diversified
DE047	BAMBERG	2	0	2	2	2	1	2	transnational/national	diversified
DE050	BAUTZEN	1	0	1	1	2	1	2	regional/local	diversified
DE051	BAYREUTH	2	0	2	1	0	1	2	regional/local	service
DE057	BERLIN	4	4	3	4	4	2	4	MEGA	service
DE059	BIELEFELD	3	0	1	2	3	1	1	transnational/national	diversified
DE066	BOCHOLT	2	0	1	3	0	1	1	regional/local	industrial
DE067	BOCHUM	3	0	1	3	3	1	1	transnational/national	diversified
DE068	BONN	3	0	2	2	3	1	1	transnational/national	strong service
DE075	BRANDENBURG	2	0	1	1	0	1	1	regional/local	diversified
DE076	BRAUNSCHWEIG	3	0	1	2	0	1	2	regional/local	diversified
DE077	BREMEN	3	5	2	3	3	1	2	MEGA	diversified
DE078	BREMERHAVEN	2	0	1	1	0	1	1	regional/local	diversified
DE085	BUEHL	2	0	1	3	0	1	1	regional/local	strong industrial
DE092	CELLE	2	0	1	1	0	1	2	regional/local	diversified

DE093	CHEMNITZ	3	0	1	2	2	1	2	transnational/national	diversified
DE095	COBURG	2	0	1	1	0	1	2	regional/local	diversified
DE098	COTTBUS	2	0	1	1	0	1	1	regional/local	strong service
DE101	CUXHAVEN	2	1	1	1	0	1	2	regional/local	primary
DE103	DARMSTADT	3	0	1	2	0	1	2	regional/local	diversified
DE105	DEGGENDORF	1	0	1	1	0	1	2	regional/local	industrial
DE109	DESSAU	2	0	1	1	0	1	2	regional/local	diversified
DE110	DETMOLD	2	0	2	3	0	1	2	regional/local	diversified
DE112	DILLENBURG	2	0	1	2	0	1	1	regional/local	industrial
DE119	DORTMUND	3	1	1	3	3	1	1	transnational/national	service
DE121	DRESDEN	3	1	2	3	3	1	2	transnational/national	diversified
DE123	DUISBURG	3	0	1	3	3	1	1	transnational/national	diversified
DE125	DUEREN	2	0	1	2	0	1	2	regional/local	diversified
DE126	DUESSELDORF	4	4	3	3	3	4	2	MEGA	strong service
DE127	EBERSWALDE-FINOW	2	0	1	1	0	1	2	regional/local	service
DE132	EISENACH	2	0	2	1	0	1	1	regional/local	diversified
DE137	EMDEN	2	1	1	2	0	1	1	regional/local	strong industrial
DE144	ERFURT	2	0	1	2	1	1	2	regional/local	service
DE147	ERLANGEN	2	0	2	3	3	1	2	transnational/national	strong industrial
DE151	ESSEN	3	0	1	3	3	3	1	transnational/national	diversified
DE154	EUSKIRCHEN	2	0	1	1	0	1	2	regional/local	diversified
DE159	FLENSBURG	2	0	1	1	1	1	1	regional/local	diversified
DE163	FRANKFURT AM MAIN	4	5	3	3	3	4	1	MEGA	strong service
DE164	FRANKFURT AN DER ODER	2	0	1	1	1	1	1	regional/local	strong service
DE166	FREIBERG	2	0	1	1	3	1	2	regional/local	diversified
DE167	FREIBURG IM BREISGAU	3	0	1	2	0	1	2	regional/local	service
DE168	FREISING	1	0	1	1	0	1	2	regional/local	strong service
DE171	FRIEDBERG (HESSEN)	1	0	1	1	0	1	2	regional/local	diversified
DE172	FRIEDRICHSDORF	2	0	1	2	0	1	1	regional/local	service
DE175	FULDA	2	0	2	2	0	1	1	regional/local	diversified
DE178	FUERTH	2	0	1	1	0	1	2	regional/local	service
DE182	GARMISCH-PARTENKIRCHEN	1	0	4	1	0	1	2	regional/local	strong service
DE189	GERA	2	0	1	1	0	1	1	regional/local	strong service
DE194	GIESSEN	3	0	1	2	3	1	2	transnational/national	service
DE201	GOERLITZ	2	0	1	1	0	1	1	regional/local	diversified

DE202	GOSLAR	2	0	2	1	0	1	2	regional/local	diversified
DE203	GOTHA	1	0	2	1	0	1	2	regional/local	diversified
DE204	GOETTINGEN	2	0	1	2	3	1	2	transnational/national	diversified
DE205	GREIFSWALD	2	0	1	1	2	1	1	regional/local	strong service
DE206	GREIZ	2	0	1	1	0	1	2	regional/local	diversified
DE212	GUMMERSBACH	2	0	1	3	0	1	2	regional/local	industrial
DE216	HAGEN	2	0	1	2	4	1	1	transnational/national	diversified
DE217	HALBERSTADT	1	0	1	1	0	1	1	regional/local	primary
DE219	HALLE	3	0	1	1	3	1	2	transnational/national	service
DE221	HAMBURG	4	5	3	4	3	4	2	MEGA	strong service
DE222	HAMELN	2	0	1	2	0	1	2	regional/local	diversified
DE223	HAMM	2	0	1	1	0	1	1	regional/local	diversified
DE225	HANAU	2	0	2	3	0	1	2	regional/local	diversified
DE226	HANNOVER	3	2	2	3	3	1	2	transnational/national	diversified
DE230	HEIDELBERG	2	0	2	2	3	1	2	transnational/national	service
DE232	HEIDENHEIM	2	0	1	2	0	1	2	regional/local	strong industrial
DE233	HEILBRONN	3	0	1	2	0	1	2	regional/local	diversified
DE243	HERFORD	2	0	1	3	0	1	2	regional/local	industrial
DE250	HILDESHEIM	2	0	1	2	1	1	2	regional/local	diversified
DE251	HOF	2	0	1	1	0	1	2	regional/local	diversified
DE257	HOYERSWERDA	2	0	1	1	0	1	1	regional/local	industrial
DE261	IBBENBUEREN	2	0	1	1	0	1	1	regional/local	diversified
DE264	INGOLSTADT	2	0	1	3	0	1	1	regional/local	strong industrial
DE265	ISERLOHN	2	0	1	3	1	1	1	regional/local	strong industrial
DE267	JENA	2	0	1	1	3	1	1	regional/local	service
DE271	KAISERSLAUTERN	2	0	1	2	2	1	2	regional/local	diversified
DE274	KARLSRUHE	3	0	1	3	0	1	2	regional/local	service
DE275	KASSEL	3	0	1	2	3	1	2	transnational/national	service
DE276	KAUFBEUREN	1	0	1	1	0	1	1	regional/local	service
DE280	KEMPTEN (ALLGAEU)	2	0	1	1	0	1	1	regional/local	diversified
DE283	KIEL	3	1	1	2	3	1	2	transnational/national	strong service
DE286	KLEVE	2	0	1	2	0	1	1	regional/local	primary
DE287	KOBLENZ	3	0	2	1	2	1	2	transnational/national	strong service
DE288	KOELN	4	2	3	3	4	1	2	MEGA	strong service
DE290	KONSTANZ	2	0	2	1	2	1	1	regional/local	diversified

DE295	KREFELD	2	0	1	3	0	1	1	regional/local	industrial
DE297	KULMBACH	1	0	2	1	0	1	2	regional/local	industrial
DE302	LANDAU IN DER PFALZ	2	0	1	1	1	1	1	regional/local	strong service
DE303	LANDSHUT	2	0	1	1	0	1	2	regional/local	service
DE314	LEIPZIG	3	1	2	2	4	1	2	transnational/national	service
DE322	LIMBURG	2	0	1	1	0	1	2	regional/local	diversified
DE324	LINGEN	2	0	1	2	0	1	1	regional/local	diversified
DE325	LIPPSTADT	2	0	1	3	0	1	1	regional/local	industrial
DE328	LOERRACH	2	0	2	1	0	1	2	regional/local	industrial
DE331	LUEBECK	3	1	1	2	1	1	1	regional/local	service
DE336	LUDWIGSHAFEN AM RHEIN	2	0	1	3	0	1	2	regional/local	strong industrial
DE337	LUENEBURG	2	0	1	1	2	1	2	regional/local	diversified
DE339	MAGDEBURG	3	0	1	1	2	1	2	regional/local	service
DE341	MAINZ	3	0	2	2	3	1	2	transnational/national	strong service
DE342	MANNHEIM	4	0	1	3	3	1	1	transnational/national	diversified
DE343	MARBURG AN DER LAHN	2	0	1	2	3	1	2	transnational/national	industrial
DE353	MEMMINGEN	2	0	1	1	0	1	1	regional/local	industrial
DE356	MERSEBURG	1	0	1	1	0	1	2	regional/local	diversified
DE360	MINDEN	2	0	1	2	0	1	2	regional/local	diversified
DE362	MONCHEN-GLADBACH	3	0	1	2	0	1	1	regional/local	diversified
DE370	MUENCHEN	4	4	3	4	4	5	2	MEGA	service
DE372	MUENSTER	3	1	1	2	3	1	2	transnational/national	strong service
DE374	NAUMBURG	1	0	1	1	0	1	2	regional/local	diversified
DE379	NEU-ULM	2	0	1	2	0	1	2	regional/local	industrial
DE380	NEUBRANDENBURG	2	0	1	1	0	1	1	regional/local	service
DE383	NEUMARKT	1	0	1	2	0	1	2	regional/local	industrial
DE384	NEUMUENSTER	2	0	1	1	0	1	1	regional/local	diversified
DE389	NEUSTADT AN DER WEINSTRASSE	2	0	1	1	0	1	2	regional/local	strong service
DE397	NORDHAUSEN	2	0	1	1	0	1	2	regional/local	diversified
DE398	NORDHORN	2	0	1	1	0	1	2	regional/local	diversified
DE400	NURNBERG	4	2	2	3	0	1	1	transnational/national	diversified
DE407	OFFENBACH AM MAIN	2	0	1	2	0	1	1	regional/local	diversified
DE408	OFFENBURG	2	0	2	3	0	1	2	regional/local	industrial
DE409	OLDENBURG	2	0	1	1	3	1	2	regional/local	strong service
DE412	OSNABRUECK	3	0	1	2	3	1	2	transnational/national	diversified

DE417	PADERBORN	2	1	1	2	1	1	2	regional/local	diversified
DE420	PASSAU	2	0	2	1	2	1	2	regional/local	diversified
DE421	PEINE	2	0	1	1	0	1	2	regional/local	diversified
DE423	PFORZHEIM	2	0	1	2	0	1	2	regional/local	diversified
DE426	PIRMASENS	2	0	1	1	0	1	2	regional/local	diversified
DE428	PLAUEN	2	0	1	1	0	1	2	regional/local	diversified
DE431	POTSDAM	2	0	2	1	3	1	2	transnational/national	strong service
DE442	RAVENSBURG	2	0	1	2	0	1	2	regional/local	diversified
DE444	REGENSBURG	2	0	2	3	3	1	2	transnational/national	industrial
DE448	RENDSBURG	2	0	1	2	0	1	2	regional/local	service
DE449	REUTLINGEN	3	0	1	3	0	1	2	regional/local	industrial
DE453	RHEINE	2	0	1	2	0	1	1	regional/local	diversified
DE455	RIESA	2	0	1	1	0	1	1	regional/local	diversified
DE459	ROSENHEIM	2	0	1	1	0	1	2	regional/local	service
DE461	ROSTOCK	2	1	2	1	3	1	1	transnational/national	diversified
DE465	RUDOLSTADT	1	0	2	1	0	1	1	regional/local	diversified
DE466	RUESSELSHEIM	2	0	2	3	0	1	1	regional/local	diversified
DE467	SAALFELD	1	0	2	1	0	1	2	regional/local	diversified
DE468	SAARBRUECKEN	3	1	1	2	3	1	2	transnational/national	service
DE470	SALZGITTER	2	0	1	2	0	1	1	regional/local	strong industrial
DE478	SCHOENEBECK (ELBE)	1	0	1	1	0	1	1	regional/local	diversified
DE481	SCHWABACH	1	0	1	1	0	1	1	regional/local	industrial
DE482	SCHWAEBISCH GMUEND	2	0	1	2	0	1	1	regional/local	industrial
DE488	SCHWEINFURT	2	0	1	2	0	1	2	regional/local	industrial
DE490	SCHWERIN	2	0	1	1	0	1	2	regional/local	strong service
DE498	SIEGEN	3	0	1	3	0	1	2	regional/local	industrial
DE500	SINGEN	2	0	2	1	0	1	1	regional/local	diversified
DE508	SPEYER	1	0	1	1	1	1	1	regional/local	diversified
DE520	STENDAL	1	0	1	1	0	1	2	regional/local	primary
DE522	STRALSUND	2	0	2	1	0	1	1	regional/local	strong service
DE523	STRAUBING	1	0	1	1	0	1	2	regional/local	diversified
DE526	STUTTGART	4	3	2	4	3	2	2	MEGA	diversified
DE527	SUHL	2	0	2	1	0	1	1	regional/local	strong service
DE532	TRIER	2	0	2	1	3	1	2	transnational/national	service
DE534	TUEBINGEN	2	0	1	2	3	1	2	transnational/national	diversified

DE538	ULM	2	0	1	2	2	1	2	regional/local	diversified
DE547	VILLINGEN-SCHWENNINGEN	2	0	2	2	0	1	2	regional/local	industrial
DE563	WEIDEN IN DER OBERPFALZ	2	0	1	1	0	1	1	regional/local	service
DE564	WEIL	1	0	1	1	0	1	1	regional/local	industrial
DE565	WEIMAR	2	0	2	1	2	1	1	regional/local	service
DE566	WEINGARTEN	1	0	1	3	0	1	1	regional/local	industrial
DE580	WETZLAR	2	0	1	2	0	1	2	regional/local	industrial
DE583	WIESBADEN	3	0	2	2	0	1	2	regional/local	strong service
DE585	WILHELMSHAVEN	2	1	1	1	0	1	1	regional/local	service
DE590	WISMAR	2	0	1	1	0	1	1	regional/local	diversified
DE592	WITTENBERG	2	0	1	1	0	1	2	regional/local	diversified
DE594	WOLFEN	2	0	1	1	0	1	1	regional/local	diversified
DE596	WOLFSBURG	2	0	1	3	0	1	1	regional/local	strong industrial
DE598	WUELFRATH	2	0	1	3	0	1	1	regional/local	diversified
DE600	WUPPERTAL	3	0	1	3	0	1	1	regional/local	diversified
DE602	WUERZBURG	2	0	2	2	3	1	2	transnational/national	service
DE607	ZWICKAU	2	0	1	2	0	1	1	regional/local	industrial
DE716	NEURUPPIN	1	0	2	1	0	1	2	regional/local	diversified

DK - DENMARK

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
DK001	AALBORG	3	2	2	2	2	2	2	transnational/national	diversified
DK003	ESBJERG	2	0	1	2	1	1	1	regional/local	diversified
DK005	FREDERIKSHAVN	2	0	1	1	0	1	1	regional/local	diversified
DK007	HERNING	2	0	1	1	0	1	1	regional/local	primary
DK009	HJOERRING	2	0	1	1	0	1	1	regional/local	diversified
DK010	HOLBAEK	2	0	1	2	0	0	1	regional/local	industrial
DK011	HOLSTEBRO	2	0	1	1	0	1	1	regional/local	primary
DK012	HORSENS	2	0	1	1	0	1	1	regional/local	industrial
DK013	KOEBENHAVN	4	4	3	3	4	3	4	MEGA	strong service
DK015	KOLDING	2	0	1	2	0	2	1	regional/local	industrial
DK016	NAESTVED	2	0	1	2	0	1	1	regional/local	primary
DK017	ODENSE	3	0	2	2	3	2	2	transnational/national	diversified
DK018	RANDERS	2	0	1	2	0	1	1	regional/local	diversified
DK020	SILKEBORG	2	0	1	1	0	1	1	regional/local	diversified
DK021	SLAGELSE	2	0	1	2	0	1	1	regional/local	industrial
DK022	SOENDERBORG	2	0	1	1	0	1	1	regional/local	diversified
DK023	SVENDBORG	2	0	1	2	0	1	1	regional/local	diversified
DK024	VEJLE	2	3	1	2	0	1	1	regional/local	industrial
DK025	VIBORG	2	0	1	2	0	1	2	regional/local	primary
DK026	AARHUS	3	3	2	2	3	2	2	transnational/national	diversified
DK027	AABENRAA	2	0	1	1	0	1	2	regional/local	diversified
DK029	RIBE	1	0	1	1	0	0	2	regional/local	diversified
DK030	RINGKOEBING	1	0	1	1	0	1	2	regional/local	primary
DK031	ROENNE	1	0	2	1	0	1	2	regional/local	primary
DK032	NYKOEBING F	2	0	1	1	0	0	2	regional/local	primary
DK037	GRENAA	1	0	1	1	0	1	1	regional/local	diversified
DK038	HADERSLEV	2	0	1	1	0	1	1	regional/local	diversified
DK050	SKIVE	2	0	1	1	0	1	1	regional/local	primary

DK053	THISTED	1	0	1	1	0	1	1	regional/local	primary
DKX01	LEMVIG	1	0	1	1	0	1	1	regional/local	primary
DKX02	LOGSTOR	1	0	1	1	0	1	1	regional/local	diversified
DKX03	MARIBO	1	0	1	1	0	0	1	regional/local	primary
DKX04	NAKSKOV	1	0	1	1	0	0	1	regional/local	primary
DKX05	NYKOBING MORSO	1	0	1	1	0	1	1	regional/local	primary
DKX07	TONDER	1	0	1	1	0	1	1	regional/local	diversified

EE - ESTONIA

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
EE001	KOHTLA-JARVE	2	0	1	1	0	2	2	regional/local	strong industrial
EE002	TALLINN	3	3	2	1	3	3	4	MEGA	service
EE003	TARTU	2	0	1	1	3	3	2	transnational/national	diversified
EE004	NARVA	2	0	1	1	0	0	2	regional/local	strong industrial
EE005	PARNU	2	0	1	1	0	2	2	regional/local	diversified
EE006	VILJANDI	1	0	1	1	0	1	2	regional/local	diversified
EE008	RAKVERE	1	0	1	1	0	1	2	regional/local	industrial
EE010	VORU	1	0	1	1	0	1	2	regional/local	diversified
EE012	KURESSAARE	1	0	1	1	0	0	2	regional/local	diversified
EE016	PAIDE	1	0	1	1	0	0	2	regional/local	diversified

ES – SPAIN

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
ES003	ALBACETE	2	0	2	1	0	0	1	regional/local	strong primary
ES008	ALCAZAR DE SAN JUAN	2	0	1	1	0	0	1	regional/local	strong primary
ES009	ALZIRA	2	0	2	3	0	1	1	regional/local	diversified
ES011	ALCOY	2	0	1	1	0	0	1	regional/local	diversified
ES014	ALGECIRAS	2	4	3	2	0	0	1	transnational/national	diversified
ES016	ALICANTE	3	2	4	3	3	0	1	transnational/national	diversified
ES019	ALMERIA	2	1	3	1	3	0	1	transnational/national	strong primary
ES020	ANDUJAR	2	0	1	1	0	0	1	regional/local	strong primary
ES023	ARANJUEZ	2	0	1	1	0	1	1	regional/local	service
ES026	ARRECIFE	2	2	2	2	0	0	1	regional/local	service
ES028	AVILA	2	0	1	1	1	1	1	regional/local	strong primary
ES029	AVILES	2	0	2	1	0	1	1	regional/local	diversified
ES030	BADAJOZ	2	0	2	1	3	0	1	regional/local	strong primary
ES033	BARCELONA	4	4	4	5	4	3	2	MEGA	diversified
ES036	BENIDORM	2	0	3	2	0	1	1	regional/local	diversified
ES037	BILBAO	3	1	2	3	4	2	1	transnational/national	diversified
ES038	BLANES	2	0	4	2	0	0	1	regional/local	diversified
ES039	BURGOS	2	0	2	2	3	1	1	transnational/national	primary
ES041	CACERES	2	0	2	2	0	0	1	regional/local	strong primary
ES042	CADIZ	3	0	3	3	3	1	1	transnational/national	diversified
ES050	CARTAGENA	2	0	2	2	2	1	1	regional/local	primary
ES052	CASTELLON DE LA PLANA	3	0	3	3	3	1	1	transnational/national	industrial
ES055	CIEZA	2	0	1	1	0	0	1	regional/local	primary
ES056	CIUDAD REAL	2	0	1	1	3	0	1	regional/local	strong primary
ES059	CORDOBA	3	0	2	2	3	1	1	transnational/national	primary
ES066	DENIA	2	0	1	1	0	0	1	regional/local	diversified
ES067	DON BENITO	2	0	1	1	0	0	1	regional/local	strong primary
ES068	SAN SEBASTIAN	3	1	2	3	0	1	1	transnational/national	industrial

ES070	DURANGO	2	0	1	1	0	0	1	regional/local	diversified
ES073	FERROL	2	0	2	2	0	0	1	regional/local	diversified
ES075	ELCHE	3	0	2	2	2	0	1	regional/local	diversified
ES076	ELDA	2	0	1	2	0	0	1	regional/local	diversified
ES079	FIGUERES	2	0	1	2	0	1	1	regional/local	diversified
ES083	GANDIA	2	0	2	2	0	0	1	regional/local	diversified
ES085	GERONA	2	0	1	2	0	0	1	regional/local	diversified
ES086	GIJON	3	0	2	2	0	0	1	regional/local	diversified
ES087	GRANADA	3	1	2	2	4	1	1	transnational/national	primary
ES088	GRANOLLERS	2	0	2	2	0	1	1	regional/local	diversified
ES089	GUADALAJARA	2	0	2	1	0	1	1	regional/local	primary
ES092	HUELVA	2	0	3	2	3	1	1	transnational/national	primary
ES094	IBIZA	2	2	4	2	0	0	2	transnational/national	strong service
ES095	IGUALADA	2	0	1	1	0	1	1	regional/local	diversified
ES099	JAEN	2	0	2	2	3	0	1	regional/local	strong primary
ES100	JEREZ DE LA FRONTERA	2	1	2	2	0	1	1	regional/local	diversified
ES102	LA CORUNA	3	1	2	2	3	1	1	transnational/national	diversified
ES105	LA OROTAVA	2	0	1	2	0	0	1	regional/local	service
ES108	LAS PALMAS DE GRAN CANARIA	3	3	4	2	3	1	1	transnational/national	service
ES110	LEON	2	0	2	2	3	0	1	regional/local	primary
ES111	LERIDA	2	0	1	2	1	1	1	regional/local	strong primary
ES112	LINARES	2	0	1	1	0	0	1	regional/local	strong primary
ES114	LOGRONO	2	0	2	2	2	1	2	transnational/national	primary
ES115	LORCA	2	0	1	1	0	1	1	regional/local	primary
ES117	LUCENA	2	0	1	1	0	0	1	regional/local	primary
ES118	LUGO	2	0	2	1	0	0	1	regional/local	primary
ES119	MADRID	5	4	4	5	4	3	4	MEGA	service
ES121	MALAGA	3	3	4	3	3	0	1	transnational/national	service
ES123	MANRESA	2	0	2	2	0	0	1	regional/local	diversified
ES124	MARBELLA	2	0	3	2	0	0	1	regional/local	service
ES127	MATARO	2	0	2	2	0	1	1	regional/local	diversified
ES128	MERIDA	2	0	1	1	0	0	2	regional/local	strong primary
ES132	EIBAR	2	0	1	1	0	0	1	regional/local	primary
ES134	MONDRAGON O ARRASATE	2	0	1	1	1	1	1	regional/local	industrial
ES136	MONTILLA	2	0	1	1	0	1	1	regional/local	primary

ES138	MOTRIL	2	0	1	1	0	0	1	regional/local	primary
ES139	MURCIA	3	1	3	2	3	1	2	transnational/national	primary
ES143	ONTINYENT	2	0	1	1	0	0	1	regional/local	diversified
ES144	ORENSE	2	0	1	1	0	1	1	regional/local	primary
ES145	ORIHUELA	2	0	1	2	0	0	1	regional/local	diversified
ES146	OVIEDO	3	1	3	3	3	2	2	transnational/national	diversified
ES147	PALENCIA	2	0	1	1	0	0	1	regional/local	primary
ES148	PALMA DE MALLORCA	3	3	5	2	3	2	2	MEGA	strong service
ES149	PAMPLONA	3	1	2	3	2	2	2	transnational/national	industrial
ES155	PONFERRADA	2	0	2	1	0	0	1	regional/local	primary
ES156	PONTEVEDRA	2	0	2	2	3	1	1	transnational/national	primary
ES162	PUERTOLLANO	2	0	1	1	0	1	1	regional/local	strong primary
ES170	SAGUNTO	2	0	2	2	0	0	1	regional/local	diversified
ES171	SALAMANCA	2	0	2	1	3	0	1	regional/local	primary
ES175	SANLUCAR DE BARRAMEDA	2	0	1	1	0	1	1	regional/local	diversified
ES181	SANTA CRUZ DE TENERIFE	3	3	4	2	3	1	1	transnational/national	service
ES182	SANTA LUCIA	2	0	1	2	0	0	1	regional/local	service
ES183	SANTANDER	2	1	3	2	3	1	2	transnational/national	diversified
ES184	SANTIAGO DE COMPOSTELA	2	1	3	2	3	1	2	transnational/national	diversified
ES186	SEGOVIA	2	0	2	1	1	0	1	regional/local	primary
ES188	SEVILLA	4	1	3	3	4	2	2	MEGA	diversified
ES192	TALAVERA DE LA REINA	2	0	2	1	0	0	1	regional/local	strong primary
ES193	TARRAGONA	3	0	4	3	3	1	1	transnational/national	industrial
ES197	TOLEDO	2	0	2	1	0	0	2	regional/local	strong primary
ES200	TORRELAVEGA	2	0	2	1	0	0	1	regional/local	diversified
ES203	UBEDA	2	0	1	1	0	0	1	regional/local	strong primary
ES204	UTRERA	2	0	1	1	0	1	1	regional/local	diversified
ES206	VALENCIA	4	4	3	4	4	2	2	MEGA	diversified
ES207	VALL D'UIXO (LA)	2	0	1	1	0	0	1	regional/local	industrial
ES208	VALLADOLID	3	1	2	2	3	1	2	transnational/national	diversified
ES209	VELEZ MALAGA	2	0	1	1	0	0	1	regional/local	service
ES210	VIC	2	0	2	2	1	0	1	regional/local	diversified
ES211	VIGO	3	1	3	3	0	1	1	transnational/national	primary
ES213	VILAFRANCA DEL PENEDES	2	0	1	1	0	0	1	regional/local	diversified
ES214	VILANOVA I LA GELTRU	2	0	2	2	0	0	1	regional/local	diversified

ES215	VILAGARCIA	2	0	1	1	0	0	1	regional/local	primary
ES220	VITORIA-GASTEIZ	2	1	1	2	0	1	2	regional/local	industrial
ES221	XATIVA	2	0	1	1	0	0	1	regional/local	diversified
ES224	ZAMORA	2	0	1	1	0	0	1	regional/local	strong primary
ES225	ZARAGOZA	3	0	2	3	3	1	2	transnational/national	diversified
ES226	CEUTA	2	0	1	NA	0	0	2	regional/local	NA
ES227	MELILLA	2	0	1	NA	0	0	2	regional/local	NA
ES320	EJIDO (EL)	2	0	1	1	0	0	1	regional/local	strong primary
ES413	ROQUETAS DE MAR	2	0	1	1	0	0	1	regional/local	strong primary
ES463	TORREVIEJA	2	0	2	1	0	0	1	regional/local	diversified
ES484	VINAROS	2	0	1	1	0	0	1	regional/local	industrial
ESX01	COLLADOVILLALBA	2	0	1	1	0	1	1	regional/local	service

FI – FINLAND

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
FI002	FORSSA	1	0	1	1	0	0	1	regional/local	primary
FI003	HELSINKI	4	4	3	4	4	3	4	MEGA	diversified
FI006	IISALMI	1	0	1	1	0	1	1	regional/local	primary
FI007	IMATRA	1	0	1	1	0	0	1	regional/local	industrial
FI008	JOENSUU	2	1	1	1	2	1	2	regional/local	primary
FI010	JYVASKYLA	2	1	2	2	3	1	2	transnational/national	primary
FI011	KAJAANI	2	1	2	1	1	0	2	regional/local	primary
FI012	KEMI	1	1	1	2	1	0	1	regional/local	primary
FI014	KOKKOLA	1	1	1	1	1	0	2	regional/local	strong primary
FI015	KOTKA	2	3	1	2	1	1	2	transnational/national	industrial
FI016	KOUVOLA	2	0	1	2	0	0	1	regional/local	industrial
FI017	KUOPIO	2	1	2	2	2	1	2	transnational/national	primary
FI019	LAHTI	2	0	1	2	1	2	2	regional/local	diversified
FI020	LAPPEENRANTA	2	1	2	2	2	0	2	transnational/national	industrial
FI021	MIKKELI	2	0	1	1	1	1	2	regional/local	strong primary
FI023	OULU	2	2	2	3	3	2	2	transnational/national	industrial
FI025	PORI	2	3	1	2	1	1	2	transnational/national	industrial
FI028	RAUMA	2	0	1	1	0	1	1	regional/local	industrial
FI029	RIIHIMAKI	1	0	1	1	0	0	1	regional/local	primary
FI030	ROVANIEMI	2	1	2	1	2	0	2	regional/local	primary
FI031	SALO	2	0	1	3	0	0	1	regional/local	industrial
FI032	SAVONLINNA	1	0	2	1	0	0	1	regional/local	strong primary
FI033	SEINAJOKI	2	0	1	1	1	1	2	regional/local	strong primary
FI034	TAMPERE	3	1	2	3	3	2	2	transnational/national	industrial
FI035	TORNIO	1	0	1	2	0	0	1	regional/local	primary
FI036	TURKU	3	2	2	3	3	2	2	transnational/national	industrial
FI037	VAASA	2	1	1	2	3	1	2	transnational/national	primary
FI040	VARKAUS	1	0	1	1	0	0	1	regional/local	primary

FI041	HAMEENLINNA	2	0	1	1	1	0	2	regional/local	primary
FI042	MARIEHAMN	1	1	3	1	1	1	2	regional/local	strong service
FI043	LOHJA	1	0	1	1	0	0	1	regional/local	diversified
FI044	RAAHE	1	0	1	1	0	0	1	regional/local	industrial
FIX01	JAMSA	1	0	1	2	0	0	1	regional/local	primary
FIX02	PIETARSAARI	1	0	1	1	0	0	1	regional/local	primary
FIX03	TAMMISAARI	1	0	1	1	0	0	1	regional/local	diversified

FR – FRANCE

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
FR001	ABBEVILLE	1	0	1	NA	0	0	2	regional/local	NA
FR002	AGEN	2	0	1	NA	1	0	2	regional/local	NA
FR005	AJACCIO	2	1	4	NA	0	0	2	transnational/national	NA
FR006	ALBI	2	0	1	NA	1	0	2	regional/local	NA
FR007	ALENCON	2	0	1	NA	1	1	2	regional/local	NA
FR008	ALES	2	0	1	NA	0	0	2	regional/local	NA
FR009	AMIENS	3	0	1	NA	3	0	2	transnational/national	NA
FR010	ANGERS	3	0	2	NA	3	0	2	transnational/national	NA
FR011	ANGOULEME	2	0	1	NA	1	0	2	regional/local	NA
FR012	ANNECY	2	1	1	NA	2	1	2	transnational/national	NA
FR013	ANNEMASSE	2	0	3	NA	0	0	1	regional/local	NA
FR014	ANNONAY	1	0	2	NA	0	0	1	regional/local	NA
FR016	ARLES	2	0	1	NA	0	0	2	regional/local	NA
FR017	ARMENTIERES	2	0	1	NA	0	0	1	regional/local	NA
FR018	ARRAS	2	0	2	NA	2	0	2	regional/local	NA
FR020	AUCH	1	0	1	NA	0	0	2	regional/local	NA
FR021	AURILLAC	2	0	2	NA	0	0	2	regional/local	NA
FR022	AUTUN	1	0	1	NA	0	0	2	regional/local	NA
FR023	AUXERRE	2	0	2	NA	1	0	2	regional/local	NA
FR024	AVIGNON	3	1	2	NA	3	0	2	transnational/national	NA
FR026	BAR-LE DUC	1	0	1	NA	0	0	2	regional/local	NA
FR027	BASTIA	2	1	2	NA	0	0	2	regional/local	NA
FR028	BAYONNE	2	0	2	NA	1	1	2	regional/local	NA
FR029	BEAUNE	1	0	1	NA	0	1	2	regional/local	NA
FR030	BEAUVAIS	2	1	2	NA	1	1	2	transnational/national	NA
FR031	BELFORT	2	0	1	NA	3	0	2	regional/local	NA
FR032	BERGERAC	2	0	2	NA	0	0	2	regional/local	NA
FR033	BESANCON	2	0	2	NA	3	0	2	transnational/national	NA

FR034	BETHUNE	3	0	2	NA	1	0	2	regional/local	NA
FR035	BEZIERS	2	1	2	NA	1	0	2	regional/local	NA
FR036	BLOIS	2	0	2	NA	1	0	2	regional/local	NA
FR037	BORDEAUX	3	2	3	NA	4	1	2	MEGA	NA
FR038	BOULOGNE-SUR-MER	2	0	1	NA	2	0	2	regional/local	NA
FR039	BOURG-EN-BRESSE	2	0	2	NA	1	0	2	regional/local	NA
FR040	BOURGES	2	0	1	NA	1	0	2	regional/local	NA
FR042	BREST	3	1	2	NA	3	0	2	transnational/national	NA
FR043	BRIVE-LA-GAILLARDE	2	0	1	NA	1	0	2	regional/local	NA
FR045	CAEN	3	1	3	NA	3	0	2	transnational/national	NA
FR046	CAHORS	1	0	2	NA	0	0	2	regional/local	NA
FR047	CALAIS	2	0	2	NA	2	0	2	regional/local	NA
FR048	CAMBRAI	2	0	1	NA	1	0	2	regional/local	NA
FR050	CARCASSONNE	2	1	2	NA	0	0	2	regional/local	NA
FR052	CASTRES	2	0	1	NA	0	0	2	regional/local	NA
FR054	CHALON-SUR-SAONE	2	0	2	NA	1	0	2	regional/local	NA
FR056	CHAMBERY	2	1	1	NA	3	0	2	transnational/national	NA
FR057	CHARLEVILLE-MEZIERES	2	0	1	NA	1	1	2	regional/local	NA
FR058	CHARTRES	2	0	1	NA	1	0	2	regional/local	NA
FR059	CHATEAUROUX	2	0	1	NA	1	0	2	regional/local	NA
FR060	CHATELLERAULT	2	0	1	NA	0	0	2	regional/local	NA
FR061	CHAUMONT	1	0	1	NA	0	0	2	regional/local	NA
FR062	CHERBOURG	2	0	2	NA	1	0	2	regional/local	NA
FR063	CHOLET	2	0	1	NA	1	0	2	regional/local	NA
FR064	CLERMONT-FERRAND	3	1	3	NA	3	1	2	transnational/national	NA
FR065	COGNAC	1	0	1	NA	0	0	2	regional/local	NA
FR066	COLMAR	2	1	2	NA	1	0	2	regional/local	NA
FR068	COMPIEGNE	2	0	2	NA	2	0	2	regional/local	NA
FR071	CREIL	2	0	1	NA	1	0	1	regional/local	NA
FR073	DIEPPE	2	0	1	NA	0	0	2	regional/local	NA
FR074	DIJON	3	0	2	NA	3	0	2	transnational/national	NA
FR075	DOLE	1	0	1	NA	0	0	2	regional/local	NA
FR076	DOUAI	3	0	3	NA	2	0	2	transnational/national	NA
FR077	DRAGUIGNAN	1	0	1	NA	0	0	2	regional/local	NA
FR078	DREUX	2	0	1	NA	0	0	2	regional/local	NA

FR079	DUNKERQUE	3	0	2	NA	2	0	2	transnational/national	NA
FR082	EPERNAY	1	0	1	NA	0	1	2	regional/local	NA
FR083	EPINAL	2	0	2	NA	1	0	2	regional/local	NA
FR084	EVREUX	2	0	1	NA	1	0	2	regional/local	NA
FR086	FECAMP	1	0	1	NA	0	0	1	regional/local	NA
FR089	FORBACH	2	0	1	NA	0	0	2	regional/local	NA
FR090	FOUGERES	1	0	1	NA	0	0	2	regional/local	NA
FR091	FREJUS	2	0	1	NA	0	0	1	regional/local	NA
FR092	GAP	1	0	2	NA	0	0	2	regional/local	NA
FR096	GRENOBLE	3	1	3	NA	4	1	2	transnational/national	NA
FR099	HAGUENAU	2	0	1	NA	0	0	2	regional/local	NA
FR102	ISTRES	1	0	1	NA	0	0	2	regional/local	NA
FR106	LA ROCHE-SUR-YON	2	0	2	NA	2	1	2	transnational/national	NA
FR107	LA ROCHELLE	2	1	2	NA	2	0	2	transnational/national	NA
FR108	LAON	1	0	1	NA	1	0	2	regional/local	NA
FR109	LAVAL	2	0	1	NA	1	1	2	regional/local	NA
FR112	LE HAVRE	3	4	2	NA	2	1	2	transnational/national	NA
FR113	LE MANS	3	0	1	NA	3	1	2	transnational/national	NA
FR114	LEPUY-EN-VELAY	2	0	1	NA	1	0	1	regional/local	NA
FR117	LIBOURNE	1	0	1	NA	0	0	2	regional/local	NA
FR118	LILLE	4	1	3	NA	4	1	2	MEGA	NA
FR119	LIMOGES	2	1	1	NA	3	0	2	transnational/national	NA
FR120	LISIEUX	1	0	1	NA	0	0	2	regional/local	NA
FR121	LONS-LE-SAUNIER	2	0	1	NA	0	1	2	regional/local	NA
FR122	LORIENT	2	1	2	NA	2	0	2	transnational/national	NA
FR123	LUNEVILLE	1	0	1	NA	0	0	2	regional/local	NA
FR124	LYON	4	2	3	NA	4	2	2	MEGA	NA
FR125	MACON	2	0	1	NA	0	1	2	regional/local	NA
FR128	MARSEILLE-AIX-EN-PROVENCE	4	4	3	NA	4	1	2	MEGA	NA
FR130	MAUBEUGE	2	0	2	NA	0	0	1	regional/local	NA
FR133	MENTON	2	0	1	NA	0	0	1	regional/local	NA
FR134	METZ	3	1	2	NA	3	1	2	transnational/national	NA
FR136	MILLAU	1	0	1	NA	0	0	2	regional/local	NA
FR138	MONT-DE-MARSAN	2	0	2	NA	0	0	2	regional/local	NA
FR139	MONTAUBAN	2	0	1	NA	1	0	2	regional/local	NA

FR140	MONTBELIARD	2	0	1	NA	1	0	2	regional/local	NA
FR142	MONTELIMAR	2	0	1	NA	0	0	1	regional/local	NA
FR144	MONTLUCON	2	0	2	NA	1	0	2	regional/local	NA
FR145	MONTPELLIER	3	1	3	NA	4	0	2	transnational/national	NA
FR146	MOULINS	2	0	1	NA	0	0	2	regional/local	NA
FR147	MULHOUSE	3	2	3	NA	2	1	2	transnational/national	NA
FR148	NANCY	3	0	2	NA	4	1	2	transnational/national	NA
FR149	NANTES	3	1	3	NA	4	1	2	transnational/national	NA
FR150	NARBONNE	2	0	2	NA	0	0	2	regional/local	NA
FR151	NEVERS	2	0	1	NA	1	0	2	regional/local	NA
FR152	NICE	3	3	4	NA	3	1	2	MEGA	NA
FR153	NIMES	2	1	2	NA	2	0	2	transnational/national	NA
FR154	NIORT	2	0	1	NA	1	1	2	regional/local	NA
FR156	ORLEANS	3	0	2	NA	3	0	2	transnational/national	NA
FR159	PARIS	5	5	5	NA	4	5	4	MEGA	NA
FR160	PAU	2	1	3	NA	3	0	2	transnational/national	NA
FR161	PERIGUEUX	2	0	1	NA	1	0	2	regional/local	NA
FR162	PERPIGNAN	2	1	4	NA	2	0	2	transnational/national	NA
FR165	POITIERS	2	1	2	NA	3	0	2	transnational/national	NA
FR168	QUIMPER	2	1	1	NA	1	0	2	regional/local	NA
FR170	REIMS	3	0	2	NA	3	1	2	transnational/national	NA
FR171	RENNES	3	1	3	NA	4	1	2	transnational/national	NA
FR172	ROANNE	2	0	2	NA	1	1	2	regional/local	NA
FR173	ROCHEFORT	1	0	1	NA	0	0	2	regional/local	NA
FR174	RODEZ	2	1	2	NA	1	0	2	regional/local	NA
FR175	ROMANS-SUR-ISERE	2	0	1	NA	0	1	1	regional/local	NA
FR176	ROUEN	3	0	2	NA	3	1	2	transnational/national	NA
FR177	SAINT BRIEUC	2	0	2	NA	1	0	2	regional/local	NA
FR178	SAINT CHAMOND	2	0	1	NA	0	1	1	regional/local	NA
FR179	SAINT DIE	1	0	1	NA	0	1	2	regional/local	NA
FR180	SAINT DIZIER	2	0	1	NA	0	0	2	regional/local	NA
FR181	SAINT ETIENNE	3	1	2	NA	3	1	2	transnational/national	NA
FR182	SAINT LO	1	0	1	NA	0	0	2	regional/local	NA
FR183	SAINT MALO	2	0	1	NA	0	0	2	regional/local	NA
FR184	SAINT NAZAIRE	2	0	1	NA	2	0	2	regional/local	NA

FR186	SAINT QUENTIN	2	0	2	NA	1	0	2	regional/local	NA
FR188	SAINTES	2	0	1	NA	0	0	2	regional/local	NA
FR189	SALON-DE-PROVENCE	2	0	1	NA	0	0	1	regional/local	NA
FR190	SARREGUEMINES	1	0	1	NA	0	0	2	regional/local	NA
FR191	SAUMUR	1	0	1	NA	0	0	2	regional/local	NA
FR192	SEDAN	1	0	1	NA	0	0	2	regional/local	NA
FR193	SENS	2	0	1	NA	0	0	2	regional/local	NA
FR194	SETE	2	0	1	NA	0	0	1	regional/local	NA
FR196	SOISSONS	2	0	1	NA	1	0	2	regional/local	NA
FR197	STRASBOURG	3	1	3	NA	4	1	2	transnational/national	NA
FR198	TARBES	2	1	4	NA	1	0	2	transnational/national	NA
FR199	THIONVILLE	2	0	1	NA	0	0	2	regional/local	NA
FR200	THONON-LES-BAINS	2	0	1	NA	0	0	2	regional/local	NA
FR201	TOULON	3	0	3	NA	2	0	2	transnational/national	NA
FR202	TOULOUSE	3	2	3	NA	4	1	2	MEGA	NA
FR203	TOURS	3	0	2	NA	3	1	2	transnational/national	NA
FR205	TROYES	2	0	1	NA	2	1	2	regional/local	NA
FR206	TULLE	1	0	1	NA	0	0	2	regional/local	NA
FR208	VALENCE	2	0	2	NA	2	1	2	transnational/national	NA
FR209	VALENCIENNES	3	0	3	NA	3	0	2	transnational/national	NA
FR211	VANNES	2	0	1	NA	1	1	2	regional/local	NA
FR212	VERDUN	1	0	1	NA	0	0	2	regional/local	NA
FR214	VESOUL	1	0	1	NA	0	0	2	regional/local	NA
FR215	VICHY	2	0	2	NA	1	1	2	regional/local	NA
FR216	VIENNE	2	0	1	NA	0	0	2	regional/local	NA
FR217	VIERZON	1	0	1	NA	0	0	2	regional/local	NA
FR218	VILLEFRANCHE-SUR-SAONE	2	0	1	NA	0	0	2	regional/local	NA
FR219	VILLENEUVE-SUR-LOT	1	0	1	NA	0	1	2	regional/local	NA
FR225	DIGNE	1	0	2	NA	0	0	1	regional/local	NA
FR228	GUERET	1	0	1	NA	0	0	2	regional/local	NA
FR232	PRIVAS	1	0	1	NA	0	1	2	regional/local	NA
FR240	ALBERTVILLE	1	0	3	NA	0	0	2	regional/local	NA
FR247	ARCACHON	2	0	1	NA	0	0	1	regional/local	NA
FR248	ARGENTAN	1	0	1	NA	0	0	2	regional/local	NA
FR249	AUBENAS	1	0	2	NA	0	0	1	regional/local	NA

FR257	BAYEUX	1	0	1	NA	0	0	2	regional/local	NA
FR284	CHATEAUBRIANT	1	0	1	NA	0	0	2	regional/local	NA
FR285	CHATEAUDUN	1	0	1	NA	0	0	2	regional/local	NA
FR286	CHATEAU-GONTIER	1	0	1	NA	0	0	2	regional/local	NA
FR287	CHATEAU-THIERRY	1	0	1	NA	0	0	2	regional/local	NA
FR291	CLUSES	2	0	1	NA	0	0	1	regional/local	NA
FR299	DAX	1	0	1	NA	0	1	2	regional/local	NA
FR303	DINAN	1	0	1	NA	0	0	2	regional/local	NA
FR304	DINARD	1	1	1	NA	0	0	1	regional/local	NA
FR306	ELBEUF	2	0	1	NA	0	0	1	regional/local	NA
FR331	GUEBWILLER	1	0	1	NA	0	0	2	regional/local	NA
FR332	GUINGAMP	1	0	1	NA	0	0	2	regional/local	NA
FR340	ISSOIRE	1	0	1	NA	0	0	2	regional/local	NA
FR349	LANNION	2	1	1	NA	1	0	2	regional/local	NA
FR359	LOURDES	1	0	3	NA	0	0	1	regional/local	NA
FR363	LUNEL	1	0	1	NA	0	1	1	regional/local	NA
FR367	MARMANDE	1	0	1	NA	0	0	2	regional/local	NA
FR370	MAYENNE	1	0	1	NA	0	0	2	regional/local	NA
FR378	MONTARGIS	2	0	1	NA	0	0	2	regional/local	NA
FR379	MONTBRISON	1	0	1	NA	0	0	2	regional/local	NA
FR380	MONTEREAU-FAUT-YONNE	1	0	3	NA	0	0	1	regional/local	NA
FR381	MORLAIX	1	0	1	NA	0	0	2	regional/local	NA
FR386	NOGENT-LE-ROTROU	1	0	1	NA	0	0	2	regional/local	NA
FR390	OLORON-STE-MARIE	1	0	1	NA	0	0	2	regional/local	NA
FR393	PAMIERS	1	0	1	NA	0	0	2	regional/local	NA
FR399	PONTARLIER	1	0	2	NA	0	0	2	regional/local	NA
FR401	PONTIVY	1	0	1	NA	0	0	2	regional/local	NA
FR405	REDON	1	0	1	NA	0	0	2	regional/local	NA
FR411	ROMORANTIN-LANTHENAY	1	0	1	NA	0	0	2	regional/local	NA
FR414	ROUSSILLON	1	0	1	NA	0	0	1	regional/local	NA
FR418	SAINT LOUIS	2	0	1	NA	0	0	1	regional/local	NA
FR422	SAINT-AVOLD	1	0	1	NA	0	0	1	regional/local	NA
FR435	SAINT-OMER	2	0	1	NA	1	0	2	regional/local	NA
FR437	SARREBOURG	1	0	1	NA	0	0	2	regional/local	NA
FR444	THANN	1	0	1	NA	0	0	2	regional/local	NA

FR448	TOUL	1	0	1	NA	0	0	2	regional/local	NA
FR450	TROUVILLE-SUR-MER	1	0	1	NA	0	1	1	regional/local	NA
FR454	VENDOME	1	0	1	NA	0	0	2	regional/local	NA
FR458	VIRE	1	0	1	NA	0	1	2	regional/local	NA
FR460	VITRY-LE-FRANCOIS	1	0	1	NA	0	0	2	regional/local	NA
FR461	VOIRON	1	0	1	NA	0	1	1	regional/local	NA
FRX02	CHALONS-EN-CHAMPAGNE	2	0	2	NA	1	0	2	regional/local	NA
FRX03	LE CREUSOT	1	0	1	NA	1	0	1	regional/local	NA

GR – GREECE

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
GR001	AGRINION	2	0	1	1	0	1	1	regional/local	strong primary
GR003	ALEXANDROUPOLIS	2	0	1	1	0	1	2	regional/local	strong primary
GR004	ARGOS	1	0	4	1	0	1	2	regional/local	strong primary
GR005	ATHINAI	4	4	4	4	4	3	4	MEGA	strong service
GR006	DRAMA	2	0	1	1	1	1	2	regional/local	strong primary
GR008	GIANNITSA	1	0	1	1	0	1	1	regional/local	strong primary
GR009	IOANNINA	2	0	1	1	3	1	2	regional/local	primary
GR010	IRAKLION	2	3	4	1	3	1	2	transnational/national	strong primary
GR012	KARDHITSA	1	0	1	1	1	1	2	regional/local	strong primary
GR013	KATERINI	2	0	4	1	0	0	2	regional/local	strong primary
GR014	KAVALLA	2	0	2	1	2	1	2	regional/local	primary
GR015	KHALKIS	2	0	3	1	2	1	2	transnational/national	strong primary
GR016	KHANIA	2	2	3	1	1	1	2	transnational/national	strong service
GR017	KHIOS	1	0	2	1	0	0	2	regional/local	strong primary
GR019	KOMOTINI	2	0	1	1	2	2	2	regional/local	strong primary
GR020	KORINTHOS	1	0	2	2	0	1	2	regional/local	strong industrial
GR021	KOZANI	1	0	1	1	3	0	2	regional/local	primary
GR022	LAMIA	2	0	2	1	2	0	2	regional/local	strong primary
GR023	LARISA	2	0	1	1	3	2	2	transnational/national	strong primary
GR024	MITILINI	1	0	2	1	1	1	2	regional/local	strong primary
GR025	PATRAI	2	0	2	1	3	1	2	transnational/national	primary
GR026	PIRGOS	1	0	2	1	0	0	2	regional/local	strong primary
GR027	PTOLEMAIS	1	0	1	1	0	1	1	regional/local	primary
GR028	RODHOS	2	3	4	1	1	1	2	transnational/national	strong service
GR030	SERRAI	2	0	1	1	2	1	2	regional/local	strong primary
GR031	THESSALONIKI	4	0	2	1	4	3	2	transnational/national	diversified
GR032	TRIKKALA	2	0	1	1	0	1	2	regional/local	strong primary
GR033	TRIPOLIS	1	0	1	1	1	0	2	regional/local	strong primary

GR034	VEROIA	1	0	1	1	0	0	2	regional/local	strong primary
GR035	VOLOS	2	0	3	1	1	1	2	regional/local	strong primary
GR036	XANTHI	2	0	1	3	0	1	2	regional/local	strong primary
GR038	ARTA	1	0	1	1	1	0	2	regional/local	strong primary
GR040	EDHESSA	1	0	1	1	0	1	2	regional/local	strong primary
GR047	KILKIS	1	0	1	1	1	1	2	regional/local	strong primary
GR054	RETHIMNON	1	0	2	1	2	1	2	regional/local	strong primary
GR059	LEVADHIA	1	0	1	2	0	1	2	regional/local	strong industrial
GR060	AIYION	1	0	1	1	0	1	1	regional/local	primary
GR062	AMALIAS	1	0	2	1	0	1	1	regional/local	strong primary
GR065	ERMOUPOLIS	1	0	4	1	0	0	2	regional/local	strong primary
GR066	KALAMATA	2	0	2	1	2	1	2	regional/local	strong primary
GR072	NAOUSA	1	0	1	1	0	0	1	regional/local	strong primary
GR075	ORESTIAS	1	0	1	1	0	0	1	regional/local	strong primary
GR076	THIVA	1	0	1	2	0	1	1	regional/local	strong industrial
GRX02	CORFU	1	0	4	1	0	0	2	regional/local	strong service
GRX03	IERAPETRA	1	0	4	1	0	0	1	regional/local	strong primary

HU – HUNGARY

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
HU001	AJKA	2	0	1	1	0	1	1	regional/local	industrial
HU002	BAJA	2	0	2	1	0	0	1	regional/local	strong primary
HU005	BEKESCSABA	2	0	2	1	0	0	2	regional/local	strong primary
HU006	BUDAPEST	4	3	4	3	4	3	4	MEGA	service
HU007	CEGLED	2	0	1	1	0	0	1	regional/local	diversified
HU009	DEBRECEN	3	0	2	1	3	1	2	transnational/national	primary
HU011	DUNAKESZI	2	0	1	1	0	1	1	regional/local	diversified
HU012	DUNAUJVAROS	2	0	1	1	0	1	1	regional/local	strong industrial
HU013	EGER	2	0	2	1	0	1	2	regional/local	industrial
HU015	ESZTERGOM	2	0	1	1	0	1	1	regional/local	diversified
HU016	GODOLLO	2	0	1	1	0	1	1	regional/local	diversified
HU017	GYONGYOS	2	0	2	1	0	0	1	regional/local	industrial
HU018	GYOR	2	0	2	1	2	2	2	transnational/national	diversified
HU020	HAJDUBOSZORMENY	2	0	1	1	0	0	1	regional/local	primary
HU021	HAJDUSZOBOSZLO	1	0	2	1	0	1	1	regional/local	primary
HU022	HATVAN	2	0	1	1	0	1	1	regional/local	industrial
HU023	HODMEZOVASARHELY	2	0	1	1	0	0	1	regional/local	primary
HU024	JASZBERENY	2	0	1	1	0	1	1	regional/local	primary
HU025	KALOCSA	2	0	1	1	0	0	1	regional/local	strong primary
HU026	KAPOSVAR	2	0	1	1	0	1	2	regional/local	primary
HU027	KARCAG	2	0	2	1	0	0	1	regional/local	primary
HU028	KAZINCBARCIKA	2	0	1	1	0	1	1	regional/local	industrial
HU029	KECSKEMET	2	0	2	1	0	1	2	regional/local	strong primary
HU030	KESZTHELY	1	0	1	1	1	0	1	regional/local	diversified
HU031	KISKUNFELEGYHAZA	2	0	1	1	0	0	1	regional/local	strong primary
HU032	KISKUNHALAS	1	0	2	1	0	0	1	regional/local	strong primary
HU035	MAKO	2	0	1	1	0	0	1	regional/local	primary
HU036	MATESZALKA	2	0	1	1	0	0	1	regional/local	primary

HU038	MISKOLC	3	0	2	1	3	1	2	transnational/national	industrial
HU039	MOHACS	2	0	1	1	0	0	1	regional/local	diversified
HU040	MOSONMAGYAROVAR	2	0	1	1	0	0	1	regional/local	diversified
HU041	NAGYKANIZSA	2	0	1	1	0	1	1	regional/local	diversified
HU043	NYIREGYHAZA	2	0	2	1	0	1	2	regional/local	primary
HU044	OROSHAZA	2	0	1	1	0	0	1	regional/local	strong primary
HU045	OROSZLANY	1	0	1	1	0	1	1	regional/local	diversified
HU046	OZD	2	0	1	1	0	0	1	regional/local	industrial
HU047	PAKS	2	0	1	1	0	1	1	regional/local	primary
HU048	PAPA	2	0	1	1	0	1	1	regional/local	industrial
HU049	PECS	2	0	1	1	3	1	2	regional/local	diversified
HU050	SALGOTARIJAN	2	0	2	1	0	1	2	regional/local	diversified
HU051	SATORALJAUJHELY	1	0	2	1	0	0	1	regional/local	industrial
HU052	SIOFOK	1	0	3	1	0	0	1	regional/local	primary
HU053	SOPRON	2	0	2	1	1	0	1	regional/local	diversified
HU054	SZEGED	2	0	2	1	3	2	2	transnational/national	primary
HU055	SZEKESFEHERVAR	2	0	1	1	0	2	2	regional/local	strong industrial
HU056	SZEKSZARD	2	0	1	1	0	0	2	regional/local	primary
HU057	SZENTES	1	0	1	1	0	1	1	regional/local	primary
HU059	SZOLNOK	2	0	1	1	0	1	2	regional/local	primary
HU060	SZOMBATHELY	2	0	1	1	0	1	2	regional/local	industrial
HU062	TATABANYA	2	0	1	1	0	0	2	regional/local	diversified
HU064	VAC	2	0	1	1	0	1	1	regional/local	diversified
HU066	VESZPREM	2	0	1	1	1	1	2	regional/local	industrial
HU067	ZALAEGERSZEG	2	0	1	1	0	1	2	regional/local	diversified
HU068	SZENTENDRE	2	0	2	1	0	0	1	regional/local	diversified
HU069	TISZUJVAROS	1	0	1	1	0	1	1	regional/local	industrial
HU070	BUDAORS	2	0	1	1	0	2	1	regional/local	diversified
HU071	KISVARDA	2	0	1	1	0	0	1	regional/local	primary
HU075	BALMAZUJVAROS	1	0	2	1	0	0	1	regional/local	primary
HU076	GYAL	2	0	1	1	0	0	1	regional/local	diversified
HU079	BERETTYOUJFALU	2	0	1	1	0	0	1	regional/local	primary
HU080	PUSPOKLADANY	2	0	1	1	0	0	1	regional/local	primary
HU081	SZARVAS	1	0	2	1	0	1	1	regional/local	strong primary
HU086	SARVAR	1	0	1	1	0	1	1	regional/local	industrial

HU087	MOR	1	0	1	1	0	1	1	regional/local	strong industrial
HU090	SAROSPATAK	1	0	2	1	0	0	1	regional/local	industrial
HU094	BALATONFURED	1	0	3	1	0	0	1	regional/local	primary
HU095	KISKOROS	2	0	1	1	0	0	1	regional/local	strong primary
HU104	TISZAFURED	1	0	2	1	0	0	1	regional/local	primary
HU117	NAGYKATA	2	0	1	1	0	0	1	regional/local	diversified
HU120	PILISVOROSVAR	2	0	1	1	0	0	1	regional/local	diversified
HU123	SARKAD	1	0	1	1	0	0	2	regional/local	strong primary
HU127	SZERENCS	2	0	1	1	0	0	1	regional/local	industrial
HUX03	BALATONALMADI	1	0	2	1	0	0	1	regional/local	industrial
HUX07	FEHERGYARMAT	1	0	2	1	0	0	1	regional/local	primary
HUX08	FONYOD	1	0	2	1	0	0	1	regional/local	primary
HUX18	RACKEVE	2	0	1	1	0	0	1	regional/local	diversified
HUX19	RETSAG	1	0	2	1	0	0	1	regional/local	diversified

IE - IRELAND

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
IE002	CORK	2	3	3	3	3	2	1	transnational/national	strong industrial
IE004	DUNDALK	1	0	3	2	0	1	1	regional/local	industrial
IE005	GALWAY	2	0	3	2	3	1	1	transnational/national	diversified
IE006	DUBLIN	4	4	3	4	3	3	4	MEGA	diversified
IE007	LIMERICK	2	3	2	3	3	1	1	transnational/national	industrial
IE008	WATERFORD	1	0	2	1	0	0	2	regional/local	industrial
IE036	TRALEE	1	0	2	1	0	0	1	regional/local	industrial

IT - ITALY

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
IT007	ADRANO	2	0	1	1	0	0	1	regional/local	service
IT010	AGRIGENTO	2	0	2	1	0	0	1	regional/local	primary
IT012	ALBA	2	0	1	1	0	1	1	regional/local	primary
IT015	ALCAMO	2	0	1	1	0	0	1	regional/local	primary
IT016	ALESSANDRIA	2	0	2	3	0	0	1	regional/local	diversified
IT017	ALGHERO	1	1	1	1	0	0	1	regional/local	service
IT019	ANCONA	2	0	2	3	1	0	2	regional/local	diversified
IT023	AOSTA	2	0	4	1	0	1	2	regional/local	service
IT024	APRILIA	2	0	2	2	0	1	1	regional/local	primary
IT025	AREZZO	2	0	2	2	0	1	1	regional/local	diversified
IT029	ARZIGNANO	2	0	1	1	0	1	1	regional/local	industrial
IT030	ASCOLI PICENO	2	0	3	2	0	1	1	regional/local	diversified
IT032	ASTI	2	0	1	2	0	1	1	regional/local	diversified
IT034	AVELLINO	2	0	1	2	0	1	1	regional/local	diversified
IT035	AVERSA	2	0	1	2	0	0	1	regional/local	primary
IT036	AVEZZANO	2	0	2	1	0	1	1	regional/local	diversified
IT039	BAGHERIA	2	0	1	1	0	0	1	regional/local	strong service
IT041	BARCELLONA POZZO DI GOTTO	2	0	1	1	0	0	1	regional/local	strong service
IT042	BARI	4	1	2	3	3	1	2	transnational/national	diversified
IT043	BARLETTA	2	0	2	2	0	0	1	regional/local	diversified
IT044	BASSANO DEL GRAPPA	2	0	2	2	0	0	1	regional/local	industrial
IT045	BATTIPAGLIA	2	0	2	2	0	0	1	regional/local	primary
IT046	BELLUNO	2	0	1	2	0	1	1	regional/local	industrial
IT047	BENEVENTO	2	0	1	1	0	0	1	regional/local	primary
IT048	BERGAMO	3	0	2	4	1	2	1	transnational/national	diversified
IT050	BIELLA	2	0	1	2	0	1	1	regional/local	industrial
IT051	BISCEGLIE	2	0	2	2	0	0	1	regional/local	diversified

IT054	BOLOGNA	3	2	3	3	3	2	2	MEGA	diversified
IT055	BOLZANO	2	0	2	3	0	1	1	regional/local	diversified
IT058	BRESCIA	3	0	3	4	1	1	1	transnational/national	industrial
IT060	BRINDISI	3	1	2	2	0	1	1	regional/local	primary
IT062	BUSTO ARSIZIO	3	0	2	3	0	1	1	regional/local	industrial
IT063	CAGLIARI	3	0	3	2	2	1	2	transnational/national	service
IT065	CALTAGIRONE	2	0	1	1	0	0	1	regional/local	service
IT066	CALTANISSETTA	2	0	1	1	0	0	1	regional/local	diversified
IT069	CAMPOBASSO	2	0	1	1	1	0	2	regional/local	diversified
IT076	CARMAGNOLA	2	0	1	1	0	1	1	regional/local	diversified
IT077	CARPI	2	0	1	1	0	0	1	regional/local	industrial
IT078	CARRARA	2	0	2	1	0	0	1	regional/local	service
IT079	CASALE MONFERRATO	2	0	1	1	0	1	1	regional/local	diversified
IT084	CASERTA	3	0	2	3	0	0	1	regional/local	primary
IT087	CASSINO	2	0	1	2	1	0	1	regional/local	diversified
IT089	CASTELFRANCO VENETO	2	0	2	2	0	0	1	regional/local	industrial
IT090	CASTELLAMMARE DI STABIA	2	0	2	2	0	0	1	regional/local	strong service
IT091	CASTELVETRANO	2	0	1	1	0	0	1	regional/local	primary
IT093	CATANIA	3	0	2	2	3	0	1	transnational/national	service
IT094	CATANZARO	2	0	2	1	0	0	1	regional/local	primary
IT100	CERIGNOLA	2	0	1	1	0	0	1	regional/local	strong primary
IT105	CESENA	2	0	2	2	0	1	1	regional/local	primary
IT107	CHIAVARI	2	0	1	1	0	0	1	regional/local	strong service
IT108	CHIERI	2	0	1	1	0	1	1	regional/local	diversified
IT109	CHIETI	2	0	2	2	1	0	1	regional/local	primary
IT117	CIVITAVECCHIA	2	0	1	1	0	0	1	regional/local	strong service
IT123	COMO	3	0	2	3	0	1	1	regional/local	industrial
IT124	CONEGLIANO	2	0	2	2	0	0	1	regional/local	industrial
IT130	CORTONA	1	0	1	1	0	1	1	regional/local	diversified
IT131	COSENZA	2	0	3	2	2	0	1	regional/local	service
IT132	CREMA	2	0	1	1	0	0	1	regional/local	primary
IT133	CREMONA	2	0	1	2	0	1	1	regional/local	primary
IT134	CROTONE	2	0	2	1	0	0	1	regional/local	primary
IT135	CUNEO	2	0	2	3	0	1	1	regional/local	primary
IT137	DESENZANO DEL GARDA	2	0	1	2	0	0	1	regional/local	industrial

IT138	DESIO	3	0	2	3	0	1	1	regional/local	diversified
IT139	EBOLI	2	0	1	1	0	0	1	regional/local	primary
IT140	EMPOLI	2	0	1	2	0	0	1	regional/local	diversified
IT141	ENNA	2	0	1	1	0	0	1	regional/local	primary
IT144	FABRIANO	1	0	1	1	0	1	1	regional/local	diversified
IT145	FAENZA	2	0	1	1	0	0	1	regional/local	primary
IT147	FANO	2	0	1	1	0	0	1	regional/local	diversified
IT150	FELTRE	2	0	4	1	0	0	1	regional/local	industrial
IT151	FERMO	2	0	1	1	0	0	1	regional/local	diversified
IT152	FERRARA	2	0	2	2	1	1	1	regional/local	primary
IT153	FIDENZA	2	0	1	1	0	0	1	regional/local	diversified
IT154	FIRENZE	3	1	3	3	3	2	2	transnational/national	diversified
IT155	FOGGIA	2	0	3	2	0	0	1	regional/local	strong primary
IT156	FOLIGNO	2	0	1	1	0	0	1	regional/local	diversified
IT159	FORLI'	2	0	2	2	0	1	1	regional/local	primary
IT160	FORMIA	2	0	1	1	0	0	1	regional/local	primary
IT162	FOSSANO	2	0	1	1	0	1	1	regional/local	primary
IT166	FROSINONE	3	0	3	2	0	1	1	regional/local	diversified
IT170	GALLARATE	2	0	1	2	0	1	1	regional/local	industrial
IT171	GALLIPOLI	2	0	1	1	0	0	1	regional/local	service
IT173	GELA	2	0	1	1	0	0	1	regional/local	diversified
IT174	GENOVA	3	4	3	3	2	1	2	MEGA	strong service
IT175	GIARRE	2	0	1	1	0	0	1	regional/local	service
IT176	GINOSA	2	0	1	2	0	0	1	regional/local	primary
IT177	GIOIA DEL COLLE	2	0	1	1	0	0	1	regional/local	diversified
IT180	GIULIANOVA	2	0	1	1	0	0	1	regional/local	diversified
IT182	GORIZIA	2	0	1	1	0	0	1	regional/local	diversified
IT186	GROSSETO	2	0	2	1	0	0	1	regional/local	primary
IT190	GUBBIO	1	0	1	1	0	1	1	regional/local	diversified
IT193	IGLESIAS	2	0	2	2	0	1	1	regional/local	service
IT194	IMOLA	2	0	2	2	0	1	1	regional/local	diversified
IT195	IMPERIA	2	0	1	1	0	0	1	regional/local	primary
IT196	ISERNIA	1	0	1	1	0	1	1	regional/local	diversified
IT197	IVREA	2	0	2	2	0	1	1	regional/local	diversified
IT198	JESI	2	0	1	1	0	0	1	regional/local	diversified

IT199	L'AQUILA	2	0	2	1	1	0	2	regional/local	diversified
IT200	LA SPEZIA	2	4	2	2	0	0	1	transnational/national	diversified
IT203	LANCIANO	2	0	1	1	0	1	1	regional/local	primary
IT204	LATINA	2	0	2	3	0	1	1	regional/local	primary
IT205	LECCE	3	0	2	2	2	0	1	regional/local	service
IT206	LECCO	3	0	2	3	0	0	1	regional/local	industrial
IT207	LEGNAGO	1	0	1	1	0	1	1	regional/local	diversified
IT209	LENTINI	2	0	1	1	0	0	1	regional/local	primary
IT213	LIVORNO	2	4	3	2	0	0	1	transnational/national	service
IT214	LODI	2	0	1	2	0	1	1	regional/local	primary
IT215	LUCCA	2	0	3	2	0	0	1	regional/local	diversified
IT217	LUGO	2	0	4	1	0	0	1	regional/local	primary
IT218	LUMEZZANE	2	0	1	2	0	1	1	regional/local	industrial
IT219	MACERATA	2	0	2	2	1	0	1	regional/local	diversified
IT223	MANFREDONIA	2	0	1	1	0	0	1	regional/local	strong primary
IT224	MANTOVA	2	0	1	3	0	1	1	regional/local	primary
IT229	MARSALA	2	0	2	1	0	0	1	regional/local	primary
IT230	MARTINA FRANCA	2	0	1	2	0	0	1	regional/local	primary
IT231	MASSA	2	0	1	1	0	0	1	regional/local	service
IT233	MATERA	2	0	2	1	0	0	1	regional/local	primary
IT237	MERANO	2	0	3	1	0	0	1	regional/local	diversified
IT239	MESSINA	2	0	3	2	2	0	1	regional/local	strong service
IT240	MILANO	4	4	4	5	3	4	2	MEGA	diversified
IT241	MILAZZO	2	0	1	1	0	0	1	regional/local	strong service
IT246	MODENA	2	0	2	3	1	1	1	regional/local	industrial
IT247	MODICA	2	0	2	1	0	0	1	regional/local	strong primary
IT255	MONFALCONE	2	0	2	1	0	0	1	regional/local	diversified
IT258	MONTEBELLUNA	2	0	2	2	0	0	1	regional/local	industrial
IT259	MONTECATINI-TERME	2	0	3	2	0	0	1	regional/local	diversified
IT267	NAPOLI	4	4	4	3	3	1	2	MEGA	strong service
IT268	NARDO'	2	0	1	1	0	0	1	regional/local	service
IT273	NOCERA INFERIORE	2	0	2	2	0	1	1	regional/local	primary
IT276	NOLA	2	0	2	2	0	0	1	regional/local	strong service
IT279	NOVARA	2	0	1	3	0	1	1	regional/local	industrial
IT281	NOVI LIGURE	2	0	1	1	0	1	1	regional/local	diversified

IT282	NUORO	2	0	1	1	0	0	1	regional/local	primary
IT283	OLBIA	1	0	1	1	0	1	1	regional/local	service
IT285	ORISTANO	2	0	1	1	0	0	1	regional/local	strong primary
IT288	OSIMO	2	0	1	1	0	0	1	regional/local	diversified
IT293	PADOVA	3	0	3	3	3	1	1	transnational/national	diversified
IT295	PALERMO	3	0	3	2	3	1	2	transnational/national	strong service
IT298	PARMA	3	0	2	3	2	1	1	transnational/national	diversified
IT301	PAVIA	2	0	1	3	1	0	1	regional/local	diversified
IT302	PERUGIA	2	0	3	3	2	0	2	transnational/national	diversified
IT303	PESARO	2	0	3	2	0	0	1	regional/local	diversified
IT304	PESCARA	2	0	2	2	0	1	1	regional/local	diversified
IT305	PIACENZA	2	0	1	2	0	0	1	regional/local	primary
IT308	PINEROLO	2	0	2	2	0	0	1	regional/local	diversified
IT310	PIOMBINO	2	0	1	1	0	1	1	regional/local	service
IT311	PISA	2	1	2	2	2	1	1	transnational/national	diversified
IT312	PISTOIA	2	0	2	2	0	1	1	regional/local	diversified
IT313	POGGIBONSI	2	0	4	1	0	0	1	regional/local	diversified
IT319	PONTEDERA	2	0	1	2	0	1	1	regional/local	diversified
IT320	PORDENONE	2	0	1	2	0	1	1	regional/local	industrial
IT324	PORTOGRUARO	2	0	1	1	0	0	1	regional/local	diversified
IT325	POTENZA	2	0	2	2	1	0	2	regional/local	diversified
IT327	PRATO	2	0	1	2	0	0	1	regional/local	industrial
IT332	RAGUSA	2	0	1	1	0	0	1	regional/local	strong primary
IT334	RAVENNA	2	0	2	2	0	1	1	regional/local	primary
IT335	REGGIO DI CALABRIA	2	0	2	1	1	0	2	regional/local	strong service
IT336	REGGIO NELL'EMILIA	3	0	2	3	0	1	1	regional/local	industrial
IT341	RIETI	2	0	1	1	0	0	1	regional/local	primary
IT342	RIMINI	2	0	4	2	0	1	1	regional/local	service
IT344	ROMA	4	4	5	4	3	3	4	MEGA	strong service
IT348	ROSSANO	1	0	1	1	0	1	1	regional/local	service
IT349	ROVERETO	2	0	1	1	0	0	1	regional/local	diversified
IT350	ROVIGO	2	0	1	1	0	0	1	regional/local	primary
IT353	SALERNO	3	0	3	3	2	0	1	transnational/national	primary
IT354	SAN BENEDETTO DEL TRONTO	2	0	1	1	0	1	1	regional/local	diversified
IT356	SAN DONA' DI PIAVE	2	0	2	2	0	0	1	regional/local	diversified

IT364	SAN GIUSEPPE VESUVIANO	2	0	2	2	0	0	1	regional/local	strong service
IT367	SAN REMO	2	0	3	1	0	0	1	regional/local	primary
IT368	SAN SEVERO	2	0	1	1	0	0	1	regional/local	strong primary
IT376	SASSARI	2	0	3	2	1	1	1	regional/local	service
IT377	SASSUOLO	2	0	2	2	0	0	1	regional/local	industrial
IT378	SAVONA	2	0	1	2	0	0	1	regional/local	service
IT382	SCHIO	2	0	1	1	0	1	1	regional/local	industrial
IT383	SCIACCA	2	0	1	1	0	0	1	regional/local	primary
IT387	SENIGALLIA	2	0	1	1	0	0	1	regional/local	diversified
IT394	SIENA	2	0	2	2	1	1	1	regional/local	diversified
IT395	SIRACUSA	3	0	2	2	0	1	1	regional/local	primary
IT397	SONDRIO	2	0	4	1	0	1	1	regional/local	diversified
IT398	SORA	2	0	1	1	0	0	1	regional/local	diversified
IT401	SULMONA	2	0	1	1	0	0	1	regional/local	diversified
IT402	TARANTO	3	2	1	2	0	1	1	regional/local	primary
IT403	TERAMO	2	0	3	2	1	0	1	regional/local	diversified
IT405	TERMINI IMERESE	2	0	1	1	0	0	1	regional/local	strong service
IT406	TERMOLI	2	0	1	1	0	0	1	regional/local	diversified
IT407	TERNI	2	0	1	2	0	1	1	regional/local	diversified
IT408	TERRACINA	2	0	1	1	0	0	1	regional/local	primary
IT410	TORINO	4	2	3	4	3	2	2	MEGA	diversified
IT411	TORRE ANNUNZIATA	2	0	2	2	0	0	1	regional/local	strong service
IT413	TORTONA	2	0	1	1	0	0	1	regional/local	diversified
IT416	TRAPANI	2	0	2	1	0	0	1	regional/local	primary
IT417	TRENTO	2	0	2	3	1	1	2	transnational/national	diversified
IT418	TREVIGLIO	2	0	2	2	0	1	1	regional/local	diversified
IT419	TREVISO	2	0	2	3	0	1	1	regional/local	industrial
IT421	TRIESTE	3	2	1	1	1	1	2	transnational/national	strong service
IT423	UDINE	3	0	3	3	1	1	1	transnational/national	diversified
IT424	VALDAGNO	2	0	1	1	0	1	1	regional/local	industrial
IT426	VARESE	3	0	1	2	0	1	1	regional/local	industrial
IT427	VASTO	2	0	1	1	0	1	1	regional/local	primary
IT428	VELLETRI	2	0	2	2	0	0	1	regional/local	strong service
IT430	VENEZIA	3	3	4	3	1	1	2	transnational/national	diversified
IT431	VENTIMIGLIA	2	0	1	1	0	0	1	regional/local	primary

IT433	VERCELLI	2	0	1	2	0	1	1	regional/local	diversified
IT434	VERONA	3	2	3	3	1	1	1	transnational/national	diversified
IT435	VIAREGGIO	2	0	2	2	0	0	1	regional/local	diversified
IT436	VIBO VALENTIA	2	0	4	1	0	0	1	regional/local	primary
IT437	VICENZA	2	0	2	4	0	1	1	regional/local	industrial
IT438	VIGEVANO	2	0	1	3	0	0	1	regional/local	diversified
IT442	VITERBO	2	0	2	1	1	0	1	regional/local	primary
IT443	VITTORIA	2	0	1	1	0	0	1	regional/local	strong primary
IT444	VITTORIO VENETO	2	0	1	1	0	0	1	regional/local	industrial
IT445	VOGHERA	2	0	1	1	0	0	1	regional/local	diversified
IT449	ALASSIO	1	0	4	1	0	0	1	regional/local	service
IT464	BORGOMANERO	2	0	1	1	0	0	1	regional/local	industrial
IT468	BRESSANONE	1	0	2	1	0	0	1	regional/local	diversified
IT470	BRUNICO	1	0	2	1	0	0	1	regional/local	diversified
IT486	CASARANO	2	0	1	1	0	0	1	regional/local	service
IT508	CHIARI	2	0	1	2	0	1	1	regional/local	industrial
IT509	CIRIE'	2	0	1	1	0	0	1	regional/local	diversified
IT519	COSSATO	2	0	1	1	0	0	1	regional/local	industrial
IT525	DARFO BOARIO TERME	2	0	1	2	0	0	1	regional/local	industrial
IT526	DOMODOSSOLA	2	0	2	1	0	0	1	regional/local	diversified
IT543	GIOIA TAURO	1	4	1	1	0	0	1	regional/local	strong service
IT548	GUASTALLA	2	0	1	1	0	1	1	regional/local	industrial
IT566	LUINO	2	0	1	1	0	0	1	regional/local	industrial
IT568	MACOMER	1	0	3	1	0	0	1	regional/local	primary
IT573	MANERBIO	2	0	1	2	0	0	1	regional/local	industrial
IT578	MELFI	1	0	1	1	0	1	1	regional/local	diversified
IT600	ODERZO	2	0	2	1	0	0	1	regional/local	industrial
IT610	PALAZZOLO SULL'OGLIO	2	0	1	2	0	0	1	regional/local	industrial
IT612	PALMI	2	0	1	1	0	0	1	regional/local	strong service
IT639	RIVA DEL GARDA	1	0	4	1	0	1	1	regional/local	diversified
IT648	SALO'	2	0	1	2	0	0	1	regional/local	industrial
IT651	SAN BONIFACIO	2	0	1	1	0	1	1	regional/local	diversified
IT668	SANTA CROCE SULL'ARNO	2	0	1	1	0	0	1	regional/local	diversified
IT684	SORRENTO	2	0	1	1	0	0	1	regional/local	strong service
IT688	SUZZARA	2	0	1	1	0	1	1	regional/local	primary

IT696	THIENE	2	0	1	2	0	0	1	regional/local	industrial
IT720	VIGNOLA	2	0	1	1	0	1	1	regional/local	industrial
ITX04	AVIGLIANA	2	0	1	1	0	1	1	regional/local	diversified
ITX06	BARGA	1	0	2	1	0	0	1	regional/local	diversified
ITX100	VERBANIA	2	0	2	1	0	0	1	regional/local	diversified
ITX102	LAMEZIA TERME	2	0	2	1	0	0	1	regional/local	primary
ITX21	CASTELNUOVODIGARFAGNANA	1	0	2	1	0	0	1	regional/local	diversified
ITX29	CITTADELLA	2	0	2	2	0	0	1	regional/local	diversified
ITX34	COPPARO	1	0	1	1	0	1	1	regional/local	primary
ITX42	ISEO	2	0	1	2	0	0	1	regional/local	industrial
ITX49	LONIGO	2	0	1	1	0	1	1	regional/local	industrial
ITX65	MONTICHIARI	2	0	1	2	0	0	1	regional/local	industrial
ITX70	ORZINUOVI	1	0	1	2	0	0	1	regional/local	industrial
ITX86	PORTOTOLLE	2	0	1	2	0	0	1	regional/local	primary
ITX89	ROSIGNANOMARITTIMO	1	0	1	1	0	1	1	regional/local	service
ITX96	SESTOCALENDE	2	0	1	2	0	1	1	regional/local	industrial

LT - LITHUANIA

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
LT001	ALYTUS	2	0	1	1	0	1	2	regional/local	industrial
LT002	KAUNAS	3	0	1	1	3	3	2	transnational/national	industrial
LT003	KLAIPEDA	2	3	1	1	2	2	2	transnational/national	industrial
LT004	PANEVEZYS	2	0	1	1	0	2	2	regional/local	strong industrial
LT005	SIAULIAI	2	0	1	1	2	2	2	regional/local	strong industrial
LT006	VILNIUS	3	3	1	1	3	3	4	MEGA	diversified
LT007	MARIJAMPOLE	1	0	1	1	0	2	2	regional/local	strong industrial
LT035	TELSIAI	1	0	1	1	0	1	2	regional/local	diversified

LU – LUXEMBOURG

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
LU001	ESCH-SUR-ALZETTE	2	0	1	2	0	1	1	regional/local	strong service
LU002	LUXEMBOURG	2	3	2	3	1	3	4	MEGA	strong service

LV – LATVIA

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
LV001	DAUGAVPILS	2	0	1	1	2	1	2	regional/local	primary
LV002	JELGAVA	2	0	1	1	2	1	2	regional/local	strong primary
LV003	LIEPAJA	2	0	1	1	1	1	2	regional/local	diversified
LV004	RIGA	4	3	2	1	4	3	4	MEGA	diversified
LV005	VENTSPILS	2	0	1	1	1	1	2	regional/local	diversified
LV007	REZEKNE	1	0	1	1	1	1	2	regional/local	primary
LV008	VALMIERA	1	0	1	1	1	1	1	regional/local	strong primary
LV009	JEKABPILS	1	0	1	1	0	1	1	regional/local	strong primary

MT – MALTA

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
MT001	VALLETTA	3	4	3	1	2	3	4	MEGA	diversified

NL – NETHERLANDS

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
NL001	DEN HAAG	3	0	2	2	3	2	2	transnational/national	strong service
NL002	DEN BOSCH	2	0	1	2	2	2	2	transnational/national	diversified
NL003	ALKMAAR	2	0	1	1	1	1	1	regional/local	service
NL005	ALPHEN AAN DEN RIJN	2	0	1	1	0	0	1	regional/local	primary
NL006	AMERSFOORT	3	0	2	1	0	1	1	regional/local	strong service
NL007	AMSTERDAM	4	4	3	3	4	4	4	MEGA	strong service
NL008	APELDOORN	2	0	2	3	0	1	1	regional/local	service
NL009	ARNHEM	3	0	2	2	2	1	2	transnational/national	diversified
NL010	ASSEN	2	0	1	1	0	0	2	regional/local	diversified
NL011	BERGEN OP ZOOM	2	0	1	1	0	1	1	regional/local	industrial
NL013	BREDA	3	0	1	3	2	2	1	transnational/national	industrial
NL017	DEN HELDER	2	0	1	1	0	0	1	regional/local	primary
NL018	DEVENTER	2	0	1	1	2	1	1	regional/local	diversified
NL020	DORDRECHT	3	0	1	4	0	1	1	regional/local	diversified
NL021	EDE	2	0	1	3	1	1	1	regional/local	service
NL022	EINDHOVEN	3	1	1	3	3	1	1	transnational/national	diversified
NL023	EMMEN	2	0	1	2	1	0	1	regional/local	industrial
NL024	ENSCHEDE	3	0	2	3	3	1	1	transnational/national	diversified
NL026	GELEEN	2	0	1	2	1	0	1	regional/local	diversified
NL029	GOUDA	2	0	1	1	0	1	1	regional/local	primary
NL030	GRONINGEN	3	1	1	3	3	1	2	transnational/national	industrial
NL031	HAARLEM	3	0	1	1	1	1	2	regional/local	strong service
NL033	HEERLEN	3	0	1	2	2	1	1	regional/local	diversified
NL036	HILVERSUM	2	0	1	2	0	1	1	regional/local	strong service
NL039	HOORN	2	0	1	1	0	1	1	regional/local	primary
NL042	LEEUWARDEN	2	0	2	2	3	0	2	transnational/national	primary
NL043	LEIDEN	3	0	2	2	3	1	1	transnational/national	service
NL045	MAASTRICHT	2	1	3	2	3	1	2	transnational/national	diversified

NL049	NIJMEGEN	3	0	2	2	3	1	1	transnational/national	diversified
NL055	ROOSENDAAL	2	0	1	1	0	0	1	regional/local	industrial
NL056	ROTTERDAM	4	5	2	4	3	3	1	MEGA	diversified
NL065	TILBURG	3	0	1	3	3	1	1	transnational/national	diversified
NL066	UTRECHT	3	0	2	3	3	2	2	transnational/national	strong service
NL069	VEENENDAAL	2	0	1	1	0	1	1	regional/local	strong service
NL070	VELSEN	2	0	1	2	0	1	1	regional/local	industrial
NL071	VENLO	2	0	1	2	1	1	1	regional/local	primary
NL084	ZWOLLE	2	0	1	2	3	1	2	transnational/national	diversified
NL085	LELYSTAD	2	0	1	1	0	1	2	regional/local	service
NLX01	ALMERE	2	0	1	1	0	1	1	regional/local	service

NO – NORWAY

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
NO001	ALESUND	2	2	2	1	1	2	1	transnational/national	primary
NO003	BERGEN	3	3	2	3	3	2	2	MEGA	diversified
NO004	BODO	1	2	2	1	1	1	2	regional/local	diversified
NO005	DRAMMEN	2	0	2	1	0	2	2	regional/local	diversified
NO006	FREDRIKSTAD	2	0	1	1	0	1	1	regional/local	diversified
NO007	GJOVIK	2	0	1	1	1	1	1	regional/local	primary
NO008	HARSTAD	1	0	1	1	1	0	1	regional/local	diversified
NO009	HAUGESUND	2	1	1	2	1	1	1	regional/local	industrial
NO011	KONGSBERG	1	0	1	1	1	1	1	regional/local	diversified
NO012	KRISTIANSAND	2	2	2	2	1	1	2	transnational/national	diversified
NO013	LARVIK	2	0	1	1	0	1	1	regional/local	diversified
NO014	LILLEHAMMER	1	0	4	1	1	1	2	regional/local	primary
NO015	MOLDE	2	1	2	1	1	1	2	regional/local	primary
NO016	MOSS	2	0	1	1	0	1	1	regional/local	diversified
NO017	OSLO	4	4	3	3	3	3	4	MEGA	strong service
NO025	STAVANGER	3	3	2	2	2	2	2	transnational/national	industrial
NO026	STEINKJER	1	0	1	1	1	1	2	regional/local	primary
NO027	TONSBERG	2	0	1	1	1	1	2	regional/local	diversified
NO028	TROMSO	2	2	1	1	1	1	2	regional/local	service
NO029	TRONDHEIM	2	3	2	2	3	2	2	transnational/national	service
NO030	ARENDAL	2	0	2	1	0	1	2	regional/local	diversified
NO032	HAMAR	2	0	2	1	0	1	2	regional/local	primary
NO035	ASKIM	1	0	1	1	0	1	1	regional/local	diversified
NO037	ELVERUM	1	0	2	1	1	1	1	regional/local	primary
NO038	HALDEN	1	0	1	1	1	0	1	regional/local	diversified
NO041	KONGSVINGER	1	0	2	1	0	1	1	regional/local	primary
NO042	KRISTIANSUND	1	1	1	1	0	1	1	regional/local	primary
NO044	MO I RANA	1	1	1	1	0	1	1	regional/local	diversified

NO045	NARVIK	1	0	1	1	1	1	1	regional/local	diversified
NOX02	HONEFOSS	1	0	1	1	0	1	1	regional/local	diversified
NOX03	LEIRVIK	1	0	1	1	0	0	1	regional/local	diversified
NOX04	LEVANGER	1	0	1	1	0	1	1	regional/local	primary
NOX05	NOTODDEN	1	0	1	1	0	1	1	regional/local	industrial
NOX06	SKIEN	2	0	2	1	1	1	1	regional/local	industrial
NOX07	SORTLAND	1	0	1	1	0	1	1	regional/local	diversified
NOX08	ULSTEIN	1	0	1	1	0	1	1	regional/local	primary

PL – POLAND

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
PL006	BIALA PODLASKA	2	0	1	1	1	0	1	regional/local	primary
PL008	BIALYSTOK	3	0	1	1	3	1	2	transnational/national	diversified
PL010	BIELSKO-BIALA	3	0	1	3	3	1	1	transnational/national	industrial
PL017	BYDGOSZCZ	3	0	1	2	3	1	2	transnational/national	industrial
PL019	CHELM	2	0	1	1	1	0	1	regional/local	primary
PL027	CZESTOCHOWA	3	0	1	2	3	1	1	transnational/national	industrial
PL032	ELBLAG	2	0	1	1	1	1	1	regional/local	industrial
PL034	GDANSK-GDYNIA-SOPOT	4	3	2	3	4	2	2	MEGA	diversified
PL042	GORZOWWIELKOPOLSKI	2	0	1	2	2	1	2	regional/local	industrial
PL047	GRUDZIADZ	2	0	1	1	0	0	1	regional/local	diversified
PL058	JELENIA GORA	2	0	2	1	2	1	1	regional/local	diversified
PL059	KALISZ	2	0	1	1	2	1	1	regional/local	industrial
PL061	KATOWICE (Upper Silesia Conurbation)	4	2	1	3	4	3	2	MEGA	diversified
PL064	KIELCE	3	0	1	1	3	2	2	transnational/national	diversified
PL069	KONIN	2	0	1	1	1	1	1	regional/local	industrial
PL073	KOSZALIN	2	0	1	1	3	1	1	regional/local	diversified
PL074	KRAKOW	4	2	2	3	4	2	2	MEGA	diversified
PL078	KROSNO	2	0	1	1	1	1	1	regional/local	industrial
PL084	LEGNICA	2	0	1	1	2	0	1	regional/local	diversified
PL085	LESZNO	2	0	1	1	1	0	1	regional/local	diversified
PL086	LODZ	4	1	1	3	4	1	2	transnational/national	diversified
PL087	LOMZA	2	0	1	1	1	0	1	regional/local	primary
PL093	LUBLIN	3	0	1	2	4	1	2	transnational/national	diversified
PL107	NOWY SACZ	3	0	2	1	2	1	1	regional/local	diversified
PL113	OLSZTYN	3	0	2	2	3	1	2	transnational/national	diversified
PL115	OPOLE	3	0	1	2	3	1	2	transnational/national	diversified
PL117	OSTROLEKA	2	0	1	1	1	1	1	regional/local	industrial
PL127	PIOTRKOWTRYBUNALSKI	2	0	1	1	2	0	1	regional/local	industrial

PL128	PLOCK	2	0	1	1	3	1	1	regional/local	strong industrial
PL130	POZNAN	3	2	1	3	4	2	2	transnational/national	diversified
PL134	PRZEMYSL	2	0	1	1	2	0	1	regional/local	diversified
PL138	RADOM	3	0	1	1	3	1	1	regional/local	diversified
PL141	RYBNIK	3	0	1	3	0	1	1	regional/local	industrial
PL142	RZESZOW	3	1	1	1	3	1	2	transnational/national	diversified
PL145	SIEDLCE	2	0	1	1	3	1	1	regional/local	diversified
PL149	SKIERNIEWICE	2	0	1	1	1	0	1	regional/local	industrial
PL150	SLUPSK	2	0	1	1	2	0	1	regional/local	diversified
PL161	SUWALKI	2	0	1	1	1	1	1	regional/local	industrial
PL166	SWINOUJSCIE	1	3	1	1	0	0	1	regional/local	diversified
PL167	SZCZECIN	3	3	1	2	4	1	2	transnational/national	diversified
PL171	TARNOW	3	0	1	1	2	1	1	regional/local	industrial
PL176	TORUN	3	0	1	2	3	1	2	transnational/national	industrial
PL181	WALBRZYCH	2	0	1	1	2	1	1	regional/local	industrial
PL183	WARSZAWA	4	3	3	4	4	3	4	MEGA	service
PL186	WLOCLAWEK	2	0	1	1	2	1	1	regional/local	industrial
PL189	WROCLAW	3	2	2	3	4	2	2	MEGA	diversified
PL196	ZAMOSC	2	0	1	1	2	1	1	regional/local	primary
PL201	ZIELONA GORA	2	1	1	1	3	1	2	transnational/national	diversified

PT – PORTUGAL

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
PT006	AVEIRO	2	0	1	2	2	2	2	transnational/national	industrial
PT007	BRAGA	2	0	1	2	3	2	2	transnational/national	industrial
PT008	CASTELO BRANCO	1	0	1	1	1	1	2	regional/local	strong primary
PT009	COIMBRA	2	0	2	1	3	2	2	transnational/national	diversified
PT011	COVILHA	1	0	1	1	1	0	2	regional/local	strong primary
PT013	EVORA	1	0	1	1	2	0	2	regional/local	strong primary
PT014	FARO	1	3	2	1	1	1	2	transnational/national	service
PT015	FUNCHAL	2	3	3	1	1	1	2	transnational/national	service
PT016	GUIMARAES	2	0	1	2	1	1	2	regional/local	strong industrial
PT018	LISBOA	4	4	3	3	4	3	4	MEGA	service
PT020	OLHAO	1	0	2	1	0	0	2	regional/local	service
PT021	PONTA DELGADA	2	2	1	1	1	1	2	regional/local	strong primary
PT022	PORTO	4	3	2	3	4	3	2	MEGA	diversified
PT027	VISEU	2	0	1	1	0	0	2	regional/local	primary
PT036	BEJA	1	0	1	1	1	1	2	regional/local	strong primary
PT037	BRAGANCA	1	0	1	1	0	1	2	regional/local	strong primary
PT040	CALDAS DA RAINHA	1	0	1	1	1	1	2	regional/local	strong primary
PT043	CHAVES	1	0	1	1	0	0	2	regional/local	strong primary
PT050	FAFE	1	0	1	2	0	0	1	regional/local	strong industrial
PT052	FIGUEIRA DA FOZ	1	0	1	1	1	1	2	regional/local	diversified
PT056	GUARDA	1	0	1	1	1	0	2	regional/local	strong primary
PT057	ILHAVO	1	0	1	2	0	0	1	regional/local	industrial
PT061	LEIRIA	2	0	1	1	2	1	2	regional/local	industrial
PT064	MARINHA GRANDE	1	0	1	1	0	1	2	regional/local	industrial
PT075	PAREDES	2	0	1	2	1	0	2	regional/local	industrial
PT077	PENICHE	1	0	1	1	0	0	1	regional/local	strong primary
PT082	PORTIMAO	1	0	2	1	1	0	2	regional/local	service
PT088	SANTAREM	1	0	1	1	1	0	2	regional/local	strong primary

PT090	SANTO TIRSO	2	0	1	2	0	1	2	regional/local	strong industrial
PT091	SAO JOAO DA MADEIRA	1	0	1	2	0	1	2	regional/local	strong industrial
PT095	TORRES VEDRAS	1	0	1	1	0	1	1	regional/local	strong primary
PT101	VILA REAL	1	0	1	1	2	0	2	regional/local	strong primary
PTX01	FAMALICAO	2	0	1	2	1	1	2	regional/local	strong industrial
PTX02	FELGUEIRAS	1	0	1	2	0	0	2	regional/local	industrial
PTX03	PENAFIEL	1	0	1	2	0	0	2	regional/local	industrial
PTX04	AGUEDA	1	0	1	2	0	1	1	regional/local	industrial
PTX05	ALBUFEIRA	1	0	2	1	0	0	1	regional/local	service
PTX06	BARCELOS	2	0	1	2	0	1	1	regional/local	industrial
PTX07	LOULE	1	0	2	1	0	0	1	regional/local	service
PTX08	OLIVEIRA DE AZEMÉIS	1	0	1	2	0	1	2	regional/local	strong industrial
PTX09	OVAR	2	0	1	2	0	1	1	regional/local	industrial
PTX10	PACOS DE FERREIRA	1	0	1	2	0	0	1	regional/local	industrial
PTX11	SILVES	1	0	2	1	0	1	1	regional/local	service
PTX12	TORRES NOVAS	1	0	2	1	0	1	1	regional/local	strong industrial
PTX13	VIANA DO CASTELO	1	0	1	1	1	1	2	regional/local	primary
PTX14	FEIRA	2	0	1	2	1	1	2	regional/local	strong industrial

RO – ROMANIA

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
RO003	ALBA IULIA	2	0	1	1	2	1	2	regional/local	NA
RO004	ALEXANDRIA	2	0	1	1	0	1	2	regional/local	NA
RO005	ARAD	2	0	1	1	2	1	2	regional/local	NA
RO006	BACAU	2	0	1	2	2	1	2	regional/local	NA
RO007	BAIA MARE	2	0	1	1	2	1	2	regional/local	NA
RO010	BALS	1	0	1	1	0	1	1	regional/local	NA
RO011	BIRLAD	2	0	1	1	0	1	1	regional/local	NA
RO012	BISTRITA	2	0	1	1	1	1	2	regional/local	NA
RO013	BLAJ	1	0	1	1	1	1	1	regional/local	NA
RO016	BOTOSANI	2	0	1	1	1	0	2	regional/local	NA
RO018	BRAILA	2	0	1	1	2	1	2	regional/local	NA
RO019	BRASOV	3	0	2	1	3	2	2	transnational/national	NA
RO020	BUCURESTI	4	3	2	3	4	3	4	MEGA	NA
RO022	BUZAU	2	0	1	1	1	1	2	regional/local	NA
RO023	CALARASI	2	0	1	1	0	1	2	regional/local	NA
RO029	CIMPINA	1	0	1	1	0	1	1	regional/local	NA
RO030	CIMPULUNG	1	0	1	1	0	1	1	regional/local	NA
RO033	CLUJ-NAPOCA	3	0	1	2	4	2	2	transnational/national	NA
RO034	CODLEA	1	0	1	1	0	1	1	regional/local	NA
RO036	CONSTANTA	3	1	4	2	3	1	2	transnational/national	NA
RO038	CRAIOVA	3	0	1	1	3	1	2	transnational/national	NA
RO042	DEVA	2	0	1	1	0	0	2	regional/local	NA
RO048	FOCSANI	2	0	1	1	0	0	2	regional/local	NA
RO049	GALATI	3	0	1	1	3	1	2	transnational/national	NA
RO050	ONESTI	2	0	1	1	0	0	1	regional/local	NA
RO053	GIURGIU	2	0	1	1	0	0	2	regional/local	NA
RO054	HUNEDOARA	2	0	1	1	0	1	1	regional/local	NA
RO056	IASI	3	0	1	2	4	1	2	transnational/national	NA

RO057	LUGOJ	1	0	1	1	1	0	1	regional/local	NA
RO059	MANGALIA	1	0	2	1	0	0	1	regional/local	NA
RO061	MEDIAS	2	0	1	1	0	0	1	regional/local	NA
RO062	MIERCUREA-CIUC	1	0	1	1	0	1	2	regional/local	NA
RO068	ODORHEIU SECUIESC	1	0	1	1	0	1	1	regional/local	NA
RO070	ORADEA	2	0	2	1	3	1	2	transnational/national	NA
RO074	PETROSENI	1	0	1	1	2	0	1	regional/local	NA
RO075	PIATRA NEAMT	2	0	1	1	0	0	2	regional/local	NA
RO076	PITESTI	2	0	1	1	3	1	2	regional/local	NA
RO077	PLOIESTI	2	0	2	1	2	2	2	transnational/national	NA
RO080	RESITA	2	0	2	1	1	0	2	regional/local	NA
RO082	RIMNICU VILCEA	2	0	2	1	0	0	2	regional/local	NA
RO083	ROMAN	2	0	1	1	0	0	1	regional/local	NA
RO085	SACELE	1	0	1	1	0	1	1	regional/local	NA
RO087	SATU MARE	2	0	1	1	0	1	2	regional/local	NA
RO089	SFINTU GHEORGHE	2	0	1	1	0	0	2	regional/local	NA
RO090	SIBIU	2	0	1	1	3	1	2	regional/local	NA
RO092	SLATINA	2	0	1	1	0	1	2	regional/local	NA
RO093	SLOBOZIA	2	0	1	1	0	0	2	regional/local	NA
RO094	SUCEAVA	2	0	1	1	2	1	2	regional/local	NA
RO096	TIMISOARA	3	3	1	2	3	2	2	transnational/national	NA
RO097	TIRGOVISTE	2	0	1	1	3	0	2	regional/local	NA
RO099	TIRGU JIU	2	0	1	1	2	0	2	regional/local	NA
RO100	TIRGU MURES	2	0	1	1	2	0	2	regional/local	NA
RO104	TULCEA	2	0	1	1	0	1	2	regional/local	NA
RO105	TURDA	2	0	1	1	0	0	1	regional/local	NA
RO107	VASLUI	2	0	1	1	0	0	2	regional/local	NA
RO110	ZALAU	2	0	1	1	0	1	2	regional/local	NA
RO112	DROBETA-TURNU SEVERIN	2	0	1	1	1	0	2	regional/local	NA
RO132	MIOVENI	1	0	1	1	0	1	1	regional/local	NA
RO195	VOLUNTARI	1	0	1	1	0	2	1	regional/local	NA

SE – SWEDEN

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
SE004	BORAAS	2	0	1	2	2	1	1	regional/local	diversified
SE006	ESKILSTUNA	2	0	1	2	0	1	1	regional/local	diversified
SE007	FALUN	2	0	2	2	2	1	2	transnational/national	diversified
SE008	GOETEBORG	3	3	3	4	3	2	2	MEGA	diversified
SE010	HALMSTAD	2	1	2	2	2	0	2	transnational/national	diversified
SE011	HELSINGBORG	3	3	1	2	0	2	1	transnational/national	diversified
SE012	JOENKOEPING	2	1	2	3	2	1	2	transnational/national	industrial
SE013	KALMAR	2	1	2	2	2	0	2	transnational/national	industrial
SE014	KARLSKOGA	1	0	1	1	0	1	1	regional/local	diversified
SE015	KARLSKRONA	2	0	1	2	2	1	2	regional/local	industrial
SE016	KARLSTAD	2	1	2	2	3	1	2	transnational/national	diversified
SE018	KIRUNA	1	1	1	1	0	0	1	regional/local	diversified
SE019	KRISTIANSTAD	2	0	1	2	2	1	1	regional/local	diversified
SE022	LIDKOEPING	1	0	1	1	0	1	1	regional/local	diversified
SE023	LINKOEPING	2	0	2	2	3	1	2	transnational/national	diversified
SE024	LULEAA	2	2	2	2	2	1	2	transnational/national	diversified
SE026	MALMOE	3	3	3	4	3	2	2	MEGA	diversified
SE028	NORRKOEPING	2	1	2	2	0	1	2	regional/local	diversified
SE029	NYKOEPING	2	0	1	1	0	0	1	regional/local	diversified
SE030	OEREBRO	2	0	1	2	3	1	1	regional/local	diversified
SE032	SKELLEFTEAA	2	1	1	1	0	0	1	regional/local	primary
SE033	SKOEVDE	2	0	1	2	2	1	1	regional/local	diversified
SE036	STOCKHOLM	4	4	3	4	4	4	4	MEGA	strong service
SE037	SUNDSVALL	2	1	2	2	1	1	1	regional/local	diversified
SE040	TROLLHAETTAN	2	0	1	2	2	1	1	regional/local	diversified
SE041	UDDEVALLA	2	0	1	1	0	1	1	regional/local	diversified
SE042	UMEAA	2	2	2	2	3	0	2	transnational/national	primary
SE044	UPPSALA	3	0	1	2	3	1	2	transnational/national	diversified

SE046	VARBERG	2	0	1	1	0	0	1	regional/local	diversified
SE047	VISBY	2	1	2	1	1	1	2	regional/local	diversified
SE049	GAEVLE	2	0	2	2	3	1	2	transnational/national	industrial
SE050	HAERNOESAND	1	0	1	1	1	0	2	regional/local	diversified
SE051	MARIESTAD	1	0	1	1	0	1	1	regional/local	diversified
SE052	OESTERSUND	2	1	2	1	1	0	1	regional/local	strong primary
SE054	VAESTERAAS	2	0	1	2	3	1	2	transnational/national	industrial
SE055	VAEXJOE	2	0	1	2	2	1	2	regional/local	diversified
SE068	KOEPING	1	0	1	2	0	0	1	regional/local	industrial
SE070	FAGERSTA	1	0	1	1	0	1	1	regional/local	industrial
SE073	VAERNAMO	1	0	1	1	0	1	1	regional/local	industrial
SE075	TRANAAS	1	0	1	1	0	1	1	regional/local	industrial
SE079	LJUNGBY	1	0	1	1	0	1	1	regional/local	diversified
SE080	VAESTERVIK	1	0	1	1	0	1	1	regional/local	industrial
SE081	OSKARSHAMN	1	0	1	1	0	1	1	regional/local	industrial
SE083	KARLSHAMN	1	0	1	1	0	1	1	regional/local	industrial
SE085	OERNSKOELDSVIK	2	1	1	1	1	0	1	regional/local	diversified
SE090	FALKENBERG	1	0	1	1	0	1	1	regional/local	diversified
SE099	HUDIKSVALL	1	0	1	1	0	1	1	regional/local	industrial

SI – SLOVENIA

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
SI002	CELJE	2	0	1	1	0	2	1	regional/local	industrial
SI009	LJUBLJANA	3	3	1	2	4	3	4	MEGA	diversified
SI010	MARIBOR	2	0	1	1	3	2	1	regional/local	diversified
SI012	NOVO MESTO	1	0	1	1	0	2	1	regional/local	industrial
SI023	KOPER	2	3	2	1	1	2	1	transnational/national	diversified
SI024	NOVA GORICA	2	0	1	1	0	2	1	regional/local	industrial

SK – SLOVAKIA

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
SK001	BANOVCE NAD BEBRAVOU	2	0	1	1	0	1	1	regional/local	industrial
SK002	BANSKA BYSTRICA	2	0	1	1	3	2	2	transnational/national	diversified
SK003	BARDEJOV	1	0	1	1	0	0	1	regional/local	diversified
SK004	BRATISLAVA	3	3	2	2	4	3	4	MEGA	diversified
SK012	KOSICE	3	0	1	2	3	2	2	transnational/national	diversified
SK013	LEVICE	2	0	1	2	0	1	1	regional/local	primary
SK014	LIPTOVSKY MIKULAS	2	0	1	1	0	2	1	regional/local	industrial
SK015	LUCENEC	2	0	1	1	0	1	1	regional/local	primary
SK016	MARTIN	2	0	1	2	0	1	1	regional/local	industrial
SK017	MICHALOVCE	2	0	1	1	0	2	1	regional/local	diversified
SK018	NITRA	2	0	1	2	3	2	2	transnational/national	industrial
SK019	NOVE ZAMKY	2	0	1	2	0	2	1	regional/local	primary
SK023	POPRAD	2	0	1	1	0	2	1	regional/local	industrial
SK024	POVAZSKA BYSTRICA	2	0	1	2	0	2	1	regional/local	strong industrial
SK025	PRESOV	2	0	2	2	2	1	2	transnational/national	diversified
SK026	PRIEVIDZA	2	0	1	1	0	2	1	regional/local	industrial
SK030	SENICA	1	0	1	1	0	1	1	regional/local	primary
SK032	TOPOLCANY	1	0	1	2	0	1	1	regional/local	primary
SK033	TREBISOV	1	0	1	1	0	0	1	regional/local	primary
SK034	TRENCIN	2	0	1	2	1	2	2	regional/local	strong industrial
SK035	TRNAVA	2	0	2	1	2	2	2	transnational/national	industrial
SK037	ZIAR NAD HRONOM	1	0	1	1	0	1	1	regional/local	industrial
SK038	ZILINA	2	0	2	2	2	2	2	transnational/national	industrial
SK053	STUROVO	1	0	1	2	0	0	1	regional/local	primary
SK055	SKALICA	1	0	1	1	0	2	1	regional/local	primary
SK057	SVIDNIK	1	0	1	1	0	0	1	regional/local	diversified
SKXXX	TVRDOSIN	1	0	1	1	0	0	1	regional/local	industrial

UK – UNITED KINGDOM

FUA code	FUA NAME	population	transport	tourism	industry	knowledge	decision-making	administration	typo	economic base
UK002	ABERDEEN	2	1	3	NA	3	1	1	transnational/national	diversified
UK003	ABERGELE/RHYL/PRESTATYN	1	0	3	NA	0	0	1	regional/local	diversified
UK013	ANDOVER	1	0	3	NA	0	0	1	regional/local	diversified
UK015	ASHFORD	2	0	3	NA	0	1	1	regional/local	strong primary
UK018	AYLESBURY	2	0	2	NA	0	0	1	regional/local	diversified
UK020	AYR	2	0	2	NA	0	0	1	regional/local	strong primary
UK021	BANBURY	1	0	2	NA	0	0	1	regional/local	diversified
UK022	BARNSLEY	2	0	1	NA	1	0	1	regional/local	diversified
UK023	BARNSTAPLE	1	0	3	NA	0	0	1	regional/local	diversified
UK027	BASINGSTOKE	2	0	3	NA	0	1	1	regional/local	diversified
UK028	BATH	2	0	2	NA	3	0	1	regional/local	diversified
UK030	BEDFORD/KEMPSTON	2	0	1	NA	0	1	1	regional/local	diversified
UK031	BELFAST	3	1	1	NA	3	1	2	transnational/national	diversified
UK038	BLACKBURN/DARWEN	2	0	1	NA	0	0	1	regional/local	diversified
UK039	BLACKPOOL	2	1	3	NA	0	0	1	regional/local	diversified
UK043	BOSTON	1	0	2	NA	0	0	1	regional/local	strong primary
UK044	BOURNEMOUTH	2	1	3	NA	3	0	1	transnational/national	diversified
UK045	BRACKNELL	3	0	2	NA	0	0	1	regional/local	diversified
UK049	BRIDGWATER	1	0	2	NA	0	0	1	regional/local	diversified
UK050	BRIDLINGTON	1	0	2	NA	0	0	1	regional/local	diversified
UK051	BRIGHTON/WORTHING/LITTLEHAMPTON	2	0	2	NA	3	1	1	transnational/national	diversified
UK052	BRISTOL	3	1	2	NA	3	1	2	transnational/national	diversified
UK055	BURNLEY/NELSON	2	0	3	NA	0	0	1	regional/local	industrial
UK057	BURTON UPON TRENT	2	0	2	NA	0	0	1	regional/local	diversified
UK058	BURY ST. EDMUNDS	2	0	1	NA	0	0	2	regional/local	diversified
UK062	CAMBRIDGE	2	0	2	NA	3	0	1	regional/local	diversified
UK063	CANNOCK/GREAT WYRLEY	2	0	2	NA	0	0	1	regional/local	diversified
UK064	CANTERBURY/BLEAN	1	0	3	NA	3	0	1	regional/local	diversified

UK066	CARDIFF	3	1	2	NA	3	1	2	transnational/national	diversified
UK067	CARLISLE	2	0	3	NA	0	0	1	regional/local	diversified
UK070	CHELTENHAM/CHARLTON KINGS	2	0	2	NA	2	0	1	regional/local	diversified
UK071	CHESTER	2	0	2	NA	0	1	1	regional/local	diversified
UK077	CLACTON-ON-SEA/LITTLE CLACTON/WEELEY	1	0	2	NA	0	0	1	regional/local	diversified
UK081	COLCHESTER	2	0	2	NA	2	0	1	regional/local	diversified
UK082	COLWYN BAY	1	0	3	NA	0	0	1	regional/local	diversified
UK087	COVENTRY/BEDWORTH	3	0	2	NA	3	1	1	transnational/national	diversified
UK089	CRAWLEY	2	0	3	NA	0	1	1	regional/local	diversified
UK090	CREWE	2	0	2	NA	0	0	1	regional/local	diversified
UK093	DARLINGTON	2	0	1	NA	0	0	1	regional/local	diversified
UK097	DERBY	2	1	1	NA	3	1	1	transnational/national	diversified
UK098	DONCASTER	2	0	1	NA	0	1	1	regional/local	diversified
UK099	DOVER	1	0	3	NA	0	0	1	regional/local	diversified
UK103	DUNDEE	2	0	1	NA	1	0	1	regional/local	diversified
UK104	DUNFERMLINE	2	0	2	NA	0	0	1	regional/local	diversified
UK108	EASTBOURNE	2	0	2	NA	0	0	1	regional/local	diversified
UK110	EDINBURGH	3	2	3	NA	3	2	2	MEGA	service
UK112	EXETER	2	1	3	NA	3	0	2	transnational/national	diversified
UK114	FALKIRK	2	0	1	NA	0	0	1	regional/local	diversified
UK115	FALMOUTH/PENRYN	1	0	3	NA	0	0	1	regional/local	diversified
UK116	FELIXSTOWE	1	4	1	NA	0	0	1	regional/local	diversified
UK122	GLASGOW	4	2	2	NA	3	1	2	transnational/national	diversified
UK125	GLOUCESTER	2	0	2	NA	0	1	1	regional/local	diversified
UK128	GRANTHAM/GREAT GONERBY	1	0	2	NA	0	0	1	regional/local	diversified
UK131	GREAT YARMOUTH	2	0	3	NA	0	0	1	regional/local	diversified
UK132	LONDON	5	5	5	NA	4	5	4	MEGA	service
UK133	GREATER MANCHESTER	4	4	3	NA	4	1	2	MEGA	diversified
UK134	GREENOCK	2	0	1	NA	0	0	1	regional/local	diversified
UK136	GUILDFORD	2	0	2	NA	3	0	2	transnational/national	diversified
UK139	HARLOW	2	0	2	NA	0	0	1	regional/local	diversified
UK141	HARROGATE	2	0	3	NA	0	0	1	regional/local	strong primary
UK142	HARTLEPOOL	2	0	2	NA	0	0	1	regional/local	diversified
UK143	HASTINGS/BEXHILL	2	0	2	NA	0	0	1	regional/local	diversified
UK158	INVERNESS	2	0	2	NA	0	0	1	regional/local	diversified

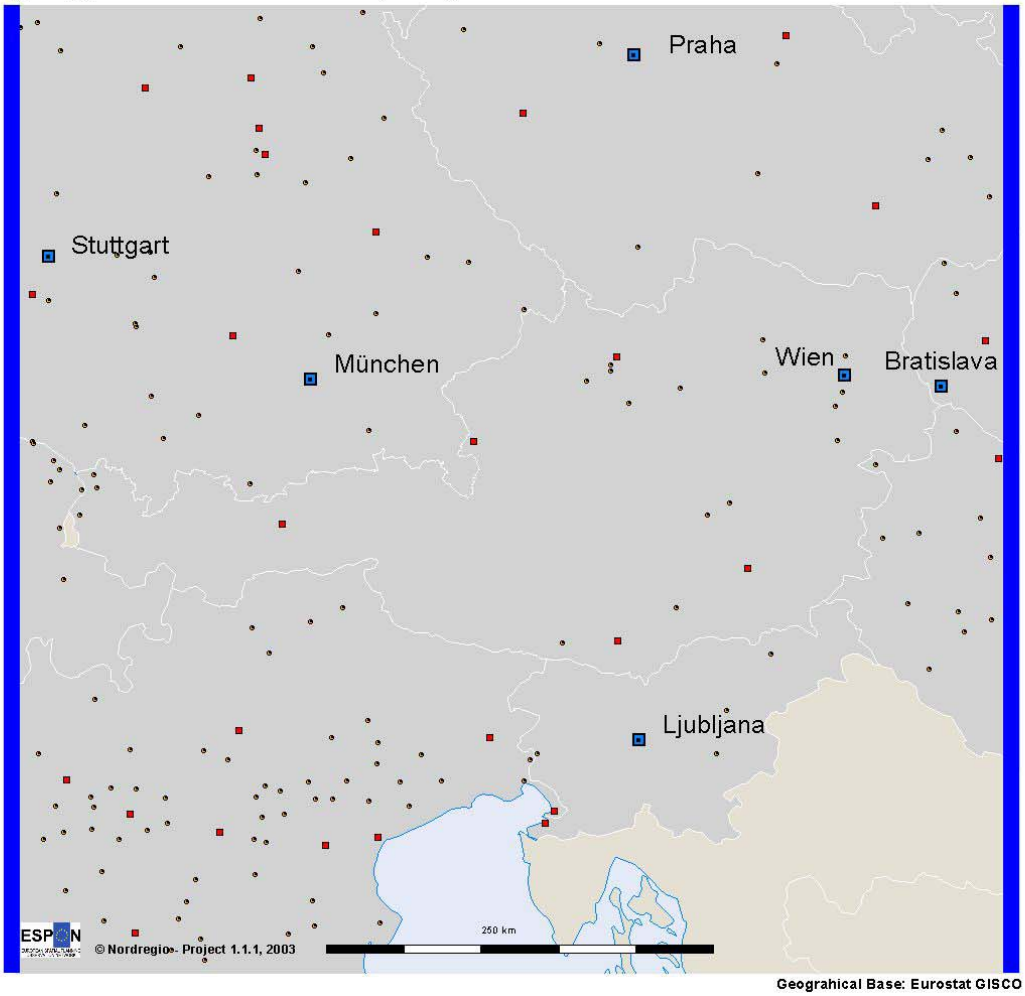
UK159	IPSWICH	2	0	2	NA	0	1	1	regional/local	diversified
UK161	IRVINE	2	0	1	NA	0	0	1	regional/local	diversified
UK164	KENDAL	1	0	3	NA	0	0	1	regional/local	diversified
UK166	KIDDERMINSTER	2	0	2	NA	0	0	1	regional/local	diversified
UK167	KILMARNOCK	2	0	1	NA	0	0	1	regional/local	diversified
UK169	KING'S LYNN	1	0	3	NA	0	0	1	regional/local	strong primary
UK170	KIRCALDY	2	0	2	NA	0	0	1	regional/local	diversified
UK173	LEICESTER	3	0	1	NA	3	1	1	transnational/national	diversified
UK177	LINCOLN	2	0	2	NA	3	0	1	regional/local	diversified
UK178	LIVERPOOL	3	1	1	NA	3	1	2	transnational/national	diversified
UK180	LLANELLI	1	0	3	NA	0	0	1	regional/local	diversified
UK182	LOUGHBOROUGH	1	0	2	NA	3	0	1	regional/local	diversified
UK183	LOWESTOFT	2	0	1	NA	0	0	1	regional/local	diversified
UK184	LUTON/DUNSTABLE	2	2	1	NA	3	1	1	transnational/national	diversified
UK189	MAIDSTONE	2	0	3	NA	0	0	1	regional/local	diversified
UK190	MANSFIELD	2	0	1	NA	0	0	1	regional/local	industrial
UK191	MELTON MOWBRAY	1	0	2	NA	0	0	2	regional/local	strong primary
UK193	MILTON KEYNES	2	0	1	NA	0	1	1	regional/local	diversified
UK202	NEWTON ABBOT	1	0	3	NA	0	0	1	regional/local	diversified
UK204	NORTHAMPTON	2	0	2	NA	2	1	1	regional/local	diversified
UK207	NORWICH	2	1	3	NA	3	0	2	transnational/national	diversified
UK208	NOTTINGHAM	3	0	1	NA	4	1	2	transnational/national	diversified
UK211	OXFORD	2	0	2	NA	3	1	1	transnational/national	service
UK213	PERTH	1	0	3	NA	0	1	1	regional/local	strong primary
UK214	PETERBOROUGH	2	0	1	NA	0	1	1	regional/local	diversified
UK216	PLYMOUTH	2	1	1	NA	3	0	1	regional/local	diversified
UK219	PONTYPRIDD	1	0	1	NA	3	0	1	regional/local	diversified
UK221	PORTSMOUTH	2	0	2	NA	3	1	1	transnational/national	diversified
UK223	PRESTON	2	0	3	NA	0	0	1	regional/local	diversified
UK224	READING/WOKINGHAM	2	0	2	NA	3	1	1	transnational/national	diversified
UK230	RUGBY	2	0	2	NA	0	1	1	regional/local	strong primary
UK233	SALISBURY	1	0	2	NA	0	0	1	regional/local	strong primary
UK235	SCUNTHORPE	2	0	1	NA	0	0	1	regional/local	diversified
UK238	SHEFFIELD	3	1	1	NA	3	1	2	transnational/national	diversified
UK239	SHREWSBURY	2	0	2	NA	0	0	1	regional/local	strong primary

UK241	SLOUGH	2	0	2	NA	0	1	1	regional/local	diversified
UK242	SOUTHAMPTON/EASTLEIGH	2	4	1	NA	3	1	1	transnational/national	diversified
UK243	SOUTHEND	2	0	1	NA	0	0	1	regional/local	diversified
UK245	SPALDING/PINCHBECK	1	0	2	NA	0	0	1	regional/local	strong primary
UK247	ST. AUSTELL	1	0	3	NA	0	0	1	regional/local	diversified
UK249	STAFFORD	2	0	2	NA	0	0	1	regional/local	strong primary
UK252	STEVENAGE	2	0	2	NA	0	0	1	regional/local	diversified
UK253	STIRLING	2	0	3	NA	2	0	1	regional/local	diversified
UK255	STROUD	1	0	2	NA	0	0	1	regional/local	strong primary
UK256	SUNDERLAND/WHITBURN	2	0	1	NA	3	1	1	regional/local	diversified
UK259	SWANSEA	2	0	1	NA	3	0	1	regional/local	diversified
UK260	SWINDON	2	0	1	NA	1	1	1	regional/local	diversified
UK262	TAUNTON	2	0	2	NA	0	0	1	regional/local	diversified
UK267	THANET	2	0	3	NA	0	0	1	regional/local	diversified
UK273	TROWBRIDGE	1	0	2	NA	0	0	1	regional/local	diversified
UK274	TYNESIDE-NEWCASTLE-GATESHEAD	3	0	2	NA	3	1	2	transnational/national	diversified
UK275	WARRINGTON	2	0	1	NA	0	1	1	regional/local	diversified
UK276	WARWICK/LEAMINGTON	2	0	2	NA	3	1	1	transnational/national	diversified
UK277	WELLINGBOROUGH	1	0	2	NA	0	0	1	regional/local	diversified
UK281	WESTON-SUPER-MARE	2	0	2	NA	0	0	1	regional/local	diversified
UK283	WHITEHAVEN	1	0	2	NA	0	0	1	regional/local	diversified
UK287	WIGAN	2	0	2	NA	0	1	2	regional/local	diversified
UK296	WORCESTER	2	0	2	NA	0	0	1	regional/local	diversified
UK297	WORKINGTON	1	0	2	NA	0	0	1	regional/local	diversified
UK300	YEOVIL	1	0	2	NA	0	0	1	regional/local	diversified
UK301	YORK	2	0	2	NA	3	1	1	transnational/national	diversified
UK317	WAKEFIELD	2	0	2	NA	0	1	2	regional/local	diversified
UK318	LONDONDERRY	2	1	1	NA	3	0	1	regional/local	diversified
UK319	TELFORD	2	0	1	NA	0	0	1	regional/local	diversified
UK338	THETFORD	1	0	3	NA	0	0	1	regional/local	diversified
UK429	BERWICK UPON TWEED	1	0	2	NA	0	0	1	regional/local	strong primary
UK513	BANGOR	2	0	2	NA	2	0	1	regional/local	diversified
UK523	NEWPORT	2	0	1	NA	1	0	1	regional/local	diversified
UK573	LURGAN	2	0	1	NA	0	0	1	regional/local	diversified
UKX01	BIRMINGHAM	3	2	2	NA	4	2	2	MEGA	diversified

UKX02	BOLTON	2	0	2	NA	0	0	1	regional/local	diversified
UKX03	BRADFORD	3	0	1	NA	3	1	1	transnational/national	diversified
UKX04	DUDLEY	2	0	1	NA	0	0	1	regional/local	diversified
UKX05	HUDDERSFIELD	2	0	2	NA	3	1	1	transnational/national	diversified
UKX06	HULL	3	1	1	NA	3	1	1	transnational/national	diversified
UKX07	LEEDS	3	1	2	NA	4	1	2	transnational/national	diversified
UKX08	LISBURN	2	0	1	NA	0	0	1	regional/local	strong primary
UKX09	MIDDLESBROUGH	2	0	1	NA	3	0	1	regional/local	diversified
UKX10	POOLE	2	0	3	NA	0	0	1	regional/local	diversified
UKX11	ROCHDALE	2	0	1	NA	0	0	1	regional/local	diversified
UKX12	STOKE	3	0	1	NA	3	1	1	transnational/national	diversified
UKX13	TORQUAY	2	0	4	NA	0	0	1	regional/local	diversified
UKX14	WOLVERHAMPTON	3	0	2	NA	3	1	1	transnational/national	diversified

Annex 4. National FUA maps

Typology of Functional Urban Areas (FUAs), Austria



Geograhical Base: Eurostat GISCO

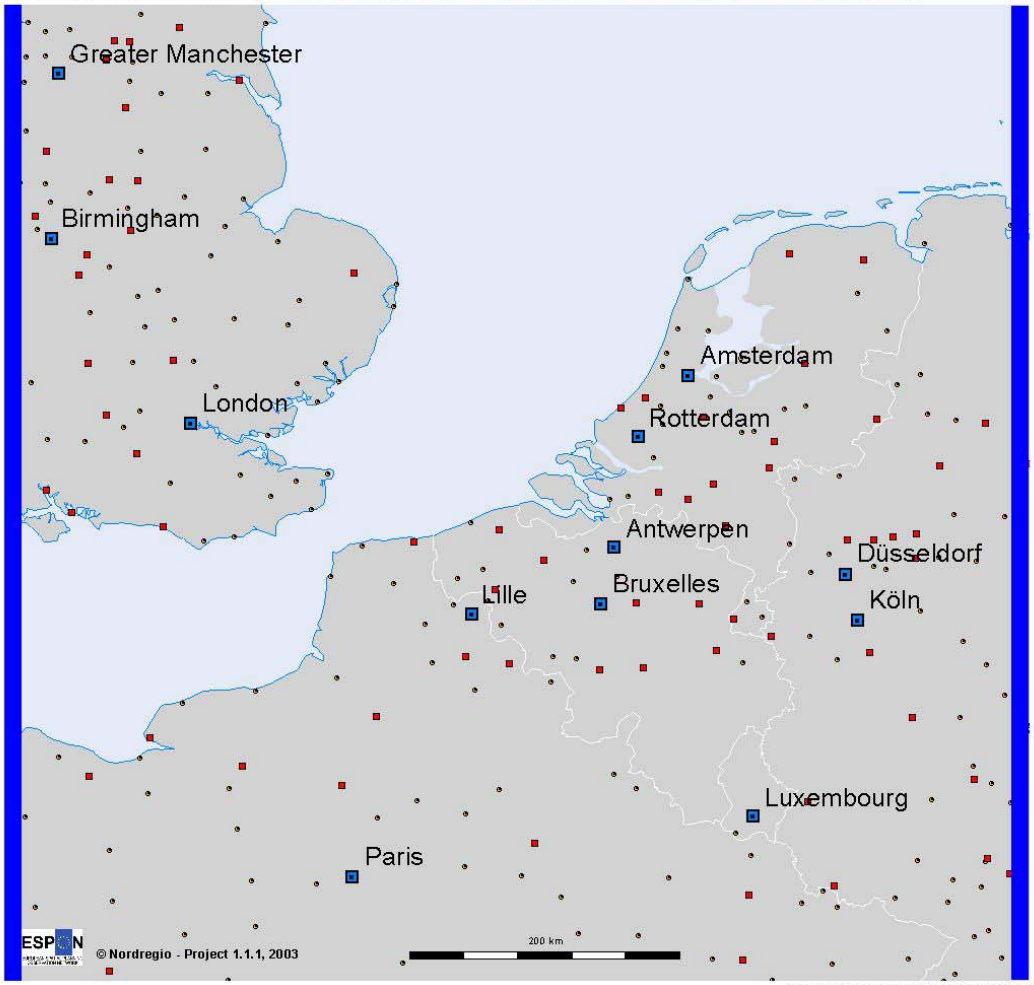
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Belgium, the Netherlands and Luxembourg



Geograhical Base: Eurostat GISCO

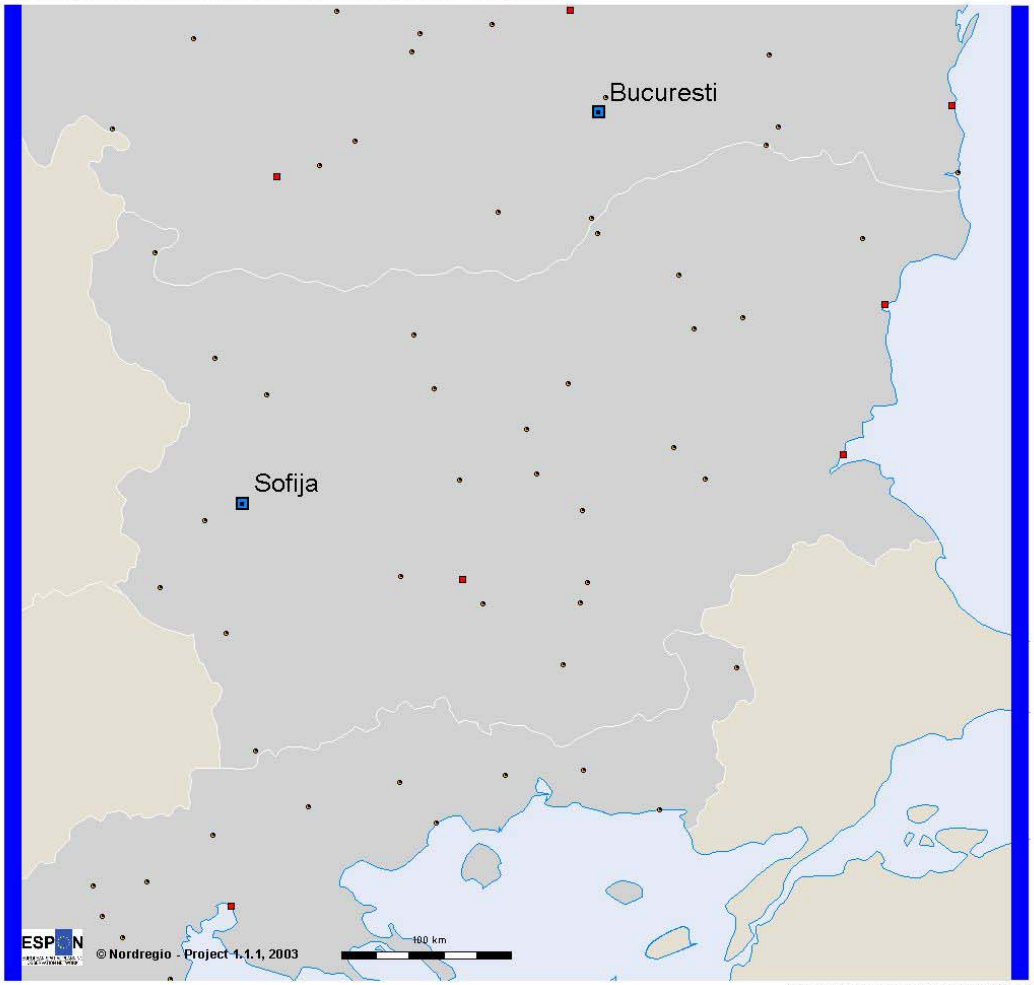
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Bulgaria



Geograhical Base: Eurostat GISCO

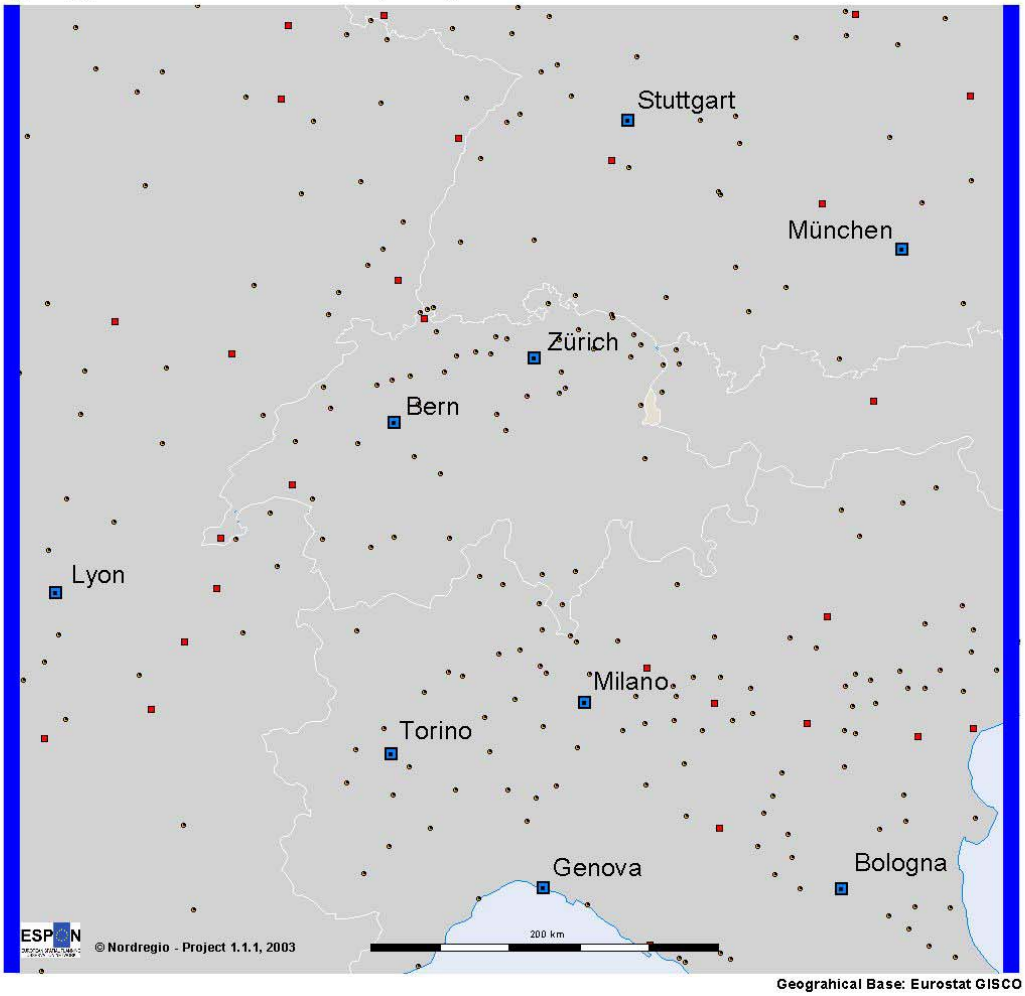
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Switzerland



Geograhical Base: Eurostat GISCO

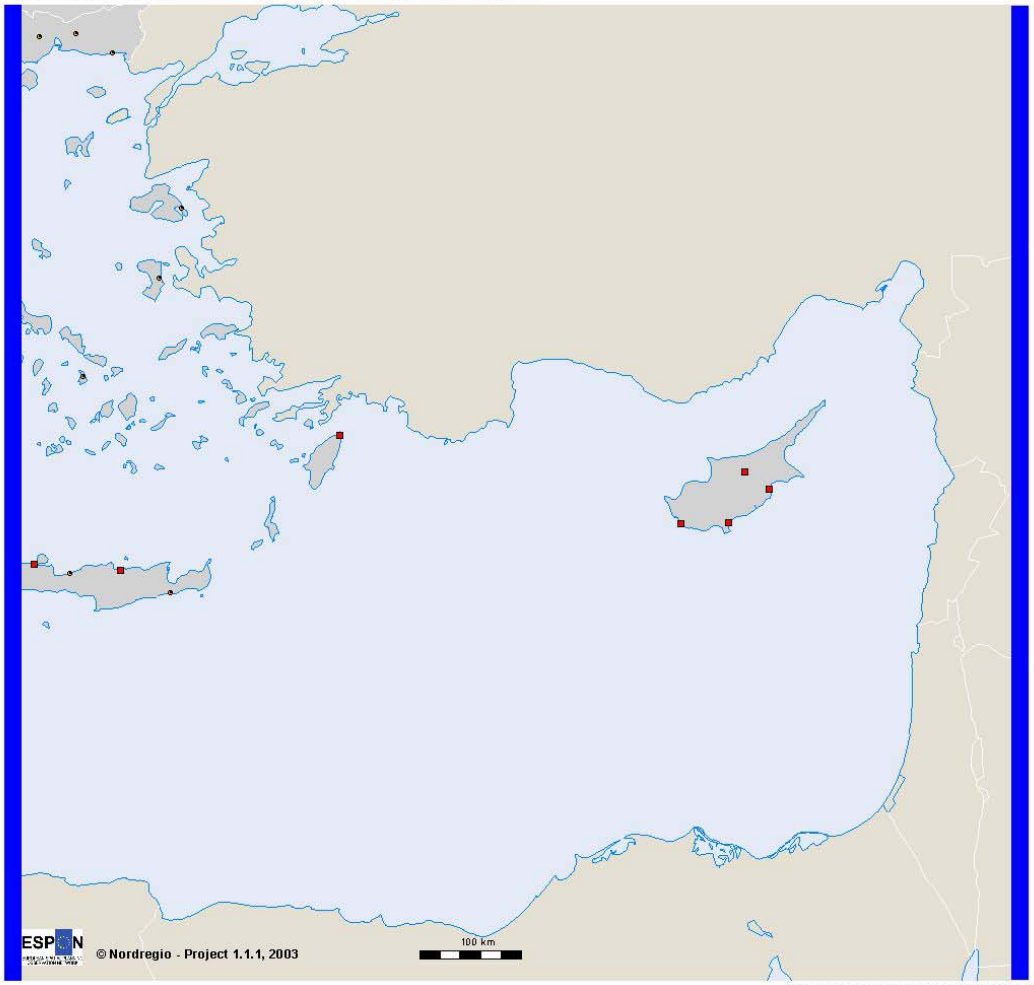
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Cyprus



Geograhical Base: Eurostat GISCO

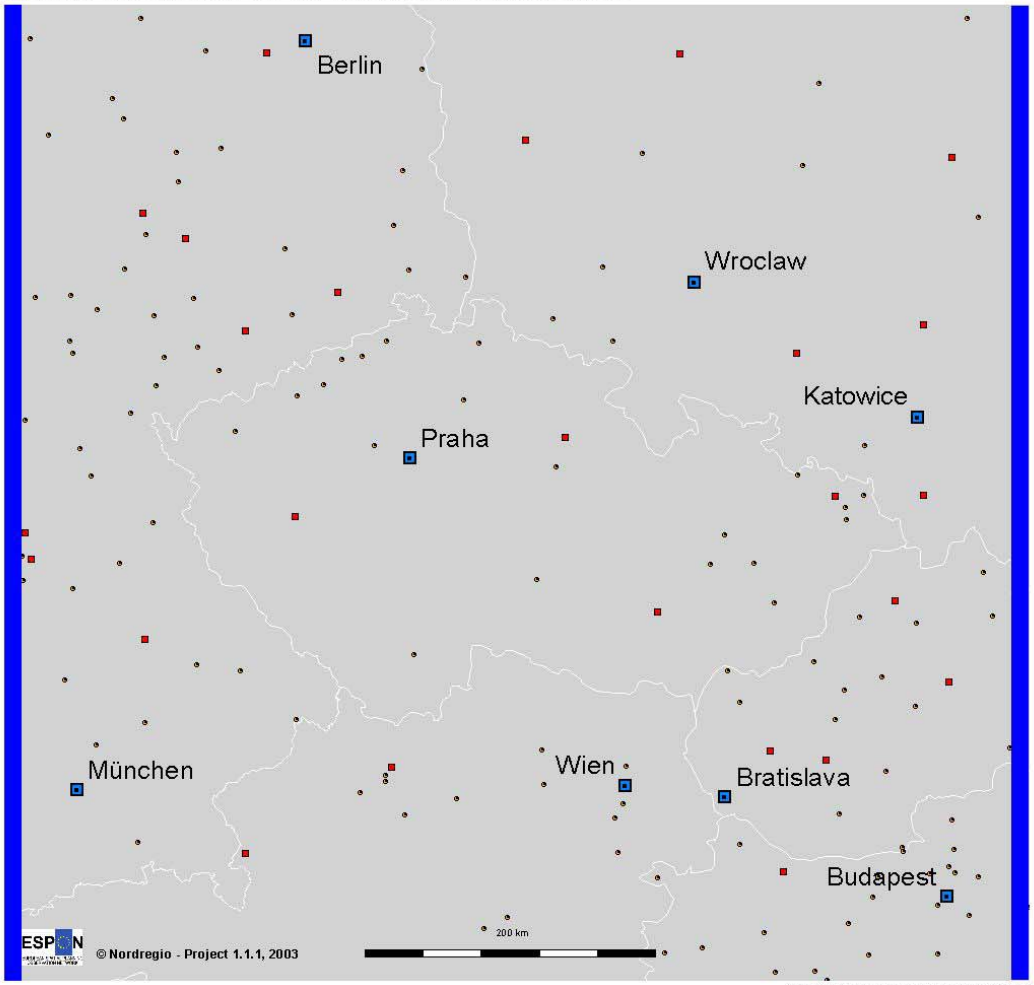
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Czech Republic



Geograhical Base: Eurostat GISCO

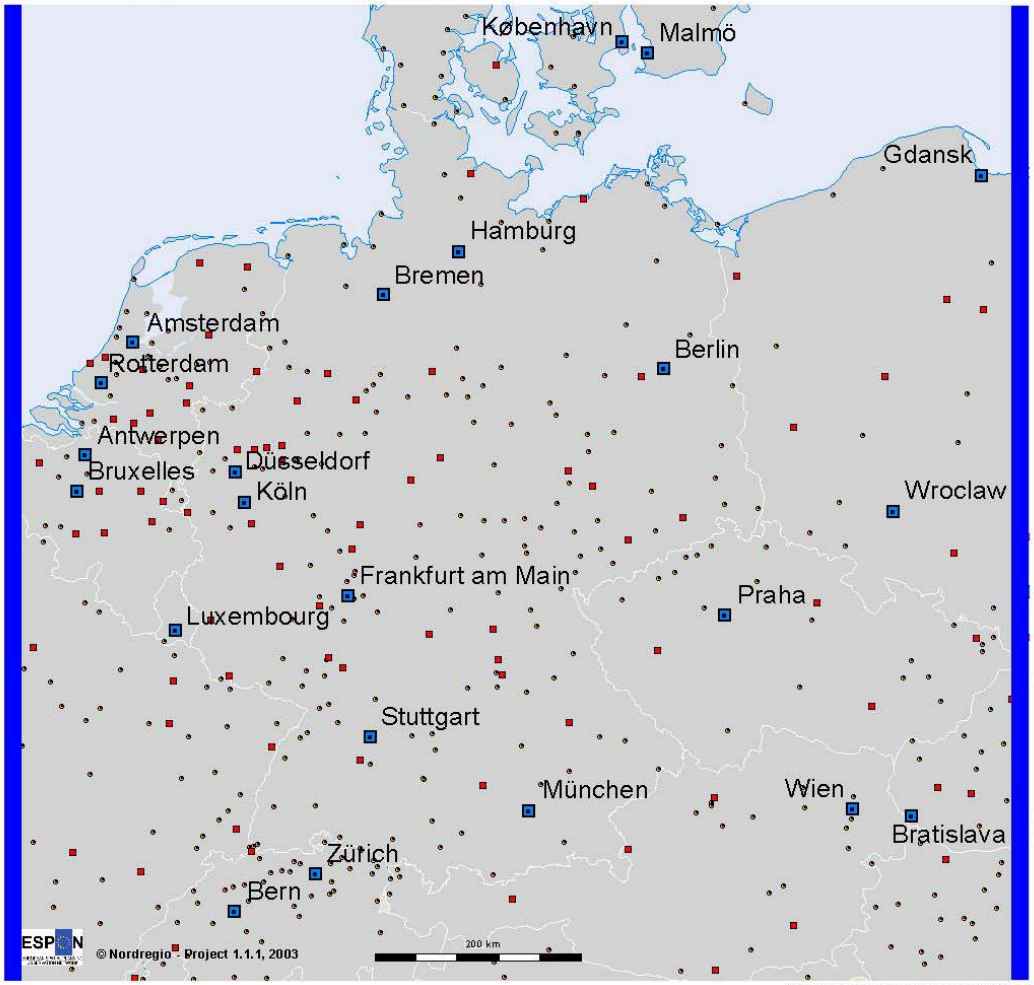
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Germany



Geograhical Base: Eurostat GISCO

- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Denmark

Geograhical Base: Eurostat GISCO

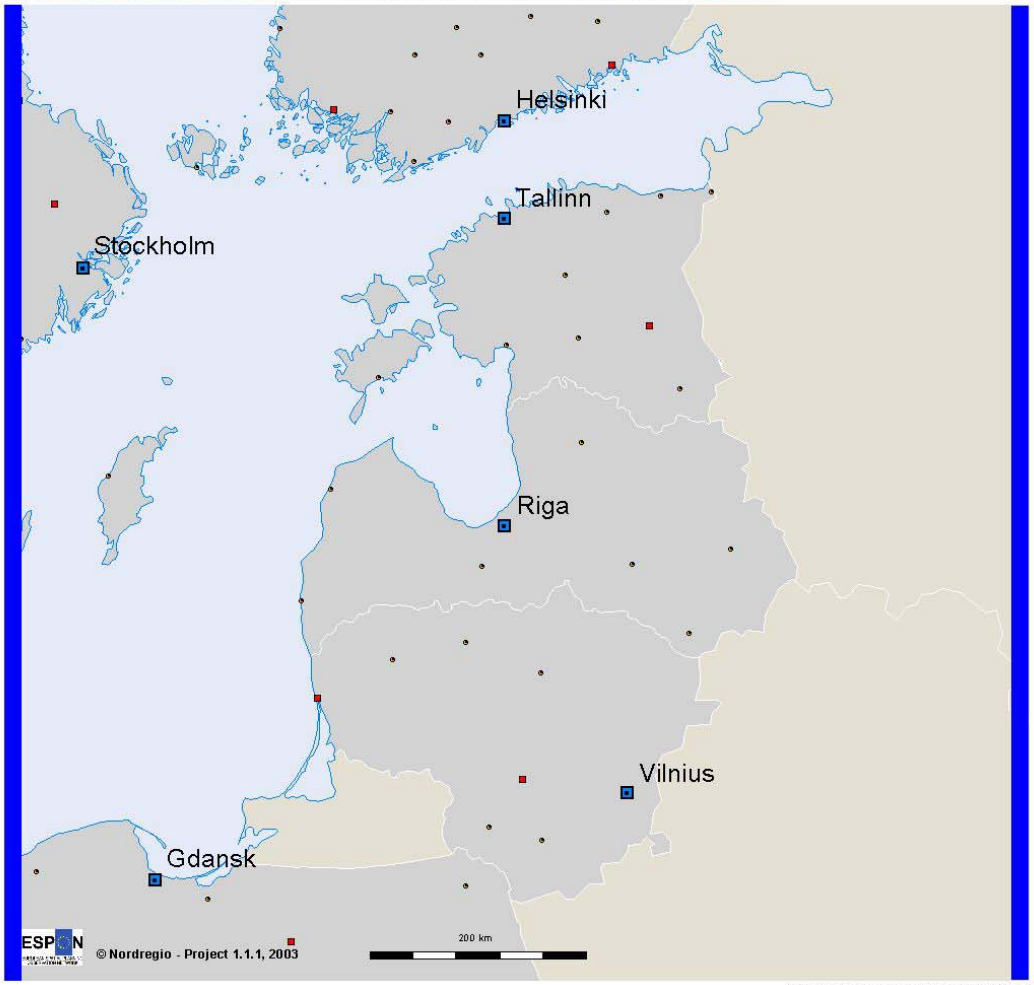
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Estonia, Latvia and Lithuania



Geograhical Base: Eurostat GISCO

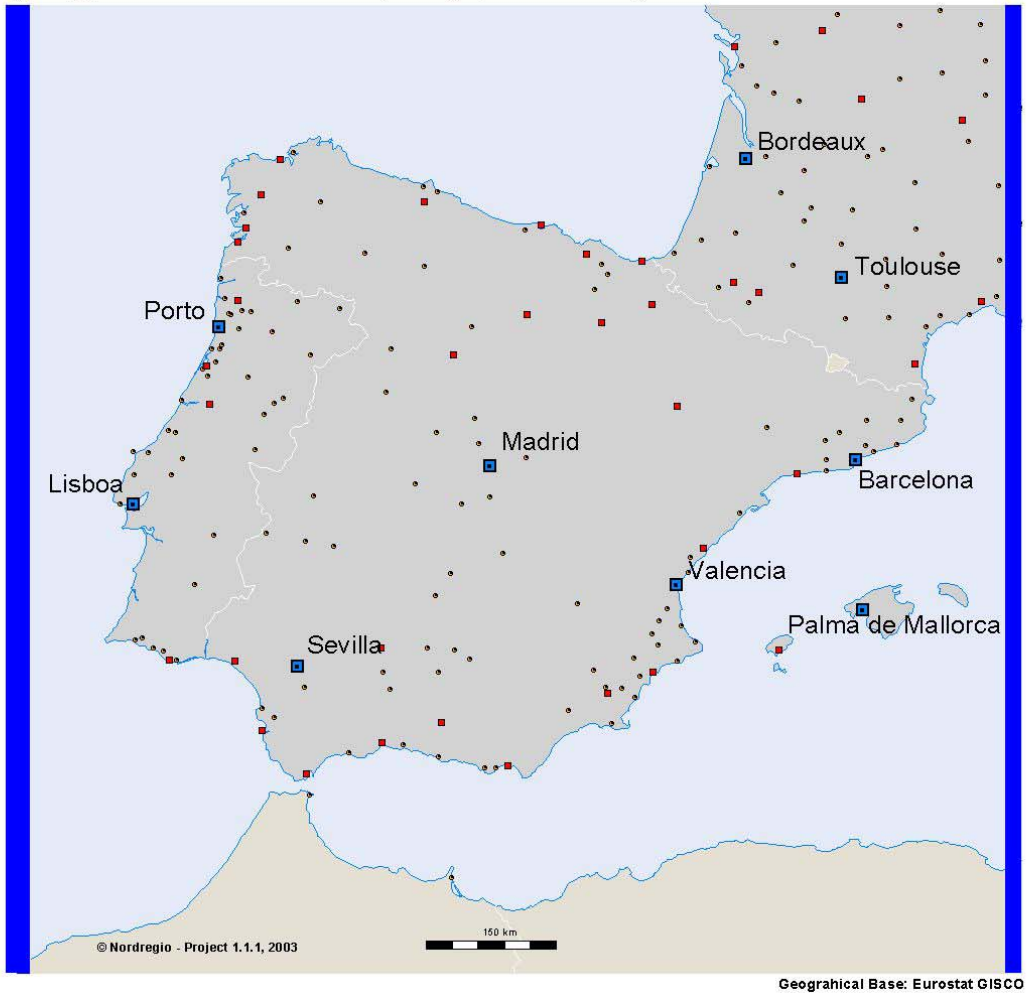
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Spain and Portugal



Geograhical Base: Eurostat GISCO

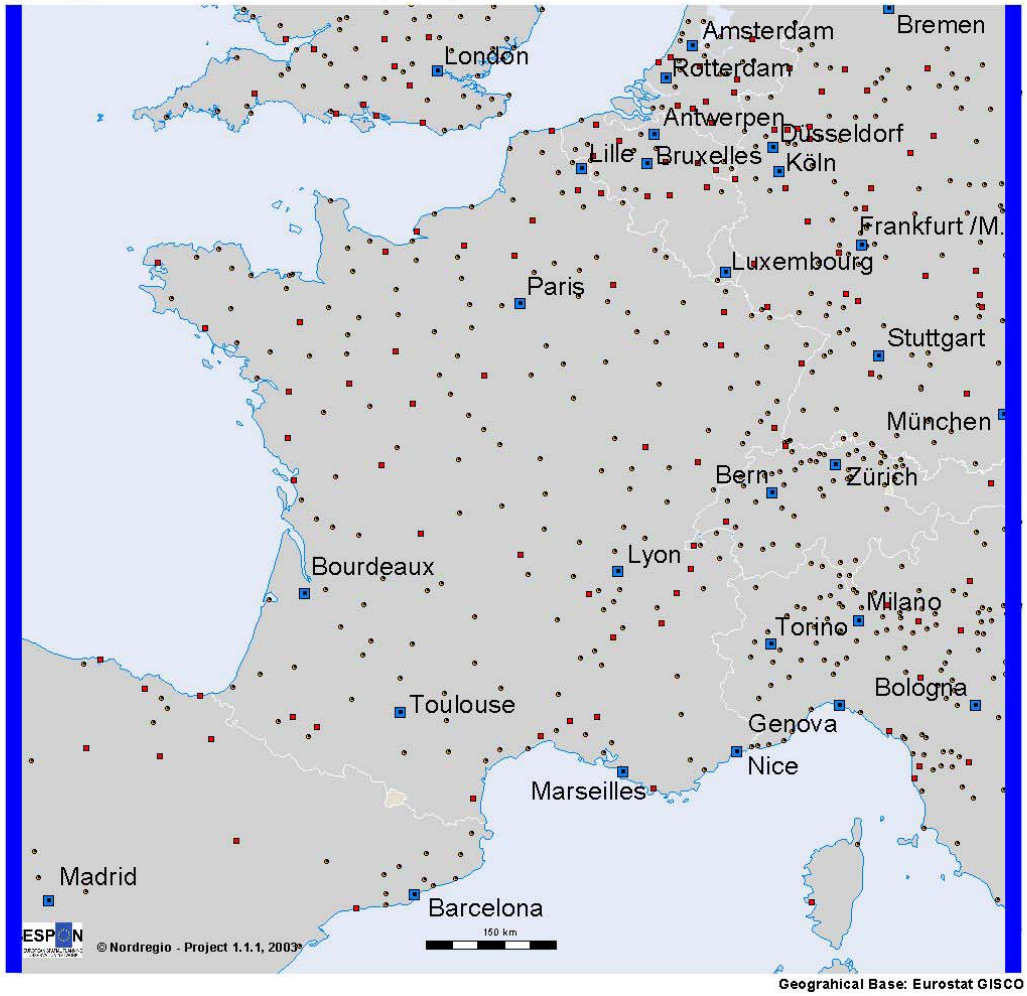
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), France



Geograhical Base: Eurostat GISCO

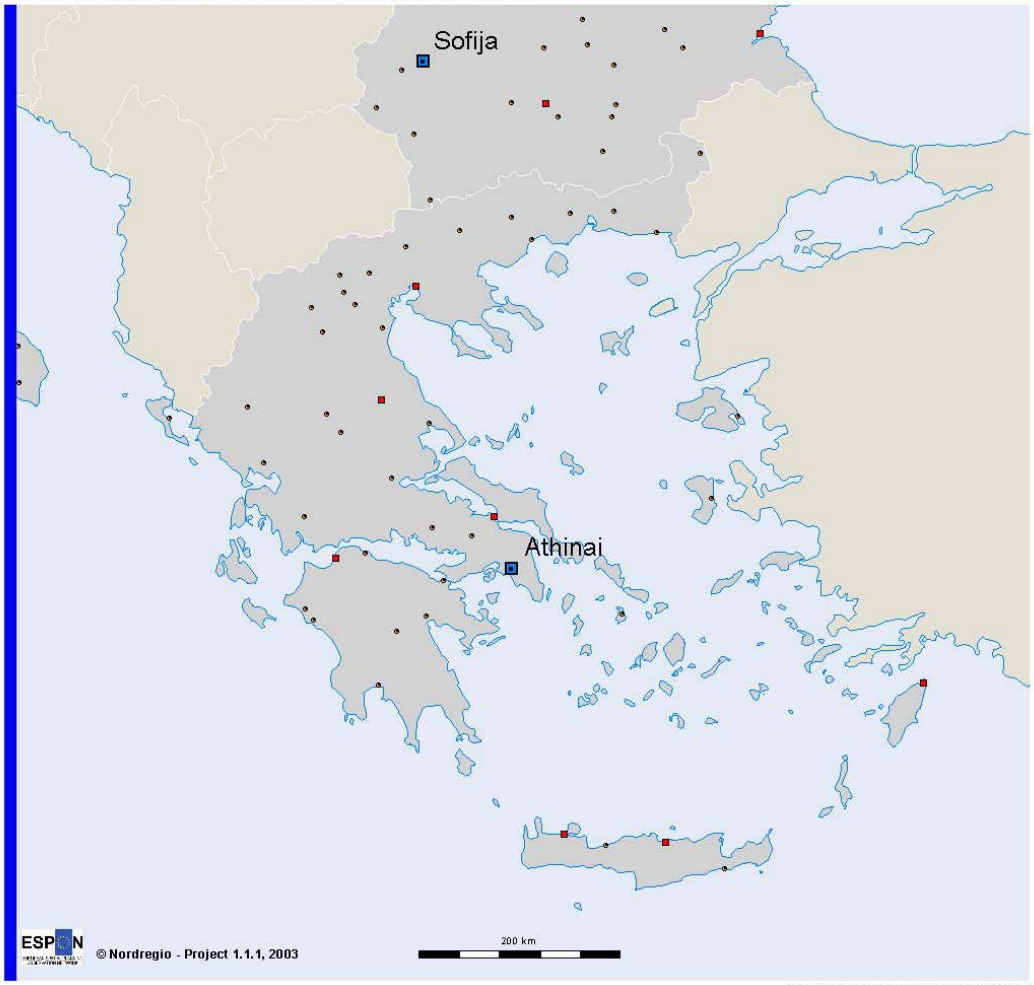
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Greece



Geograhical Base: Eurostat GISCO

- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Italy

Geograhical Base: Eurostat GISCO

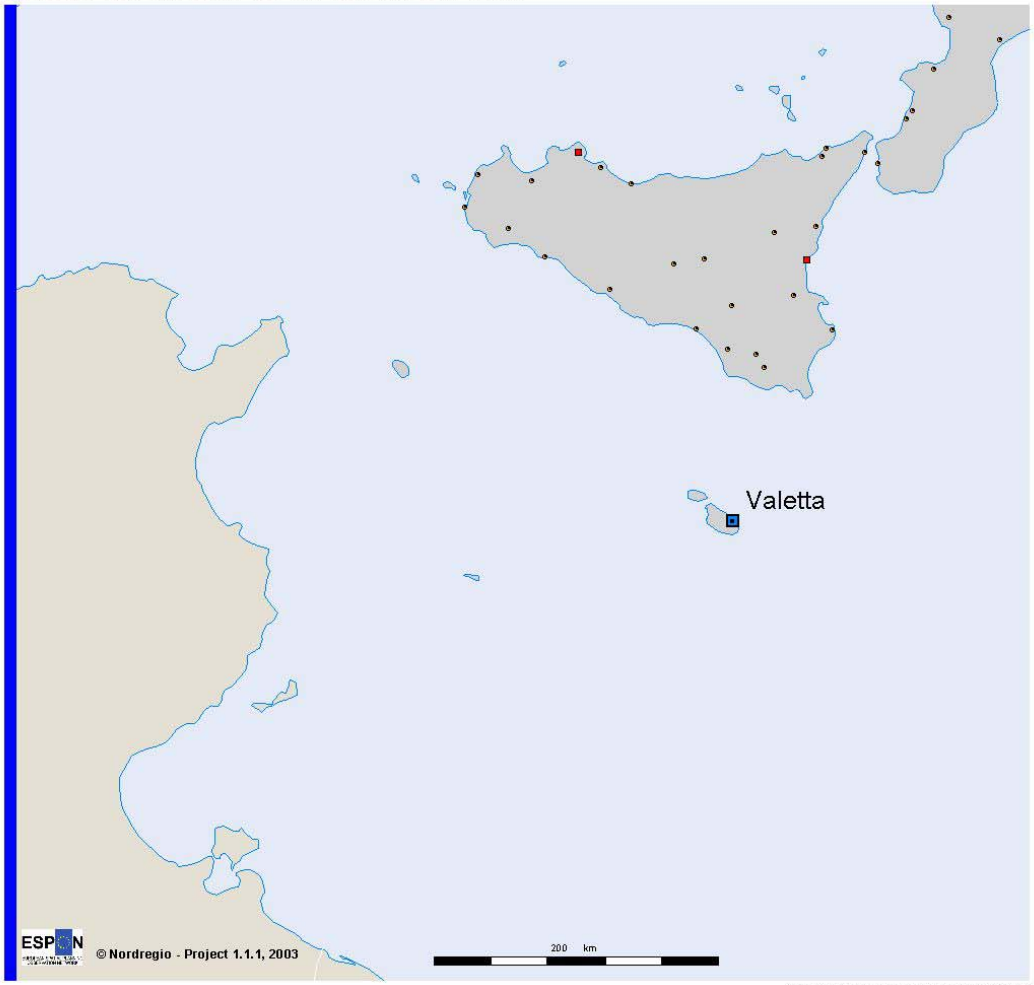
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Malta



Geograhical Base: Eurostat GISCO

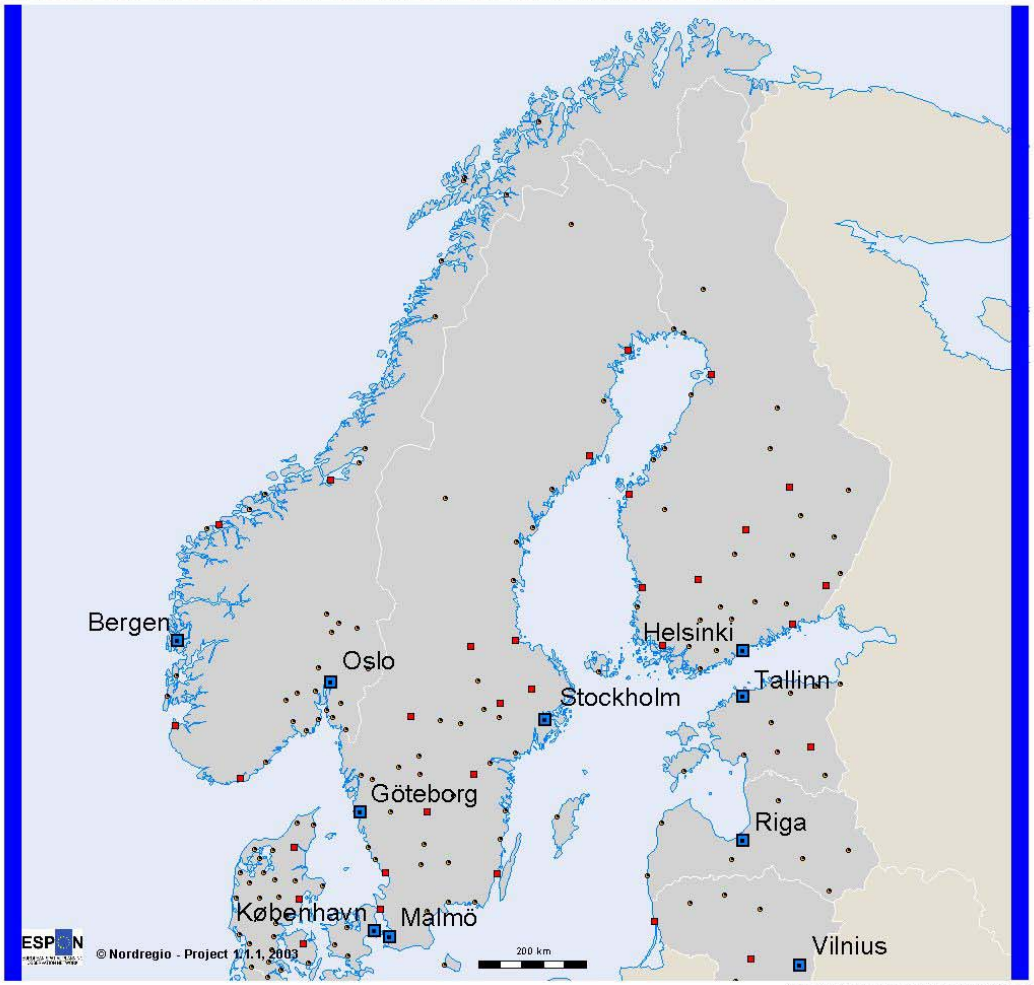
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Norway, Sweden and Finland



Geograhical Base: Eurostat GISCO

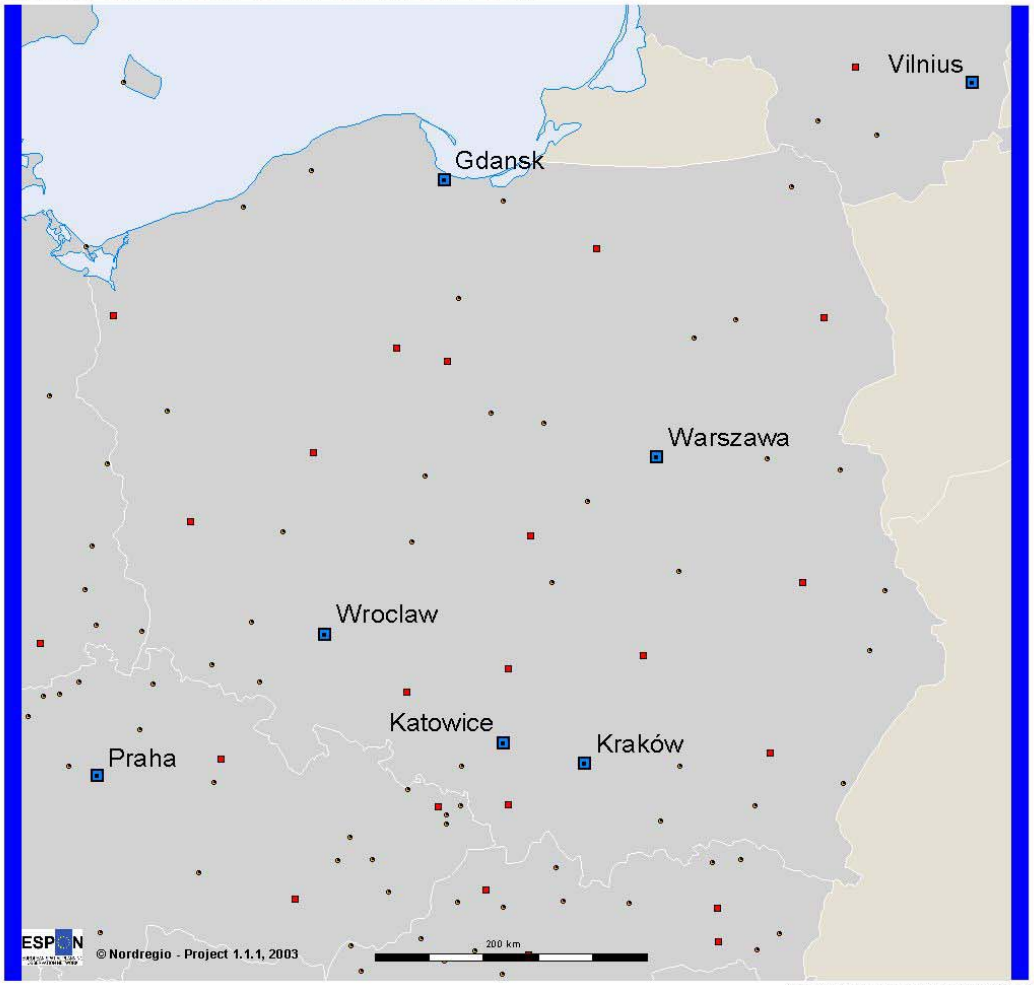
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Poland



Geograhical Base: Eurostat GISCO

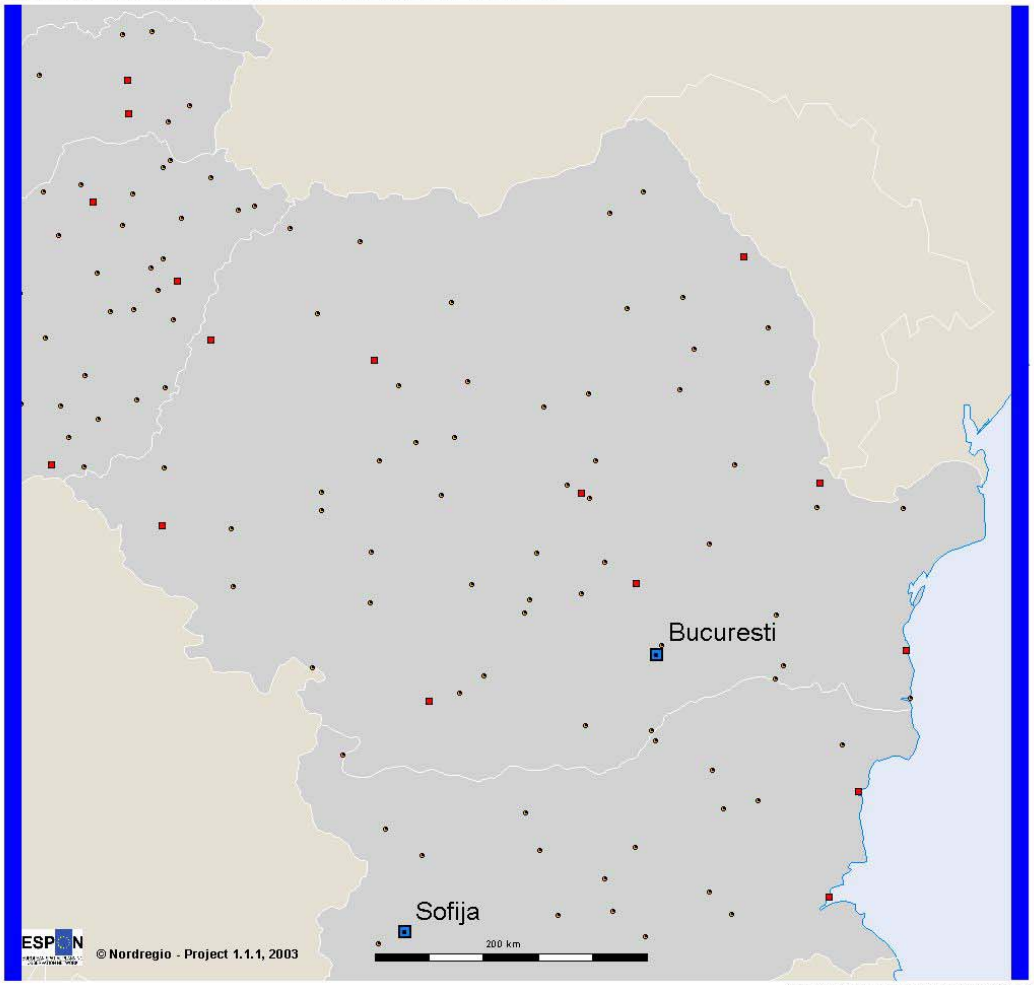
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Romania



Geograhical Base: Eurostat GISCO

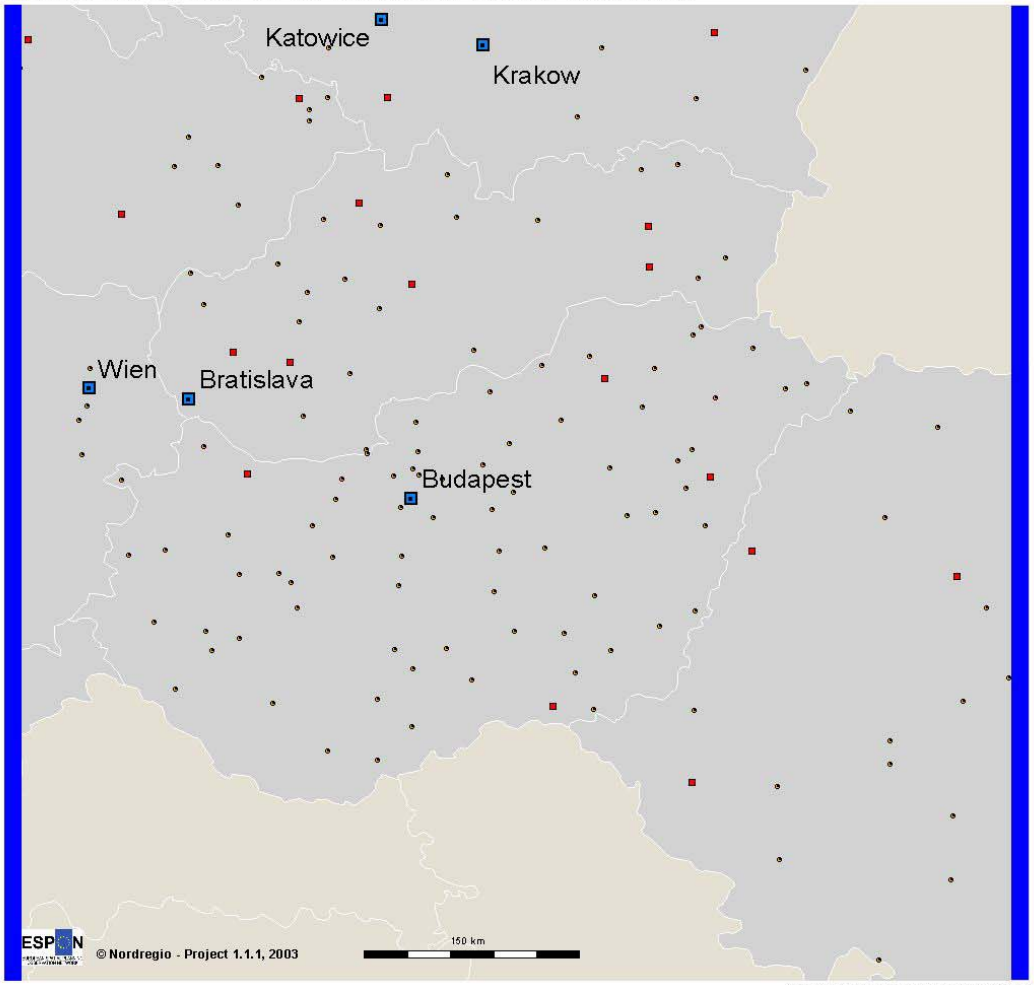
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Slovakia and Hungary



Geograhical Base: Eurostat GISCO

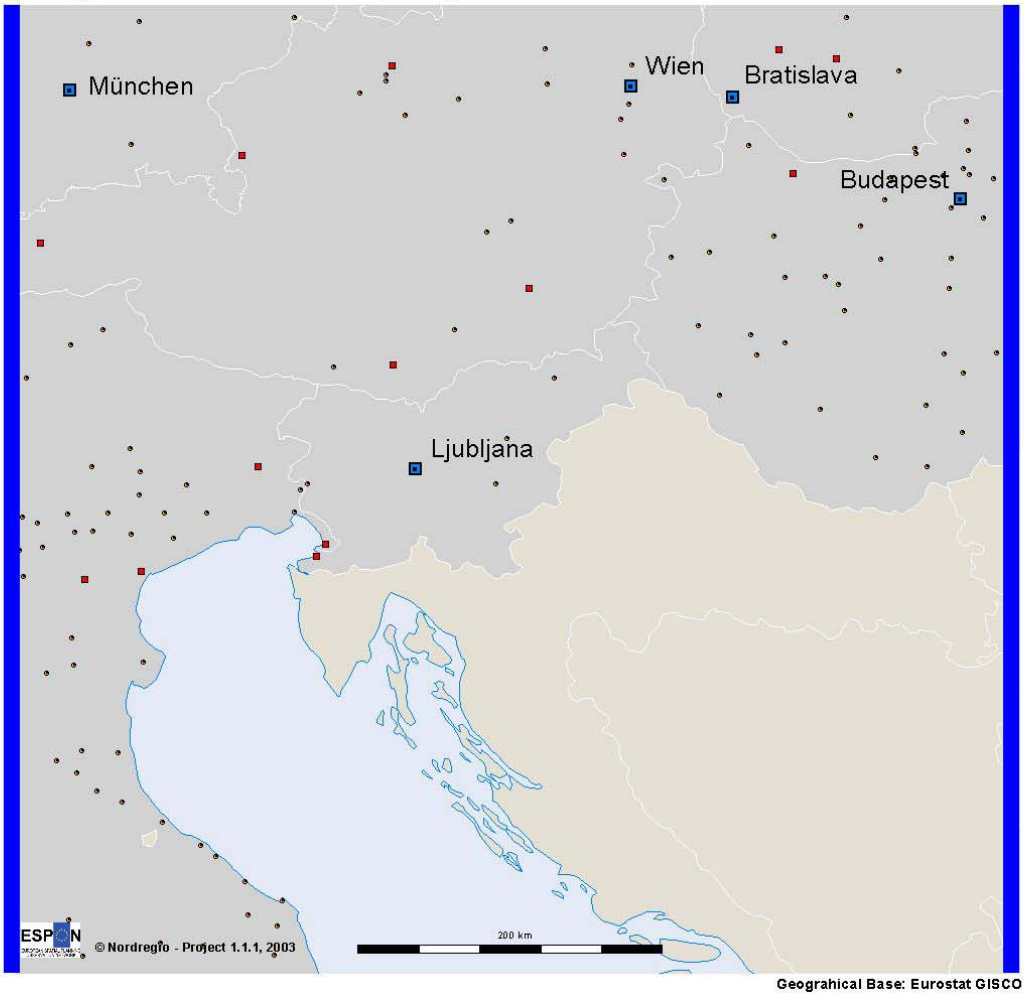
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), Slovenia



Geographical Base: Eurostat GISCO

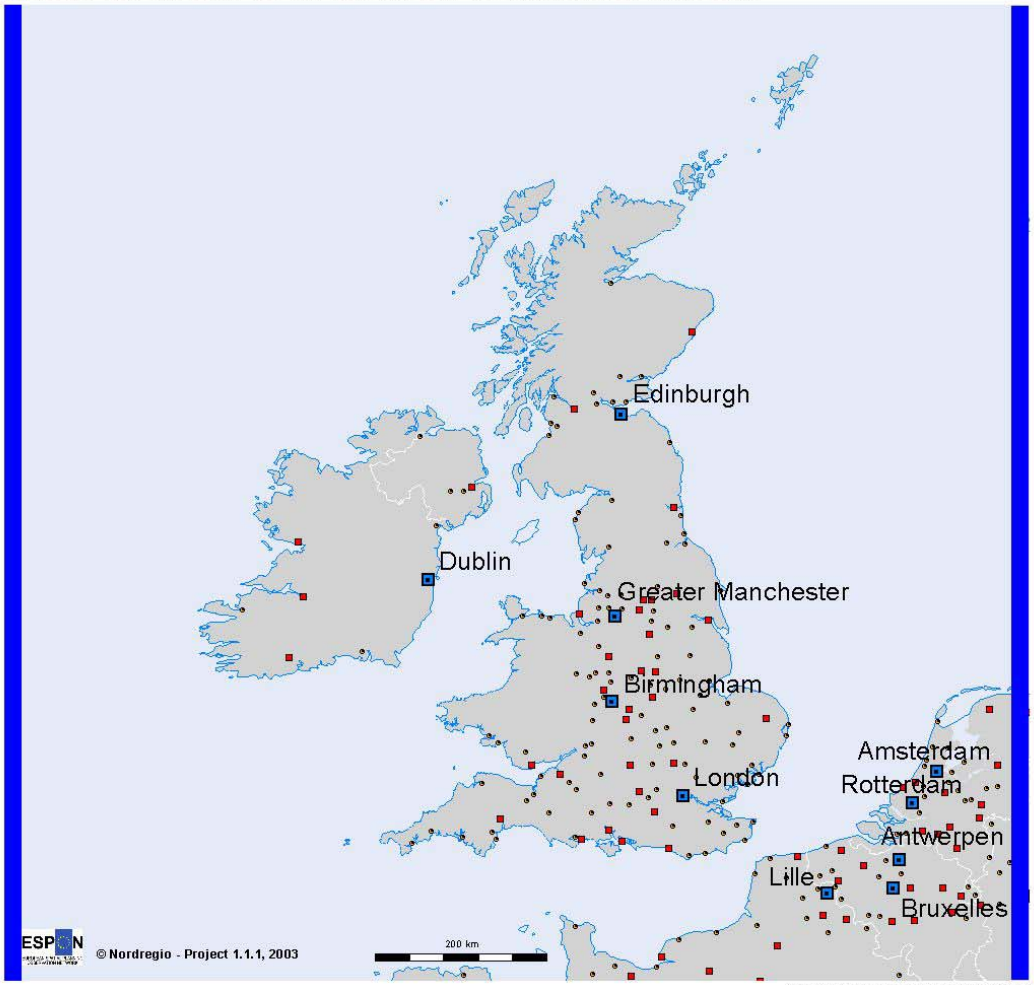
- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Typology of Functional Urban Areas (FUAs), United Kingdom and Ireland



Geograhical Base: Eurostat GISCO

- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

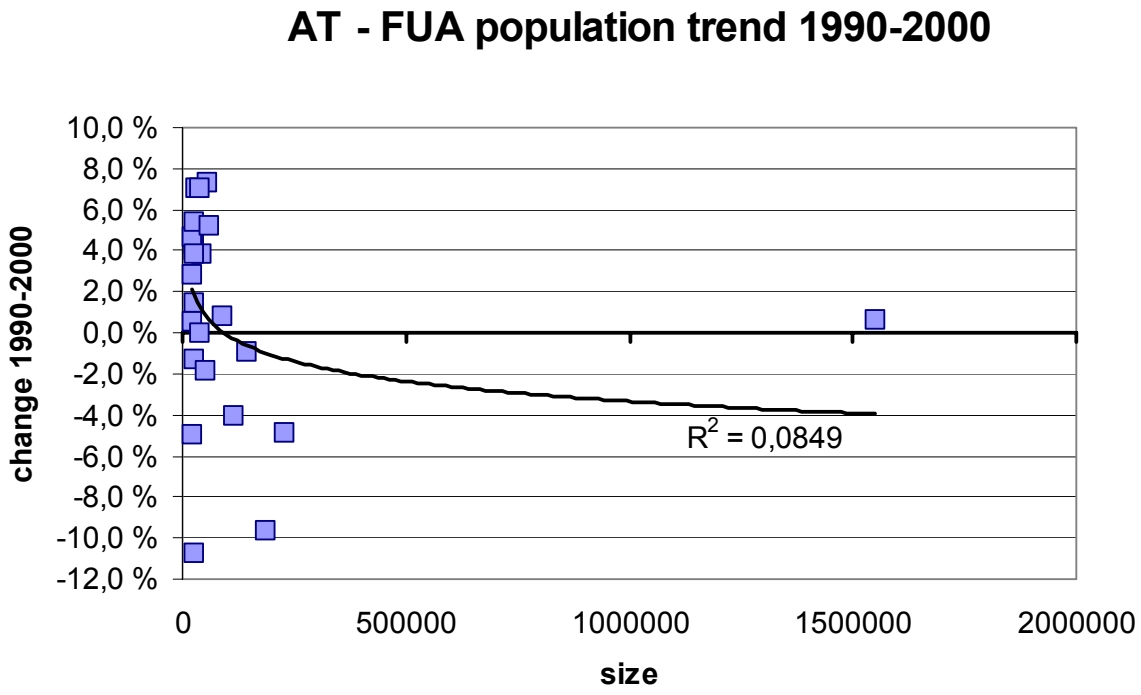
This map does not necessarily reflect the opinion of the ESPON Monitoring Committee.

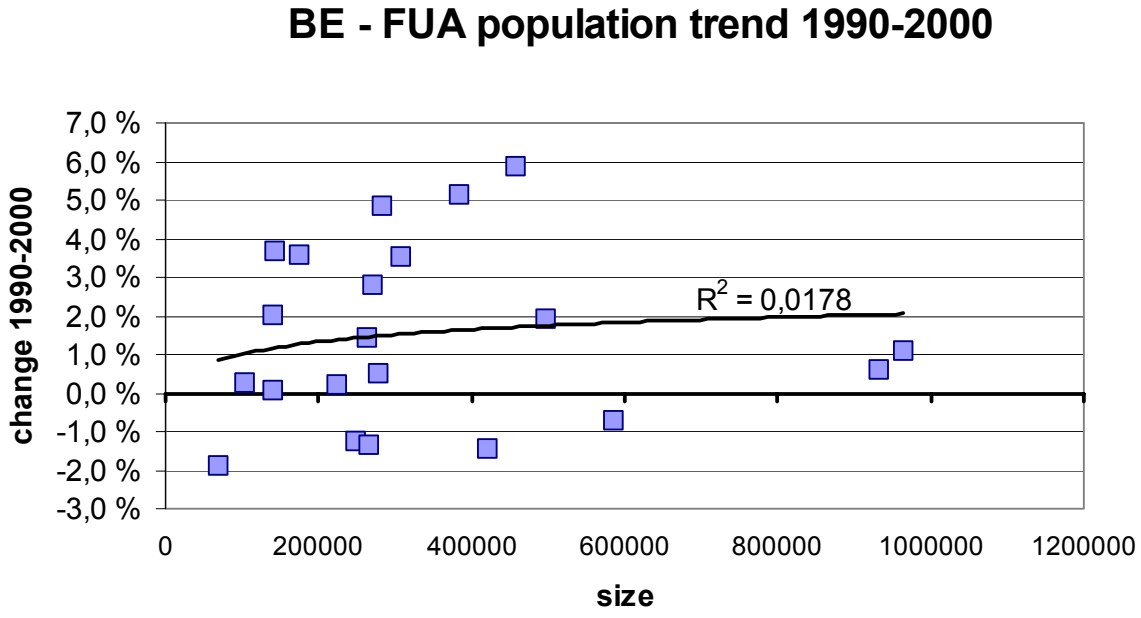
Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

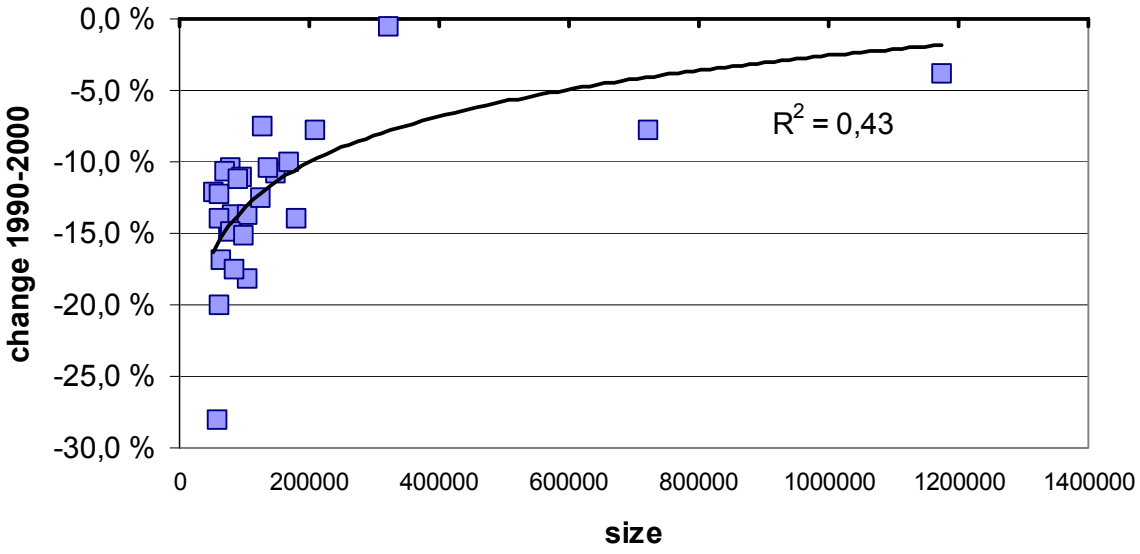
Annex 5. National population development trend figures

Population development 1990 – 2000 in FUAs (FUA or core city statistics - best option chosen for each FUA)

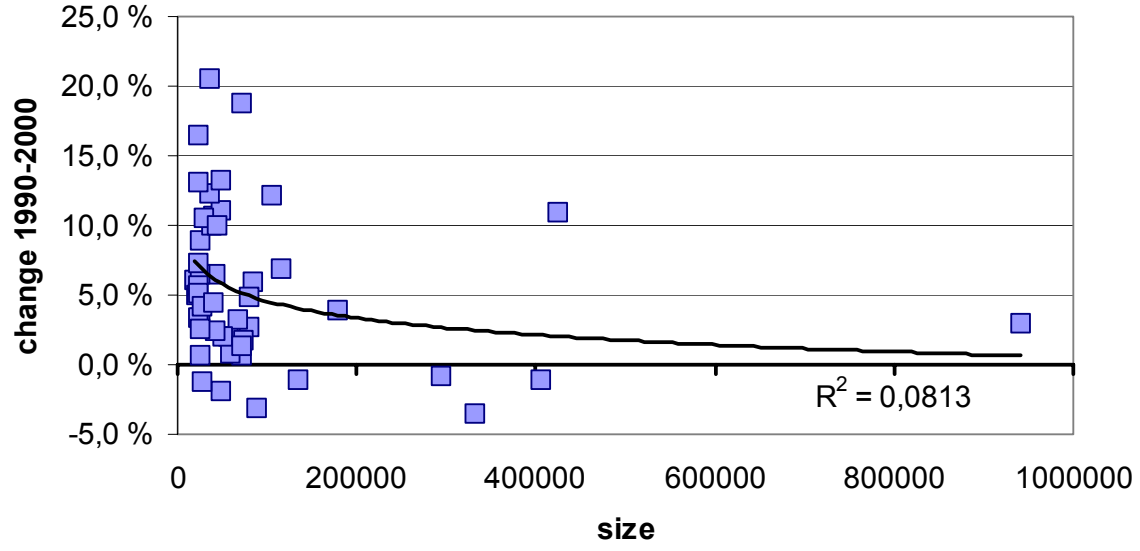




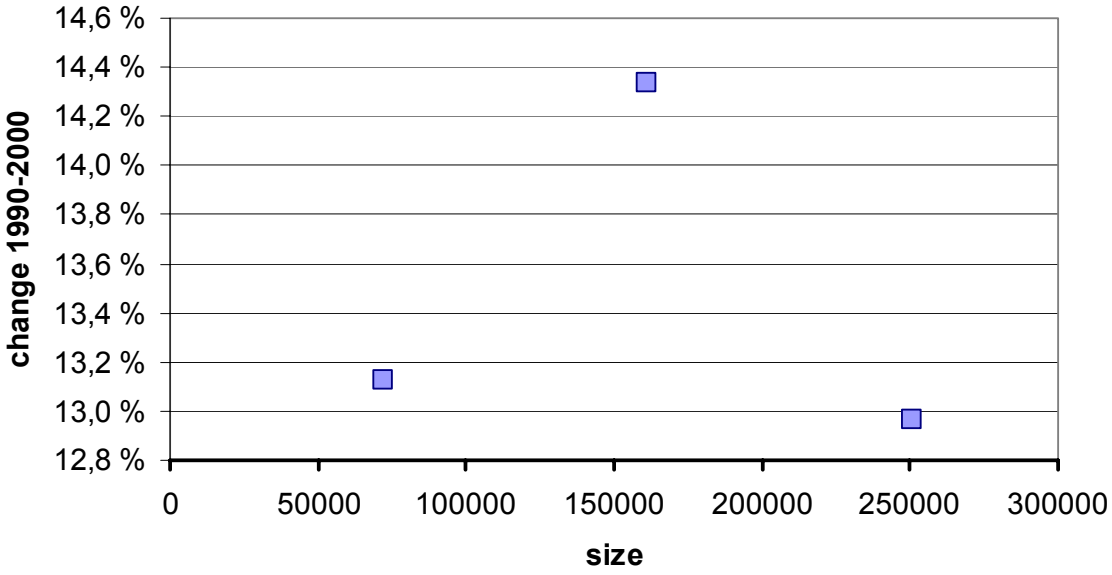
BG - FUA population trend 1990-2000



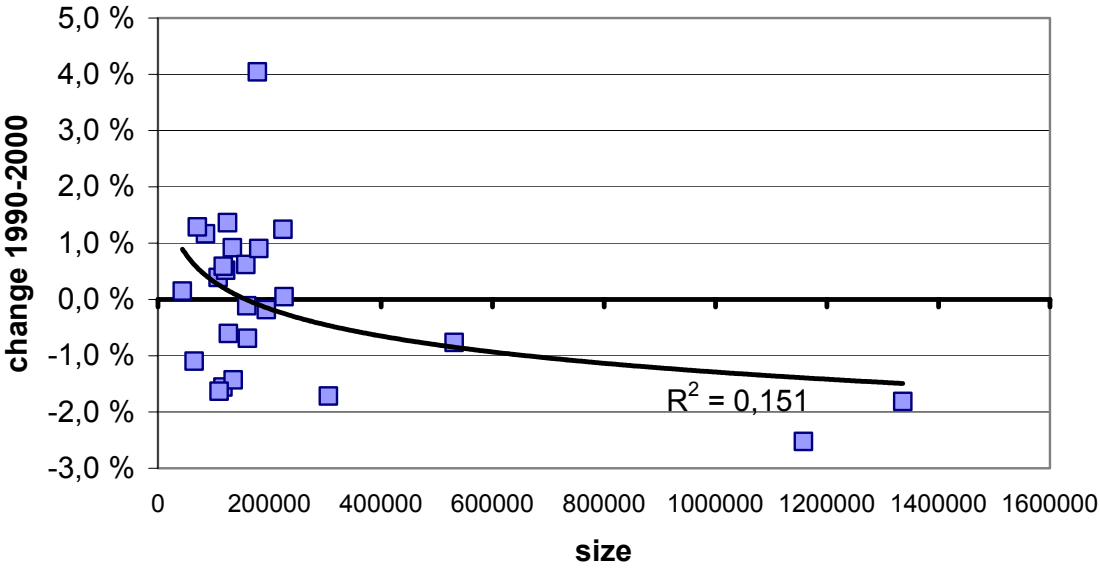
CH - FUA population trend 1990-2000



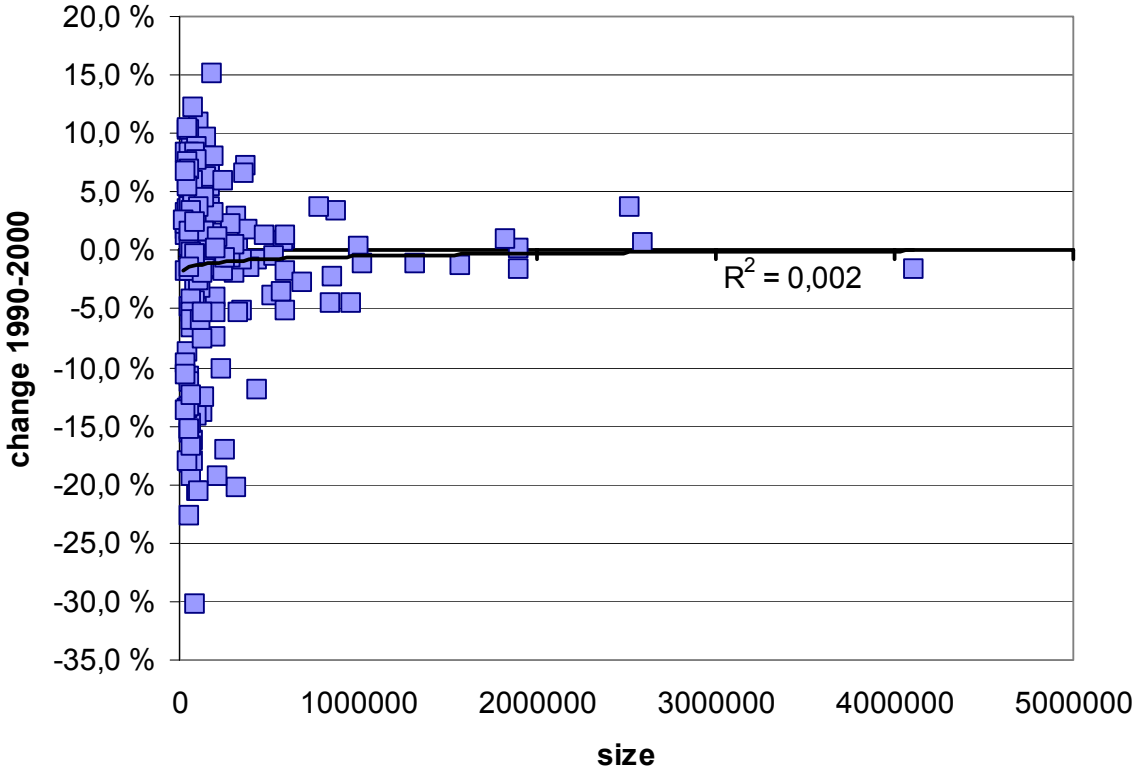
CY - FUA population trend 1990-2000



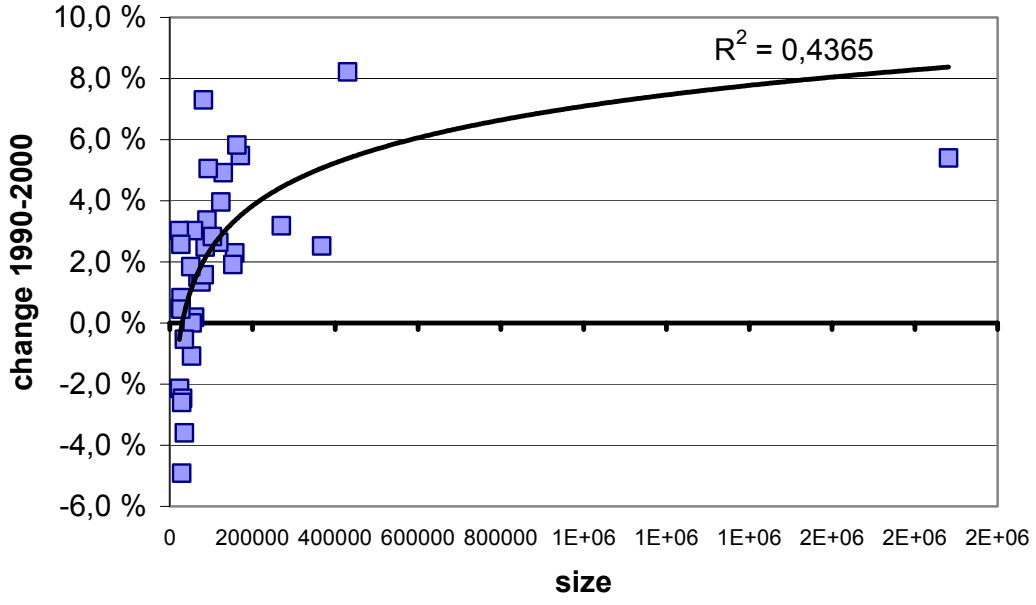
CZ - FUA population trend 1990-2000



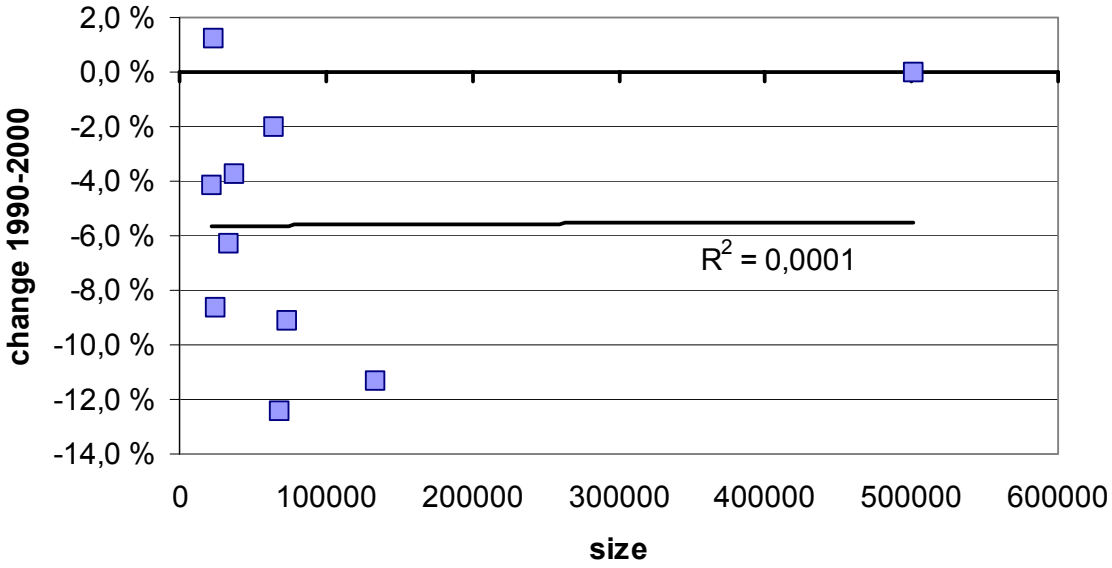
DE - FUA population trend 1990-2000



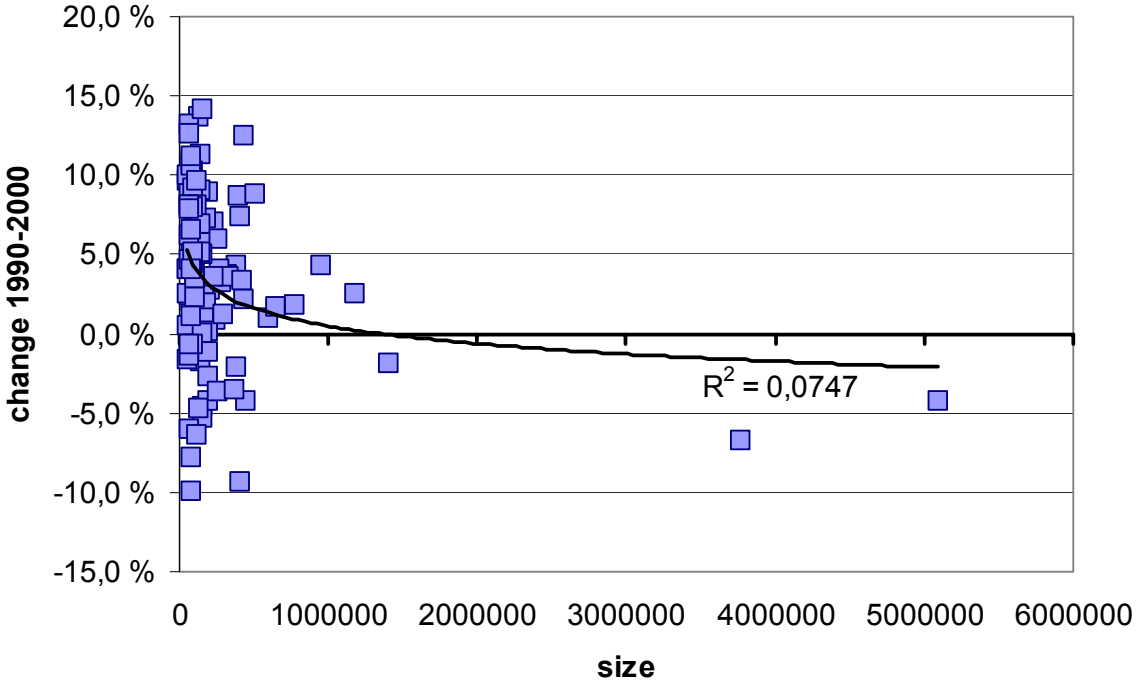
DK - FUA population trend 1990-2000



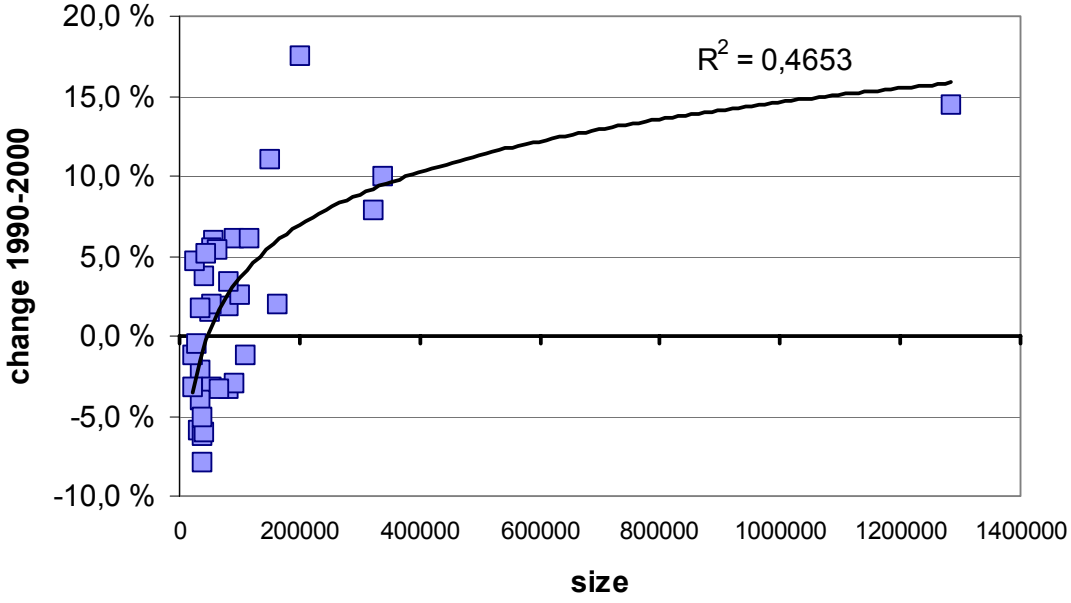
EE - FUA population trend 1990-2000



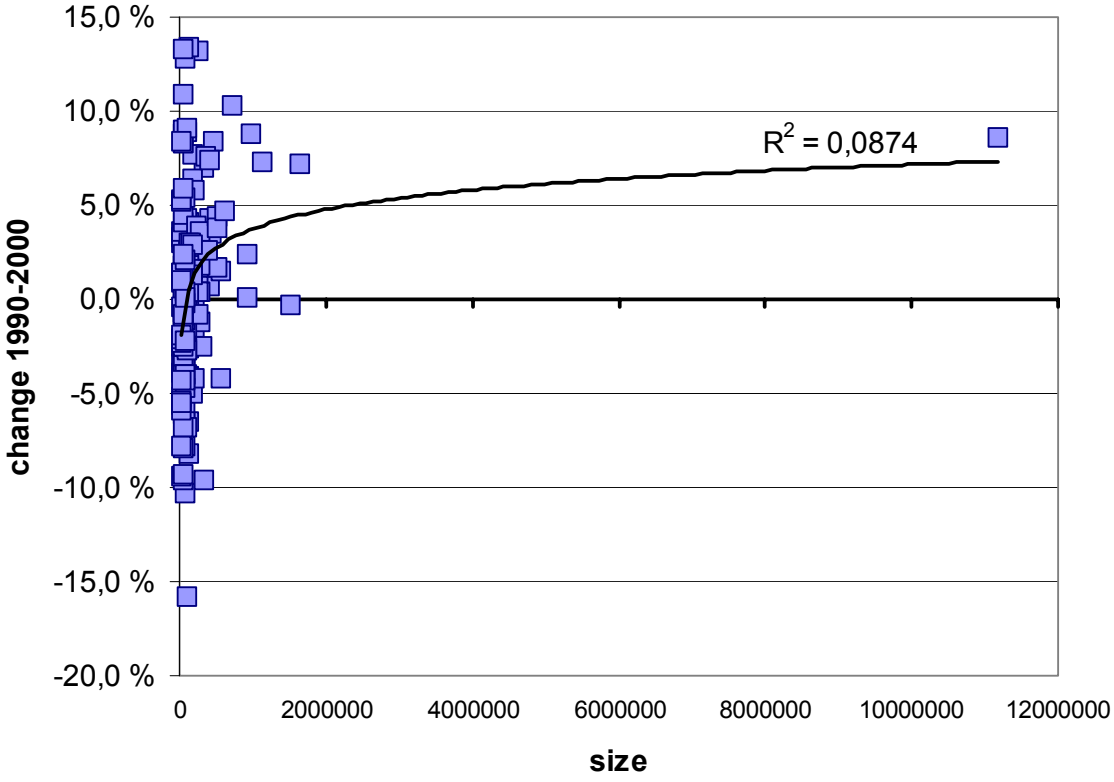
ES - FUA population trend 1990-2000



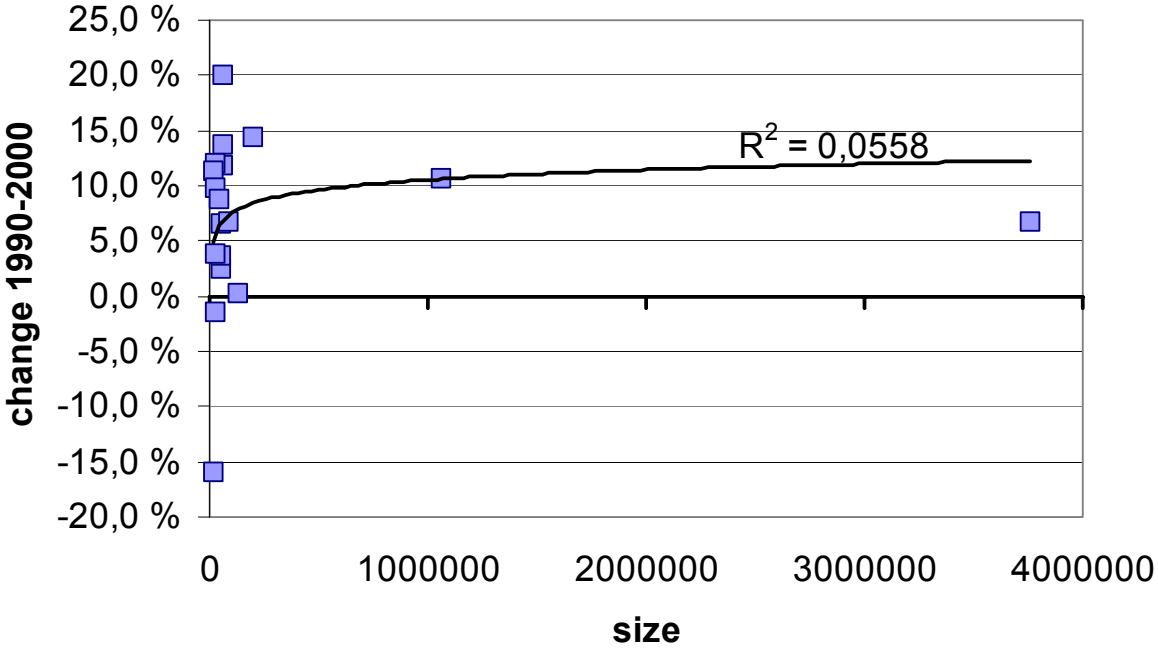
FI - FUA population trend 1990-2000



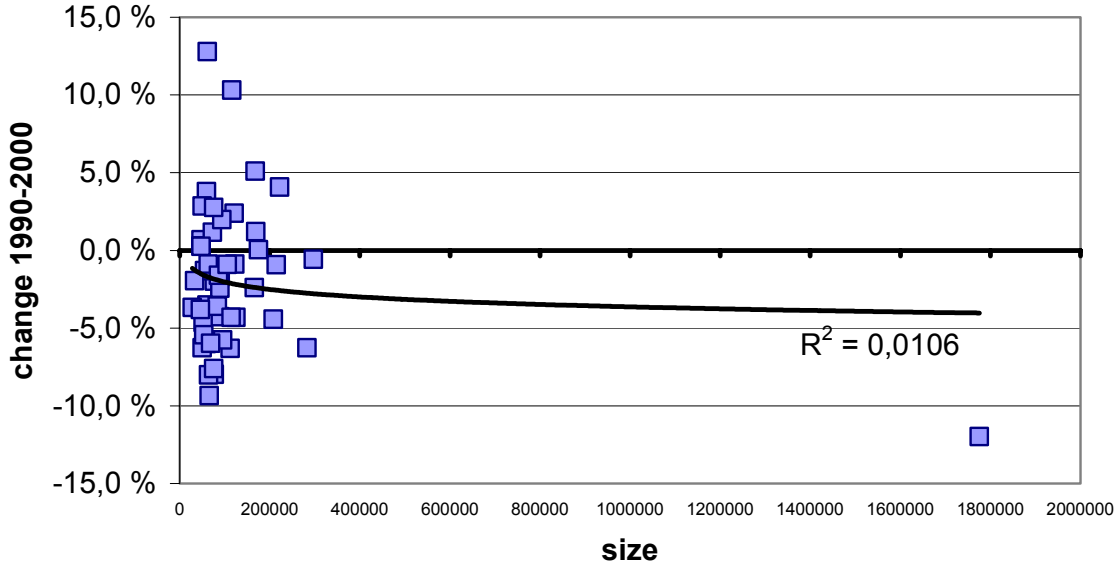
FR - FUA population trend 1990-2000

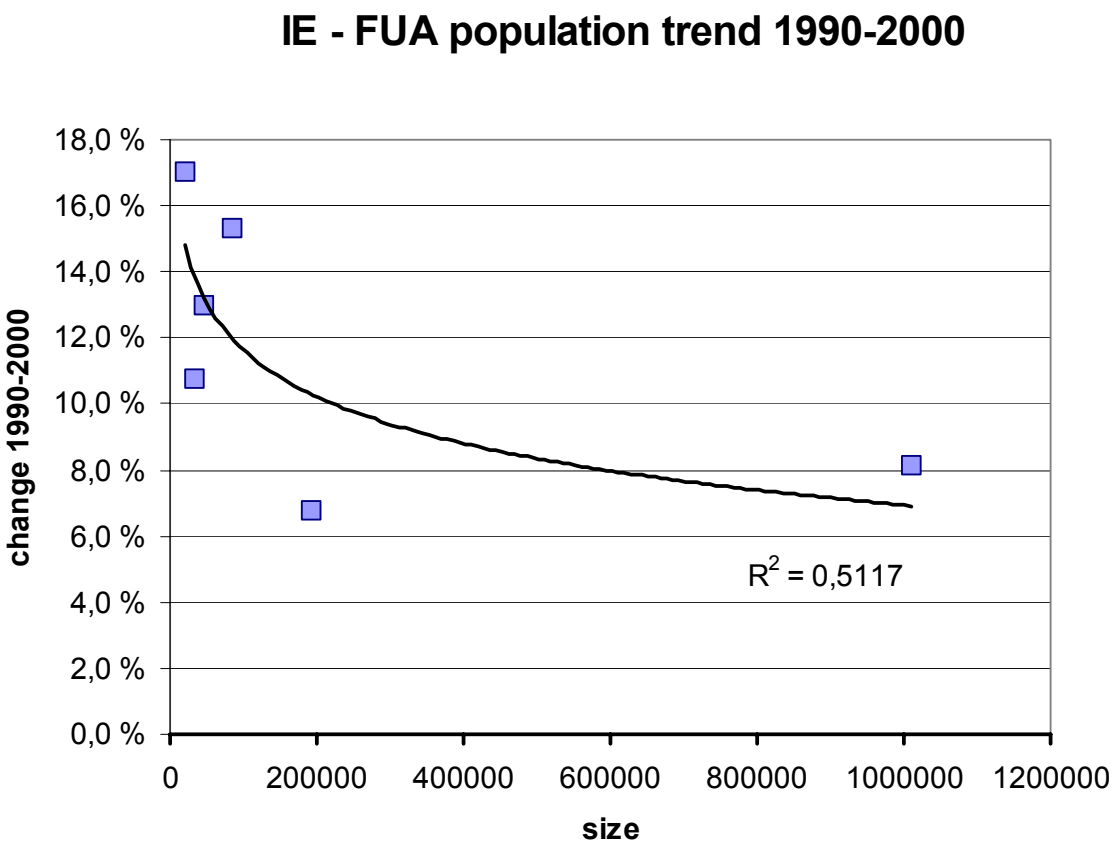


GR - FUA population trend 1990-2000

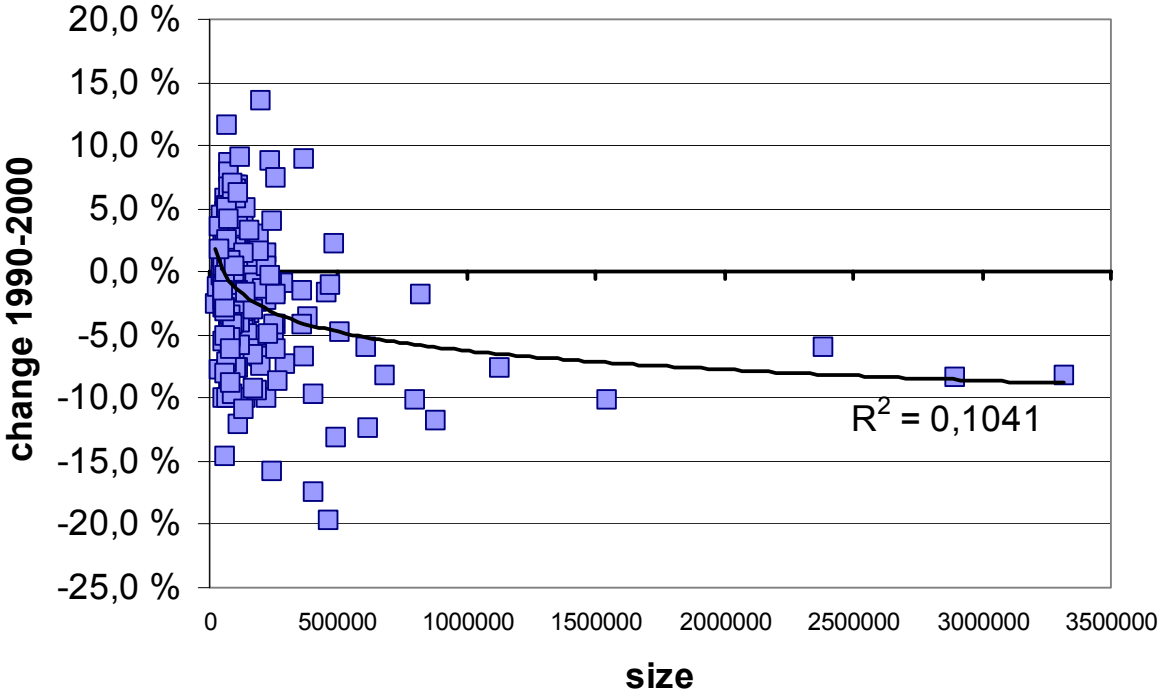


HU - FUA population trend 1990-2000

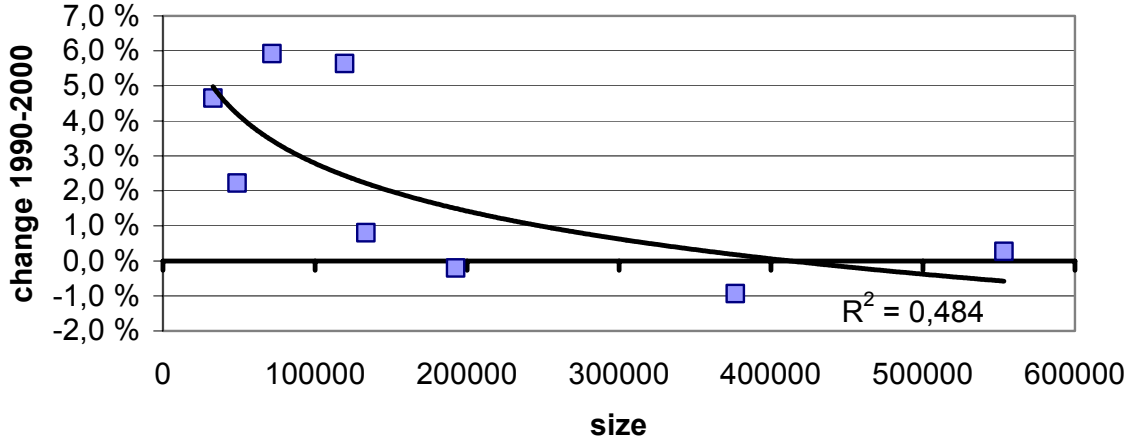



IE - FUA population trend 1990-2000
18,0 %
16,0 %
14,0 %
12,0 %
10,0 %
8,0 %
6,0 %
4,0 %
2,0 %
0,0 %
change 1990-2000
0
200000
400000
600000
800000
1000000
1200000
size
R2 = 0,5117

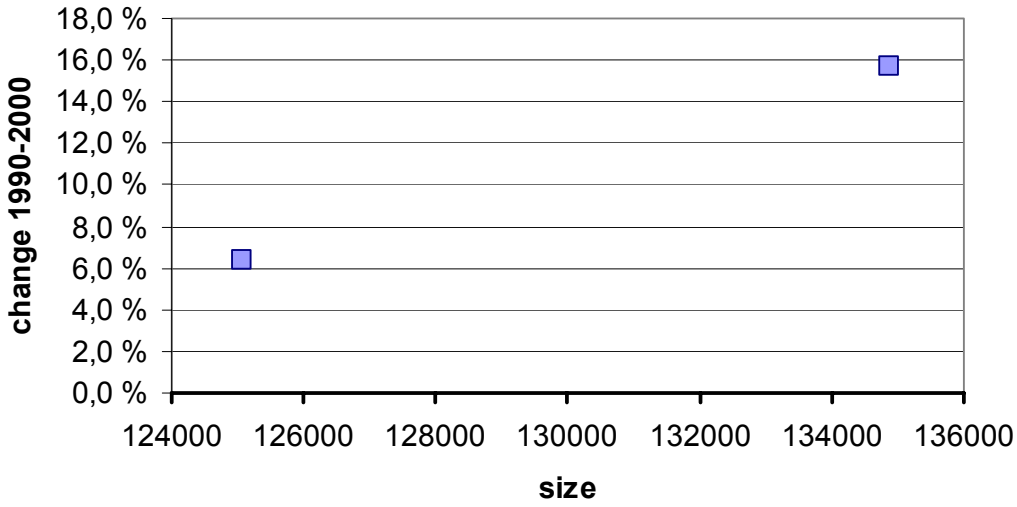
IT - FUA population trend 1990-2000



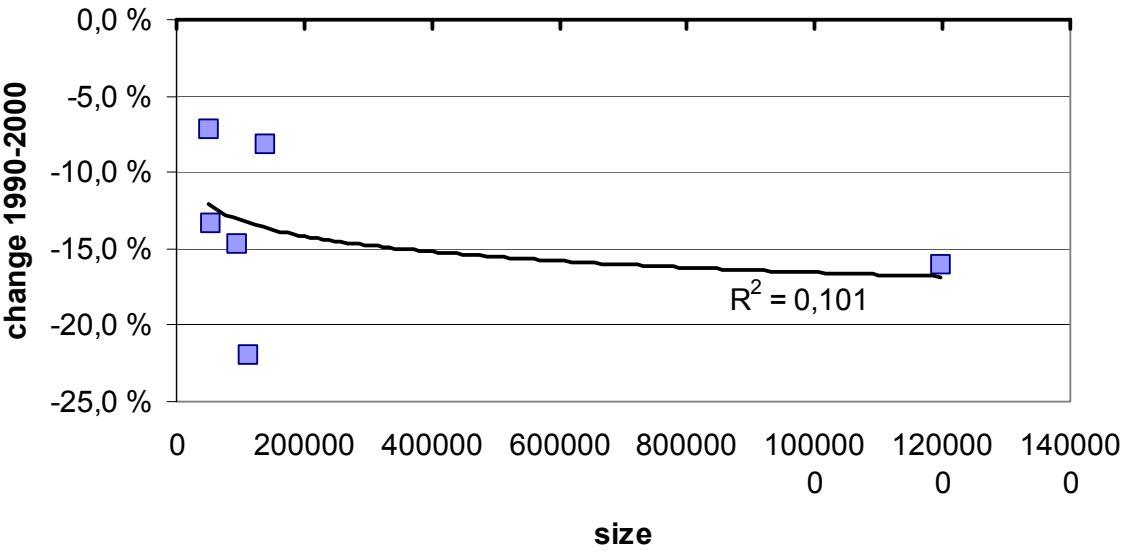
LT - FUA population trend 1990-2000



LU - FUA population trend 1990-2000

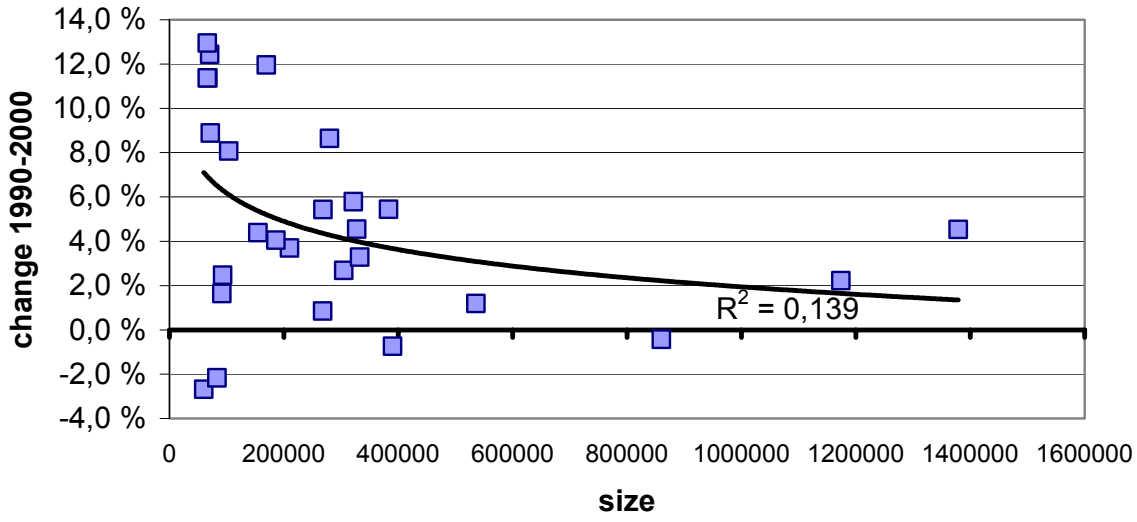


LV - FUA population trend 1990-2000

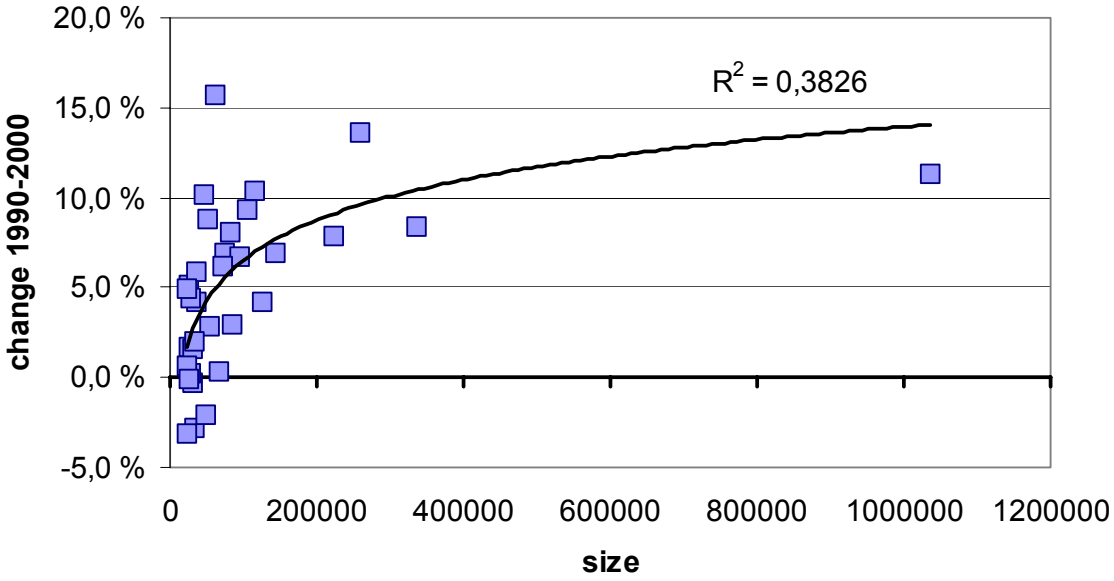


MT – data not available

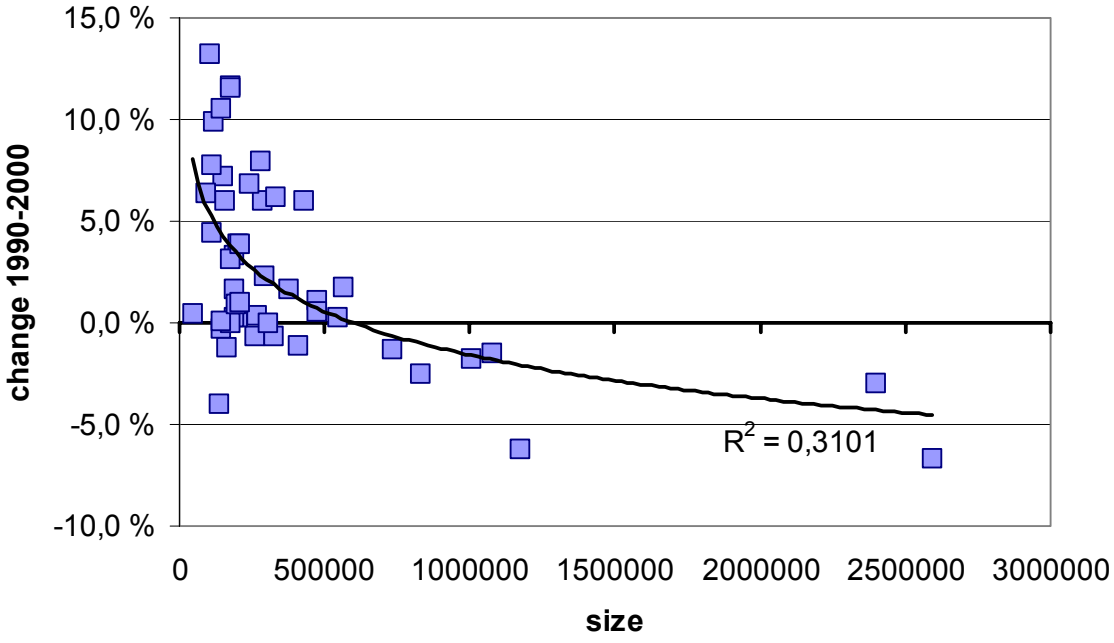
NL - FUA population trend 1990-2000



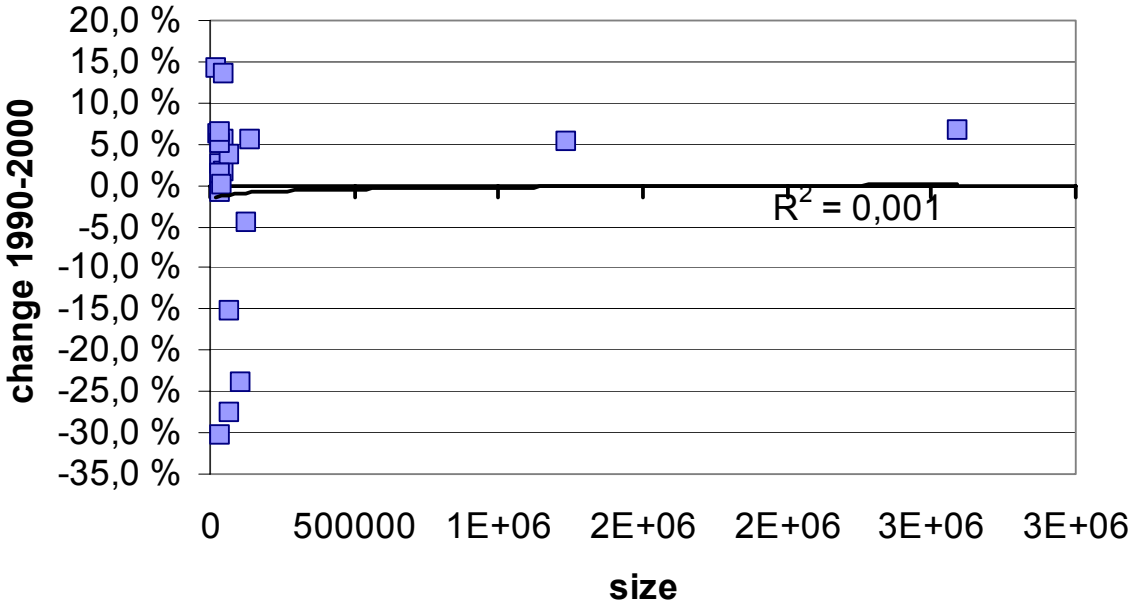
NO - FUA population trend 1990-2000

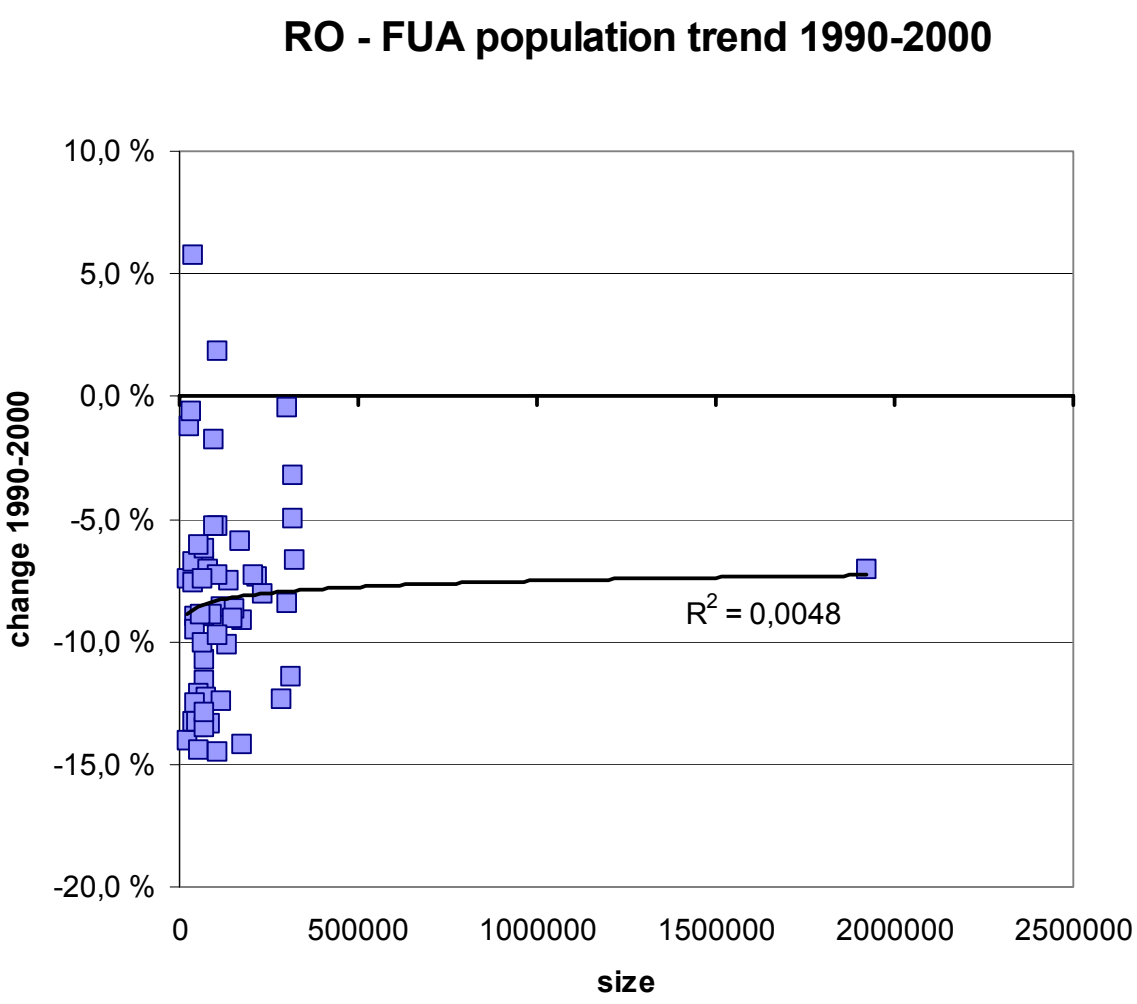


PL - FUA population trend 1990-2000

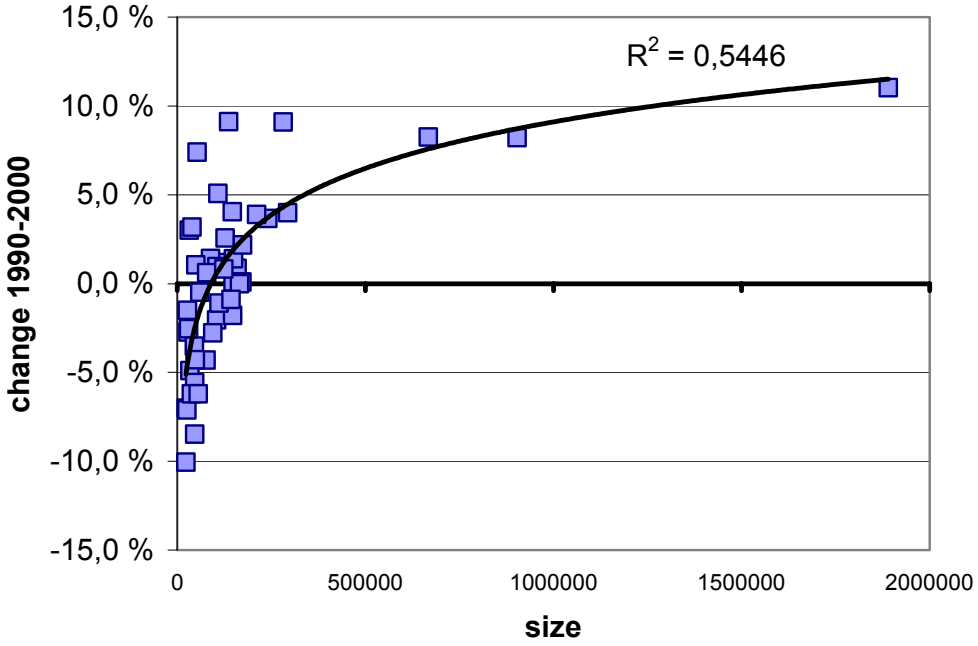


PT - FUA population trend 1990-2000

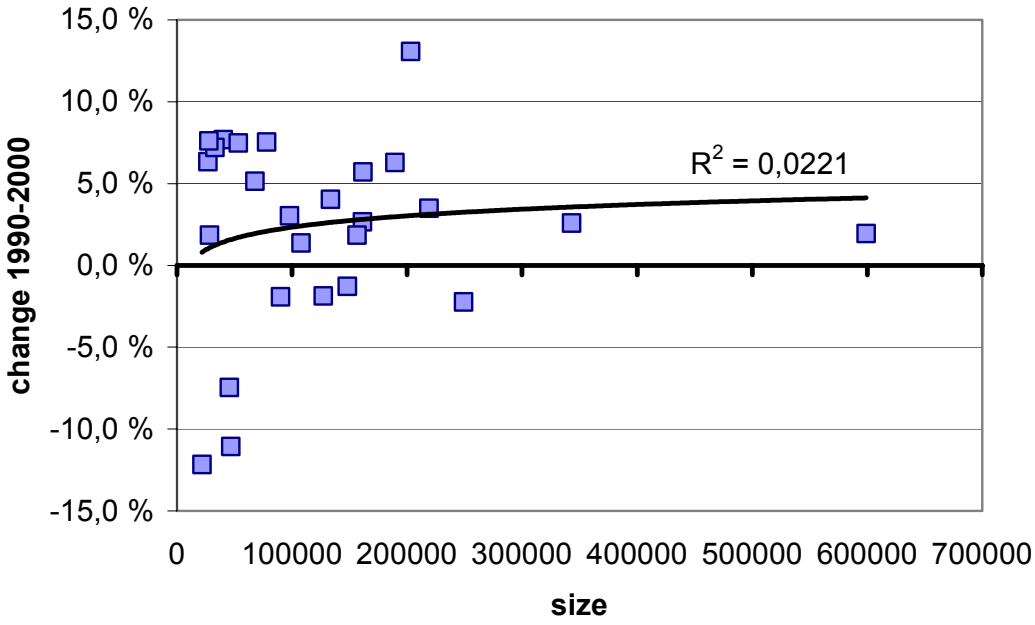


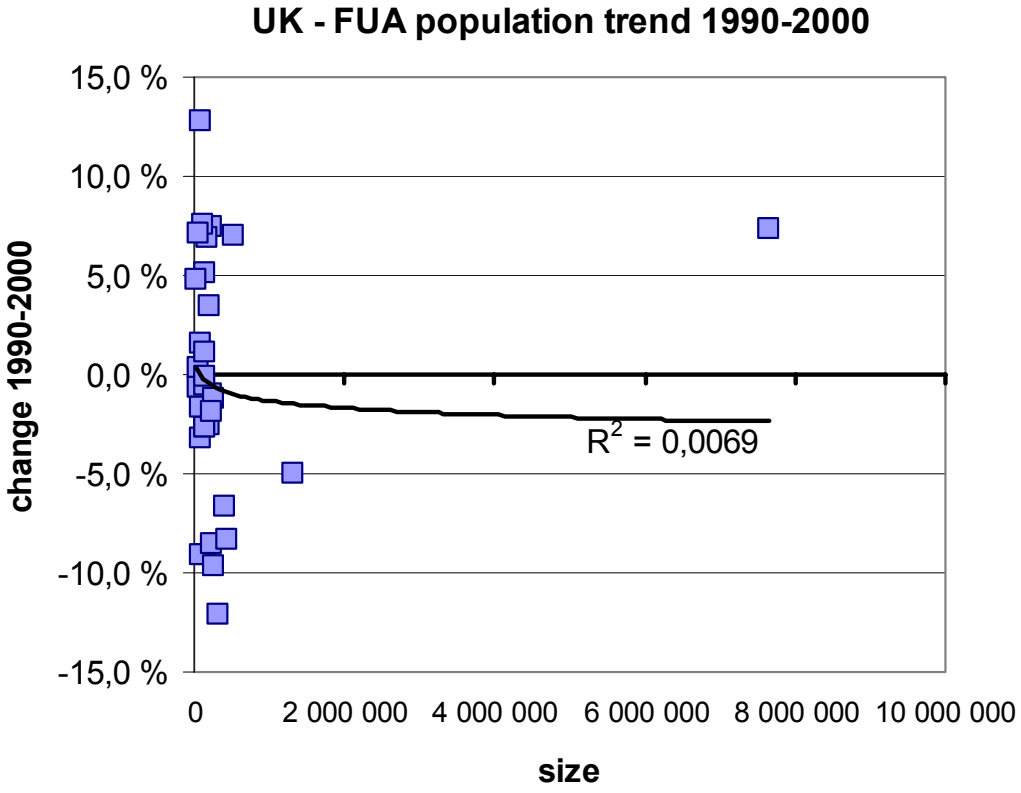

RO - FUA population trend 1990-2000
10,0 %
5,0 %
0,0 %
-5,0 %
-10,0 %
-15,0 %
-20,0 %
change 1990-2000
0
500000
1000000
1500000
2000000
2500000
size
R2 = 0,0048

SE - FUA population trend 1990-2000



SK - FUA population trend 1990-2000




UK - FUA population trend 1990-2000
15,0 %
10,0 %
5,0 %
0,0 %
-5,0 %
-10,0 %
-15,0 %
change 1990-2000
0
2 000 000
4 000 000
6 000 000
8 000 000
10 000 000
size
R2 = 0,0069

Annex 6. Population development trend analysis of FUAs and core cities (using administrative delimitation) in the beginning of 1950s, 1960s, 1970s, 1980s, 1990s and 2000.

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
AT022	WIEN	1 550 123	..	..	..	..	..	1 %	0 %	-5 %	1 %	1 %
AT006	GRAZ	226 244	..	..	..	..	..	5 %	5 %	-2 %	-2 %	-5 %
AT014	LINZ	183 504	..	..	..	..	..	6 %	5 %	-2 %	2 %	-10 %
AT016	SALZBURG	142 662	..	..	..	..	..	5 %	20 %	7 %	3 %	-1 %
AT007	INNSBRUCK	113 392	..	..	..	..	..	6 %	15 %	1 %	1 %	-4 %
AT009	KLAGENFURT	90 141	..	..	..	..	..	11 %	9 %	5 %	2 %	1 %
AT020	VILLACH	57 497	..	..	..	..	..	9 %	8 %	3 %	4 %	5 %
AT021	WELS	56 478	..	..	..	..	..	8 %	16 %	7 %	3 %	7 %
AT017	SANKT POELTEN	49 121	..	..	..	..	..	6 %	7 %	2 %	-1 %	-2 %
AT004	DORNBIRN	42 301	..	..	..	..	..	25 %	25 %	10 %	5 %	4 %
AT018	STEYR	39 340	..	..	..	..	..	4 %	7 %	-5 %	1 %	0 %
AT023	WIENER NEUSTADT	37 627	..	..	..	..	..	11 %	3 %	0 %	0 %	7 %
AT005	FELDKIRCH-RANKWEIL	28 607	..	..	..	..	..	15 %	25 %	9 %	13 %	7 %
AT003	BREGENZ	26 752	..	..	..	..	..	6 %	8 %	6 %	10 %	-1 %
AT012	LEOBEN	25 804	..	..	..	..	..	2 %	-2 %	-10 %	-10 %	-11 %
AT024	WOLFSBERG	25 301	..	..	..	..	..	13 %	3 %	-3 %	-13 %	4 %
AT010	KLOSTERNEUBURG	24 797	..	..	..	..	..	-2 %	-3 %	4 %	6 %	1 %
AT002	BADEN-TRAISKIRCHEN	24 502	..	..	..	..	..	5 %	1 %	2 %	2 %	4 %
AT011	KREMS AN DER DONAU	23 713	..	..	..	..	..	3 %	2 %	-2 %	-1 %	4 %
AT019	TRAUN	23 470	..	..	..	..	..	66 %	32 %	1 %	4 %	5 %
AT001	AMSTETTEN	22 595	..	..	..	..	..	10 %	14 %	1 %	0 %	3 %
AT008	BRUCK/MUR-KAPFENBERG	22 234	..	..	..	..	..	0 %	10 %	-2 %	-9 %	-5 %
AT013	LEONDING	22 203	..	..	..	..	..	64 %	34 %	30 %	9 %	5 %
AT015	MOEDLING	20 405	..	..	..	..	..	1 %	9 %	2 %	5 %	1 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
BE014	BRUXELLES/BRUSSEL	964 405	7 %	5 %	-7 %	-4 %	1 %	-8 %	-6 %	-13 %	-2 %	-1 %
BE004	ANTWERPEN	931 567	11 %	5 %	0 %	1 %	1 %	4 %	0 %	-9 %	-5 %	-5 %
BE034	LIEGE	584 398	7 %	2 %	-2 %	-3 %	-1 %	4 %	-4 %	-11 %	-9 %	-5 %
BE022	GENT	496 608	4 %	3 %	1 %	0 %	2 %	2 %	-1 %	-6 %	-4 %	-2 %
BE033	LEUVEN	458 265	11 %	7 %	6 %	4 %	6 %	12 %	8 %	-1 %	0 %	4 %
BE015	CHARLEROI	420 214	6 %	-1 %	-3 %	-4 %	-1 %	4 %	-2 %	-6 %	-7 %	-3 %
BE024	HASSELT	384 503	28 %	15 %	10 %	4 %	5 %	29 %	12 %	9 %	3 %	3 %
BE041	MECHELEN	306 413	9 %	4 %	2 %	1 %	4 %	8 %	2 %	-4 %	-3 %	0 %
BE046	NAMUR	283 793	6 %	4 %	6 %	4 %	5 %	14 %	8 %	7 %	1 %	2 %
BE031	KORTRIJK	277 786	11 %	7 %	3 %	2 %	0 %	10 %	6 %	-2 %	0 %	-2 %
BE013	BRUGGE	271 437	11 %	10 %	5 %	4 %	3 %	13 %	11 %	1 %	-1 %	0 %
BE061	VERVIERS	266 334	..	..	..	..	..	-4 %	0 %	-6 %	-4 %	-1 %
BE001	AALST	262 337	7 %	3 %	-1 %	-1 %	1 %	10 %	5 %	-5 %	-3 %	0 %
BE044	MONS	249 153	1 %	1 %	-1 %	-2 %	-1 %	5 %	6 %	1 %	-3 %	-1 %
BE053	SINT NIKLAAS	224 356	4 %	..	..	..	..	8 %	5 %	3 %	0 %	0 %
BE032	LA LOUVIERE	174 124	1 %	2 %	1 %	1 %	4 %	3 %	1 %	-2 %	-1 %	0 %
BE048	OOSTENDE	142 946	12 %	7 %	2 %	4 %	4 %	16 %	7 %	-3 %	-1 %	-2 %
BE050	ROESELARE	140 684	8 %	6 %	3 %	1 %	2 %	11 %	6 %	1 %	2 %	3 %
BE059	TOURNAI	140 673	-2 %	0 %	-2 %	-1 %	0 %	0 %	1 %	-1 %	0 %	-1 %
BE028	IEPER	104 320	0 %	1 %	-1 %	0 %	0 %	4 %	5 %	3 %	2 %	0 %
BE045	MOUSCRON	70 016	1 %	1 %	1 %	-2 %	-2 %	1 %	1 %	1 %	-2 %	-2 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
BG020	SOFIA	1 173 811	..	38 %	12 %	6 %	-4 %	54 %	31 %	18 %	11 %	-1 %
BG014	PLOVDIV	721 905	..	..	13 %	..	..	37 %	46 %	33 %	12 %	-8 %
BG023	VARNA	320 464	..	..	..	..	0 %	59 %	81 %	24 %	12 %	-5 %
BG003	BURGAS	209 417	..	..	..	..	-8 %	74 %	77 %	21 %	24 %	-4 %
BG016	RUSE	178 379	..	..	..	..	-14 %	72 %	65 %	11 %	14 %	-14 %
BG021	STARA ZAGORA	167 661	..	..	..	..	-10 %	69 %	77 %	18 %	24 %	-9 %
BG013	PLEVEN	149 142	..	..	..	..	-11 %	72 %	46 %	21 %	17 %	-13 %
BG019	SLIVEN	136 148	..	..	..	..	-10 %	51 %	57 %	13 %	18 %	-6 %
BG011	PAZARDZHIK	127 900	..	..	..	..	-8 %	43 %	45 %	12 %	21 %	-9 %
BG022	DOBRICH	125 721	..	..	..	..	..	50 %	45 %	37 %	23 %	-12 %
BG012	PERNIK	104 625	..	..	..	..	-14 %	113 %	33 %	12 %	9 %	-13 %
BG017	SHUMEN	104 456	..	..	..	..	-18 %	58 %	45 %	27 %	21 %	-14 %
BG027	HASKOVO	99 181	..	..	..	..	-15 %	68 %	49 %	18 %	17 %	-17 %
BG026	YAMBOL	95 000	..	..	..	..	..	50 %	59 %	10 %	23 %	-11 %
BG030	VELIKO TARNOVO	90 432	..	..	..	..	-11 %	..	81 %	34 %	18 %	-10 %
BGX01	VRACA	85 215	..	..	..	..	-17 %	..	66 %	34 %	27 %	-13 %
BG006	KAZANLAK	81 533	..	..	..	..	-14 %	114 %	26 %	6 %	16 %	-13 %
BG002	BLAGOEVGRAD	78 133	..	..	..	..	-10 %	..	58 %	46 %	38 %	-5 %
BG024	VIDIN	77 480	..	..	..	..	-15 %	..	59 %	21 %	18 %	-9 %
BG005	GABROVO	74 930	..	..	..	..	-15 %	112 %	66 %	4 %	4 %	-13 %
BG007	KYUSTENDIL	70 573	..	..	..	..	-11 %	..	60 %	14 %	9 %	-9 %
BG038	KARLOVO	70 278	..	..	..	..	..	..	58 %	11 %	..	..
BG008	KARDZHALI	69 830	..	..	..	..	-39 %	..	74 %	17 %	18 %	-25 %
BG004	DIMITROVGRAD	64 852	..	..	..	..	-17 %	..	9 %	6 %	20 %	-16 %
BG009	LOVECH	62 165	..	..	..	..	-12 %	..	..	..	10 %	-13 %
BG018	SILISTRA	61 942	..	..	..	..	-20 %	..	79 %	34 %	10 %	-22 %
BG010	MONTANA	61 422	..	..	..	..	-14 %	..	154 %	34 %	18 %	-12 %
BG029	TARGOVISHTE	60 890	..	..	..	..	..	..	100 %	36 %	..	..
BG015	RAZGRAD	58 874	..	..	..	..	..	..	98 %	22 %	26 %	-28 %
BG037	PETRICH	57 689	..	..	..	..	..	..	..	18 %	..	..
BG001	ASENOVGRAD	52 116	..	..	..	..	-12 %	..	39 %	15 %	35 %	-12 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
CH016	ZUERICH	940 180	..	..	..	..	3 %	13 %	-4 %	-13 %	-1 %	0 %
CH006	GENEVE	424 028	..	..	6 %	17 %	11 %	21 %	-1 %	-10 %	9 %	4 %
CH001	BASEL	406 391	..	17 %	-2 %	11 %	-1 %	13 %	3 %	-14 %	-2 %	-7 %
CH002	BERN	332 494	18 %	24 %	5 %	12 %	-4 %	11 %	0 %	-11 %	-6 %	-6 %
CH009	LAUSANNE	294 604	..	..	12 %	16 %	-1 %	18 %	9 %	-7 %	1 %	-2 %
CH010	LUZERN	177 734	..	21 %	5 %	13 %	4 %	11 %	4 %	-9 %	-4 %	-3 %
CH013	ST. GALLEN	134 606	..	-11 %	37 %	8 %	-1 %	12 %	6 %	-6 %	-1 %	-3 %
CH015	WINTERTHUR	114 669	..	11 %	2 %	6 %	7 %	20 %	15 %	-6 %	0 %	4 %
CH047	LUGANO	104 547	..	..	..	17 %	12 %	12 %	13 %	3 %	-9 %	72 %
CH003	BIEL (BE)	87 683	..	19 %	-6 %	4 %	-3 %	22 %	9 %	-16 %	-4 %	-6 %
CH014	THUN	84 436	..	..	..	13 %	6 %	20 %	26 %	1 %	4 %	6 %
CH032	BADEN	80 617	..	..	..	16 %	5 %	20 %	-3 %	-2 %	13 %	4 %
CH005	FRIBOURG	80 006	..	..	9 %	43 %	3 %	12 %	22 %	-6 %	-3 %	-2 %
CH017	AARAU	73 731	..	..	..	30 %	2 %	19 %	-1 %	-6 %	4 %	-6 %
CH031	ZUG	71 173	..	..	..	14 %	19 %	37 %	16 %	-6 %	0 %	6 %
CH058	VEVEY	70 797	..	..	..	12 %	1 %	14 %	10 %	-10 %	-1 %	1 %
CH011	NEUCHATEL	70 709	..	..	..	6 %	1 %	19 %	16 %	-11 %	-2 %	-2 %
CH029	SOLOTHURN	68 272	..	..	..	19 %	3 %	10 %	-4 %	-11 %	0 %	-2 %
CH012	SCHAFFHAUSEN	59 819	..	21 %	-6 %	12 %	1 %	20 %	13 %	-8 %	0 %	-2 %
CH004	CHUR	57 611	..	..	..	35 %	2 %	28 %	26 %	3 %	3 %	0 %
CH050	OLTEN	50 839	..	..	..	14 %	2 %	22 %	6 %	-10 %	-6 %	-6 %
CH059	WETZIKON-PFAFFIKON (Z	48 366	..	..	..	..	13 %	30 %	29 %	18 %	5 %	9 %
CH008	LA CHAUX-DE-FONDS	48 207	..	..	..	..	-2 %	17 %	9 %	-12 %	-1 %	0 %
CH028	SION	47 864	..	..	..	..	11 %	44 %	30 %	4 %	11 %	7 %
CH046	LOCARNO	44 900	..	..	..	10 %	10 %	31 %	39 %	0 %	-2 %	6 %
CH037	CHIASSO-MENDRISIO	42 550	..	..	..	15 %	6 %	..	..	..	15 %	..
CH054	ARBON RORSCHACH	42 494	..	..	..	4 %	2 %	..	..	..	4 %	..
CH020	BELLINZONA	40 767	..	..	..	17 %	11 %	11 %	26 %	-1 %	1 %	-2 %
CH063	ZOFINGEN	38 969	..	..	..	17 %	4 %	19 %	6 %	-2 %	3 %	0 %
CH025	LIESTAL	37 914	..	..	..	42 %	10 %	21 %	22 %	-3 %	6 %	-19 %
CH051	PFAEFFIKON-LACHEN	36 023	..	..	..	..	20 %	..	..	..	..	..
CH041	HEERBRUGG-ALTSTATTEN	34 825	..	..	..	..	12 %	..	..	..	..	..
CH033	BRIG	28 684	..	..	..	..	11 %	24 %	20 %	10 %	10 %	9 %
CH062	YVERDON	27 437	..	..	..	..	4 %	33 %	26 %	1 %	9 %	7 %
CH036	BURGDORF	26 530	..	..	..	..	-1 %	20 %	14 %	-3 %	0 %	-4 %
CH034	BRUGG	25 255	..	..	..	..	3 %	21 %	17 %	3 %	6 %	-4 %
CH040	GRENCHEN	24 934	..	..	..	..	1 %	42 %	11 %	-16 %	-3 %	-2 %
CH022	FRAUENFELD	24 792	..	..	..	..	9 %	32 %	20 %	7 %	9 %	7 %
CH045	LENZBURG	24 495	..	..	..	..	7 %	..	..	..	-1 %	1 %
CH060	WIL	24 482	..	..	..	..	3 %	26 %	34 %	11 %	1 %	0 %
CH043	KREUZLINGEN	23 804	..	..	..	..	3 %	25 %	25 %	2 %	7 %	-1 %
CH052	RAPPERSWIL-JONA	22 727	..	..	..	..	7 %	..	..	..	..	..
CH053	ROMANSHORN-AMRISWIL	22 701	..	..	..	..	6 %	..	..	..	..	..
CH056	SIERRE	22 626	..	..	..	..	5 %	20 %	27 %	6 %	8 %	1 %
CH049	MONTHEY	22 462	..	..	..	..	13 %	22 %	48 %	12 %	22 %	1 %
CH030	STANS	22 075	..	..	..	..	16 %	9 %	19 %	10 %	9 %	12 %
CH042	INTERLAKEN	20 189	..	..	..	..	5 %	8 %	0 %	2 %	7 %	-1 %
CH035	BUCHS	19 083	..	..	..	..	..	22 %	33 %	7 %	8 %	6 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
CY001	NICOSIA	250 633	79 %	24 %	26 %	19 %	13 %	18 %	..	..	-2 %	2 %
CY004	LARNACA	160 733	34 %	..	..	25 %	14 %	..	..	67 %	..	..
CY005	LIMASSOL	71 740	91 %	41 %	75 %	28 %	13 %	..	..	..	..	..
CY007	PAPHOS	47 198	56 %	33 %	72 %	57 %	40 %	..	..	..	..	..

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
CZ047	PRAHA	1 335 733	..	..	..	..	-2 %	8 %	10 %	7 %	3 %	-3 %
CZ042	OSTRAVA	1 157 918	..	..	..	..	..	30 %	19 %	15 %	2 %	-3 %
CZ003	BRNO	531 122	..	..	..	..	-1 %	15 %	8 %	10 %	4 %	-2 %
CZ046	PLZEN	305 518	..	..	..	..	-2 %	14 %	7 %	16 %	1 %	-4 %
CZ011	FRYDEK-MISTEK	226 497	..	..	..	..	0 %	5 %	..	..	15 %	-5 %
CZ039	OLOMOUC	224 106	..	..	..	..	1 %	23 %	11 %	27 %	4 %	-2 %
CZ066	ZLIN	194 462	..	..	..	..	0 %	-9 %	21 %	24 %	4 %	-4 %
CZ040	OPAVA	180 916	..	..	..	..	1 %	41 %	13 %	24 %	7 %	-3 %
CZ005	CESKE BUDEJOVICE	178 088	..	..	..	..	4 %	67 %	20 %	15 %	10 %	2 %
CZ044	PARDUBICE	160 618	..	..	..	..	-1 %	19 %	34 %	31 %	2 %	-4 %
CZ015	HRADEC KRALOVE	159 357	..	..	..	..	0 %	7 %	25 %	39 %	4 %	-2 %
CZ029	LIBEREC	157 853	..	..	..	..	1 %	24 %	13 %	32 %	5 %	-2 %
CZ048	PREROV	135 025	..	..	..	..	-1 %	20 %	31 %	27 %	1 %	-5 %
CZ010	DECIN	133 601	..	..	..	..	1 %	28 %	12 %	24 %	1 %	-4 %
CZ055	TEPLICE	126 274	..	..	..	..	-1 %	-5 %	24 %	2 %	-2 %	-3 %
CZ008	CHOMUTOV	124 506	..	..	..	..	1 %	24 %	21 %	29 %	3 %	-3 %
CZ020	KARLOVY VARY	121 581	..	..	..	..	1 %	39 %	2 %	31 %	-2 %	-4 %
CZ060	USTI NAD LABEM	117 324	..	..	..	..	1 %	13 %	17 %	25 %	7 %	-3 %
CZ035	MOST	116 655	..	..	..	..	-2 %	33 %	20 %	15 %	15 %	-3 %
CZ050	PROSTEJOV	109 502	..	..	..	..	-2 %	6 %	10 %	31 %	3 %	-3 %
CZ018	JIHLAVA	108 060	..	..	..	..	0 %	48 %	16 %	24 %	4 %	-3 %
CZ012	HAVIROV	85 502	..	..	..	..	1 %	..	62 %	5 %	0 %	1 %
CZ022	KLADNO	70 702	..	..	..	..	1 %	22 %	15 %	25 %	1 %	0 %
CZ021	KARVINA	64 653	..	..	..	..	-1 %	38 %	65 %	2 %	-13 %	-5 %
CZ034	MLADA BOLESLAV	43 841	..	..	..	..	0 %	8 %	..	..	..	0 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
DE057	BERLIN	4 101 213	..	..	..	..	-1 %	5 %	-3 %	-6 %	13 %	-2 %
DE526	STUTTGART	2 593 087	..	..	..	..	29 %	26 %	1 %	-8 %	0 %	1 %
DE221	HAMBURG	2 515 468	..	..	..	..	5 %	14 %	-2 %	-8 %	0 %	4 %
DE163	FRANKFURT AM MAIN	1 896 741	..	..	..	..	-2 %	24 %	1 %	-6 %	2 %	0 %
DE370	MUENCHEN	1 893 715	..	..	..	..	..	28 %	21 %	0 %	-5 %	-2 %
DE288	KOELN	1 823 475	..	..	..	..	1 %	31 %	9 %	15 %	-2 %	1 %
DE342	MANNHEIM	1 568 679	..	..	..	..	..	..	..	-8 %	2 %	-1 %
DE126	DUESSELDORF	1 315 736	..	..	..	..	7 %	38 %	-4 %	-11 %	-2 %	-1 %
DE400	NURNBERG	1 018 211	..	..	..	..	-4 %	24 %	6 %	2 %	2 %	-1 %
DE226	HANNOVER	996 586	20 %	..	..	..	..	29 %	-8 %	2 %	-4 %	0 %
DE468	SAARBRUECKEN	959 084	..	..	..	..	..	..	..	51 %	-1 %	-4 %
DE068	BONN	878 742	..	..	..	..	..	..	..	5 %	1 %	3 %
DE077	BREMEN	849 800	..	..	..	-2 %	8 %	24 %	7 %	-6 %	-1 %	-2 %
DE600	WUPPERTAL	846 815	..	..	..	..	..	15 %	0 %	-6 %	-2 %	-4 %
DE583	WIESBADEN	780 190	..	..	..	5 %	-1 %	..	..	9 %	-5 %	4 %
DE121	DRESDEN	681 953	..	..	..	..	-22 %	..	..	3 %	-5 %	-3 %
DE151	ESSEN	591 889	..	..	..	..	..	20 %	-2 %	-9 %	-3 %	-5 %
DE274	KARLSRUHE	590 718	..	..	..	..	17 %	..	..	5 %	1 %	1 %
DE119	DORTMUND	589 240	..	..	..	..	..	27 %	0 %	-5 %	-2 %	-2 %
DE001	AACHEN	584 342	..	..	..	..	..	..	..	41 %	-1 %	1 %
DE059	BIELEFELD	578 980	..	..	..	..	8 %	..	..	85 %	2 %	1 %
DE314	LEIPZIG	568 200	..	..	..	-1 %	-21 %	..	..	-4 %	-9 %	-3 %
DE103	DARMSTADT	525 046	..	..	..	7 %	67 %	..	..	-2 %	1 %	0 %
DE123	DUISBURG	512 030	..	..	..	..	..	23 %	-9 %	23 %	-4 %	-4 %
DE362	MONCHEN-GLADBACH	476 306	..	..	..	..	16 %	..	..	71 %	0 %	1 %
DE093	CHEMNITZ	432 445	..	..	..	9 %	-14 %	..	..	6 %	-7 %	-12 %
DE025	AUGSBURG	430 308	..	..	..	..	..	..	..	17 %	3 %	-1 %
DE067	BOCHUM	390 087	..	..	..	..	..	..	..	13 %	-1 %	-1 %
DE341	MAINZ	377 026	..	..	..	..	..	52 %	28 %	9 %	-4 %	2 %
DE167	FREIBURG IM BREISGAU	373 124	..	..	..	12 %	59 %	..	..	8 %	9 %	7 %
DE449	REUTLINGEN	358 010	..	..	..	..	111 %	..	..	23 %	9 %	7 %
DE287	KOBLENZ	349 136	..	..	..	-3 %	105 %	..	..	-5 %	-4 %	-1 %
DE076	BRAUNSCHWEIG	346 815	..	..	..	-6 %	8 %	..	..	17 %	-1 %	-5 %
DE275	KASSEL	330 290	..	..	..	..	..	..	..	-9 %	-1 %	0 %
DE283	KIEL	328 553	..	..	..	-6 %	1 %	..	..	-8 %	-2 %	-5 %
DE233	HEILBRONN	319 899	..	..	..	9 %	31 %	..	..	9 %	3 %	3 %
DE219	HALLE	313 609	..	..	..	-4 %	-31 %	..	..	-11 %	34 %	-20 %
DE412	OSNABRUECK	309 878	..	..	..	2 %	15 %	..	..	9 %	4 %	1 %
DE194	GIESSEN	308 727	..	..	..	0 %	99 %	37 %	18 %	1 %	-2 %	-2 %
DE331	LUEBECK	289 373	..	..	..	-9 %	16 %	..	..	-8 %	-3 %	-1 %
DE372	MUENSTER	286 567	..	..	..	..	..	..	..	36 %	-4 %	2 %
DE498	SIEGEN	256 520	..	..	..	..	34 %	..	..	94 %	-3 %	-1 %
DE339	MAGDEBURG	256 041	..	..	..	..	..	..	..	7 %	-3 %	-17 %
DE538	ULM	243 372	..	..	..	..	13 %	..	..	8 %	10 %	6 %
DE295	KREFELD	239 559	..	..	..	..	..	..	..	1 %	9 %	-2 %
DE607	ZWICKAU	230 376	..	..	..	..	..	..	..	-4 %	-6 %	-10 %
DE147	ERLANGEN	229 717	..	..	..	..	..	31 %	29 %	21 %	1 %	-2 %
DE461	ROSTOCK	211 964	..	..	..	..	..	..	..	18 %	8 %	-19 %
DE534	TUEBINGEN	208 535	..	..	..	..	..	..	..	31 %	10 %	1 %
DE144	ERFURT	204 510	..	..	..	..	..	..	..	8 %	-1 %	-4 %
DE602	WUERZBURG	204 185	..	..	..	0 %	5 %	..	..	10 %	-1 %	0 %

DE216	HAGEN	202 060	..	..	..	..	..	..	..	9 %	-2 %	-5 %
DE078	BREMERHAVEN	195 863	..	..	..	-5 %	9 %	..	..	-1 %	-6 %	-7 %
DE444	REGENSBURG	192 683	..	..	..	-5 %	7 %	..	..	2 %	-8 %	3 %
DE409	OLDENBURG	191 538	..	..	..	..	..	..	..	5 %	5 %	8 %
DE223	HAMM	183 505	..	..	..	..	..	15 %	23 %	104 %	5 %	2 %
DE417	PADERBORN	177 706	..	..	..	..	..	..	..	60 %	10 %	15 %
DE037	BAD OEYNHAUSEN	173 585	..	..	..	..	..	..	..	..	5 %	8 %
DE423	PFORZHEIM	169 648	..	..	..	..	-26 %	..	..	18 %	6 %	4 %
DE020	ASCHAFFENBURG	168 369	..	..	..	7 %	12 %	20 %	4 %	5 %	8 %	5 %
DE328	LOERRACH	164 439	..	..	..	..	..	..	..	..	3 %	7 %
DE336	LUDWIGSHAFEN AM RHEIN	162 458	..	..	..	..	..	..	..	-11 %	2 %	0 %
DE264	INGOLSTADT	150 505	..	..	..	12 %	4 %	28 %	40 %	26 %	17 %	10 %
DE204	GOETTINGEN	148 858	..	..	..	..	..	..	..	19 %	-6 %	2 %
DE250	HILDESHEIM	147 177	..	..	..	-8 %	17 %	29 %	4 %	7 %	3 %	-1 %
DE360	MINDEN	145 822	..	..	..	1 %	21 %	39 %	8 %	51 %	1 %	6 %
DE044	BADEN BADEN	145 671	..	..	..	..	..	13 %	-7 %	26 %	6 %	2 %
DE230	HEIDELBERG	141 509	..	..	..	..	..	..	..	10 %	3 %	3 %
DE459	ROSENHEIM	140 882	..	..	..	..	..	..	..	42 %	9 %	5 %
DE532	TRIER	140 624	..	..	..	-2 %	15 %	..	..	-8 %	2 %	2 %
DE125	DUEREN	134 756	..	..	..	1 %	25 %	70 %	17 %	56 %	1 %	6 %
DE189	GERA	132 098	..	..	..	..	..	..	..	12 %	4 %	-13 %
DE431	POTSDAM	130 435	..	..	..	..	..	..	..	17 %	8 %	-7 %
DE271	KAISERSLAUTERN	130 051	..	..	..	-4 %	0 %	41 %	16 %	-4 %	1 %	0 %
DE596	WOLFSBURG	127 609	..	..	..	..	..	..	..	42 %	2 %	-5 %
DE470	SALZGITTER	124 131	..	..	..	..	..	..	..	-4 %	1 %	-2 %
DE098	COTTBUS	121 861	..	..	..	..	..	..	..	..	13 %	-14 %
DE243	HERFORD	120 185	..	..	..	0 %	0 %	9 %	22 %	-7 %	2 %	2 %
DE407	OFFENBACH AM MAIN	118 429	..	..	..	..	..	..	..	-5 %	4 %	2 %
DE585	WILHELMSHAVEN	115 788	..	..	..	-10 %	-5 %	1 %	1 %	-4 %	-9 %	-6 %
DE159	FLENSBURG	114 462	..	..	..	-8 %	17 %	-9 %	-1 %	-8 %	-1 %	-3 %
DE178	FUERTH	111 257	..	..	..	..	..	-1 %	-4 %	5 %	4 %	7 %
DE018	ARNSBERG	110 041	..	..	..	..	..	..	..	..	-3 %	2 %
DE110	DETMOLD	109 928	..	..	..	..	..	23 %	95 %	5 %	4 %	5 %
DE490	SCHWERIN	109 454	..	..	..	..	..	..	..	..	6 %	-21 %
DE034	BAD KREUZNACH	106 354	..	..	..	..	..	25 %	14 %	-4 %	0 %	5 %
DE047	BAMBERG	104 927	..	..	..	2 %	-14 %	..	..	5 %	-2 %	-2 %
DE175	FULDA	104 041	..	..	..	-5 %	41 %	8 %	-1 %	26 %	-1 %	11 %
DE267	JENA	102 909	..	..	..	..	..	..	..	..	-1 %	-3 %
DE547	VILLINGEN-SCHWENNINGEN	102 541	..	..	..	..	..	..	..	..	-1 %	4 %
DE337	LUENEBURG	99 207	..	..	..	..	..	5 %	-2 %	4 %	-1 %	9 %
DE265	ISERLOHN	98 865	..	..	..	..	..	20 %	5 %	62 %	3 %	3 %
DE109	DESSAU	97 200	..	..	..	2 %	-30 %	..	..	..	-5 %	-14 %
DE023	AUE	96 109	..	..	..	..	..	..	..	..	..	-21 %
DE500	SINGEN	93 256	..	..	..	..	..	..	..	..	0 %	2 %
DE290	KONSTANZ	91 505	..	..	..	..	..	25 %	16 %	11 %	10 %	5 %
DE066	BOCHOLT	91 475	..	..	..	..	..	..	..	36 %	5 %	5 %
DE453	RHEINE	89 535	..	..	..	..	..	..	..	..	-1 %	8 %
DE488	SCHWEINFURT	89 194	..	..	..	-5 %	-15 %	..	..	-12 %	4 %	0 %
DE225	HANAU	88 801	..	..	..	..	..	50 %	21 %	56 %	1 %	2 %
DE092	CELLE	86 843	..	..	..	..	..	..	..	29 %	-1 %	0 %
DE482	SCHWAEBISCH GMUEND	86 359	..	..	..	..	..	31 %	10 %	28 %	6 %	3 %
DE095	COBURG	85 765	..	..	..	..	..	-1 %	-7 %	10 %	-3 %	-3 %
DE051	BAYREUTH	85 407	..	..	..	2 %	-2 %	..	..	11 %	2 %	2 %
DE408	OFFENBURG	84 934	..	..	..	..	..	..	..	36 %	5 %	8 %

DE343	MARBURG AN DER LAHN	84 609	..	..	..	..	..	16 %	3 %	63 %	-3 %	4 %
DE384	NEUMUENSTER	84 102	..	..	..	..	..	3 %	15 %	-7 %	1 %	-1 %
DE035	BAD NAUHEIM	83 985	..	..	..	..	..	..	..	..	6 %	6 %
DE428	PLAUEN	83 709	..	..	..	..	..	..	..	..	..	0 %
DE325	LIPPSTADT	82 956	..	..	..	..	..	28 %	16 %	46 %	1 %	7 %
DE303	LANDSHUT	82 002	..	..	..	..	..	0 %	9 %	9 %	6 %	-1 %
DE172	FRIEDRICHSDORF	81 680	..	..	..	..	..	..	..	..	3 %	4 %
DE075	BRANDENBURG	81 444	..	..	..	..	..	..	..	..	..	-14 %
DE202	GOSLAR	80 657	..	..	..	-12 %	12 %	0 %	2 %	26 %	-12 %	-4 %
DE598	WUELFRATH	80 625	..	..	..	..	..	..	..	..	5 %	2 %
DE002	AALEN	80 533	..	..	..	..	3 %	..	..	80 %	3 %	2 %
DE594	WOLFEN	79 433	..	..	..	..	..	17 %	..	..	..	-30 %
DE442	RAVENSBURG	78 870	..	..	..	..	5 %	..	..	33 %	8 %	5 %
DE322	LIMBURG	75 374	..	..	..	..	..	..	..	..	5 %	12 %
DE212	GUMMERSBACH	74 164	..	..	..	..	..	11 %	..	..	5 %	5 %
DE112	DILLENBURG	73 080	..	..	..	..	..	..	..	..	4 %	3 %
DE380	NEUBRANDENBURG	72 808	..	..	..	..	..	..	..	..	..	-18 %
DE421	PEINE	72 589	..	..	..	..	..	..	..	..	-2 %	6 %
DE389	NEUSTADT AN DER WEINSTRASSE	71 738	..	..	..	..	..	..	..	-1 %	3 %	4 %
DE280	KEMPTEN (ALLGAEU)	71 048	..	..	..	..	..	..	..	29 %	8 %	-1 %
DE164	FRANKFURT AN DER ODER	70 308	..	..	..	..	..	..	..	..	7 %	-16 %
DE201	GOERLITZ	67 655	..	..	..	..	..	..	..	..	-11 %	-15 %
DE085	BUEHL	67 418	..	..	..	..	..	..	..	72 %	11 %	16 %
DE565	WEIMAR	66 420	..	..	..	..	..	..	..	..	..	3 %
DE206	GREIZ	65 091	..	..	..	..	..	..	..	..	-12 %	-19 %
DE232	HEIDENHEIM	64 205	..	..	..	..	-20 %	39 %	4 %	-3 %	4 %	1 %
DE426	PIRMASENS	64 017	..	..	..	..	..	..	..	-12 %	-4 %	-5 %
DE261	IBBENBUEREN	61 995	..	..	..	..	..	..	..	..	5 %	9 %
DE522	STRALSUND	61 600	..	..	..	..	..	..	..	..	..	-17 %
DE286	KLEVE	61 392	..	..	..	..	..	..	..	..	4 %	6 %
DE251	HOF	60 647	..	..	..	..	..	-8 %	-2 %	-3 %	-1 %	-4 %
DE448	RENDSBURG	60 132	..	..	..	..	..	..	..	-6 %	-4 %	-6 %
DE527	SUHL	59 726	..	..	..	..	..	..	..	..	..	-12 %
DE166	FREIBERG	59 713	..	..	..	..	..	..	..	..	-5 %	-7 %
DE466	RUESSELSHEIM	59 551	..	..	..	..	..	..	..	..	-3 %	0 %
DE222	HAMELN	59 052	..	..	..	-7 %	..	4 %	-6 %	24 %	0 %	0 %
DE137	EMDEN	58 522	..	..	..	..	..	19 %	10 %	6 %	-1 %	0 %
DE013	AMBERG IN DER OBERPFALZ	57 884	..	..	..	..	..	11 %	-2 %	5 %	-3 %	2 %
DE420	PASSAU	57 473	..	..	..	..	..	..	..	61 %	-1 %	0 %
DE563	WEIDEN IN DER OBERPFALZ	56 557	..	..	..	..	..	12 %	2 %	2 %	-4 %	2 %
DE205	GREIFSWALD	54 810	..	..	..	..	..	..	..	..	8 %	-18 %
DE257	HOYERSWERDA	54 302	..	..	..	..	..	..	..	..	-8 %	-23 %
DE154	EUSKIRCHEN	54 047	..	..	..	..	..	..	..	49 %	11 %	8 %
DE101	CUXHAVEN	53 168	..	..	..	..	..	-8 %	5 %	30 %	-4 %	-5 %
DE302	LANDAU IN DER PFALZ	52 971	..	..	..	..	..	19 %	17 %	13 %	2 %	10 %
DE455	RIESA	52 795	..	..	..	..	..	..	..	..	..	-13 %
DE580	WETZLAR	52 657	..	..	..	-4 %	..	..	..	..	-1 %	2 %
DE398	NORDHORN	52 479	..	..	..	..	..	..	..	..	2 %	5 %
DE590	WISMAR	52 253	..	..	..	..	..	..	..	..	..	-15 %
DE592	WITTENBERG	52 101	..	..	..	..	..	..	..	..	..	-1 %
DE132	EISENACH	51 946	..	..	..	..	..	..	..	..	-11 %	-2 %
DE397	NORDHAUSEN	51 812	..	..	..	..	..	..	..	..	..	-2 %
DE012	ALTENBURG	51 565	..	..	..	..	..	..	..	..	..	-16 %
DE324	LINGEN	51 362	..	..	..	..	..	..	..	..	11 %	5 %

DE127	EBERSWALDE-FINOW	51 156	..	..	..	..	..	..	..	..	..	-15 %
DE379	NEU-ULM	50 709	..	..	..	..	..	..	..	..	-2 %	8 %
DE353	MEMMINGEN	50 645	..	..	..	..	..	19 %	18 %	8 %	3 %	4 %
DE508	SPEYER	49 776	..	..	..	..	..	..	..	4 %	6 %	7 %
DE203	GOTHA	48 872	..	..	..	..	..	..	..	..	-6 %	-11 %
DE050	BAUTZEN	47 854	..	..	..	..	..	..	..	..	..	-11 %
DE523	STRAUBING	44 014	..	..	..	..	..	..	..	16 %	-2 %	6 %
DE276	KAUFBEUREN	41 905	..	..	..	..	..	..	..	5 %	-4 %	4 %
DE217	HALBERSTADT	41 417	..	..	..	..	..	..	..	..	-5 %	-9 %
DE168	FREISING	40 890	..	..	..	..	..	1 %	19 %	14 %	7 %	10 %
DE016	ANSBACH	40 165	..	..	..	..	..	..	..	27 %	-1 %	6 %
DE520	STENDAL	39 795	..	..	..	..	..	..	..	..	..	-18 %
DE383	NEUMARKT	39 307	..	..	..	..	..	..	..	..	17 %	11 %
DE481	SCHWABACH	38 213	..	..	..	..	..	..	..	..	0 %	8 %
DE356	MERSEBURG	37 127	..	..	..	..	..	..	..	..	..	-13 %
DE478	SCHOENEBECK (ELBE)	36 397	..	..	..	..	..	..	..	..	..	-14 %
DE716	NEURUPPIN	32 598	..	..	..	..	..	..	..	..	..	21 %
DE105	DEGGENDORF	31 219	..	..	..	..	..	..	..	..	-1 %	3 %
DE030	BAD HERSFELD	30 778	..	..	..	..	..	..	..	..	7 %	2 %
DE374	NAUMBURG	30 399	..	..	..	..	..	..	..	..	..	2 %
DE467	SAALFELD	29 511	..	..	..	..	..	..	..	..	..	-11 %
DE564	WEIL	28 942	..	..	..	..	..	..	..	..	4 %	7 %
DE297	KULMBACH	28 258	..	..	..	..	..	..	..	..	-1 %	1 %
DE465	RUDOLSTADT	27 528	..	..	..	..	..	-2 %	..	..	..	-10 %
DE171	FRIEDBERG (HESSEN)	26 751	..	..	..	..	..	..	..	..	8 %	8 %
DE182	GARMISCH-PARTENKIRCHEN	26 364	..	..	..	..	..	..	..	..	-4 %	-2 %
DE566	WEINGARTEN	23 604	..	..	..	..	..	..	..	..	5 %	3 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
DK013	KOEBENHAVN	1 881 187	..	..	..	..	5 %	-6 %	-10 %	-24 %	-7 %	7 %
DK026	AARHUS	429 811	..	..	..	..	8 %	3 %	-4 %	113 %	8 %	8 %
DK017	ODENSE	367 130	..	..	..	..	3 %	10 %	-6 %	61 %	5 %	4 %
DK001	AALBORG	269 774	..	..	..	..	3 %	8 %	-2 %	84 %	1 %	4 %
DK015	KOLDING	170 841	..	..	..	..	5 %	13 %	5 %	51 %	3 %	7 %
DK024	VEJLE	162 218	..	..	..	..	6 %	6 %	3 %	53 %	4 %	5 %
DK003	ESBJERG	157 258	..	..	..	..	2 %	14 %	4 %	38 %	3 %	2 %
DK018	RANDERS	152 527	..	..	..	..	2 %	5 %	-1 %	49 %	-2 %	2 %
DK010	HOLBAEK	129 221	..	..	..	..	5 %	7 %	11 %	74 %	6 %	8 %
DK021	SLAGELSE	123 584	..	..	..	..	4 %	7 %	10 %	49 %	2 %	6 %
DK007	HERNING	118 663	..	..	..	..	3 %	26 %	29 %	78 %	2 %	2 %
DK016	NAESTVED	103 057	..	..	..	..	3 %	12 %	17 %	98 %	0 %	3 %
DK025	VIBORG	93 447	..	..	..	..	5 %	..	..	53 %	2 %	7 %
DK012	HORSENS	90 417	..	..	..	..	3 %	4 %	-3 %	50 %	1 %	3 %
DK011	HOLSTEBRO	85 529	..	..	..	..	2 %	24 %	27 %	58 %	5 %	5 %
DK038	HADERSLEV	83 602	..	..	..	..	2 %	8 %	3 %	47 %	2 %	4 %
DK020	SILKEBORG	81 199	..	..	..	..	7 %	5 %	6 %	80 %	4 %	8 %
DK022	SOENDERBORG	75 474	..	..	..	..	1 %	30 %	9 %	21 %	3 %	5 %
DK009	HJOERRING	68 369	..	..	..	..	1 %	6 %	4 %	121 %	0 %	3 %
DK027	AABENRAA	60 025	..	..	..	..	0 %	10 %	5 %	41 %	2 %	2 %
DK023	SVENDBORG	57 808	..	..	..	..	3 %	3 %	-1 %	62 %	9 %	4 %
DK032	NYKOEBING F	54 204	..	..	..	..	0 %	4 %	-2 %	45 %	-1 %	1 %
DK005	FREDERIKSHAVN	52 913	..	..	..	..	-1 %	20 %	12 %	41 %	1 %	-2 %
DK050	SKIVE	50 725	..	..	..	..	2 %	8 %	11 %	54 %	0 %	4 %
DK031	ROENNE	35 481	..	..	..	..	-4 %	..	..	..	..	-1 %
DK053	THISTED	35 392	..	..	..	..	-1 %	..	1 %	239 %	-1 %	0 %
DKX03	MARIBO	31 438	..	..	..	..	-2 %	..	0 %	..	..	-2 %
DKX05	NYKOBING MORSO	29 074	..	..	..	..	-3 %	..	-3 %	177 %	-4 %	-3 %
DKX04	NAKSKOV	28 850	..	..	..	..	-5 %	0 %	0 %	..	..	-3 %
DKX02	LOGSTOR	27 588	..	..	..	..	1 %	..	4 %	..	..	2 %
DK037	GRENAA	26 607	..	..	..	..	3 %	..	49 %	38 %	0 %	3 %
DKX07	TONDER	26 579	..	..	..	..	0 %	2 %	6 %	..	..	1 %
DK029	RIBE	25 715	..	..	..	..	0 %	..	4 %	124 %	-1 %	1 %
DKX01	LEMVIG	23 751	..	..	..	..	-2 %	..	..	..	..	-1 %
DK030	RINGKOEBING	22 984	..	..	..	..	3 %	..	32 %	156 %	3 %	3 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
EE002	TALLINN	501 100	..	20 %	13 %	0 %	0 %	..	29 %	18 %	12 %	-14 %
EE003	TARTU	134 200	..	..	..	..	..	49 %	22 %	15 %	9 %	-11 %
EE004	NARVA	73 300	..	..	..	..	..	..	110 %	26 %	12 %	-9 %
EE001	KOHTLA-JARVE	67 700	..	61 %	6 %	-12 %	-12 %	..	69 %	6 %	-16 %	-15 %
EE005	PARNU	64 700	..	..	..	..	..	..	28 %	7 %	6 %	-2 %
EE008	RAKVERE	37 100	..	..	..	..	..	..	25 %	6 %	4 %	-4 %
EE006	VILJANDI	33 400	..	..	..	..	..	..	16 %	7 %	3 %	-6 %
EE010	VORU	23 800	..	..	..	..	..	..	44 %	9 %	4 %	-9 %
EE012	KURESSAARE	23 600	..	..	..	..	..	..	25 %	17 %	14 %	1 %
EE016	PAIDE	22 200	..	..	..	..	..	..	36 %	22 %	13 %	-4 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
ES119	MADRID	5 086 635	..	..	..	2 %	10 %	30 %	60 %	0 %	-5 %	-4 %
ES033	BARCELONA	3 765 994	..	..	..	29 %	-7 %	25 %	16 %	0 %	-6 %	-9 %
ES206	VALENCIA	1 397 809	..	..	..	..	..	7 %	14 %	14 %	1 %	-2 %
ES188	SEVILLA	1 180 197	..	..	..	..	..	13 %	24 %	18 %	6 %	3 %
ES037	BILBAO	947 334	41 %	40 %	..	..	4 %	30 %	34 %	5 %	-14 %	-5 %
ES121	MALAGA	775 458	..	..	..	..	..	8 %	18 %	34 %	4 %	2 %
ES225	ZARAGOZA	638 535	..	..	..	..	..	20 %	47 %	19 %	4 %	2 %
ES108	LAS PALMAS DE GRAN CANARIA	587 641	..	..	..	..	..	28 %	24 %	50 %	-1 %	1 %
ES139	MURCIA	503 568	..	..	..	..	..	13 %	-2 %	17 %	15 %	9 %
ES087	GRANADA	440 302	..	..	..	..	..	-12 %	24 %	30 %	3 %	-4 %
ES148	PALMA DE MALLORCA	432 113	..	..	..	..	..	15 %	44 %	24 %	2 %	13 %
ES146	OVIEDO	425 829	..	..	..	..	..	26 %	15 %	20 %	6 %	2 %
ES211	VIGO	412 939	..	..	..	..	..	7 %	33 %	31 %	7 %	3 %
ES042	CADIZ	400 157	..	..	..	..	..	14 %	19 %	15 %	-2 %	-9 %
ES181	SANTA CRUZ DE TENERIFE	399 104	..	..	..	..	..	22 %	14 %	23 %	8 %	7 %
ES068	SAN SEBASTIAN	392 569	..	..	..	..	..	..	..	..	34 %	9 %
ES016	ALICANTE	380 357	..	..	..	..	..	14 %	51 %	33 %	8 %	4 %
ES102	LA CORUNA	375 697	..	..	..	..	..	31 %	12 %	22 %	7 %	-2 %
ES208	VALLADOLID	368 890	..	..	..	..	..	16 %	56 %	36 %	3 %	-3 %
ES193	TARRAGONA	325 333	..	..	..	..	..	..	78 %	39 %	1 %	4 %
ES059	CORDOBA	314 034	..	..	..	..	..	15 %	24 %	19 %	8 %	4 %
ES149	PAMPLONA	285 671	..	..	..	..	..	..	50 %	21 %	1 %	1 %
ES086	GIJON	279 837	..	..	..	..	..	16 %	50 %	36 %	1 %	3 %
ES075	ELCHE	264 536	..	..	..	..	..	..	..	33 %	15 %	4 %
ES052	CASTELLON DE LA PLANA	258 532	..	..	..	..	..	..	50 %	32 %	8 %	6 %
ES183	SANTANDER	248 761	..	..	..	..	..	10 %	26 %	20 %	6 %	-4 %
ES009	ALZIRA	241 472	..	..	..	..	..	27 %	23 %	14 %	8 %	1 %
ES050	CARTAGENA	231 008	..	..	..	..	..	..	19 %	18 %	-3 %	7 %
ES220	VITORIA-GASTEIZ	226 498	30 %	72 %	..	..	2 %	40 %	84 %	40 %	9 %	4 %
ES014	ALGECIRAS	206 484	..	..	..	..	..	..	..	5 %	18 %	3 %
ES092	HUELVA	193 285	..	..	..	..	..	..	26 %	32 %	12 %	-1 %
ES171	SALAMANCA	191 813	..	..	..	..	..	13 %	38 %	23 %	6 %	-3 %
ES019	ALMERIA	191 768	..	..	..	..	..	13 %	32 %	23 %	10 %	9 %
ES100	JEREZ DE LA FRONTERA	189 370	..	..	..	..	..	..	..	18 %	4 %	0 %
ES110	LEON	186 932	..	..	..	..	..	..	38 %	21 %	13 %	-4 %
ES099	JAEN	180 293	..	..	..	..	..	..	13 %	23 %	8 %	7 %
ESX01	COLLADOVILLALBA	176 251	..	..	..	..	..	..	..	..	40 %	61 %
ES039	BURGOS	175 968	..	..	..	..	..	43 %	36 %	27 %	5 %	2 %
ES127	MATARO	168 756	..	..	..	..	..	..	70 %	32 %	5 %	3 %
ES088	GRANOLLERS	160 127	..	..	..	..	..	29 %	50 %	..	..	1 %
ES114	LOGRONO	156 412	..	..	..	..	..	..	38 %	30 %	12 %	5 %
ES214	VILANOVA I LA GELTRU	155 679	..	..	..	..	..	..	..	..	..	14 %
ES003	ALBACETE	155 381	..	..	..	..	..	..	26 %	25 %	12 %	15 %
ES073	FERROL	154 973	..	36 %	..	..	..	58 %	17 %	5 %	-7 %	-5 %
ES076	ELDA	148 061	..	..	..	..	..	37 %	..	..	4 %	-5 %
ES111	LERIDA	146 907	..	..	..	..	..	..	37 %	18 %	5 %	0 %
ES085	GERONA	143 566	..	..	..	..	..	..	..	..	..	..
ES156	PONTEVEDRA	142 364	..	..	..	..	..	..	..	22 %	11 %	5 %
ES030	BADAJOZ	140 882	..	..	..	..	..	..	-8 %	10 %	10 %	11 %
ES105	LA OROTAVA	139 713	..	..	..	..	..	..	12 %	26 %	11 %	9 %
ES029	AVILES	138 593	..	..	..	..	..	..	67 %	6 %	-1 %	-2 %

ES184	SANTIAGO DE COMPOSTELA	137 816	..	..	..	..	..	84 %	24 %	32 %	-6 %	7 %
ES144	ORENSE	137 038	..	..	..	..	..	..	14 %	29 %	9 %	6 %
ES036	BENIDORM	134 488	..	..	..	..	..	..	..	108 %	70 %	28 %
ES083	GANDIA	132 058	..	..	..	..	..	26 %	..	..	7 %	14 %
ES038	BLANES	131 433	..	..	..	..	..	..	-2 %	..	..	20 %
ES123	MANRESA	122 360	..	..	..	..	..	30 %	11 %	16 %	0 %	-5 %
ES145	ORIHUELA	119 365	..	..	..	..	..	213 %	0 %	11 %	-1 %	8 %
ES124	MARBELLA	116 376	..	..	..	..	..	..	..	422 %	19 %	31 %
ES200	TORRELAVEGA	116 249	..	..	..	..	..	..	..	..	8 %	-6 %
ES210	VIC	110 582	..	..	..	..	..	..	..	..	-4 %	10 %
ES089	GUADALAJARA	103 998	..	..	..	..	..	..	51 %	73 %	15 %	4 %
ES170	SAGUNTO	101 002	..	..	..	..	..	49 %	17 %	16 %	1 %	2 %
ES118	LUGO	99 065	..	..	..	..	..	..	10 %	14 %	15 %	6 %
ES147	PALENCIA	98 892	..	..	..	..	..	..	21 %	23 %	9 %	4 %
ES197	TOLEDO	95 107	..	..	..	..	..	..	9 %	22 %	10 %	15 %
ES066	DENIA	92 933	..	..	..	..	..	..	..	..	..	24 %
ES041	CACERES	92 742	..	..	..	..	..	..	9 %	17 %	13 %	10 %
ES138	MOTRIL	90 899	..	..	..	..	..	..	..	..	17 %	8 %
ES115	LORCA	88 144	..	..	..	..	..	180 %	3 %	0 %	9 %	9 %
ES026	ARRECIFE	87 731	..	..	..	..	..	43 %	40 %	60 %	17 %	29 %
ES463	TORREVIEJA	85 694	..	..	..	..	..	..	..	..	..	101 %
ES192	TALAVERA DE LA REINA	83 867	..	..	..	..	..	22 %	70 %	41 %	7 %	8 %
ES112	LINARES	83 797	..	..	..	..	..	..	-16 %	8 %	7 %	-1 %
ES155	PONFERRADA	83 592	..	..	..	..	..	..	..	..	14 %	4 %
ES215	VILAGARCIA	82 795	..	..	..	..	..	..	..	..	9 %	5 %
ES204	UTRERA	81 609	..	..	..	..	..	37 %	-13 %	..	..	7 %
ES011	ALCOY	80 494	..	..	..	..	..	25 %	20 %	7 %	-1 %	-8 %
ES095	IGUALADA	79 655	..	..	..	..	..	..	..	..	1 %	2 %
ES175	SANLUCAR DE BARRAMEDA	78 551	..	..	..	..	..	..	2 %	18 %	15 %	11 %
ES182	SANTA LUCIA	78 551	..	..	..	..	..	..	..	..	24 %	36 %
ES056	CIUDAD REAL	78 240	..	..	..	..	..	..	..	25 %	14 %	6 %
ES221	XATIVA	76 621	..	..	..	..	..	10 %	5 %	..	..	4 %
ES224	ZAMORA	76 297	..	..	..	..	..	..	..	19 %	10 %	1 %
ES094	IBIZA	73 724	..	..	..	..	..	..	78 %	27 %	18 %	11 %
ES226	CEUTA	71 505	..	..	..	..	..	22 %	-8 %	-3 %	4 %	11 %
ES413	ROQUETAS DE MAR	70 994	..	..	..	..	..	..	..	..	..	65 %
ES132	EIBAR	69 561	..	..	..	..	..	94 %	17 %	-2 %	-12 %	-10 %
ES209	VELEZ MALAGA	68 649	..	..	..	..	..	..	21 %	..	..	8 %
ES186	SEGOVIA	67 441	..	..	..	..	..	..	26 %	21 %	7 %	-1 %
ES227	MELILLA	66 411	..	..	..	..	..	-3 %	-18 %	-17 %	6 %	17 %
ES213	VILAFRANCA DEL PENEDES	65 475	..	..	..	..	..	..	..	..	..	8 %
ES203	UBEDA	65 357	..	..	..	..	..	-5 %	4 %	-5 %	6 %	6 %
ES162	PUERTOLLANO	64 924	..	..	..	..	..	53 %	0 %	-8 %	4 %	-1 %
ES128	MERIDA	62 121	..	..	..	..	..	..	17 %	4 %	18 %	2 %
ES134	MONDRAGON O ARRASATE	60 965	..	..	..	..	..	41 %	58 %	16 %	-3 %	-6 %
ES067	DON BENITO	60 666	..	..	..	..	..	10 %	-15 %	..	..	9 %
ES117	LUCENA	59 642	..	..	..	..	..	..	..	6 %	8 %	13 %
ES320	EJIDO (EL)	59 389	..	..	..	..	..	..	..	..	..	28 %
ES207	VALL D'UIXO (LA)	59 322	..	..	..	..	..	..	..	..	6 %	5 %
ES143	ONTINYENT	59 259	..	..	..	..	..	..	..	..	5 %	8 %
ES484	VINAROS	59 225	..	..	..	..	..	..	..	..	..	13 %
ES020	ANDUJAR	56 874	..	..	..	..	..	40 %	-2 %	11 %	5 %	3 %
ES079	FIGUERES	56 644	..	..	..	..	..	17 %	21 %	41 %	13 %	-2 %
ES070	DURANGO	52 843	..	..	..	..	..	49 %	55 %	17 %	-14 %	10 %

ES055	CIEZA	52 728	..	..	..	..	..	5 %	..	..	3 %	4 %
ES008	ALCAZAR DE SAN JUAN	52 502	..	..	..	..	..	14 %	6 %	-5 %	3 %	1 %
ES023	ARANJUEZ	52 489	..	..	..	..	..	..	8 %	21 %	2 %	10 %
ES136	MONTILLA	52 252	..	..	..	..	..	..	..	..	..	3 %
ES028	AVILA	50 907	..	..	..	..	..	..	..	30 %	14 %	4 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
FI003	HELSINKI	1 284 775	..	..	..	..	14 %	23 %	13 %	-5 %	2 %	13 %
FI034	TAMPERE	336 947	..	..	..	..	10 %	26 %	22 %	7 %	4 %	13 %
FI036	TURKU	321 495	..	..	..	..	8 %	22 %	22 %	8 %	-3 %	8 %
FI023	OULU	200 925	..	..	..	..	18 %	54 %	46 %	11 %	8 %	19 %
FI019	LAHTI	161 995	..	..	..	..	2 %	50 %	32 %	7 %	-2 %	4 %
FI010	JYVASKYLA	150 441	..	..	..	..	11 %	29 %	44 %	13 %	4 %	19 %
FI017	KUOPIO	115 903	..	..	..	..	6 %	35 %	42 %	17 %	8 %	7 %
FI025	PORI	108 377	..	..	..	..	-1 %	25 %	36 %	8 %	-4 %	0 %
FI037	VAASA	100 932	..	..	..	..	3 %	22 %	13 %	12 %	-1 %	6 %
FI016	KOUVOLA	91 550	..	..	..	..	-3 %	73 %	44 %	18 %	3 %	-1 %
FI008	JOENSUU	90 087	..	..	..	..	6 %	257 %	29 %	23 %	6 %	9 %
FI020	LAPPEENRANTA	82 832	..	..	..	..	2 %	26 %	135 %	6 %	3 %	6 %
FI041	HAMEENLINNA	81 959	..	..	..	..	3 %	27 %	33 %	12 %	4 %	6 %
FI015	KOTKA	81 946	..	..	..	..	-3 %	26 %	10 %	82 %	-7 %	-3 %
FI028	RAUMA	66 793	..	..	..	..	-3 %	40 %	18 %	20 %	-3 %	25 %
FI033	SEINAJOKI	62 502	..	..	..	..	5 %	109 %	30 %	21 %	13 %	9 %
FI030	ROVANIEMI	57 253	..	..	..	..	6 %	61 %	24 %	13 %	12 %	6 %
FI021	MIKKELI	54 560	..	..	..	..	2 %	25 %	28 %	12 %	12 %	47 %
FI011	KAJAANI	54 438	..	..	..	..	-3 %	33 %	33 %	77 %	6 %	-1 %
FI031	SALO	52 604	..	..	..	..	6 %	19 %	57 %	14 %	9 %	13 %
FI014	KOKKOLA	49 933	..	..	..	..	1 %	22 %	28 %	63 %	2 %	3 %
FI043	LOHJA	43 786	..	..	..	..	5 %	25 %	36 %	15 %	5 %	137 %
FI029	RIIHIMAKI	41 858	..	..	..	..	4 %	21 %	13 %	5 %	4 %	5 %
FI040	VARKAUS	41 855	..	..	..	..	-6 %	26 %	8 %	3 %	-1 %	-5 %
FI012	KEMI	38 647	..	..	..	..	-6 %	19 %	-3 %	-1 %	-6 %	-7 %
FI044	RAAHE	37 814	..	..	..	..	-5 %	10 %	51 %	147 %	-1 %	-7 %
FI007	IMATRA	36 867	..	..	..	..	-8 %	17 %	5 %	6 %	-8 %	-9 %
FI002	FORSSA	35 866	..	..	..	..	-2 %	20 %	46 %	23 %	1 %	-6 %
FI032	SAVONLINNA	35 828	..	..	..	..	-4 %	27 %	21 %	58 %	1 %	-3 %
FIX02	PIETARSAARI	34 005	..	..	..	..	2 %	19 %	27 %	10 %	-4 %	-1 %
FI006	IISALMI	32 746	..	..	..	..	-6 %	27 %	240 %	11 %	6 %	-4 %
FIX03	TAMMISAARI	28 436	..	..	..	..	0 %	19 %	20 %	67 %	3 %	28 %
FI042	MARIEHAMN	25 776	..	..	..	..	5 %	104 %	28 %	12 %	7 %	2 %
FIX01	JAMSA	23 226	..	..	..	..	-3 %	17 %	3 %	0 %	2 %	22 %
FI035	TORNIO	22 617	..	..	..	..	-1 %	68 %	31 %	191 %	9 %	-1 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
FR159	PARIS	11 174 743	..	..	..	..	9 %	4 %	-8 %	-16 %	-1 %	-1 %
FR124	LYON	1 648 216	..	..	..	..	9 %	20 %	0 %	-22 %	1 %	7 %
FR128	MARSEILLE-AIX-EN-PROVENCE	1 516 340	..	..	..	..	13 %	41 %	14 %	-2 %	-8 %	0 %
FR118	LILLE	1 143 125	..	..	..	..	6 %	7 %	-1 %	-12 %	2 %	7 %
FR202	TOULOUSE	964 797	..	..	..	..	21 %	43 %	2 %	5 %	3 %	9 %
FR152	NICE	933 080	..	..	..	..	73 %	42 %	10 %	5 %	2 %	0 %
FR037	BORDEAUX	925 253	..	..	..	..	11 %	5 %	7 %	-22 %	1 %	2 %
FR149	NANTES	711 120	..	..	..	..	17 %	28 %	8 %	-7 %	2 %	10 %
FR197	STRASBOURG	612 104	..	..	..	..	18 %	37 %	9 %	0 %	1 %	5 %
FR201	TOULON	564 823	..	..	..	..	24 %	39 %	8 %	3 %	-7 %	-4 %
FR076	DOUAI	552 682	..	..	..	..	158 %	34 %	3 %	-13 %	-1 %	1 %
FR171	RENNES	521 188	..	..	..	..	21 %	48 %	19 %	8 %	1 %	4 %
FR176	ROUEN	518 316	..	..	..	..	13 %	19 %	0 %	-15 %	1 %	4 %
FR096	GRENOBLE	514 559	..	..	..	..	8 %	61 %	3 %	-3 %	-4 %	2 %
FR145	MONTPELLIER	459 916	..	..	..	..	22 %	47 %	36 %	22 %	5 %	8 %
FR134	METZ	429 588	..	..	..	..	67 %	57 %	5 %	6 %	5 %	3 %
FR148	NANCY	410 508	..	..	..	..	5 %	19 %	-4 %	-22 %	3 %	4 %
FR064	CLERMONT-FERRAND	409 558	..	..	..	..	20 %	36 %	17 %	-1 %	-8 %	1 %
FR209	VALENCIENNES	399 677	..	..	..	..	8 %	24 %	0 %	-14 %	-5 %	7 %
FR203	TOURS	376 374	..	..	..	..	9 %	22 %	38 %	3 %	-2 %	3 %
FR045	CAEN	370 851	..	..	..	..	14 %	99 %	16 %	3 %	-1 %	1 %
FR156	ORLEANS	355 811	..	..	..	..	18 %	30 %	14 %	7 %	2 %	8 %
FR010	ANGERS	332 624	..	..	..	..	16 %	22 %	12 %	6 %	4 %	7 %
FR074	DIJON	326 631	..	..	..	..	9 %	47 %	7 %	-3 %	4 %	2 %
FR181	SAINT ETIENNE	321 703	..	..	..	..	-3 %	29 %	6 %	-4 %	-3 %	-10 %
FR042	BREST	303 484	..	..	..	..	15 %	117 %	13 %	1 %	-5 %	1 %
FR112	LE HAVRE	296 773	..	..	..	..	1 %	74 %	9 %	0 %	-2 %	-3 %
FR113	LE MANS	293 159	..	..	..	..	12 %	46 %	8 %	3 %	-1 %	0 %
FR170	REIMS	291 735	..	..	..	..	11 %	26 %	14 %	16 %	2 %	4 %
FR024	AVIGNON	290 466	..	..	..	..	44 %	54 %	18 %	4 %	-2 %	-1 %
FR147	MULHOUSE	271 024	..	..	..	..	2 %	27 %	7 %	-4 %	-3 %	2 %
FR009	AMIENS	270 870	..	..	..	..	26 %	24 %	10 %	13 %	0 %	3 %
FR034	BETHUNE	268 439	..	..	..	..	0 %	17 %	9 %	-2 %	-4 %	13 %
FR079	DUNKERQUE	265 974	..	..	..	..	1 %	188 %	-3 %	166 %	-4 %	1 %
FR162	PERPIGNAN	249 016	..	..	..	..	28 %	29 %	23 %	9 %	-5 %	-1 %
FR119	LIMOGES	247 944	..	..	..	..	10 %	18 %	13 %	6 %	-5 %	0 %
FR033	BESANCON	222 381	..	..	..	..	11 %	56 %	18 %	0 %	0 %	3 %
FR153	NIMES	221 455	..	..	..	..	14 %	32 %	24 %	1 %	3 %	4 %
FR160	PAU	216 830	..	..	..	..	17 %	48 %	23 %	13 %	-2 %	-4 %
FR028	BAYONNE	213 969	..	..	..	..	11 %	46 %	4 %	-3 %	-3 %	0 %
FR013	ANNEMASSE	212 248	..	..	..	..	15 %	..	..	51 %	6 %	-2 %
FR165	POITIERS	209 216	..	..	..	..	23 %	51 %	9 %	17 %	-1 %	6 %
FR012	ANNECY	189 674	..	..	..	..	17 %	77 %	26 %	-8 %	-1 %	1 %
FR122	LORIENT	186 144	..	..	..	..	1 %	463 %	10 %	-6 %	-5 %	6 %
FR140	MONTBELIARD	180 064	..	..	..	..	-1 %	72 %	2 %	33 %	-9 %	-5 %
FR205	TROYES	172 497	..	..	..	..	5 %	26 %	11 %	-15 %	-7 %	3 %
FR184	SAINT NAZAIRE	172 379	..	..	..	..	11 %	..	4 %	13 %	-5 %	2 %
FR107	LA ROCHELLE	171 214	..	..	..	..	21 %	45 %	10 %	3 %	-6 %	8 %
FR208	VALENCE	167 155	..	..	..	..	10 %	53 %	19 %	6 %	-4 %	1 %
FR199	THIONVILLE	156 433	..	..	..	..	-11 %	122 %	6 %	14 %	-2 %	3 %
FR011	ANGOULEME	153 781	..	..	..	..	8 %	21 %	-1 %	-3 %	-7 %	1 %

FR038	BOULOGNE-SUR-MER	135 116	..	..	..	..	10 %	43 %	0 %	-3 %	-8 %	3 %
FR056	CHAMBERY	131 280	..	..	..	..	12 %	78 %	5 %	7 %	1 %	3 %
FR054	CHALON-SUR-SAONE	130 825	..	..	..	..	..	54 %	2 %	20 %	-3 %	-8 %
FR058	CHARTRES	130 681	..	..	..	..	16 %	45 %	0 %	9 %	7 %	2 %
FR154	NIORT	125 594	..	..	..	..	13 %	35 %	19 %	25 %	-2 %	-1 %
FR047	CALAIS	125 584	..	..	..	..	12 %	69 %	6 %	3 %	-2 %	3 %
FR035	BEZIERS	124 967	..	..	..	..	12 %	23 %	9 %	-5 %	-7 %	-3 %
FR018	ARRAS	124 206	..	..	..	..	13 %	52 %	6 %	-14 %	-7 %	4 %
FR040	BOURGES	123 584	..	..	..	..	-1 %	53 %	6 %	14 %	-1 %	-4 %
FR177	SAINT BRIEUC	121 237	..	..	..	..	11 %	65 %	4 %	-2 %	-8 %	3 %
FR168	QUIMPER	120 441	..	..	..	..	..	160 %	4 %	19 %	5 %	0 %
FR211	VANNES	118 029	..	..	..	..	..	45 %	7 %	16 %	8 %	13 %
FR062	CHERBOURG	117 855	..	..	..	..	3 %	18 %	-5 %	-25 %	-5 %	-6 %
FR130	MAUBEUGE	117 470	..	..	..	..	-3 %	34 %	17 %	13 %	-3 %	-4 %
FR036	BLOIS	116 544	..	..	..	..	..	68 %	8 %	20 %	4 %	0 %
FR066	COLMAR	116 268	..	..	..	..	6 %	20 %	12 %	7 %	2 %	3 %
FR198	TARBES	109 892	..	..	..	..	6 %	9 %	18 %	-7 %	-7 %	-3 %
FR068	COMPIEGNE	108 234	..	..	..	..	..	57 %	16 %	42 %	4 %	-2 %
FR057	CHARLEVILLE-MEZIERES	107 777	..	..	..	..	-19 %	0 %	20 %	0 %	-3 %	-3 %
FR031	BELFORT	104 962	..	..	..	..	..	34 %	10 %	-3 %	-2 %	1 %
FR172	ROANNE	104 892	..	..	..	..	1 %	..	3 %	-8 %	-14 %	-7 %
FR089	FORBACH	104 074	..	..	..	..	-10 %	..	5 %	18 %	0 %	-16 %
FR186	SAINT QUENTIN	103 781	..	..	..	..	1 %	30 %	5 %	-1 %	-5 %	-3 %
FR109	LAVAL	102 575	..	..	..	..	..	53 %	4 %	12 %	0 %	1 %
FR039	BOURG-EN-BRESSE	101 016	..	..	..	..	-14 %	-1 %	68 %	17 %	0 %	-1 %
FR030	BEAUVAIS	100 733	..	..	..	..	..	75 %	27 %	13 %	3 %	2 %
FR151	NEVERS	100 556	..	..	..	..	..	27 %	3 %	2 %	-2 %	-2 %
FR071	CREIL	98 277	..	..	..	..	1 %	103 %	77 %	2 %	-8 %	-4 %
FR106	LA ROCHE-SUR-YON	98 175	..	..	..	..	..	67 %	27 %	40 %	0 %	9 %
FR084	EVREUX	97 177	..	..	..	..	..	141 %	2 %	12 %	7 %	4 %
FR002	AGEN	94 659	..	..	..	..	..	35 %	-2 %	-9 %	-3 %	-1 %
FR435	SAINT-OMER	93 516	..	..	..	..	..	32 %	-16 %	-13 %	-6 %	9 %
FR161	PERIGUEUX	91 585	..	..	..	..	..	10 %	-10 %	-11 %	-8 %	0 %
FR059	CHATEAUROUX	90 573	..	..	..	..	..	50 %	4 %	6 %	-2 %	-3 %
FR083	EPINAL	89 544	..	..	..	..	..	54 %	8 %	4 %	-3 %	-3 %
FR008	ALES	89 390	..	..	..	..	..	117 %	-26 %	35 %	-5 %	-4 %
FR043	BRIVE-LA-GAILLARDE	89 260	..	..	..	..	..	34 %	13 %	14 %	-3 %	-1 %
FR125	MACON	88 534	..	..	..	..	..	52 %	20 %	15 %	-3 %	-8 %
FR306	ELBEUF	86 162	..	..	..	..	..	25 %	3 %	-13 %	-4 %	0 %
FR006	ALBI	85 960	..	..	..	..	..	52 %	-6 %	19 %	1 %	-1 %
FR023	AUXERRE	85 080	..	..	..	..	..	58 %	2 %	15 %	0 %	-3 %
FR178	SAINT CHAMOND	84 925	..	..	..	..	..	18 %	125 %	5 %	-3 %	-4 %
FR091	FREJUS	83 840	..	..	..	23 %	13 %	..	11 %	40 %	31 %	13 %
FR418	SAINT LOUIS	83 732	..	..	..	..	..	..	..	25 %	5 %	2 %
FR050	CARCASSONNE	82 577	..	..	..	..	-20 %	38 %	-7 %	1 %	6 %	1 %
FR073	DIEPPE	81 419	..	..	..	..	..	45 %	-2 %	21 %	0 %	-4 %
FR215	VICHY	80 194	..	..	..	..	..	7 %	7 %	-9 %	-9 %	-4 %
FRX02	CHALONS-EN-CHAMPAGNE	79 820	..	..	..	..	..	60 %	7 %	5 %	-5 %	-2 %
FR144	MONTLUCON	78 477	..	..	..	..	..	21 %	4 %	-13 %	-11 %	-7 %
FR005	AJACCIO	77 287	..	..	..	..	..	54 %	-8 %	39 %	9 %	-10 %
FR027	BASTIA	76 439	..	..	..	..	..	35 %	-2 %	-10 %	-14 %	0 %
FR139	MONTAUBAN	75 158	..	..	..	..	..	31 %	12 %	49 %	1 %	1 %
FR063	CHOLET	74 055	..	..	..	..	..	62 %	7 %	38 %	-1 %	-2 %
FR032	BERGERAC	72 891	..	..	..	..	..	..	..	11 %	0 %	-3 %

FR150	NARBONNE	70 750	..	..	..	..	54 %	36 %	-2 %	18 %	10 %	1 %
FR183	SAINT MALO	70 303	..	..	..	..	46 %	58 %	135 %	15 %	4 %	5 %
FR200	THONON-LES-BAINS	70 154	..	..	..	..	..	..	..	22 %	5 %	2 %
FR060	CHATELLERAULT	68 442	..	..	..	..	89 %	46 %	30 %	-2 %	-3 %	-2 %
FR133	MENTON	66 692	..	..	..	..	..	81 %	17 %	7 %	16 %	-1 %
FR378	MONTARGIS	66 299	..	..	..	..	..	30 %	13 %	-19 %	-7 %	0 %
FR194	SETE	66 177	..	..	..	8 %	4 %	23 %	9 %	-2 %	5 %	-5 %
FR114	LEPUY-EN-VELAY	66 129	..	..	..	..	..	37 %	18 %	-19 %	-10 %	-6 %
FR175	ROMANS-SUR-ISERE	65 933	..	..	..	..	..	..	..	1 %	-1 %	0 %
FR174	RODEZ	65 267	..	..	..	..	..	49 %	8 %	-8 %	1 %	-4 %
FR007	ALENCON	64 970	..	..	..	..	..	62 %	12 %	4 %	-5 %	-4 %
FR196	SOISSONS	64 042	..	..	..	..	..	42 %	4 %	19 %	-1 %	-1 %
FR218	VILLEFRANCHE-SUR-SAONE	63 632	..	..	..	..	..	29 %	8 %	8 %	2 %	2 %
FR052	CASTRES	61 760	..	..	..	..	..	63 %	-10 %	27 %	-2 %	-3 %
FR291	CLUSES	61 109	..	..	..	..	..	..	..	20 %	6 %	8 %
FR099	HAGUENAU	59 894	..	..	..	..	..	45 %	2 %	19 %	4 %	17 %
FR349	LANNION	59 233	..	..	..	..	201 %	..	..	21 %	2 %	8 %
FR048	CAMBRAI	58 828	..	..	..	..	..	44 %	5 %	-5 %	-6 %	2 %
FR017	ARMENTIERES	58 706	..	..	..	3 %	2 %	46 %	-10 %	2 %	2 %	0 %
FR142	MONTELIMAR	58 557	..	..	..	..	40 %	104 %	10 %	22 %	3 %	5 %
FR146	MOULINS	58 355	..	..	..	..	..	23 %	0 %	-2 %	-9 %	-4 %
FR078	DREUX	57 982	..	..	..	..	20 %	..	..	8 %	6 %	-10 %
FR021	AURILLAC	56 830	..	..	..	..	58 %	43 %	-1 %	16 %	-1 %	-1 %
FR193	SENS	56 660	..	..	..	..	56 %	36 %	4 %	17 %	2 %	-1 %
FR180	SAINT DIZIER	55 814	..	..	..	..	..	128 %	-2 %	-2 %	-5 %	-8 %
FR138	MONT-DE-MARSAN	54 577	..	..	..	..	54 %	95 %	-2 %	20 %	4 %	4 %
FR121	LONS-LE-SAUNIER	54 486	..	..	..	..	114 %	..	16 %	-7 %	-5 %	-3 %
FR247	ARCACHON	54 204	..	..	..	..	15 %	14 %	-9 %	-7 %	-11 %	..
FR216	VIENNE	53 843	..	..	..	..	24 %	41 %	-6 %	7 %	4 %	2 %
FR016	ARLES	53 057	..	..	..	..	-2 %	46 %	14 %	50 %	3 %	-3 %
FR188	SAINTES	51 542	..	..	..	..	91 %	31 %	4 %	-9 %	2 %	-1 %
FR189	SALON-DE-PROVENCE	50 532	..	..	..	..	..	..	..	10 %	-2 %	9 %
FR108	LAON	49 853	..	..	..	..	83 %	83 %	-6 %	4 %	-1 %	-1 %
FR299	DAX	49 219	..	..	..	..	38 %	47 %	12 %	-10 %	4 %	1 %
FR182	SAINT LO	48 837	..	..	..	..	84 %	..	27 %	18 %	-7 %	-7 %
FR173	ROCHEFORT	48 772	..	..	..	..	37 %	25 %	-1 %	-7 %	-2 %	1 %
FR191	SAUMUR	47 445	..	..	..	..	50 %	54 %	-7 %	51 %	-6 %	-1 %
FR179	SAINT DIE	45 708	..	..	..	..	64 %	113 %	8 %	-10 %	-5 %	0 %
FR214	VESOUL	45 291	..	..	..	..	58 %	..	..	1 %	-4 %	-3 %
FR120	LISIEUX	45 065	..	..	..	..	61 %	94 %	4 %	7 %	-5 %	-2 %
FR077	DRAGUIGNAN	44 851	..	..	..	..	20 %	81 %	21 %	37 %	13 %	9 %
FR219	VILLENEUVE-SUR-LOT	44 841	..	..	..	..	52 %	..	..	2 %	-1 %	0 %
FR092	GAP	44 773	..	..	..	..	34 %	98 %	16 %	21 %	9 %	8 %
FR065	COGNAC	44 051	..	..	..	..	60 %	31 %	0 %	-2 %	-5 %	0 %
FRX03	LE CREUSOT	42 846	..	..	..	..	..	97 %	0 %	-4 %	-10 %	-9 %
FR461	VOIRON	42 131	..	..	..	..	10 %	..	..	-1 %	-1 %	6 %
FR190	SARREGUEMINES	42 077	..	..	..	..	54 %	..	..	1 %	-7 %	0 %
FR249	AUBENAS	40 390	..	..	..	..	68 %	..	..	-6 %	-4 %	-1 %
FR082	EPERNAY	40 167	..	..	..	..	18 %	22 %	14 %	6 %	-4 %	-3 %
FR090	FOUGERES	40 132	..	..	..	..	..	35 %	2 %	-5 %	-9 %	-2 %
FR075	DOLE	40 059	..	..	..	..	26 %	58 %	-1 %	5 %	-1 %	-6 %
FR014	ANNONAY	39 507	..	..	..	..	53 %	..	..	-10 %	-5 %	-5 %
FR102	ISTRES	38 993	..	..	..	..	11 %	..	..	97 %	23 %	11 %
FR422	SAINT-AVOLD	38 888	..	..	..	..	44 %	..	..	-5 %	0 %	2 %

FR414	ROUSSILLON	38 675	..	..	..	..	13 %	..	..	..	..	13 %
FR217	VIERZON	38 525	..	..	..	..	10 %	..	..	5 %	-6 %	-8 %
FR046	CAHORS	38 101	..	..	..	..	68 %	52 %	-8 %	11 %	0 %	1 %
FR001	ABBEVILLE	37 309	..	..	..	..	48 %	42 %	4 %	5 %	-5 %	3 %
FR061	CHAUMONT	36 565	..	..	..	..	31 %	55 %	10 %	8 %	-2 %	-4 %
FR381	MORLAIX	35 996	..	..	..	..	39 %	66 %	-17 %	10 %	-9 %	-4 %
FR020	AUCH	35 958	..	..	..	..	55 %	81 %	-13 %	29 %	-1 %	-6 %
FR029	BEAUNE	35 521	..	..	..	..	67 %	44 %	4 %	23 %	5 %	3 %
FR240	ALBERTVILLE	35 431	..	..	..	..	25 %	..	..	4 %	3 %	0 %
FR212	VERDUN	35 078	..	..	..	..	31 %	70 %	-3 %	1 %	-4 %	-5 %
FR460	VITRY-LE-FRANCOIS	35 024	..	..	..	..	76 %	..	..	4 %	-7 %	..
FR454	VENDOME	34 159	..	..	..	..	53 %	..	..	5 %	0 %	1 %
FR303	DINAN	32 903	..	..	..	..	41 %	..	..	-6 %	-6 %	-6 %
FR026	BAR-LE DUC	32 892	..	..	..	..	54 %	44 %	-6 %	-2 %	-5 %	-3 %
FR287	CHATEAU-THIERRY	32 401	..	..	..	..	36 %	46 %	2 %	34 %	5 %	-2 %
FR437	SARREBOURG	31 908	..	..	..	..	94 %	..	..	0 %	5 %	..
FR192	SEDAN	31 665	..	..	..	..	..	68 %	6 %	2 %	-8 %	-5 %
FR117	LIBOURNE	31 662	..	..	..	..	..	47 %	10 %	-6 %	-5 %	4 %
FR444	THANN	31 309	..	..	..	..	8 %	..	..	..	..	8 %
FR086	FECAMP	31 013	..	..	..	..	38 %	24 %	6 %	2 %	-3 %	1 %
FR331	GUEBWILLER	30 738	..	..	..	..	18 %	12 %	3 %	-4 %	2 %	5 %
FR206	TULLE	30 686	..	..	..	..	52 %	..	..	-11 %	-9 %	-9 %
FR367	MARMANDE	29 930	..	..	..	..	28 %	..	..	5 %	4 %	-2 %
FR399	PONTARLIER	29 218	..	..	..	..	48 %	..	..	3 %	2 %	1 %
FR411	ROMORANTIN-LANTHENAY	28 925	..	..	..	..	62 %	..	..	24 %	1 %	..
FR363	LUNEL	28 558	..	..	..	..	38 %	..	..	43 %	18 %	21 %
FR228	GUERET	28 095	..	..	..	..	91 %	53 %	12 %	12 %	-6 %	..
FR136	MILLAU	28 005	..	..	..	..	21 %	..	..	-7 %	0 %	-2 %
FR123	LUNEVILLE	27 572	..	..	..	..	17 %	28 %	-6 %	-7 %	-4 %	-2 %
FR340	ISSOIRE	27 502	..	..	..	..	93 %	..	..	-3 %	-1 %	..
FR248	ARGENTAN	27 387	..	..	..	..	59 %	..	..	13 %	-5 %	..
FR022	AUTUN	26 845	..	..	..	..	..	46 %	17 %	3 %	-13 %	..
FR405	REDON	26 522	..	..	..	..	118 %	..	..	-5 %	..	..
FR380	MONTEREAU-FAUT-YONNE	26 455	..	..	..	..	2 %	..	..	-2 %	-4 %	-6 %
FR458	VIRE	26 274	..	..	..	..	65 %	..	..	13 %	-6 %	..
FR257	BAYEUX	25 943	..	..	..	..	51 %	22 %	5 %	32 %	0 %	..
FR370	MAYENNE	25 268	..	..	..	..	66 %	..	..	8 %	2 %	..
FR304	DINARD	25 089	..	..	..	..	6 %	..	-4 %	11 %	-1 %	5 %
FR332	GUINGAMP	25 060	..	..	..	..	41 %	..	..	-16 %	..	..
FR379	MONTBRISON	23 953	..	..	..	..	37 %	..	..	31 %	6 %	..
FR393	PAMIERS	23 876	..	..	..	..	40 %	..	..	-12 %	-3 %	..
FR285	CHATEAUDUN	23 728	..	..	..	..	33 %	..	..	1 %	-5 %	..
FR225	DIGNE	23 671	..	..	..	..	47 %	..	16 %	-4 %	6 %	..
FR448	TOUL	23 180	..	..	..	..	3 %	..	..	15 %	-1 %	-2 %
FR284	CHATEAUBRIANT	22 427	..	..	..	..	75 %	..	..	10 %	-9 %	..
FR401	PONTIVY	22 427	..	..	..	..	71 %	..	..	-3 %	4 %	..
FR450	TROUVILLE-SUR-MER	22 168	..	..	..	..	17 %	..	..	..	..	17 %
FR390	OLORON-STE-MARIE	21 994	..	..	..	..	36 %	..	..	-17 %	-4 %	..
FR359	LOURDES	21 549	..	..	..	..	32 %	32 %	8 %	-1 %	-6 %	..
FR286	CHATEAU-GONTIER	21 526	..	..	..	..	56 %	..	..	2 %	33 %	..
FR232	PRIVAS	20 795	..	..	..	..	44 %	..	..	-3 %	-3 %	..
FR386	NOGENT-LE-ROTROU	20 456	..	..	..	..	61 %	..	..	1 %	-7 %	..

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
GR005	ATHINAI	3 761 810	..	36 %	20 %	5 %	7 %	11 %	38 %	2 %	-13 %	-3 %
GR031	THESSALONIKI	1 057 825	..	31 %	22 %	9 %	11 %	16 %	38 %	18 %	-6 %	-5 %
GR025	PATRAI	197 663	17 %	16 %	28 %	10 %	14 %	22 %	17 %	27 %	8 %	7 %
GR010	IRAKLION	154 801	28 %	21 %	31 %	14 %	22 %	26 %	22 %	31 %	13 %	19 %
GR023	LARISA	126 076	..	..	..	..	0 %	35 %	31 %	41 %	11 %	12 %
GR035	VOLOS	82 439	7 %	8 %	21 %	7 %	7 %	7 %	8 %	21 %	7 %	7 %
GR009	IOANNINA	70 203	8 %	15 %	12 %	26 %	24 %	8 %	15 %	12 %	26 %	24 %
GR014	KAVALLA	63 293	..	..	..	..	..	6 %	4 %	22 %	0 %	12 %
GR022	LAMIA	58 601	..	..	..	..	..	-4 %	76 %	10 %	6 %	33 %
GR066	KALAMATA	57 620	7 %	-2 %	7 %	5 %	31 %	7 %	-2 %	7 %	5 %	31 %
GR013	KATERINI	56 434	..	3 %	29 %	18 %	20 %	18 %	3 %	31 %	16 %	25 %
GR030	SERRAI	56 145	..	..	..	..	..	9 %	0 %	13 %	9 %	14 %
GR006	DRAMA	55 632	..	..	..	..	..	9 %	-8 %	22 %	4 %	48 %
GR001	AGRINION	54 253	..	29 %	5 %	17 %	3 %	32 %	24 %	10 %	14 %	33 %
GR028	RODHOS	53 709	..	..	..	..	..	16 %	17 %	26 %	5 %	27 %
GR015	KHALKIS	53 584	4 %	47 %	24 %	15 %	4 %	4 %	47 %	24 %	15 %	4 %
GR016	KHANIA	53 373	16 %	5 %	17 %	6 %	7 %	16 %	5 %	17 %	6 %	7 %
GR003	ALEXANDROUPOLIS	52 720	..	..	..	..	..	13 %	23 %	50 %	7 %	43 %
GR019	KOMOTINI	52 659	..	..	..	..	..	-5 %	2 %	18 %	9 %	42 %
GR036	XANTHI	52 270	..	..	..	..	..	3 %	-6 %	27 %	11 %	50 %
GR032	TRIKKALA	51 862	..	..	..	..	..	16 %	25 %	17 %	8 %	17 %
GR021	KOZANI	47 451	..	..	..	..	..	22 %	8 %	33 %	2 %	50 %
GR034	VEROIA	47 411	..	..	..	..	..	18 %	15 %	26 %	2 %	25 %
GRX02	CORFU	39 487	..	..	..	..	..	-2 %	17 %	17 %	-2 %	9 %
GR012	KARDHITSA	37 768	..	..	..	..	..	28 %	8 %	7 %	10 %	25 %
GR020	KORINTHOS	36 555	..	..	..	..	..	-10 %	31 %	9 %	21 %	33 %
GR024	MITILINI	36 196	..	..	..	..	..	1 %	-9 %	3 %	-1 %	51 %
GR027	PTOLEMAIS	35 539	..	..	..	..	..	..	..	33 %	14 %	41 %
GR026	PIRGOS	34 902	..	..	..	..	..	14 %	0 %	7 %	31 %	22 %
GR062	AMALIAS	32 090	..	..	..	..	..	-1 %	-5 %	8 %	4 %	102 %
GR054	RETHIMNON	31 687	..	..	21 %	31 %	26 %	36 %	2 %	18 %	32 %	32 %
GR008	GIANNITSA	31 442	..	..	..	..	..	..	..	32 %	6 %	24 %
GR004	ARGOS	29 228	..	..	..	..	..	27 %	13 %	11 %	6 %	31 %
GR033	TRIPOLIS	28 976	..	..	..	..	..	5 %	9 %	5 %	5 %	29 %
GR060	AIYION	27 812	..	5 %	8 %	10 %	-1 %	19 %	5 %	11 %	6 %	25 %
GR040	EDHESSA	25 619	..	..	..	..	..	4 %	-10 %	19 %	6 %	45 %
GR047	KILKIS	24 812	..	..	..	..	..	..	-4 %	20 %	4 %	89 %
GR038	ARTA	23 863	..	..	..	..	..	27 %	19 %	3 %	6 %	12 %
GR076	THIVA	23 820	..	..	..	..	..	25 %	1 %	17 %	4 %	22 %
GR017	KHIOS	23 779	-1 %	0 %	0 %	-5 %	4 %	-1 %	0 %	0 %	-5 %	4 %
GRX03	IERAPETRA	23 707	..	..	..	..	..	..	..	..	..	..
GR072	NAOUSA	22 288	..	..	..	..	..	..	..	12 %	4 %	10 %
GR075	ORESTIAS	21 730	..	..	..	..	..	..	..	37 %	0 %	47 %
GR059	LEVADHIA	21 492	..	..	..	..	..	16 %	22 %	15 %	9 %	11 %
GR065	ERMOUPOLIS	13 400	..	-7 %	3 %	-4 %	-16 %	-15 %	-6 %	3 %	-6 %	3 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
HU006	BUDAPEST	1 775 203	..	..	..	..	..	68 %	12 %	3 %	-2 %	-12 %
HU009	DEBRECEN	296 502	..	..	..	..	..	15 %	23 %	18 %	7 %	-1 %
HU038	MISKOLC	282 832	..	..	..	..	..	37 %	28 %	15 %	-6 %	-6 %
HU043	NYIREGYHAZA	222 027	..	..	..	..	..	22 %	20 %	32 %	5 %	4 %
HU054	SZEGED	214 302	..	..	..	..	..	-10 %	27 %	8 %	3 %	-1 %
HU049	PECS	207 605	..	..	..	..	..	57 %	24 %	12 %	1 %	-4 %
HU018	GYOR	175 139	..	..	..	..	..	56 %	19 %	21 %	4 %	0 %
HU005	BEKESCSABA	169 204	..	..	..	..	..	13 %	13 %	16 %	-1 %	1 %
HU029	KECSKEMET	167 482	..	..	..	..	..	-19 %	18 %	15 %	6 %	5 %
HU055	SZEKESFEHERVAR	165 803	..	..	..	..	..	36 %	40 %	31 %	5 %	-2 %
HU026	KAPOSVAR	124 891	..	..	..	..	..	47 %	25 %	19 %	-1 %	-4 %
HU070	BUDAORS	124 783	..	..	..	..	..	..	39 %	20 %	15 %	23 %
HU059	SZOLNOK	122 153	..	..	..	..	..	25 %	37 %	18 %	4 %	-1 %
HU007	CEGLED	120 665	..	..	..	..	..	0 %	0 %	7 %	-9 %	2 %
HUX18	RACKEVE	118 049	..	..	..	..	..	..	..	..	..	..
HU016	GODOLLO	115 919	..	..	..	..	..	..	31 %	28 %	0 %	10 %
HU060	SZOMBATHELY	114 409	..	..	..	..	..	34 %	21 %	27 %	3 %	-4 %
HU012	DUNAUJVAROS	112 113	..	..	..	..	..	..	68 %	35 %	-3 %	-6 %
HU067	ZALAEGERSZEG	105 749	..	..	..	..	..	97 %	35 %	38 %	11 %	-1 %
HU076	GYAL	97 675	..	..	..	..	..	..	..	..	-4 %	20 %
HU013	EGER	95 381	..	..	..	..	..	33 %	23 %	27 %	1 %	-6 %
HU053	SOPRON	93 851	..	..	..	..	..	26 %	17 %	14 %	0 %	2 %
HU056	SZEKSZARD	90 389	..	..	..	..	..	22 %	36 %	39 %	6 %	-2 %
HU062	TATABANYA	89 850	..	..	..	..	..	25 %	31 %	15 %	-2 %	-2 %
HU024	JASZBERENY	88 585	..	..	..	..	..	10 %	-1 %	6 %	-6 %	-4 %
HU066	VESZPREM	86 260	..	..	..	..	..	58 %	41 %	42 %	12 %	-2 %
HU120	PILISVOROSVAR	85 519	..	..	..	..	..	..	..	..	-6 %	..
HU041	NAGYKANIZSA	83 398	..	..	..	..	..	39 %	11 %	19 %	3 %	-4 %
HU117	NAGYKATA	78 133	..	..	..	..	..	..	-1 %	4 %	-5 %	..
HU002	BAJA	76 955	..	..	..	..	..	9 %	16 %	8 %	0 %	-2 %
HU027	KARCAG	76 816	..	..	..	..	..	0 %	-7 %	4 %	-6 %	-1 %
HU017	GYONGYOS	76 564	..	..	..	..	..	18 %	22 %	16 %	-1 %	-8 %
HU046	OZD	75 786	..	..	..	..	..	58 %	18 %	1 %	-10 %	-8 %
HU064	VAC	75 328	..	..	..	..	..	16 %	24 %	13 %	-2 %	3 %
HU040	MOSONMAGYAROVAR	72 585	..	..	..	..	..	19 %	22 %	21 %	1 %	1 %
HU071	KISVARDA	69 718	..	..	..	..	..	..	-5 %	30 %	3 %	..
HU068	SZENTENDRE	68 971	..	..	..	..	..	..	27 %	30 %	14 %	18 %
HU050	SALGOTARIJAN	68 859	..	..	..	..	..	86 %	16 %	14 %	-4 %	-6 %
HU036	MATESZALKA	67 754	..	..	..	..	..	..	4 %	43 %	7 %	..
HU079	BERETTYOUJFALU	66 138	..	..	..	..	..	18 %	0 %	18 %	2 %	..
HU028	KAZINCBARCIKA	65 292	..	..	..	..	..	..	154 %	26 %	0 %	-9 %
HU127	SZERENCS	64 024	..	..	..	..	..	..	8 %	8 %	2 %	..
HU044	OROSHAZA	63 909	..	..	..	..	..	1 %	5 %	8 %	-5 %	-8 %
HU048	PAPA	63 439	..	..	..	..	..	34 %	5 %	7 %	2 %	-1 %
HU011	DUNAKESZI	61 282	..	..	..	..	..	..	60 %	26 %	4 %	13 %
HU023	HODMEZOVASARHELY	60 681	..	..	..	..	..	-10 %	0 %	2 %	-6 %	-4 %
HU001	AJKA	59 623	..	..	..	..	..	..	38 %	23 %	4 %	-6 %
HU020	HAJDUBOSZORMENY	59 521	..	..	..	..	..	10 %	-8 %	4 %	-4 %	4 %
HU095	KISKOROS	58 993	..	..	..	..	..	..	2 %	11 %	-5 %	..
HU025	KALOCSA	57 703	..	..	..	..	..	..	16 %	16 %	-2 %	..
HU022	HATVAN	56 412	..	..	..	..	..	21 %	9 %	14 %	-2 %	-6 %

HU015	ESZTERGOM	55 592	..	..	..	..	..	19 %	19 %	8 %	-3 %	-1 %
HU039	MOHACS	53 454	..	..	..	..	..	-2 %	5 %	9 %	-5 %	-5 %
HU080	PUSPOKLADANY	52 093	..	..	..	..	..	9 %	-6 %	4 %	0 %	..
HU031	KISKUNFELEGYHAZA	52 070	..	..	..	..	..	-10 %	2 %	4 %	-3 %	-5 %
HU035	MAKO	50 214	..	..	..	..	..	-7 %	-5 %	-1 %	-8 %	-6 %
HU047	PAKS	50 153	..	..	..	..	..	..	-2 %	44 %	4 %	3 %
HU030	KESZTHELY	47 701	..	..	..	..	..	..	22 %	21 %	2 %	1 %
HU052	SIOFOK	47 700	..	..	..	..	..	..	31 %	19 %	12 %	0 %
HU032	KISKUNHALAS	47 450	..	..	..	..	..	-28 %	14 %	16 %	-2 %	0 %
HU069	TISZUJVAROS	46 579	..	..	..	..	..	..	227 %	69 %	0 %	..
HU057	SZENTES	45 862	..	..	..	..	..	3 %	1 %	4 %	-7 %	-4 %
HU051	SATORALJAUJHELY	44 000	..	..	..	..	..	23 %	4 %	8 %	-9 %	..
HU081	SZARVAS	42 197	..	..	..	..	..	-23 %	1 %	6 %	-8 %	..
HU104	TISZAFURED	40 792	..	..	..	..	..	..	-12 %	5 %	0 %	..
HUX07	FEHERGYARMAT	39 488	..	..	..	..	..	..	..	..	..	..
HU086	SARVAR	36 960	..	..	..	..	..	..	10 %	20 %	5 %	..
HU021	HAJDUSZOBOSZLO	33 725	..	..	..	..	..	1 %	16 %	9 %	2 %	-2 %
HU075	BALMAZUJVAROS	30 240	..	..	..	..	..	9 %	-4 %	4 %	1 %	..
HU087	MOR	28 412	..	..	..	..	..	..	4 %	14 %	9 %	..
HU045	OROSZLANY	28 240	..	..	..	..	..	..	43 %	12 %	2 %	-4 %
HU090	SAROSPATAK	27 950	..	..	..	..	..	16 %	-5 %	5 %	-2 %	..
HUX08	FONYOD	27 517	..	..	..	..	..	..	..	..	..	..
HU123	SARKAD	26 127	..	..	..	..	..	..	-4 %	-2 %	-7 %	..
HUX19	RETSAG	25 993	..	..	..	..	..	..	..	..	..	..
HUX03	BALATONALMADI	24 790	..	..	..	..	..	..	41 %	5 %	18 %	..
HU094	BALATONFURED	21 663	..	..	..	..	..	..	50 %	40 %	6 %	..

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
IE006	DUBLIN	1 009 100	..	..	15 %	2 %	8 %	3 %	6 %	-7 %	-9 %	4 %
IE002	CORK	191 500	3 %	16 %	11 %	16 %	7 %	4 %	65 %	6 %	-7 %	-3 %
IE007	LIMERICK	84 000	..	..	20 %	0 %	15 %	0 %	13 %	6 %	-14 %	4 %
IE005	GALWAY	65 774	..	..	43 %	21 %	29 %	3 %	22 %	41 %	34 %	29 %
IE008	WATERFORD	47 300	..	..	18 %	6 %	13 %	-2 %	13 %	20 %	5 %	11 %
IE004	DUNDALK	33 300	..	..	..	3 %	11 %	1 %	10 %	18 %	1 %	6 %
IE036	TRALEE	20 900	..	..	..	5 %	17 %	-3 %	14 %	35 %	4 %	18 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
IT344	ROMA	3 314 237	..	..	..	..	..	..	..	2 %	-2 %	-8 %
IT240	MILANO	2 890 384	..	..	..	..	..	25 %	10 %	-7 %	-15 %	-8 %
IT267	NAPOLI	2 381 483	..	..	..	..	..	20 %	4 %	-1 %	-12 %	-6 %
IT410	TORINO	1 545 202	..	..	..	..	..	43 %	15 %	-4 %	-14 %	-10 %
IT042	BARI	1 123 419	..	..	..	..	..	..	..	4 %	-8 %	-8 %
IT154	FIRENZE	876 697	..	..	..	..	..	16 %	4 %	-2 %	-10 %	-12 %
IT295	PALERMO	818 356	..	..	..	..	..	31 %	9 %	9 %	0 %	-2 %
IT174	GENOVA	795 689	..	..	..	..	..	16 %	5 %	-7 %	-11 %	-10 %
IT054	BOLOGNA	682 724	..	..	..	..	..	36 %	11 %	-6 %	-12 %	-8 %
IT430	VENEZIA	611 236	..	..	..	..	..	26 %	-1 %	-5 %	-11 %	-12 %
IT093	CATANIA	608 249	..	..	..	..	..	22 %	11 %	-5 %	-12 %	-6 %
IT293	PADOVA	505 963	..	..	..	..	..	33 %	..	..	-8 %	-5 %
IT402	TARANTO	491 593	..	..	..	..	..	31 %	19 %	7 %	-5 %	-13 %
IT138	DESIO	482 490	..	..	..	..	..	..	..	..	2 %	2 %
IT434	VERONA	469 996	..	..	..	..	..	24 %	20 %	0 %	-4 %	-1 %
IT063	CAGLIARI	460 774	..	..	..	..	..	34 %	23 %	5 %	-13 %	-20 %
IT048	BERGAMO	456 333	..	..	..	..	..	10 %	..	..	-6 %	-2 %
IT123	COMO	400 262	..	..	..	..	..	31 %	21 %	-4 %	-9 %	-10 %
IT205	LECCE	398 937	..	..	..	..	..	24 %	10 %	11 %	11 %	-17 %
IT058	BRESCIA	381 454	..	..	..	..	..	23 %	..	..	-6 %	-4 %
IT060	BRINDISI	367 399	..	..	..	..	..	43 %	17 %	9 %	6 %	-7 %
IT084	CASERTA	364 473	..	..	..	..	..	100 %	34 %	-1 %	4 %	9 %
IT062	BUSTO ARSIZIO	357 443	..	..	..	..	..	..	23 %	1 %	-3 %	-2 %
IT423	UDINE	357 228	..	..	..	..	..	58 %	..	..	-3 %	-4 %
IT353	SALERNO	294 318	..	..	..	..	..	63 %	..	..	-5 %	-7 %
IT206	LECCO	285 692	..	..	..	..	..	..	11 %	-4 %	-11 %	-1 %
IT421	TRIESTE	261 825	..	..	..	..	..	4 %	-1 %	-7 %	-8 %	-9 %
IT166	FROSINONE	259 382	..	..	..	..	..	..	25 %	14 %	3 %	-1 %
IT395	SIRACUSA	258 332	..	..	..	..	..	..	..	..	7 %	-2 %
IT298	PARMA	257 525	..	..	..	..	..	15 %	..	..	-5 %	-4 %
IT426	VARESE	254 157	..	..	..	..	..	120 %	27 %	7 %	-5 %	-6 %
IT336	REGGIO NELL'EMILIA	254 087	..	..	..	..	..	..	..	0 %	1 %	7 %
IT419	TREVISO	247 413	..	..	..	..	..	71 %	27 %	-8 %	-5 %	-4 %
IT304	PESCARA	246 155	..	..	..	..	..	..	..	..	-7 %	-5 %
IT246	MODENA	243 348	..	..	..	..	..	26 %	..	..	-2 %	-1 %
IT327	PRATO	240 461	..	..	..	..	..	..	..	..	3 %	4 %
IT131	COSENZA	238 162	..	..	..	..	..	58 %	..	..	-19 %	-16 %
IT239	MESSINA	236 183	..	..	..	..	..	20 %	-1 %	5 %	-11 %	9 %
IT035	AVERSA	234 128	..	..	..	..	..	..	..	..	-4 %	-1 %
IT437	VICENZA	233 566	..	..	..	..	..	..	..	..	-6 %	0 %
IT438	VIGEVANO	225 015	..	..	..	..	..	35 %	18 %	-3 %	-7 %	-5 %
IT335	REGGIO DI CALABRIA	221 751	..	..	..	..	..	..	..	..	2 %	2 %
IT320	PORDENONE	221 521	..	..	..	..	..	..	..	..	-4 %	-2 %
IT342	RIMINI	218 112	..	..	..	..	..	..	..	..	0 %	1 %
IT200	LA SPEZIA	215 977	..	..	..	..	..	15 %	..	..	-12 %	-10 %
IT376	SASSARI	204 440	..	..	..	..	..	..	..	..	2 %	-1 %
IT428	VELLETRI	198 010	..	..	..	..	..	48 %	..	..	5 %	14 %
IT301	PAVIA	196 697	..	..	..	..	..	47 %	20 %	-6 %	-9 %	-7 %
IT152	FERRARA	196 416	..	..	..	..	..	13 %	..	..	-8 %	-5 %
IT418	TREVIGLIO	190 725	..	..	..	..	..	..	..	..	-3 %	2 %
IT302	PERUGIA	190 185	..	..	..	..	..	..	..	..	2 %	3 %

IT213	LIVORNO	186 769	..	..	..	..	..	19 %	..	..	-5 %	-7 %
IT170	GALLARATE	185 551	..	..	..	..	..	91 %	24 %	7 %	-5 %	3 %
IT276	NOLA	183 972	..	..	..	..	..	..	..	..	5 %	0 %
IT273	NOCERA INFERIORE	183 796	..	..	..	..	..	..	18 %	-7 %	4 %	-2 %
IT311	PISA	179 331	..	..	..	..	..	..	..	..	-5 %	-9 %
IT010	AGRIGENTO	177 245	..	..	..	..	..	39 %	3 %	4 %	8 %	-1 %
IT155	FOGGIA	175 816	..	..	..	..	..	40 %	..	..	0 %	-1 %
IT334	RAVENNA	172 017	..	..	..	..	..	..	..	4 %	-2 %	-1 %
IT204	LATINA	170 945	..	..	..	..	..	..	..	..	13 %	2 %
IT279	NOVARA	170 134	..	..	..	..	..	50 %	..	..	-1 %	0 %
IT407	TERNI	169 923	..	..	..	..	..	..	..	..	-3 %	-3 %
IT305	PIACENZA	167 085	..	..	..	..	..	62 %	..	..	-6 %	-7 %
IT411	TORRE ANNUNZIATA	166 962	..	..	..	..	..	17 %	7 %	-3 %	-13 %	-9 %
IT019	ANCONA	164 226	..	..	..	..	..	..	..	-3 %	-5 %	-1 %
IT043	BARLETTA	160 615	..	..	..	..	..	10 %	12 %	9 %	7 %	3 %
IT173	GELA	159 012	..	..	..	..	..	33 %	20 %	14 %	-3 %	0 %
IT034	AVELLINO	158 688	..	..	..	..	..	49 %	31 %	4 %	-2 %	-5 %
IT055	BOLZANO	156 674	..	..	..	..	..	30 %	..	..	-7 %	-3 %
IT215	LUCCA	155 604	..	..	..	..	..	..	3 %	0 %	-5 %	-6 %
IT105	CESENA	155 230	..	..	..	..	..	..	8 %	4 %	-1 %	3 %
IT417	TRENTO	154 666	..	..	..	..	..	86 %	26 %	5 %	2 %	3 %
IT066	CALTANISSETTA	154 547	..	..	..	..	..	68 %	-4 %	1 %	0 %	0 %
IT016	ALESSANDRIA	150 915	..	..	..	..	..	..	..	..	-10 %	-6 %
IT087	CASSINO	150 870	..	..	..	..	..	..	..	..	4 %	-1 %
IT135	CUNEO	149 872	..	..	..	..	..	111 %	27 %	-4 %	0 %	-6 %
IT159	FORLI'	149 842	..	..	..	..	..	..	..	..	-1 %	-1 %
IT197	IVREA	149 673	..	..	..	..	..	..	..	..	-11 %	-5 %
IT094	CATANZARO	143 505	..	..	..	..	..	165 %	16 %	17 %	-4 %	-1 %
IT214	LODI	141 592	..	..	..	..	..	64 %	17 %	-3 %	-2 %	-6 %
IT090	CASTELLAMMARE DI STABIA	138 978	..	..	..	..	..	..	7 %	2 %	-3 %	-3 %
IT224	MANTOVA	138 638	..	..	..	..	..	21 %	8 %	-9 %	-13 %	-10 %
IT133	CREMONA	137 255	..	..	..	..	..	35 %	14 %	-4 %	-8 %	-4 %
IT416	TRAPANI	135 907	..	..	..	..	..	20 %	-9 %	3 %	-3 %	-2 %
IT325	POTENZA	135 685	..	..	..	..	..	41 %	34 %	10 %	2 %	5 %
IT025	AREZZO	135 541	..	..	..	..	..	..	18 %	4 %	-1 %	0 %
IT229	MARSALA	135 256	..	..	..	..	..	13 %	-3 %	0 %	1 %	-3 %
IT442	VITERBO	133 303	..	..	..	..	..	59 %	17 %	-2 %	1 %	2 %
IT378	SAVONA	132 717	..	..	..	..	..	21 %	12 %	-6 %	-11 %	-11 %
IT044	BASSANO DEL GRAPPA	130 801	..	..	..	..	..	103 %	19 %	6 %	1 %	4 %
IT255	MONFALCONE	130 015	..	..	..	..	..	18 %	10 %	2 %	-10 %	-3 %
IT193	IGLESIAS	129 103	..	..	..	..	..	..	0 %	8 %	0 %	-4 %
IT032	ASTI	128 736	..	..	..	..	..	109 %	26 %	1 %	-5 %	-3 %
IT050	BIELLA	123 938	..	..	..	..	..	..	15 %	-2 %	-10 %	-5 %
IT312	PISTOIA	120 009	..	..	..	..	..	..	11 %	-2 %	-5 %	-4 %
ITX96	SESTOCALENDE	117 235	..	..	..	..	..	..	..	..	..	..
IT308	PINEROLO	115 547	..	..	..	..	..	..	..	..	-3 %	-6 %
IT024	APRILIA	114 361	..	..	..	..	..	..	..	..	24 %	19 %
IT051	BISCEGLIE	114 247	..	..	..	..	..	11 %	8 %	4 %	2 %	9 %
ITX29	CITTADELLA	113 934	..	..	..	..	..	..	..	..	4 %	..
IT069	CAMPOBASSO	112 843	..	..	..	..	..	20 %	23 %	15 %	5 %	0 %
IT403	TERAMO	111 953	..	..	..	..	..	151 %	14 %	7 %	1 %	-1 %
IT089	CASTELFRANCO VENETO	111 448	..	..	..	..	..	..	..	..	3 %	7 %
IT377	SASSUOLO	110 429	..	..	..	..	..	..	..	..	0 %	-8 %
IT364	SAN GIUSEPPE VESUVIANO	109 884	..	..	..	..	..	..	..	..	11 %	-12 %

IT194	IMOLA	109 624	..	..	..	..	..	..	13 %	5 %	3 %	3 %
IT259	MONTECATINI-TERME	109 477	..	..	..	..	..	..	..	..	-4 %	-3 %
IT303	PESARO	108 878	..	..	..	..	..	128 %	31 %	5 %	-2 %	3 %
IT247	MODICA	107 589	..	..	..	..	..	7 %	-5 %	13 %	6 %	4 %
IT435	VIAREGGIO	107 059	..	..	..	..	..	18 %	16 %	6 %	-1 %	6 %
IT030	ASCOLI PICENO	106 934	..	..	..	..	..	..	11 %	-2 %	-1 %	-4 %
IT356	SAN DONA' DI PIAVE	105 491	..	..	..	..	..	..	..	..	4 %	6 %
IT045	BATTIPAGLIA	105 337	..	..	..	..	..	..	..	..	16 %	7 %
IT124	CONEGLIANO	103 162	..	..	..	..	..	..	..	..	-1 %	-2 %
IT047	BENEVENTO	102 564	..	..	..	..	..	14 %	8 %	4 %	0 %	-1 %
IT109	CHIETI	101 455	..	..	..	..	..	..	10 %	4 %	2 %	-6 %
IT394	SIENA	100 620	..	..	..	..	..	71 %	12 %	-10 %	-8 %	-8 %
IT258	MONTEBELLUNA	100 457	..	..	..	..	..	..	..	..	2 %	7 %
IT319	PONTEDERA	100 280	..	..	..	..	..	..	..	..	-6 %	-1 %
IT354	SAN BENEDETTO DEL TRONTO	99 501	..	..	..	..	..	..	..	..	-5 %	2 %
IT509	CIRIE'	99 048	..	..	..	..	..	..	..	..	-4 %	..
IT134	CROTONE	98 472	..	..	..	..	..	63 %	17 %	15 %	1 %	2 %
IT341	RIETI	97 680	..	..	..	..	..	43 %	14 %	7 %	0 %	-4 %
IT132	CREMA	96 802	..	..	..	..	..	98 %	10 %	5 %	-4 %	-1 %
IT217	LUGO	96 657	..	..	..	..	..	..	..	-5 %	-6 %	-2 %
ITX102	LAMEZIA TERME	96 611	..	..	..	..	..	..	..	..	10 %	1 %
IT696	THIENE	96 293	..	..	..	..	..	..	..	..	5 %	..
IT199	L'AQUILA	95 363	..	..	..	..	..	..	..	-4 %	5 %	3 %
IT036	AVEZZANO	94 631	..	..	..	..	..	..	..	6 %	10 %	-2 %
IT108	CHIERI	94 098	..	..	..	..	..	..	..	..	1 %	3 %
IT141	ENNA	93 963	..	..	..	..	..	7 %	0 %	-2 %	2 %	3 %
IT186	GROSSETO	92 776	..	..	..	..	..	..	22 %	10 %	2 %	0 %
IT368	SAN SEVERO	92 358	..	..	..	..	..	6 %	1 %	11 %	2 %	1 %
IT443	VITTORIA	91 826	..	..	..	..	..	9 %	0 %	14 %	8 %	0 %
IT464	BORGOMANERO	91 656	..	..	..	..	..	..	..	..	-1 %	..
IT140	EMPOLI	90 855	..	..	..	..	..	27 %	26 %	3 %	-4 %	1 %
IT012	ALBA	90 529	..	..	..	..	..	..	..	6 %	-6 %	1 %
IT332	RAGUSA	90 318	..	..	..	..	..	13 %	3 %	10 %	5 %	2 %
IT350	ROVIGO	89 981	..	..	..	..	..	127 %	10 %	4 %	0 %	-4 %
IT427	VASTO	89 259	..	..	..	..	..	..	..	..	9 %	7 %
IT160	FORMIA	88 984	..	..	..	..	..	..	..	..	15 %	2 %
IT668	SANTA CROCE SULL'ARNO	88 314	..	..	..	..	..	..	..	..	..	..
IT076	CARMAGNOLA	86 424	..	..	..	..	..	..	..	..	2 %	0 %
ITX49	LONIGO	86 185	..	..	..	..	..	..	..	..	..	..
IT175	GIARRE	86 130	..	..	..	..	..	..	..	..	0 %	-2 %
IT406	TERMOLI	85 969	..	..	..	..	..	..	..	..	25 %	7 %
IT367	SAN REMO	85 157	..	..	..	..	..	72 %	14 %	-3 %	-8 %	-10 %
IT203	LANCIANO	84 694	..	..	..	..	..	..	..	..	5 %	5 %
IT445	VOGHERA	83 184	..	..	..	..	..	..	..	..	-5 %	-6 %
IT223	MANFREDONIA	82 699	..	..	..	..	..	41 %	22 %	16 %	10 %	-1 %
IT046	BELLUNO	82 578	..	..	..	..	..	211 %	17 %	0 %	-3 %	-2 %
IT077	CARPI	82 196	..	..	..	..	..	..	22 %	10 %	0 %	1 %
IT145	FAENZA	81 780	..	..	..	..	..	..	7 %	1 %	-2 %	-1 %
IT486	CASARANO	80 633	..	..	..	..	..	..	..	..	13 %	1 %
IT508	CHIARI	80 525	..	..	..	..	..	..	..	..	3 %	..
IT324	PORTOGRUARO	80 473	..	..	..	..	..	..	..	..	1 %	-5 %
ITX86	PORTOTOLLE	80 473	..	..	..	..	..	..	..	..	..	..
IT282	NUORO	80 080	..	..	..	..	..	..	..	..	5 %	-3 %
IT349	ROVERETO	79 567	..	..	..	..	..	96 %	18 %	10 %	-1 %	1 %

IT156	FOLIGNO	78 676	..	..	..	..	..	..	7 %	3 %	1 %	-4 %
IT171	GALLIPOLI	78 604	..	..	..	..	..	..	..	..	1 %	2 %
IT408	TERRACINA	78 249	..	..	..	..	..	36 %	13 %	10 %	1 %	-5 %
IT285	ORISTANO	77 149	..	..	..	..	..	..	..	..	5 %	-6 %
IT433	VERCELLI	77 143	..	..	..	..	..	41 %	15 %	-10 %	-6 %	-9 %
IT198	JESI	76 669	..	..	..	..	..	..	..	..	-2 %	-2 %
IT039	BAGHERIA	76 522	..	..	..	..	..	..	..	..	17 %	8 %
IT180	GIULIANOVA	76 433	..	..	..	..	..	..	..	..	2 %	-2 %
ITX04	AVIGLIANA	76 049	..	..	..	..	..	..	..	..	..	..
IT231	MASSA	75 895	..	..	..	..	..	..	..	4 %	2 %	0 %
IT684	SORRENTO	75 503	..	..	..	..	..	..	..	16 %	-2 %	..
IT078	CARRARA	75 332	..	..	..	..	..	..	5 %	2 %	-2 %	-3 %
IT029	ARZIGNANO	75 283	..	..	..	..	..	..	..	..	4 %	9 %
IT079	CASALE MONFERRATO	75 203	..	..	..	..	..	..	15 %	-11 %	-7 %	-10 %
IT219	MACERATA	73 860	..	..	..	..	..	..	14 %	0 %	-2 %	-5 %
IT610	PALAZZOLO SULL'OGLIO	73 443	..	..	..	..	..	..	..	..	-3 %	..
IT107	CHIAVARI	72 331	..	..	..	..	..	..	..	..	-5 %	-5 %
IT117	CIVITAVECCHIA	72 235	..	..	..	..	..	7 %	27 %	2 %	4 %	-2 %
IT182	GORIZIA	71 941	..	..	..	..	..	33 %	7 %	-8 %	-7 %	-8 %
IT218	LUMEZZANE	71 742	..	..	..	..	..	..	..	..	-1 %	-1 %
IT147	FANO	71 459	..	..	..	..	..	40 %	18 %	8 %	3 %	7 %
IT720	VIGNOLA	71 277	..	..	..	..	..	..	..	..	2 %	4 %
IT688	SUZZARA	71 181	..	..	..	..	..	..	..	..	..	..
IT162	FOSSANO	70 652	..	..	..	..	..	..	..	..	0 %	2 %
IT023	AOSTA	69 803	..	..	..	..	..	51 %	28 %	-5 %	-3 %	-6 %
IT310	PIOMBINO	68 324	..	..	..	..	..	..	..	..	-7 %	-8 %
IT237	MERANO	68 274	..	..	..	..	..	36 %	35 %	-18 %	-1 %	0 %
IT281	NOVI LIGURE	68 224	..	..	..	..	..	..	..	..	-3 %	-10 %
IT015	ALCAMO	68 143	..	..	..	..	..	..	..	..	1 %	-1 %
IT436	VIBO VALENTIA	67 034	..	..	..	..	..	..	..	..	11 %	1 %
IT382	SCHIO	66 763	..	..	..	..	..	..	..	..	1 %	3 %
IT288	OSIMO	66 297	..	..	..	..	..	..	..	..	7 %	5 %
IT405	TERMINI IMERESE	65 848	..	..	..	..	..	-3 %	..	..	4 %	-1 %
IT600	ODERZO	65 801	..	..	..	..	..	..	..	..	2 %	..
IT151	FERMO	65 233	..	..	..	..	..	..	..	..	0 %	1 %
IT177	GIOIA DEL COLLE	65 186	..	..	..	..	..	..	..	..	-4 %	0 %
IT233	MATERA	65 023	..	..	..	..	..	37 %	15 %	14 %	8 %	5 %
IT100	CERIGNOLA	64 919	..	..	..	..	..	2 %	-3 %	7 %	8 %	4 %
IT137	DESENZANO DEL GARDA	64 607	..	..	..	..	..	..	..	..	6 %	12 %
IT383	SCIACCA	63 363	..	..	..	..	..	15 %	-2 %	17 %	6 %	5 %
IT398	SORA	63 155	..	..	..	..	..	..	..	..	2 %	-7 %
IT007	ADRANO	62 039	..	..	..	..	..	..	..	7 %	-2 %	5 %
IT651	SAN BONIFACIO	61 130	..	..	..	..	..	..	..	..	..	..
IT176	GINOSA	60 842	..	..	..	..	..	..	..	..	8 %	1 %
IT648	SALO'	60 548	..	..	..	..	..	..	..	..	..	..
IT313	POGGIBONSI	59 965	..	..	..	..	..	..	..	..	0 %	3 %
IT209	LENTINI	59 525	..	..	..	..	..	..	..	..	-11 %	-15 %
IT413	TORTONA	59 268	..	..	..	..	..	..	..	..	-7 %	-8 %
IT424	VALDAGNO	58 864	..	..	..	..	..	..	..	..	-4 %	-5 %
IT230	MARTINA FRANCA	58 822	..	..	..	..	..	..	4 %	10 %	5 %	4 %
IT519	COSSATO	58 791	..	..	..	..	..	..	..	..	..	..
IT139	EBOLI	58 059	..	..	..	..	..	..	..	..	9 %	6 %
IT431	VENTIMIGLIA	57 912	..	..	..	..	..	..	17 %	3 %	-4 %	-3 %
ITX42	ISEO	57 516	..	..	..	..	..	..	..	..	..	..

IT548	GUASTALLA	57 458	..	..	..	..	..	..	..	..	-1 %	..
IT525	DARFO BOARIO TERME	56 117	..	..	..	..	..	..	..	..	..	..
IT444	VITTORIO VENETO	55 794	..	..	..	..	..	92 %	14 %	-3 %	-3 %	0 %
IT397	SONDRIO	55 239	..	..	..	..	..	..	..	..	-3 %	-3 %
IT573	MANERBIO	54 933	..	..	..	..	..	..	..	..	..	..
IT612	PALMI	54 593	..	..	..	..	..	..	..	..	-2 %	..
IT401	SULMONA	54 179	..	..	..	..	..	..	..	13 %	7 %	-1 %
IT526	DOMODOSSOLA	53 878	..	..	..	..	..	..	..	..	-6 %	..
IT566	LUINO	53 387	..	..	..	..	..	..	..	..	-2 %	..
ITX65	MONTICHIARI	53 166	..	..	..	..	..	..	..	..	10 %	..
IT091	CASTELVETRANO	53 163	..	..	..	..	..	7 %	-5 %	4 %	-1 %	-10 %
ITX100	VERBANIA	53 071	..	..	..	..	..	..	..	..	-7 %	-1 %
IT241	MILAZZO	52 817	..	..	..	..	..	..	..	..	3 %	-6 %
IT153	FIDENZA	52 338	..	..	..	..	..	..	..	..	-3 %	1 %
IT041	BARCELLONA POZZO DI GOTTO	51 945	..	..	..	..	..	0 %	6 %	12 %	6 %	3 %
IT195	IMPERIA	51 745	..	..	..	..	..	54 %	19 %	0 %	-2 %	-3 %
IT268	NARDO'	51 687	..	..	..	..	..	..	..	..	11 %	-2 %
IT150	FELTRE	51 542	..	..	..	..	..	8 %	..	..	-6 %	..
IT065	CALTAGIRONE	51 098	..	..	..	..	..	32 %	-15 %	-5 %	3 %	0 %
IT387	SENIGALLIA	50 396	..	..	..	..	..	178 %	7 %	6 %	3 %	0 %
IT283	OLBIA	49 671	..	..	..	..	..	..	..	..	33 %	-1 %
IT196	ISERNIA	46 787	..	..	..	..	..	..	..	..	4 %	0 %
IT017	ALGHERO	45 127	..	..	..	..	..	34 %	19 %	15 %	7 %	1 %
IT144	FABRIANO	43 505	..	..	..	..	..	..	..	..	0 %	5 %
IT639	RIVA DEL GARDA	43 056	..	..	..	..	..	..	..	..	4 %	..
ITX34	COPPARO	41 678	..	..	..	..	..	..	..	..	-8 %	..
IT468	BRESSANONE	41 645	..	..	..	..	..	..	..	-15 %	6 %	..
IT207	LEGNAGO	40 002	..	..	..	..	..	..	..	..	-3 %	-8 %
ITX06	BARGA	36 229	..	..	..	..	..	..	..	..	..	..
IT348	ROSSANO	35 699	..	..	..	..	..	..	..	..	7 %	4 %
ITX70	ORZINUOVI	34 311	..	..	..	..	..	..	..	..	..	..
ITX89	ROSIGNANOMARITTIMO	33 862	..	..	..	..	..	..	..	..	0 %	2 %
IT578	MELFI	33 419	..	..	..	..	..	..	..	..	3 %	..
IT190	GUBBIO	32 349	..	..	..	..	..	..	-9 %	7 %	-4 %	-1 %
IT470	BRUNICO	30 473	..	..	..	..	..	..	..	..	..	..
ITX21	CASTELNUOVODIGARFAGNANA	25 482	..	..	..	..	..	..	..	..	..	..
IT130	CORTONA	23 292	..	..	..	..	..	..	-18 %	4 %	-1 %	-2 %
IT568	MACOMER	22 921	..	..	..	..	..	..	..	..	..	..
IT449	ALASSIO	21 390	..	..	..	..	..	..	..	..	..	..
IT543	GIOIA TAURO	18 700	..	..	..	..	..	..	..	..	..	..

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
LT006	VILNIUS	553 201	..	..	..	..	..	45 %	58 %	32 %	17 %	0 %
LT002	KAUNAS	376 656	..	..	..	..	..	..	42 %	23 %	11 %	-1 %
LT003	KLAIPEDA	192 498	..	..	..	..	..	..	56 %	27 %	14 %	0 %
LT005	SIAULIAI	133 528	..	..	..	..	..	..	56 %	30 %	20 %	1 %
LT004	PANEVEZYS	119 417	..	..	..	..	..	..	78 %	42 %	22 %	6 %
LT001	ALYTUS	71 611	..	..	..	..	..	..	128 %	104 %	27 %	6 %
LT007	MARIJAMPOLE	48 674	..	..	..	..	..	..	46 %	39 %	28 %	2 %
LT035	TELSIAI	32 809	..	..	..	..	..	..	50 %	..	..	5 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
LU001	ESCH-SUR-ALZETTE	134 846	14 %	6 %	0 %	2 %	16 %	4 %	-1 %	-9 %	-4 %	13 %
LU002	LUXEMBOURG	125 055	16 %	14 %	12 %	3 %	6 %	15 %	6 %	4 %	-4 %	1 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
LV004	RIGA	1 195 310	..	..	..	..	..	18 %	26 %	14 %	9 %	-16 %
LV001	DAUGAVPILS	137 225	..	..	..	..	..	..	53 %	15 %	8 %	-8 %
LV003	LIEPAJA	112 190	..	..	..	..	..	..	30 %	16 %	6 %	-22 %
LV002	JELGAVA	93 999	..	..	..	..	..	..	52 %	22 %	10 %	-15 %
LV005	VENTSPILS	52 684	..	..	..	..	..	..	48 %	18 %	6 %	-13 %
LV007	REZEKNE	49 480	..	..	..	..	..	..	44 %	21 %	14 %	-7 %
LV008	VALMIERA	39 198	..	..	..	..	..	..	75 %	26 %	14 %	..
LV009	JEKABPILS	38 807	..	..	..	..	..	..	34 %	20 %	15 %	..

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
MT001	VALLETTA	388 594	..	..	..	..	..	-2 %	-15 %	-10 %	-34 %	-23 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
NL007	AMSTERDAM	1 378 873	..	..	..	..	..	2 %	-5 %	-13 %	-1 %	5 %
NL056	ROTTERDAM	1 173 533	..	..	..	..	..	6 %	-7 %	-15 %	1 %	2 %
NL001	DEN HAAG	859 878	..	..	..	..	..	5 %	-11 %	-15 %	-3 %	0 %
NL066	UTRECHT	535 814	..	..	..	..	..	31 %	8 %	-15 %	-2 %	1 %
NL031	HAARLEM	389 929	..	..	..	..	..	3 %	1 %	-9 %	-5 %	-1 %
NL022	EINDHOVEN	383 090	..	..	..	..	..	..	10 %	3 %	-1 %	5 %
NL030	GRONINGEN	332 562	..	..	..	..	..	..	16 %	-5 %	4 %	3 %
NL043	LEIDEN	327 549	..	..	..	..	..	6 %	3 %	3 %	8 %	5 %
NL009	ARNHEM	321 694	..	..	..	..	..	16 %	5 %	-3 %	2 %	6 %
NL024	ENSCHEDE	304 913	..	..	..	..	..	..	10 %	2 %	1 %	3 %
NL013	BREDA	296 727	..	..	..	..	..	..	9 %	-4 %	7 %	30 %
NL020	DORDRECHT	280 037	..	..	..	..	..	..	..	7 %	2 %	9 %
NL065	TILBURG	279 654	..	..	..	..	..	..	9 %	0 %	4 %	23 %
NL049	NIJMEGEN	268 237	..	..	..	..	..	..	12 %	-2 %	-1 %	5 %
NL033	HEERLEN	267 781	..	..	..	..	..	..	..	-5 %	32 %	1 %
NL006	AMERSFOORT	254 571	..	..	..	..	..	..	..	12 %	15 %	26 %
NL008	APELDOORN	210 027	..	..	..	..	..	..	18 %	11 %	5 %	4 %
NL045	MAASTRICHT	186 138	..	..	..	..	..	14 %	22 %	-2 %	7 %	4 %
NL002	DEN BOSCH	182 052	..	..	..	..	..	..	..	9 %	4 %	42 %
NL084	ZWOLLE	169 285	..	..	..	..	..	..	..	9 %	14 %	12 %
NL026	GELEEN	168 682	..	..	..	..	..	..	..	..	..	..
NLX01	ALMERE	158 976	..	..	..	..	..	..	..	..	..	93 %
NL042	LEEUWARDEN	154 514	..	..	..	..	..	..	..	-5 %	2 %	4 %
NL023	EMMEN	108 388	..	..	..	..	..	..	..	12 %	3 %	16 %
NL021	EDE	103 762	..	..	..	..	..	..	..	12 %	13 %	8 %
NL003	ALKMAAR	92 965	..	..	..	..	..	..	..	43 %	23 %	2 %
NL071	VENLO	91 347	..	..	..	..	..	..	..	-1 %	3 %	2 %
NL018	DEVENTER	85 946	..	..	..	..	..	..	..	-2 %	4 %	26 %
NL036	HILVERSUM	83 210	..	..	..	..	..	..	-4 %	-7 %	-8 %	-2 %
NL055	ROOSENDAAL	77 558	..	..	..	..	..	..	..	19 %	9 %	26 %
NL029	GOUDA	71 654	..	..	..	..	..	..	..	27 %	11 %	9 %
NL005	ALPHEN AAN DEN RIJN	70 573	..	..	..	..	..	..	..	52 %	19 %	12 %
NL070	VELSEN	67 356	..	..	..	..	..	..	..	-10 %	-1 %	11 %
NL039	HOORN	66 455	..	..	..	..	..	..	..	..	42 %	13 %
NL085	LELYSTAD	66 307	..	..	..	..	..	..	..	..	34 %	11 %
NL011	BERGEN OP ZOOM	65 710	..	..	..	..	..	..	..	12 %	6 %	39 %
NL069	VEENENDAAL	60 650	..	..	..	..	..	..	..	33 %	23 %	22 %
NL010	ASSEN	60 273	..	..	..	..	..	..	..	12 %	11 %	17 %
NL017	DEN HELDER	60 047	..	..	..	..	..	..	..	3 %	-2 %	-3 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
NO017	OSLO	1 036 900	..	..	..	..	11 %	10 %	0 %	-5 %	2 %	10 %
NO003	BERGEN	334 902	..	..	..	..	8 %	3 %	0 %	80 %	2 %	8 %
NO025	STAVANGER	258 656	..	..	..	..	14 %	4 %	55 %	10 %	9 %	11 %
NO029	TRONDHEIM	223 889	..	..	..	..	8 %	3 %	115 %	7 %	2 %	8 %
NO005	DRAMMEN	142 646	..	..	..	..	7 %	14 %	59 %	1 %	4 %	6 %
NO006	FREDRIKSTAD	126 798	..	..	..	..	4 %	-5 %	118 %	-6 %	-5 %	155 %
NOX06	SKIEN	120 900	..	..	..	..	..	3 %	192 %	5 %	1 %	4 %
NO012	KRISTIANSAND	116 493	..	..	..	..	10 %	8 %	101 %	8 %	8 %	10 %
NO027	TONSBERG	105 877	..	..	..	..	9 %	2 %	..	..	245 %	10 %
NO009	HAUGESUND	94 216	..	..	..	..	7 %	44 %	1 %	-1 %	2 %	9 %
NO032	HAMAR	83 912	..	..	..	..	3 %	16 %	20 %	-1 %	..	..
NO013	LARVIK	82 905	..	..	..	..	8 %	3 %	-2 %	-22 %	..	..
NO001	ALESUND	75 534	..	..	..	..	7 %	3 %	105 %	-12 %	3 %	8 %
NO030	ARENDAL	71 772	..	..	..	..	6 %	-3 %	5 %	-4 %	..	..
NO007	GJOVIK	67 471	..	..	..	..	0 %	38 %	219 %	4 %	0 %	3 %
NO028	TROMSO	62 551	..	..	..	..	16 %	13 %	209 %	20 %	12 %	15 %
NO015	MOLDE	53 382	..	..	..	..	3 %	..	147 %	5 %	6 %	7 %
NO016	MOSS	50 996	..	..	..	..	9 %	8 %	23 %	4 %	-3 %	8 %
NO041	KONGSVINGER	49 909	..	..	..	..	-2 %	..	..	..	..	..
NO004	BODO	44 892	..	..	..	..	10 %	..	126 %	14 %	13 %	12 %
NOX02	HONEFOSS	41 374	..	..	..	..	..	..	..	..	..	..
NO014	LILLEHAMMER	35 916	..	..	..	..	6 %	-9 %	242 %	7 %	4 %	8 %
NO035	ASKIM	34 974	..	..	..	..	4 %	..	..	..	..	..
NO026	STEINKJER	34 177	..	..	..	..	-3 %	..	..	2 %	1 %	-1 %
NOX04	LEVANGER	33 527	..	..	..	..	2 %	..	..	..	..	..
NOX03	LEIRVIK	32 996	..	..	..	..	..	..	..	..	..	..
NO008	HARSTAD	30 820	..	..	..	..	0 %	..	..	..	4 %	3 %
NO044	MO I RANA	29 941	..	..	..	..	2 %	..	..	-1 %	-5 %	2 %
NO042	KRISTIANSUND	28 803	..	..	..	..	0 %	18 %	8 %	-3 %	..	..
NO038	HALDEN	28 552	..	..	..	..	4 %	..	167 %	0 %	-3 %	3 %
NO037	ELVERUM	26 693	..	..	..	..	2 %	..	..	..	..	..
NO011	KONGSBERG	26 509	..	..	..	..	5 %	24 %	..	..	3 %	5 %
NOX07	SORTLAND	25 494	..	..	..	..	0 %	..	..	..	..	..
NO045	NARVIK	24 119	..	..	..	..	-3 %	19 %	5 %	38 %	..	..
NOX05	NOTODDEN	23 400	..	..	..	..	1 %	..	..	..	..	..
NOX08	ULSTEIN	22 775	..	..	..	..	5 %	..	..	..	..	..

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
PL061	KATOWICE (Upper Silesia Conurbation)	2 592 513	72 %	13 %	17 %	3 %	-7 %	72 %	13 %	17 %	3 %	-7 %
PL183	WARSZAWA	2 394 337	39 %	15 %	22 %	4 %	-3 %	39 %	15 %	22 %	4 %	-3 %
PL086	LODZ	1 170 142	15 %	7 %	10 %	2 %	-6 %	15 %	7 %	10 %	2 %	-6 %
PL074	KRAKOW	1 076 143	40 %	21 %	23 %	5 %	-1 %	40 %	21 %	23 %	5 %	-1 %
PL034	GDANSK-GDYNIA-SOPOT	1 001 884	47 %	27 %	25 %	2 %	-2 %	47 %	27 %	25 %	2 %	-2 %
PL130	POZNAN	828 180	27 %	15 %	18 %	7 %	-3 %	27 %	15 %	18 %	7 %	-3 %
PL189	WROCLAW	728 957	39 %	21 %	18 %	4 %	-1 %	39 %	21 %	18 %	4 %	-1 %
PL093	LUBLIN	566 007	54 %	31 %	29 %	15 %	2 %	54 %	31 %	29 %	15 %	1 %
PL141	RYBNIK	545 423	26 %	..	..	17 %	0 %	26 %	..	..	17 %	0 %
PL167	SZCZECIN	474 035	50 %	25 %	15 %	6 %	1 %	50 %	25 %	15 %	6 %	1 %
PL017	BYDGOSZCZ	471 518	42 %	21 %	24 %	9 %	1 %	42 %	21 %	24 %	9 %	1 %
PL008	BIALYSTOK	426 979	75 %	38 %	35 %	21 %	6 %	75 %	38 %	35 %	21 %	6 %
PL064	KIELCE	406 930	48 %	40 %	47 %	16 %	-1 %	48 %	40 %	47 %	16 %	-2 %
PL138	RADOM	375 707	63 %	22 %	20 %	20 %	2 %	63 %	22 %	20 %	20 %	1 %
PL142	RZESZOW	330 156	125 %	30 %	48 %	26 %	6 %	125 %	30 %	48 %	26 %	6 %
PL010	BIELSKO-BIALA	326 813	53 %	21 %	55 %	11 %	-1 %	53 %	21 %	55 %	11 %	-1 %
PL171	TARNOW	301 801	92 %	20 %	23 %	15 %	0 %	92 %	20 %	23 %	15 %	1 %
PL176	TORUN	289 308	29 %	23 %	35 %	16 %	2 %	29 %	23 %	35 %	16 %	1 %
PL113	OLSZTYN	286 909	55 %	38 %	42 %	22 %	6 %	55 %	38 %	42 %	22 %	7 %
PL107	NOWY SACZ	276 622	..	..	56 %	22 %	8 %	..	..	56 %	22 %	8 %
PL115	OPOLE	268 462	64 %	35 %	35 %	10 %	0 %	64 %	35 %	35 %	10 %	0 %
PL027	CZESTOCHOWA	256 364	47 %	14 %	25 %	10 %	-1 %	47 %	14 %	25 %	10 %	-1 %
PL128	PLOCK	238 283	33 %	63 %	43 %	20 %	7 %	33 %	63 %	43 %	20 %	6 %
PL186	WLOCLAWEK	210 516	21 %	23 %	38 %	14 %	1 %	21 %	23 %	38 %	14 %	1 %
PL201	ZIELONA GORA	205 215	69 %	36 %	38 %	13 %	4 %	69 %	36 %	38 %	13 %	4 %
PL069	KONIN	204 070	..	..	..	19 %	4 %	..	..	..	19 %	4 %
PL058	JELENIA GORA	197 697	46 %	9 %	56 %	7 %	0 %	46 %	9 %	56 %	7 %	0 %
PL150	SLUPSK	197 003	61 %	29 %	26 %	18 %	1 %	61 %	29 %	26 %	18 %	1 %
PL042	GORZOWWIELKOPOLSKI	189 713	79 %	26 %	43 %	17 %	2 %	79 %	26 %	43 %	17 %	2 %
PL032	ELBLAG	188 301	60 %	17 %	23 %	14 %	3 %	60 %	17 %	23 %	14 %	3 %
PL059	KALISZ	186 969	25 %	16 %	22 %	7 %	0 %	25 %	16 %	22 %	7 %	2 %
PL006	BIALA PODLASKA	176 722	..	..	..	34 %	12 %	..	..	..	34 %	11 %
PL073	KOSZALIN	175 888	132 %	46 %	45 %	16 %	3 %	132 %	46 %	45 %	16 %	3 %
PL196	ZAMOSC	175 447	..	..	..	32 %	12 %	..	..	..	32 %	11 %
PL127	PIOTRKOWTRYBUNALSKI	172 810	26 %	13 %	21 %	12 %	0 %	26 %	13 %	21 %	12 %	0 %
PL078	KROSNO	159 026	..	..	..	27 %	-1 %	..	..	..	27 %	-2 %
PL145	SIEDLCE	157 950	..	..	41 %	31 %	6 %	..	..	41 %	31 %	7 %
PL019	CHELM	147 209	..	..	36 %	25 %	7 %	..	..	36 %	25 %	7 %
PL134	PRZEMYSL	141 310	39 %	16 %	15 %	12 %	0 %	39 %	16 %	15 %	12 %	-1 %
PL047	GRUDZIADZ	141 179	44 %	16 %	19 %	14 %	0 %	44 %	16 %	19 %	14 %	0 %
PL117	OSTROLEKA	140 391	..	..	..	34 %	11 %	..	..	..	34 %	10 %
PL181	WALBRZYCH	135 454	25 %	7 %	7 %	6 %	-4 %	25 %	7 %	7 %	6 %	-4 %
PL087	LOMZA	116 386	33 %	..	..	45 %	10 %	33 %	..	..	45 %	10 %
PL085	LESZNO	110 541	..	..	45 %	18 %	8 %	..	..	45 %	18 %	8 %
PL084	LEGNICA	109 908	64 %	18 %	18 %	17 %	4 %	64 %	18 %	18 %	17 %	4 %
PL161	SUWALKI	105 198	..	..	..	51 %	13 %	..	..	..	51 %	13 %
PL149	SKIERNIEWICE	87 536	..	..	..	42 %	6 %	..	..	..	42 %	7 %
PL166	SWINOUJSCIE	43 512	..	..	69 %	-8 %	0 %	..	..	69 %	-8 %	1 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
PT018	LISBOA	2 590 792	..	..	..	8 %	7 %	2 %	-4 %	5 %	-18 %	-16 %
PT022	PORTO	1 231 438	..	..	..	4 %	5 %	8 %	1 %	7 %	-8 %	-13 %
PT007	BRAGA	152 693	..	..	..	..	..	27 %	21 %	27 %	44 %	15 %
PT009	COIMBRA	138 540	..	..	..	..	..	53 %	22 %	32 %	30 %	6 %
PT016	GUIMARAES	126 745	..	..	..	..	..	94 %	8 %	-13 %	152 %	-4 %
PTX14	FEIRA	114 906	..	..	..	..	..	..	..	..	..	..
PT015	FUNCHAL	102 521	..	..	..	..	..	12 %	-7 %	10 %	-10 %	-24 %
PTX01	FAMALICAO	99 853	..	..	..	..	..	..	..	..	..	..
PT061	LEIRIA	82 762	..	..	..	..	..	-9 %	7 %	44 %	12 %	219 %
PT006	AVEIRO	67 003	..	..	..	..	..	-20 %	29 %	39 %	61 %	-15 %
PT021	PONTA DELGADA	65 718	..	..	..	..	..	0 %	-6 %	-1 %	31 %	-27 %
PTX06	BARCELOS	63 880	..	..	..	..	..	..	..	..	..	..
PT027	VISEU	63 187	..	..	..	..	..	34 %	-2 %	21 %	3 %	4 %
PT075	PAREDES	62 652	..	..	..	..	..	..	..	..	473 %	..
PT090	SANTO TIRSO	56 225	..	..	..	..	..	..	..	..	..	..
PTX09	OVAR	55 198	..	..	..	..	..	..	..	..	46 %	..
PT014	FARO	46 643	..	..	..	..	..	-14 %	9 %	35 %	42 %	2 %
PTX04	AGUEDA	46 218	..	..	..	..	..	..	..	..	247 %	15 %
PTX07	LOULE	46 068	..	..	..	..	..	..	..	..	89 %	29 %
PT095	TORRES VEDRAS	45 134	..	..	..	..	..	..	..	..	81 %	14 %
PT013	EVORA	44 806	..	..	..	..	..	-23 %	-1 %	45 %	22 %	6 %
PT082	PORTIMAO	41 220	..	..	..	..	..	-27 %	-15 %	90 %	59 %	..
PTX10	PACOS DE FERREIRA	40 577	..	..	..	..	..	..	..	..	..	..
PTX13	VIANA DO CASTELO	40 357	..	..	..	..	..	2 %	-6 %	13 %	2 %	0 %
PT052	FIGUEIRA DA FOZ	37 539	..	..	..	..	..	-3 %	-1 %	17 %	-2 %	..
PTX02	FELGUEIRAS	35 810	..	..	..	..	..	..	..	..	..	..
PT057	ILHAVO	35 688	..	..	..	..	..	..	..	..	..	..
PTX08	OLIVEIRA DE AZEMÉIS	34 700	..	..	..	..	..	..	..	..	22 %	..
PT101	VILA REAL	34 334	..	..	..	..	..	11 %	-4 %	30 %	80 %	-30 %
PT064	MARINHA GRANDE	34 153	..	..	..	..	..	..	..	..	852 %	7 %
PT020	OLHAO	33 217	..	..	..	..	..	-3 %	-31 %	82 %	41 %	-1 %
PT050	FAFE	32 097	..	..	..	..	..	..	..	..	73 %	..
PT088	SANTAREM	31 996	..	..	..	..	..	-4 %	10 %	9 %	38 %	2 %
PT011	COVILHA	31 296	..	..	..	..	..	8 %	17 %	-19 %	20 %	3 %
PT008	CASTELO BRANCO	31 240	..	..	..	..	..	0 %	29 %	11 %	27 %	16 %
PT040	CALDAS DA RAINHA	29 513	..	..	..	..	..	-10 %	24 %	29 %	39 %	5 %
PT056	GUARDA	25 807	..	..	..	..	..	-22 %	10 %	40 %	34 %	35 %
PTX05	ALBUFEIRA	24 409	..	..	..	..	..	..	..	..	-6 %	263 %
PTX03	PENAFIEL	23 651	..	..	..	..	..	..	..	..	..	..
PT077	PENICHE	23 583	..	..	..	..	..	14 %	10 %	24 %	-1 %	..
PT036	BEJA	23 475	..	..	..	..	..	-7 %	1 %	23 %	12 %	6 %
PTX11	SILVES	23 029	..	..	..	..	..	..	..	-57 %	155 %	..
PTX12	TORRES NOVAS	22 405	..	..	..	..	..	..	..	..	53 %	..
PT043	CHAVES	22 369	..	..	..	..	..	7 %	-19 %	8 %	5 %	..
PT091	SAO JOAO DA MADEIRA	21 102	..	..	..	..	..	..	19 %	16 %	12 %	14 %
PT037	BRAGANCA	20 001	..	..	..	..	..	-8 %	24 %	42 %	13 %	24 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
RO020	BUCURESTI	1 921 751	39 %	20 %	26 %	11 %	-7 %	39 %	20 %	26 %	11 %	-3 %
RO056	IASI	321 580	43 %	47 %	48 %	27 %	-7 %	43 %	47 %	48 %	27 %	1 %
RO033	CLUJ-NAPOCA	318 027	38 %	24 %	40 %	16 %	-3 %	38 %	24 %	40 %	16 %	1 %
RO096	TIMISOARA	317 651	32 %	30 %	49 %	16 %	-5 %	32 %	30 %	49 %	16 %	-2 %
RO036	CONSTANTA	310 526	46 %	50 %	64 %	24 %	-11 %	46 %	50 %	64 %	24 %	-4 %
RO038	CRAIOVA	302 622	50 %	56 %	30 %	34 %	0 %	50 %	56 %	30 %	34 %	2 %
RO049	GALATI	298 584	33 %	67 %	46 %	25 %	-8 %	33 %	67 %	46 %	25 %	0 %
RO019	BRASOV	283 901	56 %	40 %	67 %	6 %	-12 %	56 %	40 %	67 %	6 %	-5 %
RO077	PLOIESTI	232 452	36 %	27 %	30 %	19 %	-8 %	36 %	27 %	30 %	19 %	-2 %
RO018	BRAILA	216 929	67 %	34 %	42 %	9 %	-7 %	67 %	34 %	42 %	9 %	-1 %
RO070	ORADEA	206 527	30 %	28 %	34 %	20 %	-7 %	30 %	28 %	34 %	20 %	-1 %
RO006	BACAU	175 921	..	..	64 %	38 %	-14 %	..	..	64 %	38 %	1 %
RO005	ARAD	172 824	30 %	21 %	30 %	7 %	-9 %	30 %	21 %	30 %	7 %	-4 %
RO076	PITESTI	168 756	57 %	63 %	87 %	29 %	-6 %	57 %	63 %	87 %	29 %	4 %
RO090	SIBIU	155 045	62 %	22 %	34 %	5 %	-9 %	62 %	22 %	34 %	5 %	-1 %
RO100	TIRGU MURES	149 577	..	..	37 %	22 %	-9 %	..	..	37 %	22 %	-1 %
RO007	BAIA MARE	137 976	..	..	53 %	27 %	-8 %	..	..	53 %	27 %	1 %
RO022	BUZAU	133 116	..	..	58 %	31 %	-10 %	..	..	58 %	31 %	-2 %
RO087	SATU MARE	115 630	31 %	30 %	41 %	19 %	-12 %	31 %	30 %	41 %	19 %	-2 %
RO016	BOTOSANI	115 344	..	..	95 %	60 %	-9 %	..	..	95 %	60 %	0 %
RO082	RIMNICU VILCEA	107 656	..	..	125 %	45 %	-5 %	..	..	125 %	45 %	6 %
RO094	SUCEAVA	106 138	129 %	94 %	66 %	54 %	-7 %	129 %	94 %	66 %	54 %	2 %
RO075	PIATRA NEAMT	105 499	77 %	15 %	64 %	40 %	-14 %	77 %	15 %	64 %	40 %	0 %
RO112	DROBETA-TURNU SEVERIN	104 035	12 %	55 %	52 %	39 %	-10 %	12 %	55 %	52 %	39 %	1 %
RO048	FOCSANI	103 219	..	..	65 %	55 %	2 %	..	..	65 %	55 %	-5 %
RO099	TIRGU JIU	96 567	..	..	69 %	35 %	-2 %	..	..	69 %	35 %	-1 %
RO104	TULCEA	92 762	..	..	68 %	39 %	-5 %	..	..	68 %	39 %	-3 %
RO097	TIRGOVISTE	89 429	43 %	23 %	126 %	30 %	-9 %	43 %	23 %	126 %	30 %	0 %
RO080	RESITA	83 985	85 %	48 %	38 %	3 %	-13 %	85 %	48 %	38 %	3 %	-4 %
RO012	BISTRITA	81 467	..	..	99 %	58 %	-7 %	..	..	99 %	58 %	-2 %
RO092	SLATINA	79 171	..	..	141 %	42 %	-7 %	..	..	141 %	42 %	1 %
RO054	HUNEDOARA	71 380	527 %	76 %	..	..	-12 %	527 %	76 %	..	..	-4 %
RO107	VASLUI	70 267	..	..	103 %	75 %	-13 %	..	..	103 %	75 %	-3 %
RO023	CALARASI	70 046	..	..	..	28 %	-9 %	..	..	..	28 %	0 %
RO053	GIURGIU	69 587	..	..	..	33 %	-6 %	..	..	..	33 %	-3 %
RO083	ROMAN	69 483	..	..	..	..	-14 %	..	..	..	..	1 %
RO042	DEVA	69 390	..	..	82 %	11 %	-12 %	..	..	82 %	11 %	-4 %
RO011	BIRLAD	69 183	..	..	..	..	-11 %	..	..	..	..	1 %
RO003	ALBA IULIA	66 369	..	..	85 %	40 %	-7 %	..	..	85 %	40 %	1 %
RO110	ZALAU	63 305	..	..	135 %	70 %	-7 %	..	..	135 %	70 %	2 %
RO089	SFINTU GHEORGHE	61 512	..	..	121 %	24 %	-10 %	..	..	121 %	24 %	-3 %
RO105	TURDA	55 770	55 %	..	..	..	-9 %	55 %	..	..	..	-1 %
RO061	MEDIAS	55 203	65 %	..	..	..	-14 %	65 %	..	..	..	-4 %
RO093	SLOBOZIA	52 677	..	..	147 %	51 %	-6 %	..	..	147 %	51 %	-2 %
RO050	ONESTI	51 681	..	..	..	..	-12 %	..	..	..	..	2 %
RO004	ALEXANDRIA	50 591	..	..	69 %	43 %	-13 %	..	..	69 %	43 %	-2 %
RO074	PETROSENI	45 447	..	..	..	..	-13 %	..	..	..	..	-4 %
RO057	LUGOJ	44 571	..	..	..	..	-13 %	..	..	..	..	-5 %
RO062	MIERCUREA-CIUC	41 852	..	..	119 %	17 %	-9 %	..	..	119 %	17 %	-1 %
RO059	MANGALIA	40 037	..	..	..	..	-9 %	..	..	..	..	1 %
RO029	CIMPINA	38 759	..	..	..	..	-7 %	..	..	..	..	-3 %

RO030	CIMPULUNG	38 285	..	..	..	..	-13 %	..	..	..	..	-3 %
RO068	ODORHEIU SECUIESC	36 926	..	..	..	..	-8 %	..	..	..	..	-3 %
RO132	MIOVENI	35 849	..	..	..	..	6 %	..	..	..	..	8 %
RO085	SACELE	30 044	..	..	..	..	-1 %	..	..	..	..	1 %
RO195	VOLUNTARI	29 995	..	..	..	..	..	..	..	..	..	..
RO034	CODLEA	24 256	..	..	..	..	-1 %	..	..	..	..	2 %
RO010	BALS	21 194	..	..	..	..	-14 %	..	..	..	..	-9 %
RO013	BLAJ	20 758	..	..	..	..	-7 %	..	..	..	..	-5 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
SE036	STOCKHOLM	1 890 253	..	..	..	..	11 %	8 %	-8 %	-13 %	4 %	11 %
SE008	GOETEBORG	903 490	..	..	..	..	8 %	14 %	10 %	-8 %	0 %	8 %
SE026	MALMOE	667 281	..	..	..	..	8 %	18 %	13 %	-12 %	0 %	11 %
SE011	HELSINGBORG	293 615	..	..	..	..	4 %	5 %	11 %	1 %	7 %	8 %
SE044	UPPSALA	281 449	..	..	..	..	9 %	12 %	25 %	12 %	15 %	13 %
SE023	LINKOEPING	241 265	..	..	..	..	4 %	12 %	12 %	8 %	9 %	9 %
SE030	OEREBRO	211 403	..	..	..	..	4 %	8 %	15 %	-1 %	3 %	9 %
SE054	VAESTERAAS	173 280	..	..	..	..	2 %	25 %	27 %	1 %	2 %	5 %
SE019	KRISTIANSTAD	172 234	..	..	..	..	0 %	-3 %	5 %	5 %	4 %	3 %
SE028	NORRKOEPING	165 949	..	..	..	..	0 %	3 %	7 %	-2 %	1 %	1 %
SE004	BORAAS	159 144	..	..	..	..	1 %	11 %	10 %	-7 %	7 %	-5 %
SE024	LULEAA	149 641	..	..	..	..	1 %	21 %	21 %	13 %	2 %	5 %
SE007	FALUN	149 053	..	..	..	..	0 %	7 %	4 %	8 %	6 %	1 %
SE033	SKOEVDE	146 967	..	..	..	..	-2 %	12 %	17 %	5 %	3 %	4 %
SE012	JOENKOEPING	146 482	..	..	..	..	4 %	9 %	12 %	0 %	4 %	5 %
SE049	GAEVLE	142 927	..	..	..	..	-1 %	11 %	7 %	3 %	1 %	2 %
SE042	UMEAA	136 783	..	..	..	..	9 %	18 %	28 %	17 %	13 %	15 %
SE016	KARLSTAD	127 537	..	..	..	..	3 %	14 %	16 %	2 %	3 %	5 %
SE055	VAEXJOE	124 360	..	..	..	..	1 %	6 %	27 %	10 %	8 %	6 %
SE013	KALMAR	111 291	..	..	..	..	1 %	6 %	11 %	0 %	6 %	6 %
SE037	SUNDSVALL	111 114	..	..	..	..	-1 %	9 %	9 %	4 %	-1 %	-1 %
SE010	HALMSTAD	107 947	..	..	..	..	5 %	7 %	14 %	7 %	5 %	6 %
SE040	TROLLHAETTAN	105 306	..	..	..	..	1 %	23 %	21 %	2 %	3 %	4 %
SE006	ESKILSTUNA	104 973	..	..	..	..	-2 %	7 %	16 %	-4 %	-1 %	-2 %
SE052	OESTERSUND	94 468	..	..	..	..	-3 %	8 %	6 %	12 %	4 %	0 %
SE015	KARLSKRONA	89 198	..	..	..	..	1 %	-4 %	-3 %	1 %	-2 %	3 %
SE041	UDDEVALLA	78 628	..	..	..	..	1 %	30 %	6 %	-4 %	3 %	3 %
SE032	SKELLEFTEAA	77 165	..	..	..	..	-4 %	0 %	-3 %	4 %	1 %	-4 %
SE029	NYKOEPING	59 929	..	..	..	..	0 %	7 %	10 %	1 %	39 %	-26 %
SE047	VISBY	57 313	..	..	..	..	..	..	..	4 %	6 %	..
SE085	OERNSKOELDSVIK	55 702	..	..	..	..	-6 %	2 %	-2 %	0 %	-2 %	-6 %
SE046	VARBERG	52 648	..	..	..	..	7 %	2 %	15 %	13 %	11 %	7 %
SE022	LIDKOEPING	49 818	..	..	..	..	1 %	1 %	7 %	0 %	2 %	3 %
SE099	HUDIKSVALL	47 736	..	..	..	..	-4 %	1 %	1 %	3 %	2 %	-2 %
SE068	KOEPING	46 781	..	..	..	..	-6 %	14 %	15 %	-8 %	-3 %	-6 %
SE014	KARLSKOGA	46 562	..	..	..	..	-8 %	13 %	11 %	-7 %	-8 %	-8 %
SE081	OSKARSHAMN	45 956	..	..	..	..	-4 %	6 %	6 %	9 %	-3 %	-3 %
SE090	FALKENBERG	38 817	..	..	..	..	3 %	1 %	5 %	9 %	8 %	3 %
SE080	VAESTERVIK	37 433	..	..	..	..	-6 %	1 %	-1 %	-3 %	-3 %	-6 %
SE051	MARIESTAD	33 442	..	..	..	..	-5 %	7 %	21 %	-2 %	1 %	-4 %
SE073	VAERNAMO	32 256	..	..	..	..	3 %	10 %	14 %	3 %	3 %	3 %
SE083	KARLSHAMN	30 741	..	..	..	..	-3 %	1 %	15 %	0 %	-1 %	-3 %
SE075	TRANAAS	28 499	..	..	..	..	-3 %	7 %	10 %	-4 %	-3 %	-1 %
SE079	LJUNGBY	27 078	..	..	..	..	-1 %	2 %	10 %	5 %	0 %	-1 %
SE050	HAERNOESAND	25 493	..	..	..	..	-7 %	3 %	-5 %	3 %	-1 %	-7 %
SE018	KIRUNA	24 314	..	..	..	..	-7 %	39 %	9 %	-3 %	-12 %	-7 %
SE070	FAGERSTA	23 175	..	..	..	..	-10 %	16 %	4 %	-11 %	-9 %	-10 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
SI009	LJUBLJANA	522 079	..	..	..	..	..	..	30 %	29 %	19 %	-4 %
SI010	MARIBOR	218 810	..	..	..	..	..	24 %	18 %	9 %	2 %	-15 %
SI002	CELJE	169 327	..	..	..	..	..	..	87 %	7 %	25 %	-9 %
SI023	KOPER	77 287	..	..	..	..	..	..	..	41 %	7 %	-8 %
SI024	NOVA GORICA	61 227	..	..	..	..	..	..	..	..	..	..
SI012	NOVO MESTO	46 679	..	..	..	..	..	..	..	..	16 %	-2 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
SK004	BRATISLAVA	599 015	..	..	..	..	2 %	31 %	20 %	31 %	16 %	-3 %
SK012	KOSICE	343 092	..	..	..	..	3 %	31 %	83 %	39 %	16 %	1 %
SK002	BANSKA BYSTRICA	249 030	..	..	..	..	..	81 %	77 %	66 %	28 %	-2 %
SK018	NITRA	218 906	..	..	..	..	3 %	67 %	28 %	74 %	17 %	-3 %
SK034	TRENCIN	202 942	..	..	..	..	13 %	65 %	..	..	18 %	2 %
SK023	POPRAD	189 384	..	..	..	..	..	..	..	..	39 %	6 %
SK025	PRESOV	161 782	..	..	..	..	..	73 %	17 %	74 %	23 %	6 %
SK017	MICHALOVCE	161 218	..	..	..	..	..	..	..	..	40 %	3 %
SK038	ZILINA	156 361	..	..	..	..	..	80 %	29 %	98 %	1 %	2 %
SK019	NOVE ZAMKY	148 147	..	..	..	..	..	11 %	..	..	25 %	-1 %
SK014	LIPTOVSKY MIKULAS	133 565	..	..	..	..	..	..	..	..	29 %	4 %
SK035	TRNAVA	127 125	..	..	..	..	..	18 %	22 %	66 %	12 %	-2 %
SK026	PRIEVIDZA	107 871	..	..	..	..	1 %	..	..	..	31 %	-1 %
SK016	MARTIN	97 813	..	..	..	..	..	12 %	..	..	4 %	3 %
SK015	LUCENEC	90 120	..	..	..	..	..	17 %	..	..	9 %	-2 %
SK024	POVAZSKA BYSTRICA	77 953	..	..	..	..	..	..	..	..	31 %	8 %
SK001	BANOVCE NAD BEBRAVOU	67 726	..	..	..	..	..	..	..	..	30 %	5 %
SK013	LEVICE	53 394	..	..	..	..	..	5 %	..	..	30 %	7 %
SK032	TOPOLCANY	46 892	..	..	..	..	..	..	..	..	4 %	-11 %
SK037	ZIAR NAD HRONOM	45 529	..	..	..	..	..	..	..	..	13 %	-7 %
SK003	BARDEJOV	40 245	..	..	..	..	..	..	..	..	30 %	8 %
SK033	TREBISOV	32 846	..	..	..	..	..	..	..	..	39 %	7 %
SKXXX	TVRDOSIN	32 812	..	..	..	..	..	..	..	..	25 %	..
SK055	SKALICA	28 390	..	..	..	..	..	..	..	..	6 %	2 %
SK057	SVIDNIK	27 765	..	..	..	..	..	..	..	..	53 %	8 %
SK030	SENICA	27 068	..	..	..	..	..	..	..	..	29 %	6 %
SK053	STUROVO	21 678	..	..	..	..	..	..	..	..	4 %	-12 %

			FUA population					Core city				
CITY CODE	CITY NAME	FUA population	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00	50s to 60s	60s to 70s	70s to 80s	80s to 90s	90s to 00
UK132	LONDON	7 651 634	..	..	..	..	..	-2 %	-7 %	-10 %	0 %	7 %
UK133	GREATER MANCHESTER	2 277 330	..	..	..	..	..	-6 %	-18 %	-17 %	-10 %	..
UK122	GLASGOW	1 323 100	..	..	..	..	..	-3 %	-15 %	-16 %	-12 %	-5 %
UKX01	BIRMINGHAM	965 928	..	..	..	..	..	0 %	-9 %	-9 %	5 %	..
UK274	TYNESIDE-NEWCASTLE-GATESHEAD	885 981	..	..	..	..	..	-8 %	-18 %	-10 %	-5 %	37 %
UK031	BELFAST	675 000	..	..	..	..	..	-6 %	-13 %	-13 %	-11 %	..
UK238	SHEFFIELD	552 987	..	..	..	..	..	-4 %	5 %	-8 %	-10 %	19 %
UK110	EDINBURGH	533 390	..	..	..	..	..	-1 %	-3 %	-7 %	-4 %	7 %
UK178	LIVERPOOL	481 786	..	..	..	..	..	..	..	..	-12 %	..
UKX14	WOLVERHAMPTON	432 682	..	..	..	..	..	..	3 %	-1 %	-3 %	-8 %
UKX07	LEEDS	424 194	..	..	..	..	..	1 %	-3 %	-10 %	-5 %	69 %
UK052	BRISTOL	407 992	..	..	..	..	..	-1 %	-3 %	-9 %	5 %	-7 %
UK173	LEICESTER	318 518	..	..	..	..	..	8 %	-7 %	16 %	-3 %	-12 %
UKX06	HULL	310 636	..	..	..	..	..	2 %	-6 %	14 %	-5 %	-22 %
UK087	COVENTRY/BEDWORTH	299 316	..	..	..	..	..	23 %	6 %	-6 %	-5 %	..
UK045	BRACKNELL	289 376	..	..	..	..	..	..	66 %	43 %	25 %	80 %
UKX03	BRADFORD	289 376	..	..	..	..	..	1 %	-1 %	0 %	-1 %	62 %
UK066	CARDIFF	272 129	..	..	..	..	..	5 %	9 %	-7 %	4 %	..
UK208	NOTTINGHAM	270 222	..	..	..	..	..	2 %	-4 %	-10 %	0 %	-1 %
UKX12	STOKE	266 543	..	..	..	..	..	1 %	-4 %	4 %	-3 %	-10 %
UK216	PLYMOUTH	245 295	..	..	..	..	..	11 %	4 %	2 %	1 %	-2 %
UKX09	MIDDLESBROUGH	231 006	..	..	..	..	..	12 %	-5 %	1 %	-8 %	-9 %
UK097	DERBY	223 836	..	..	..	..	..	51 %	3 %	-2 %	4 %	-1 %
UK184	LUTON/DUNSTABLE	221 337	..	..	..	..	..	27 %	15 %	2 %	5 %	7 %
UK051	BRIGHTON/WORTHING/LITTLEHAMPTON	220 583	..	..	..	..	..	4 %	-1 %	-14 %	-10 %	98 %
UK224	READING/WOKINGHAM	213 474	..	..	..	..	..	..	..	..	8 %	-33 %
UK002	ABERDEEN	211 910	..	..	..	..	..	-1 %	-2 %	5 %	0 %	-3 %
UK242	SOUTHAMPTON/EASTLEIGH	210 138	..	..	..	..	..	15 %	5 %	..	..	3 %
UKX04	DUDLEY	192 171	..	..	..	..	..	..	15 %	1 %	3 %	59 %
UK287	WIGAN	192 112	..	..	..	..	..	-7 %	3 %	-2 %	8 %	251 %
UK256	SUNDERLAND/WHITBURN	183 310	..	..	..	..	..	4 %	14 %	-10 %	-7 %	53 %
UK204	NORTHAMPTON	179 596	..	..	..	..	..	13 %	7 %	..	..	..
UK223	PRESTON	177 660	..	..	..	..	..	..	-5 %	15 %	5 %	..
UK221	PORTSMOUTH	174 690	..	..	..	..	..	-8 %	-8 %	-9 %	-3 %	7 %
UK207	NORWICH	171 304	..	..	..	..	..	..	..	..	-1 %	-29 %
UK259	SWANSEA	171 038	..	..	..	..	..	4 %	4 %	-3 %	2 %	..
UK243	SOUTHEND	158 517	..	..	..	..	..	9 %	-1 %	-4 %	1 %	1 %
UK193	MILTON KEYNES	156 148	..	..	..	..	..	..	..	..	-67 %	559 %
UK044	BOURNEMOUTH	155 488	..	..	..	..	..	7 %	0 %	-6 %	7 %	5 %
UK170	KIRCALDY	148 500	..	..	..	..	..	7 %	-4 %	-8 %	2 %	-1 %
UK039	BLACKPOOL	146 262	..	..	..	..	..	4 %	-1 %	-3 %	-1 %	-3 %
UK103	DUNDEE	145 460	..	..	..	..	..	1 %	0 %	-5 %	-9 %	-3 %
UK114	FALKIRK	145 270	..	..	..	..	..	1 %	-1 %	-3 %	-2 %	-9 %
UK260	SWINDON	145 236	..	..	..	..	..	33 %	-1 %	..	..	24 %
UKX05	HUDDERSFIELD	143 726	..	..	..	..	..	1 %	0 %	13 %	-3 %	170 %
UKX02	BOLTON	139 020	..	..	..	..	..	-4 %	-4 %	-5 %	-5 %	88 %
UKX10	POOLE	138 479	..	..	..	..	..	11 %	16 %	17 %	11 %	0 %
UK214	PETERBOROUGH	134 788	..	..	..	..	..	17 %	12 %	65 %	17 %	16 %
UK159	IPSWICH	130 157	..	..	..	..	..	..	..	..	-1 %	..
UK125	GLOUCESTER	126 149	..	..	..	..	..	23 %	9 %	18 %	7 %	..
UK301	YORK	124 609	..	..	..	..	..	..	..	..	-1 %	45 %

UK319	TELFORD	119 340	..	..	..	..	..	139 %	29 %	89 %	-27 %	233 %
UK211	OXFORD	118 795	..	..	..	..	..	8 %	2 %	10 %	-1 %	..
UK136	GUILDFORD	117 354	..	..	..	..	..	14 %	6 %	-1 %	16 %	..
UK267	THANET	116 745	..	..	..	..	..	8 %	10 %	6 %	6 %	105 %
UK523	NEWPORT	115 522	..	..	..	..	..	-5 %	15 %	6 %	-13 %	..
UKX08	LISBURN	111 300	..	..	..	..	..	20 %	55 %	47 %	4 %	..
UK241	SLOUGH	110 708	..	..	..	..	..	41 %	6 %	7 %	4 %	8 %
UK318	LONDONDERRY	106 600	..	..	..	..	..	7 %	-3 %	20 %	15 %	..
UK038	BLACKBURN/DARWEN	105 994	..	..	..	..	..	-5 %	-4 %	..	..	30 %
UK020	AYR	100 000	..	..	..	..	..	7 %	6 %	1 %	-1 %	-3 %
UK081	COLCHESTER	96 063	..	..	..	..	..	13 %	18 %	7 %	17 %	..
UK062	CAMBRIDGE	95 682	..	..	..	..	..	17 %	3 %	-8 %	6 %	..
UK063	CANNOCK/GREAT WYRLEY	95 682	..	..	..	..	..	14 %	20 %	6 %	1 %	..
UK108	EASTBOURNE	94 793	..	..	..	..	..	5 %	16 %	..	..	..
UK112	EXETER	94 717	..	..	..	..	..	17 %	8 %	..	..	..
UKX11	ROCHDALE	94 313	..	..	..	..	..	-2 %	7 %	1 %	2 %	118 %
UK070	CHELTENHAM/CHARLTON KINGS	91 301	..	..	..	..	..	15 %	3 %	-2 %	25 %	..
UK189	MAIDSTONE	90 878	..	..	..	..	..	11 %	19 %	2 %	26 %	..
UK089	CRAWLEY	88 203	..	..	..	..	..	402 %	26 %	8 %	21 %	..
UK142	HARTLEPOOL	87 310	..	..	..	..	..	31 %	2 %	..	..	2 %
UK093	DARLINGTON	86 767	..	..	..	..	..	0 %	2 %	-1 %	2 %	13 %
UK028	BATH	85 202	..	..	..	..	..	6 %	1 %	-6 %	7 %	..
UK134	GREENOCK	84 150	..	..	..	..	..	-5 %	-7 %	-16 %	-14 %	-9 %
UK275	WARRINGTON	82 812	..	..	..	..	..	-6 %	-10 %	-16 %	44 %	131 %
UK296	WORCESTER	82 661	..	..	..	..	..	11 %	11 %	2 %	11 %	..
UK143	HASTINGS/BEXHILL	81 139	..	..	..	..	..	1 %	9 %	3 %	8 %	..
UK167	KILMARNOCK	80 900	..	..	..	..	..	13 %	3 %	6 %	-14 %	-2 %
UK177	LINCOLN	80 281	..	..	..	..	..	12 %	-4 %	3 %	5 %	..
UK071	CHESTER	80 110	..	..	..	..	..	23 %	6 %	-7 %	37 %	..
UK573	LURGAN	79 700	..	..	..	..	..	..	35 %	-13 %	4 %	..
UK276	WARWICK/LEAMINGTON	77 872	..	..	..	..	..	5 %	14 %	20 %	2 %	..
UK027	BASINGSTOKE	77 837	..	..	..	..	..	53 %	102 %	28 %	15 %	..
UK252	STEVENAGE	76 064	..	..	..	..	..	500 %	56 %	11 %	2 %	..
UK235	SCUNTHORPE	75 982	..	..	..	..	..	24 %	5 %	..	..	..
UK022	BARNSLEY	75 120	..	..	..	..	..	-1 %	1 %	-2 %	2 %	190 %
UK055	BURNLEY/NELSON	74 661	..	..	..	..	..	-5 %	-5 %	-9 %	7 %	..
UK139	HARLOW	74 629	..	..	..	..	..	822 %	45 %	2 %	-6 %	..
UK317	WAKEFIELD	73 955	..	..	..	..	..	1 %	-3 %	2 %	22 %	326 %
UK030	BEDFORD/KEMPSTON	73 917	..	..	..	..	..	20 %	15 %	1 %	0 %	..
UK067	CARLISLE	72 439	..	..	..	..	..	5 %	1 %	0 %	1 %	..
UK190	MANSFIELD	71 858	..	..	..	..	..	4 %	8 %	2 %	22 %	..
UK098	DONCASTER	71 595	..	..	..	..	..	5 %	-4 %	-1 %	-12 %	301 %
UK281	WESTON-SUPER-MARE	69 372	..	..	..	..	..	9 %	16 %	14 %	20 %	..
UK141	HARROGATE	66 178	..	..	..	..	..	12 %	11 %	6 %	0 %	..
UK239	SHREWSBURY	64 219	..	..	..	..	..	12 %	11 %	6 %	7 %	..
UK513	BANGOR	63 800	..	..	..	..	..	16 %	48 %	32 %	13 %	..
UK090	CREWE	63 351	..	..	..	..	..	1 %	-3 %	-7 %	33 %	..
UK158	INVERNESS	63 100	..	..	..	..	..	6 %	17 %	15 %	3 %	-1 %
UK183	LOWESTOFT	62 907	..	..	..	..	..	7 %	14 %	6 %	14 %	..
UK058	BURY ST. EDMUNDS	62 633	..	..	..	..	..	6 %	21 %	13 %	8 %	..
UK249	STAFFORD	61 885	..	..	..	..	..	19 %	15 %	1 %	12 %	..
UK230	RUGBY	61 106	..	..	..	..	..	14 %	15 %	0 %	3 %	..
UK253	STIRLING	61 000	..	..	..	..	..	2 %	8 %	23 %	-17 %	7 %
UK057	BURTON UPON TRENT	60 525	..	..	..	..	..	3 %	-1 %	-5 %	26 %	..

UKX13	TORQUAY	59 587	..	..	..	..	..	1 %	..	..	4 %	118 %
UK018	AYLESBURY	58 058	..	..	..	..	..	33 %	45 %	19 %	21 %	..
UK131	GREAT YARMOUTH	56 190	..	..	..	..	..	4 %	-5 %	-4 %	16 %	..
UK161	IRVINE	55 900	..	..	..	..	..	15 %	36 %	41 %	1 %	0 %
UK262	TAUNTON	55 855	..	..	..	..	..	5 %	6 %	-6 %	58 %	..
UK104	DUNFERMLINE	55 083	..	..	..	..	..	5 %	10 %	1 %	6 %	-29 %
UK166	KIDDERMINSTER	54 644	..	..	..	..	..	11 %	14 %	8 %	7 %	..
UK015	ASHFORD	52 002	..	..	..	..	..	13 %	27 %	12 %	30 %	..
UK077	CLACTON-ON-SEA/LITTLE CLACTON/WEELEY	49 437	..	..	..	..	..	15 %	38 %	14 %	3 %	..
UK182	LOUGHBOROUGH	46 867	..	..	..	..	..	11 %	19 %	4 %	-2 %	..
UK003	ABERGELE/RHYL/PRESTATYN	46 696	..	..	..	..	..	..	54 %	2 %	-41 %	..
UK180	LLANELLI	44 953	..	..	..	..	..	-13 %	-12 %	72 %	-1 %	..
UK277	WELLINGBOROUGH	41 602	..	..	..	..	..	8 %	23 %	17 %	-5 %	..
UK213	PERTH	41 453	..	..	..	..	..	2 %	5 %	-3 %	-1 %	5 %
UK169	KING'S LYNN	41 281	..	..	..	..	..	5 %	9 %	11 %	24 %	..
UK021	BANBURY	39 906	..	..	..	..	..	11 %	40 %	22 %	11 %	..
UK064	CANTERBURY/BLEAN	39 734	..	..	..	..	..	9 %	9 %	4 %	6 %	..
UK219	PONTYPRIDD	39 658	..	..	..	..	..	-8 %	-2 %	-14 %	-4 %	..
UK099	DOVER	39 312	..	..	..	..	..	1 %	-3 %	-5 %	4 %	..
UK233	SALISBURY	39 268	..	..	..	..	..	8 %	-1 %	0 %	11 %	..
UK255	STROUD	38 835	..	..	..	..	..	9 %	10 %	9 %	86 %	..
UK300	YEOVIL	38 805	..	..	..	..	..	5 %	4 %	7 %	42 %	..
UK128	GRANTHAM/GREAT GONERBY	37 002	..	..	..	..	..	7 %	12 %	8 %	11 %	..
UK013	ANDOVER	34 647	..	..	..	..	..	13 %	52 %	20 %	12 %	..
UK049	BRIDGWATER	34 610	..	..	..	..	..	15 %	4 %	-2 %	32 %	..
UK043	BOSTON	34 606	..	..	..	..	..	2 %	4 %	2 %	31 %	..
UK050	BRIDLINGTON	31 334	..	..	..	..	..	5 %	3 %	10 %	7 %	..
UK082	COLWYN BAY	29 883	..	..	..	..	..	4 %	9 %	9 %	8 %	..
UK273	TROWBRIDGE	29 334	..	..	..	..	..	..	22 %	19 %	28 %	..
UK023	BARNSTAPLE	27 691	..	..	..	..	..	-2 %	9 %	10 %	46 %	..
UK115	FALMOUTH/PENRYN	27 324	..	..	..	..	..	3 %	2 %	3 %	10 %	..
UK283	WHITEHAVEN	26 542	..	..	..	..	..	12 %	-3 %	0 %	-1 %	..
UK297	WORKINGTON	25 579	..	..	..	..	..	2 %	-4 %	-3 %	-7 %	..
UK164	KENDAL	25 461	..	..	..	..	..	0 %	16 %	8 %	9 %	..
UK191	MELTON MOWBRAY	24 348	..	..	..	..	..	..	25 %	18 %	3 %	..
UK202	NEWTON ABBOT	23 801	..	..	..	..	..	10 %	7 %	8 %	14 %	..
UK245	SPALDING/PINCHBECK	22 386	..	..	..	..	..	..	14 %	8 %	3 %	..
UK247	ST. AUSTELL	21 622	..	..	..	..	..	16 %	18 %	14 %	-41 %	..
UK116	FELIXSTOWE	20 900	..	..	..	..	..	15 %	9 %	10 %	37 %	..
UK429	BERWICK UPON TWEED	20 493	..	..	..	..	..	-3 %	-4 %	..	..	..
UK338	THETFORD	20 058	..	..	..	..	..	..	154 %	43 %	2 %	..

Accurate dates to which date data is referring to in each decade

(© = census)

Years:

AT - Austria

© 1 VI 51 © 21 III 61 © 12 V 71 © 12 V 81 © 15 V 91 ©15 V 2001

BE - Belgium

© 31 XII 47 © 31 XII 61 © 31 XII 70 © 1 III 81 © 1 III 91 1 I 2001

BU - Bulgaria

1 VII 50 1959 1 VII 70 31 XII 78 31 XII 89 31 XII 99

CH - Switzerland

© 1 XII 50 © 1 XII 60 © 1 XII 70 © 2 XII 80 © 4 XII 90 ©5 XII 2000

CY - Cyprus

1951 © 11 XII 60 31 XII 70 ©K 1 X 82 ©K 1 X 92 © 1 X 2001

CZ - Czech Republic

1948 © 1 III 61 © 1 XII 70 © 1 XI 80 © 3 III 91 © 1 III 2001

DE - Germany

©D31 VIII 50 1960 ©B 27 V 70 31 XII 80 31 XII 90 31 XII 2000

DK - Denmark

© 7 XI 50 © 26 IX 60 1968 1 I 80 © 1 I 91 1 I 2000

EE - Estonia

1946 © 15 I 59 © 15 I 70 © 17 I 79 © 12 I 89 1 I 99

ES - Spain

© 31 XII 50 © 31 XII 60 © 31 XII 70 © 1 III 81 © 1 III 91 1 I 2000

FI - Finland

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1947 © 15 I 59 © 15 I 70 1980 © 12 I 89 1 I 99

LU - Luxembourg

1949 © 31 XII 60 © 31 XII 70 © 31 III 81 © 1 III 91 ©15 II 2001

LV - Latvia

1 VII 50 © 15 I 59 © 15 I 70 © 17 I 79 © 12 I 89 ©31 III 2000

MT - Malta

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NL - Netherlands

1952 1962 © 28 II 71 1981 © 1 I 91 1 I 2001

NO - Norway

© 1 XII 50 © 1 XI 60 © 1 XI 70 © 1 XI 80 © 3 XI 90 1 I 2000

PL - Poland

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RO - Romania

© 25 I 48 1 VII 61 1 VII 70 1 VII 80 © 7 I 92 1 VII 2001

SE - Sweden

© 31 XII 50 31 XII 60 © 1 XI 70 31 XII 80 31 XII 90 31 XII 2000

SI - Slovenia

© 15 III 48 © 31 III 61 © 31 III 71 © 31 III 81 © 31 III 91 © 31 III 2002

SK - Slovakia

1948 © 1 III 61 © 1 XII 70 © 1 XI 80 © 3 III 91 ©26 V 2001

UK - United Kingdom

© 8 IV 51 pr © 23 IV 61 pr ©25 IV 71pr © 5 IV 81pr ©21 IV 91 r © 29 IV 2001

Annex 7. NUTS delimitation in MEGA analysis

CITY NAME	NUTS3	NUTS 2 (level)
WIEN	AT13, AT126, AT127	AT13
BRUXELLES/BRUSSEL	BE1, BE241	BE1
ANTWERPEN	BE211, BE213	BE21
SOFIA	BG041, BG042	BG04
BERN	CH021	CH02
ZUERICH	CH04	CH04
PRAHA	CZ01	CZ01
STUTTGART	DE111, DE112, DE113, DE114, DE115	DE11
MUENCHEN	DE212, DE217, DE218, DE21C, DE21H, DE21L	DE21
BERLIN	DE301, DE302, DE406, DE408, DE409, DE40A, DE40C, DE40H	DE3
BREMEN	DE501, DE502, DE936, DE941, DE94D, DE94G	DE5
HAMBURG	DE6, DE933, DE939, DEF06, DEF09, DEF0F	DE6
FRANKFURT AM MAIN	DE712, DE717, DE718, DE71A, DE71C, DE71E	DE71
DUESSELDORF	DEA11, DEA16, DEA1C, DEA1D	DEA1
KOELN	DEA23, DEA24, DEA27, DEA2B	DEA2
KOEBENHAVN	DK001, DK002, DK003, DK004	DK
TALLINN	EE001	EE
MADRID	ES3	ES3
BARCELONA	ES511	ES51
VALENCIA	ES523	ES52
PALMA DE MALLORCA	ES53	ES53
SEVILLA	ES618	ES61
HELSINKI	FI161, FI162	FI16
PARIS	FR101, FR102, FR103, FR104, FR105, FR106, FR107, FR108	FR1
LILLE	FR301	FR3
BORDEAUX	FR612	FR61
TOULOUSE	FR623	FR62
LYON	FR716	FR71
NICE	FR823	FR82
MARSEILLE-AIX-EN-PROVENCE	FR824	FR82
ATHINAI	GR3, GR241, GR242	GR3
BUDAPEST	HU011	HU01
DUBLIN	IE021	IE02
TORINO	IT111	IT11
GENOVA	IT133	IT13
MILANO	IT205	IT2
BOLOGNA	IT405	IT4
ROMA	IT603	IT6

NAPOLI	IT803	IT8
VILNIUS	LT00A	LT
LUXEMBOURG	LU	LU
RIGA	LV001	LV
VALLETTA	MT001	MT
AMSTERDAM	NL326, NL325	NL32
ROTTERDAM	NL335	NL33
OSLO	NO011, NO012	NO01
BERGEN	NO051	NO05
WROCLAW	PL014	PL01
KRAKOW	PL063	PL06
WARSZAWA	PL075, PL073	PL07
GDANSK-GDYNIA-SOPOT	PL0B3	PL0B
KATOWICE (Upper Silesia Conurbation)	PL0C3	PL0C
PORTO	PT114	PT11
LISBOA	PT132, PT133	PT13
BUCURESTI	RO081	RO08
STOCKHOLM	SE011	SE01
MALMOE	SE044	SE04
GOETEBORG	SE0A2	SE0A
LJUBLJANA	SI00E	SI
BRATISLAVA	SK01	SK01
GREATER MANCHESTER	UKD31, UKD32	UKD3
BIRMINGHAM	UKG31	UKG3
LONDON	UKI11, UKI12, UKI21, UKI22, UKI23, UKH32, UKJ41	UKI1
EDINBURGH	UKM25, UKM28	UKM2

For UK MEGAs R&D data was derived from NUTS1 level data (from CPMR-study). For CH and MT both knowledge indicators were estimated on basis of national level data.

Annex 8. NUTS 3 typology based on list of FUAs. Draft.

NUTS3 code	NUTS3 region name	FUAs (city)codes	FUA typos - MEGA, - T/N = transnational/national FUA - R/L = regional/local FUA	6 types	19 types
AT111	MITTELBURGENLAND			0	0
AT112	NORDBURGENLAND			0	0
AT113	SUEDBURGENLAND			0	0
AT121	MOSTVIERTEL-EISENWURZEN	AT001	R/L	1	1C-
AT122	NIEDEROESTERREICH-SUED	AT023	R/L	1	1C-
AT123	SANKT POELTEN	AT017	R/L	1	1C-
AT124	WALDVIERTEL	AT011	R/L	1	1C-
AT125	WEINVIERTEL			0	0
AT126	WIENER UMLAND/NORDTEIL	AT010	R/L	1	1C-
AT127	WIENER UMLAND/SUEDTEIL	AT002, AT015	R/L, R/L	2	2C-
AT13	WIEN	AT022	MEGA	1	1A
AT211	KLAGENFURT-VILLACH	AT009, AT020	T/N, R/L	2	2B
AT212	OBERKAERNTEN			0	0
AT213	UNTERKAERNTEN	AT024	R/L	1	1C-
AT221	GRAZ	AT006	T/N	1	1B
AT222	LIEZEN			0	0
AT223	OESTLICHE OBERSTEIERMARK	AT012, AT008	R/L, R/L	2	2C-
AT224	OSTSTEIERMARK			0	0
AT225	WEST-UND SUEDSTEIERMARK			0	0
AT226	WESTLICHE OBERSTEIERMARK			0	0
AT311	INNVIERTEL			0	0
AT312	LINZ-WELS	AT021, AT013, AT014, AT019	R/L, R/L, T/N, R/L	3	3B
AT313	MUEHLVIERTEL			0	0
AT314	STEYR-KIRCHDORF	AT018	R/L	1	1C-
AT315	TRAUNVIERTEL			0	0
AT321	LUNGAU			0	0
AT322	PINZGAU-PONGAU			0	0
AT323	SALZBURG UND UMGEBUNG	AT016	T/N	1	1B-
AT331	AUSSERFERN			0	0
AT332	INNSBRUCK	AT007	T/N	1	1B-
AT333	OSTTIROL			0	0
AT334	TIROLER OBERLAND			0	0
AT335	TIROLER UNTERLAND			0	0
AT341	BLUDENZ-BREGENZER WALD			0	0
AT342	RHEINTAL-BODENSEEGEBIET	AT004, AT003, AT005	R/L, R/L, R/L	3	3C-
BE1	REG.BRUXELLES-CAP./BRUSSELS HFDST.GEW.	BE014	MEGA	1	1A
BE211	ANTWERPEN (ARRONDISSEMENT)	BE004	MEGA	1	1A
BE212	MECHELEN	BE041	R/L	1	1C
BE213	TURNHOUT			0	0
BE221	HASSELT	BE024	T/N	1	1B
BE222	MAASEIK			0	0
BE223	TONGEREN			0	0
BE231	AALST	BE001	R/L	1	1C
BE232	DENDERMONDE			0	0
BE233	EEKLO			0	0

BE234	GENT(ARRONDISSEMENT)	BE022	T/N	1	1B
BE235	OUDENAARDE			0	0
BE236	SINT-NIKLAAS	BE053	R/L	1	1C
BE241	HALLE-VILVOORDE			0	0
BE242	LEUVEN	BE033	T/N	1	1B
BE251	BRUGGE	BE013	T/N	1	1B
BE252	DIKSMUIDE			0	0
BE253	IEPER	BE028	R/L	1	1C
BE254	KORTRIJK	BE031	T/N	1	1B
BE255	OOSTENDE	BE048	R/L	1	1C
BE256	ROESELARE	BE050	R/L	1	1C
BE257	TIELT			0	0
BE258	VEURNE			0	0
BE31	BRABANT WALLON			0	0
BE321	ATH			0	0
BE322	CHARLEROI	BE015	T/N	1	1B
BE323	MONS	BE044	R/L	1	1C
BE324	MOUSCRON	BE045	R/L	1	1C
BE325	SOIGNIES	BE032	R/L	1	1C
BE326	THUIN			0	0
BE327	TOURNAI	BE059	R/L	1	1C
BE331	HUY			0	0
BE332	LIEGE (ARRONDISSEMENT)	BE034	T/N	1	1B
BE333	VERVIERS	BE061	R/L	1	1C
BE334	WAREMME			0	0
BE341	ARLON			0	0
BE342	BASTOGNE			0	0
BE343	MARCHE-EN-FAMENNE			0	0
BE344	NEUFCHATEAU			0	0
BE345	VIRTON			0	0
BE351	DINANT			0	0
BE352	NAMUR (ARRONDISSEMENT)	BE046	T/N	1	1B
BE353	PHILIPPEVILLE			0	0
BG011	VIDIN	BG024	R/L	1	1C
BG012	MONTANA	BG010	R/L	1	1C-
BG013	VRATSA	BGX01	R/L	1	1C-
BG021	PLEVEN	BG013	R/L	1	1C-
BG022	LOVECH	BG009	R/L	1	1C-
BG023	VELIKO TURNOVO	BG030	R/L	1	1C-
BG024	GABROVO	BG005	R/L	1	1C-
BG025	RUSE	BG016	R/L	1	1C
BG031	VARNA	BG023	T/N	1	1B
BG032	DOBRICH	BG022	R/L	1	1C
BG033	SHUMEN	BG017	R/L	1	1C-
BG034	TARGOVISHTE	BG029	R/L	1	1C-
BG035	RAZGRAD	BG015	R/L	1	1C-
BG036	SILISTRA	BG018	R/L	1	1C-
BG041	SOFIA STOLITSA (CAPITAL)	BG020	MEGA	1	1A
BG042	SOFIA			0	0
BG043	BLAGOEVGRAD	BG037	R/L	1	1C-
BG044	PEMIK	BG012	R/L	1	1C

BG045	KYUSTENDIL	BG007	R/L	1	1C-
BG051	PLOVDIV	BG014, BG001, BG038	T/N, R/L, R/L	3	3B
BG052	STARA ZAGORA	BG021, BG006	R/L, R/L	2	2C
BG053	HASKOVO	BG004, BG027	R/L, R/L	2	2C
BG054	PAZARDZHIK	BG011	R/L	1	1C-
BG055	SMOLYAN			0	0
BG056	KARDZHALI	BG008	R/L	1	1C-
BG061	BURGAS	BG003	T/N	1	1B-
BG062	SLIVEN	BG019	R/L	1	1C
BG063	YAMBOL	BG026	R/L	1	1C
CH011	VAUD	CH009, CH058, CH062	T/N, R/L, R/L	3	3B
CH012	VALAIS	CH028, CH033, CH049, CH056	R/L, R/L, R/L, R/L	3	3C-
CH013	GENÈVE	CH006	T/N	1	1B
CH021	BERN	CH002, CH003, CH014, CH036, CH042, CH063	MEGA, R/L, R/L, R/L, R/L, R/L	3	3A
CH022	FREIBURG	CH005	R/L	1	1C-
CH023	SOLOTHURN	CH029, CH050, CH040	R/L, R/L, R/L	3	3C
CH024	NEUCHÔTEL	CH011, CH008	R/L, R/L	2	2C
CH025	JURA			0	0
CH031	BASEL-STADT	CH001	T/N	1+	1+B
CH032	BASEL-LANDSCHAFT	CH025	R/L	1	1C-
CH033	AARGAU	CH017, CH034, CH045, CH032	R/L, R/L, R/L, R/L	3	3C-
CH04	ZUERICH	CH016, CH015, CH059	MEGA, R/L, R/L	3	3A
CH051	GLARUS			0	0
CH052	SCHAFFHAUSEN	CH012	R/L	1	1C
CH053	APPENZELL AUSSERRHODEN			0	0
CH054	APPENZELL INNERRHODEN			0	0
CH055	ST. GALLEN	CH013, CH035, CH041, CH052, CH060	R/L, R/L, R/L, R/L, R/L	3	3C-
CH056	GRAUBUENDEN	CH004	R/L	1	1C-
CH057	THURGAU	CH022, CH043, CH053, CH054	R/L, R/L, R/L, R/L	3	3C
CH061	LUZERN	CH010	R/L	1	1C
CH062	URI			0	0
CH063	SCHWYZ	CH051	R/L	1	1C
CH064	OBWALDEN			0	0
CH065	NIDWALDEN	CH030	R/L	1	1C
CH066	ZUG	CH031	R/L	1	1C
CH071	TICINO	CH047, CH020, CH037, CH046	R/L, R/L, R/L, R/L	3	3C
CY	KIBRIS	CY007, CY004, CY001, CY005	T/N, T/N, T/N, T/N	3	3B
CZ01	PRAHA	CZ047	MEGA	1	1A
CZ02	STREDNÍ CECHY	CZ022, CZ034	R/L, R/L	2	2C-
CZ031	BUDEJOVICKY	CZ005	R/L	1	1C-

CZ032	PLZENSKÝ	CZ046	T/N	1	1B
CZ041	KARLOVARSKÝ	CZ020	R/L	1	1C-
CZ042	USTECKY	CZ060, CZ008, CZ010, CZ035, CZ055	R/L, R/L, R/L, R/L, R/L	3	3C
CZ051	LIBERECKY	CZ029	R/L	1	1C-
CZ052	KRALOVEHRADECKY	CZ015	T/N	1	1B-
CZ053	PARDUBICKY	CZ044	R/L	1	1C-
CZ061	JIHLAVSKY	CZ018	R/L	1	1C-
CZ062	BRNENSKY	CZ003	T/N	1	1B-
CZ071	OLOMOUCKÝ	CZ039, CZ048, CZ050	R/L, R/L, R/L	3	3C
CZ072	ZLINSKY	CZ066	R/L	1	1C-
CZ08	OSTRAVSKY	CZ042, CZ011, CZ012, CZ021, CZ040	T/N, R/L, R/L, R/L, R/L	3	3B
DE111	STUTTGART, STADTKR.	DE526	MEGA	1+	1+A
DE112	BOEBLINGEN			0	0
DE113	ESSLINGEN			0	0
DE114	GOEPPINGEN			0	0
DE115	LUDWIGSBURG			0	0
DE116	REMS-MURR-KREIS			0	0
DE117	HEILBRONN, STADTKR.	DE233	R/L	1+	1+C
DE118	HEILBRONN, LANDKR.			0+	0+
DE119	HOHENLOHEKREIS			0	0
DE11A	SCHWAEBISCH HALL			0	0
DE11B	MAIN-TAUBER-KREIS			0	0
DE11C	HEIDENHEIM	DE232	R/L	1	1C-
DE11D	OSTALBKREIS	DE002, DE482	R/L, R/L	2	2C
DE121	BADEN-BADEN, STADTKR.	DE044	R/L	1+	1+C
DE122	KARLSRUHE, STADTKR.	DE274	R/L	1+	1+C
DE123	KARLSRUHE, LANDKR.	DE566	R/L	1	1C-
DE124	RASTATT	DE085	R/L	1	1C-
DE125	HEIDELBERG, STADTKR.	DE230	T/N	1	1B
DE126	MANNHEIM, STADTKR.	DE342	T/N	1+	1+B
DE127	NECKAR-ODENWALD-KREIS			0	0
DE128	RHEIN-NECKAR-KREIS			0	0
DE129	PFORZHEIM, STADTKR.	DE423	R/L	1+	1+C
DE12A	CALW			0	0
DE12B	ENZKREIS			0	0
DE12C	FREUDENSTADT			0	0
DE131	FREIBURG/BREISGAU, STADTKR.	DE167	R/L	1+	1+C
DE132	BREISGAU-HOCHSCHWARZWALD			0	0
DE133	EMMENDINGEN			0	0
DE134	ORTENAUKREIS	DE408	R/L	1	1C-
DE135	ROTTWEIL			0	0
DE136	SCHWARZWALD-BAAR-KREIS	DE547	R/L	1	1C-
DE137	TUTTLINGEN			0	0
DE138	KONSTANZ	DE290, DE500	R/L, R/L	2	2C
DE139	LOERRACH	DE564, DE328	R/L, R/L	2	2C

DE13A	WALDSHUT			0	0
DE141	REUTLINGEN	DE449	R/L	1+	1+C
DE142	TUEBINGEN, LANDKREIS	DE534	T/N	1	1B
DE143	ZOLLERNALBKREIS			0	0
DE144	ULM, STADTKREIS	DE538	R/L	1+	1+C
DE145	ALB-DONAU-KREIS			0	0
DE146	BIBERACH			0	0
DE147	BODENSEEKREIS			0	0
DE148	RAVENSBURG	DE442	R/L	1	1C-
DE149	SIGMARINGEN			0	0
DE211	INGOLSTADT, KRFR.ST.	DE264	R/L	1+	1+C
DE212	MUENCHEN, KRFR.ST.	DE370	MEGA	1+	1+A
DE213	ROSENHEIM, KRFR.ST.	DE459	R/L	1+	1+C
DE214	ALTOETTING			0	0
DE215	BERCHTESGADENER LAND			0	0
DE216	BAD TOELZ-WOLFRATSHAUSEN			0	0
DE217	DACHAU			0	0
DE218	EBERSBERG			0	0
DE219	EICHSTAETT			0	0
DE21A	ERDING			0	0
DE21B	FREISING	DE168	R/L	1	1C-
DE21C	FUERSTENFELDBRUCK			0	0
DE21D	GARMISCH-PARTENKIRCHEN	DE182	R/L	1	1C-
DE21E	LANDSBERG AM LECH			0	0
DE21F	MIESBACH			0	0
DE21G	MUEHLDORF AM INN			0	0
DE21H	MUENCHEN, LANDKR.			0+	0+
DE21I	NEUBURG-SCHROBENHAUSEN			0	0
DE21J	PFAFFENHOFEN AN DER ILM			0	0
DE21K	ROSENHEIM, LANDKR.			0+	0+
DE21L	STARNBERG			0	0
DE21M	TRAUNSTEIN			0	0
DE21N	WEILHEIM-SCHONGAU			0	0
DE221	LANDSHUT, KRFR.ST.	DE303	R/L	1+	1+C
DE222	PASSAU, KRFR.ST.	DE420	R/L	1	1C
DE223	STRAUBING, KRFR.ST.	DE523	R/L	1	1C
DE224	DEGGENDORF	DE105	R/L	1	1C-
DE225	FREYUNG-GRAFENAU			0	0
DE226	KELHEIM			0	0
DE227	LANDSHUT, LANDKR.			0+	0+
DE228	PASSAU, LANDKR.			0	0
DE229	REGEN			0	0
DE22A	ROTTAL-INN			0	0
DE22B	STRAUBING-BOGEN			0	0
DE22C	DINGOLFING-LANDAU			0	0
DE231	AMBERG, KRFR.ST.	DE013	R/L	1+	1+C
DE232	REGENSBURG, KRFR.ST.	DE444	T/N	1+	1+B
DE233	WEIDEN I. D. OPF, KRFR.ST.	DE563	R/L	1+	1+C
DE234	AMBERG-SULZBACH			0	0
DE235	CHAM			0	0
DE236	NEUMARKT I. D. OPF	DE383	R/L	1	1C-

DE237	NEUSTADT A. D. WALDNAAB			0	0
DE238	REGENSBURG, LANDKR.			0+	0+
DE239	SCHWANDORF			0	0
DE23A	TIRSCHENREUTH			0	0
DE241	BAMBERG, KRFR.ST.	DE047	T/N	1+	1+B
DE242	BAYREUTH, KRFR.ST.	DE051	R/L	1	1C
DE243	COBURG, KRFR.ST.	DE095	R/L	1+	1+C
DE244	HOF, KRFR.ST.	DE251	R/L	1	1C
DE245	BAMBERG, LANDKR.			0+	0+
DE246	BAYREUTH, LANDKR.			0	0
DE247	COBURG, LANDKR.			0+	0+
DE248	FORCHHEIM			0	0
DE249	HOF, LANDKR.			0	0
DE24A	KRONACH			0	0
DE24B	KULMBACH	DE297	R/L	1	1C-
DE24C	LICHTENFELS			0	0
DE24D	WUNSIEDEL IM FICHTELGEBIRGE			0	0
DE251	ANSBACH, KRFR.ST.	DE016	R/L	1	1C
DE252	ERLANGEN, KRFR.ST.	DE147	T/N	1+	1+B
DE253	FUERTH, KRFR.ST.	DE178	R/L	1	1C
DE254	NUERNBERG, KRFR.ST.	DE400	T/N	1+	1+B
DE255	SCHWABACH, KRFR.ST.	DE481	R/L	1	1C
DE256	ANSBACH, LANDKR.			0	0
DE257	ERLANGEN-HOECHSTADT			0+	0+
DE258	FUERTH, LANDKREIS			0	0
DE259	NUERNBERGER LAND			0+	0+
DE25A	NEUSTADT A.D. AISCH-BAD WINDSHEIM			0	0
DE25B	ROTH			0	0
DE25C	WEISSENBURG-GUNZENHAUSEN			0	0
DE261	ASCHAFFENBURG, KRFR.ST.	DE020	R/L	1+	1+C
DE262	SCHWEINFURT, KRFR.ST.	DE488	R/L	1+	1+C
DE263	WUERZBURG, KRFR.ST.	DE602	T/N	1+	1+B
DE264	ASCHAFFENBURG, LANDKR.			0+	0+
DE265	BAD KISSINGEN			0	0
DE266	RHOEN-GRABFELD			0	0
DE267	HASSBERGE			0	0
DE268	KITZINGEN			0	0
DE269	MILTENBERG			0	0
DE26A	MAIN-SPESSART			0	0
DE26B	SCHWEINFURT, LANDKR.			0+	0+
DE26C	WUERZBURG, LANDKR.			0+	0+
DE271	AUGSBURG, KRFR.ST.	DE025	T/N	1+	1+B
DE272	KAUFBEUREN, KRFR.ST.	DE276	R/L	1	1C
DE273	KEMPTEN (ALLGAEU), KRFR.ST.	DE280	R/L	1	1C
DE274	MEMMINGEN, KRFR.ST.	DE353	R/L	1+	1+C
DE275	AICHACH-FRIEDBERG			0	0
DE276	AUGSBURG, LANDKR.			0+	0+
DE277	DILLINGEN AN DER DONAU			0	0
DE278	GUENZBURG			0	0

DE279	NEU-ULM	DE379	R/L	1	1C-
DE27A	LINDAU-BODENSEE			0	0
DE27B	OSTALLGAEU			0	0
DE27C	UNTERALLGAEU			0	0
DE27D	DONAU-RIES			0	0
DE27E	OBERALLGAEU			0	0
DE301	BERLIN WEST, STADT	DE057	MEGA	1+	1+A
DE302	BERLIN OST, STADT			0+	0+
DE401	BRANDENBURG/HAVEL, KRFR.ST.	DE075	R/L	1	1C
DE402	COTTBUS, KRFR.ST.	DE098	R/L	1	1C
DE403	FRANKFURT/ODER, KRFR.ST.	DE164	R/L	1	1C
DE404	POTSDAM, KRFR.ST.	DE431	T/N	1	1B
DE405	BARNIM	DE127	R/L	1	1C
DE406	DAHME-SPREEWALD			0	0
DE407	ELBE-ELSTER			0	0
DE408	HAVELLAND			0	0
DE409	MAERKISCH-ODERLAND			0	0
DE40A	OBERHAVEL			0	0
DE40B	OBERSPREEWALD-LAUSITZ			0	0
DE40C	ODER-SPREE			0	0
DE40D	OSTPRIGNITZ-RUPPIN	DE716	R/L	1	1C-
DE40E	POTSDAM-MITTELMARK			0	0
DE40F	PRIGNITZ			0	0
DE40G	SPREE-NEISSE			0	0
DE40H	TELTOW-FLAEMING			0	0
DE40I	UCKERMARK			0	0
DE501	BREMEN, KRFR.ST.	DE077	MEGA	1+	1+A
DE502	BREMERHAVEN, KRFR.ST.	DE078	R/L	1+	1+C
DE6	HAMBURG	DE221	MEGA	1+	1+A
DE711	DARMSTADT, KRFR.ST.	DE103	R/L	1+	1+C
DE712	FRANKFURT AM MAIN, KRFR.ST.	DE163	MEGA	1+	1+A
DE713	OFFENBACH AM MAIN, KRFR.ST.	DE407	R/L	1	1C
DE714	WIESBADEN, KRFR.ST.	DE583	R/L	1+	1+C
DE715	BERGSTRASSE			0	0
DE716	DARMSTADT-DIEBURG			0+	0+
DE717	GROSS-GERAU	DE466	R/L	1	1C-
DE718	HOCHTAUNUSKREIS	DE172	R/L	1	1C-
DE719	MAIN-KINZIG-KREIS	DE225	R/L	1	1C-
DE71A	MAIN-TAUNUS-KREIS			0	0
DE71B	ODENWALDKREIS			0	0
DE71C	OFFENBACH, LANDKR.			0	0
DE71D	RHEINGAU-TAUNUS-KREIS			0	0
DE71E	WETTERAUKREIS	DE171, DE035	R/L, R/L	2	2C-
DE721	GIESSEN, LANDKR.	DE194	T/N	1+	1+B
DE722	LAHN-DILL-KREIS	DE580, DE112	R/L, R/L	2	2C-
DE723	LIMBURG-WEILBURG	DE322	R/L	1	1C-
DE724	MARBURG-BIEDENKOPF	DE343	T/N	1	1B-
DE725	VOGELSBERGKREIS			0	0
DE731	KASSEL, KRFR.ST.	DE275	T/N	1+	1+B
DE732	FULDA	DE175	R/L	1	1C-

DE733	HERSFELD-ROTENBURG	DE030	R/L	1	1C-
DE734	KASSEL, LANDKR.			0+	0+
DE735	SCHWALM-EDER-KREIS			0	0
DE736	WALDECK-FRANKENBERG			0	0
DE737	WERRA-MEISSNER-KREIS			0	0
DE801	GREIFSWALD, KRFR.ST.	DE205	R/L	1	1C
DE802	NEUBRANDENBURG, KRFR.ST.	DE380	R/L	1	1C
DE803	ROSTOCK, KRFR.ST.			0	0
DE804	SCHWERIN, KRFR.ST.	DE490	R/L	1	1C
DE805	STRALSUND, KRFR.ST.	DE522	R/L	1	1C
DE806	WISMAR, KRFR.ST.	DE590	R/L	1	1C
DE807	BAD DOBERAN	DE461	T/N	1+	1+B
DE808	DEMMIN			0	0
DE809	GUESTROW			0	0
DE80A	LUDWIGSLUST			0	0
DE80B	MECKLENBURG-STRELITZ			0	0
DE80C	MUERITZ			0	0
DE80D	NORDVORPOMMERN			0	0
DE80E	NORDWESTMECKLENBURG			0	0
DE80F	OSTVORPOMMERN			0	0
DE80G	PARCHIM			0	0
DE80H	RUEGEN			0	0
DE80I	UECKER-RANDOW			0	0
DE911	BRAUNSCHWEIG, KRFR.ST.	DE076	R/L	1+	1+C
DE912	SALZGITTER, KRFR.ST.	DE470	R/L	1	1C
DE913	WOLFSBURG, KRFR.ST.	DE596	R/L	1	1C
DE914	GIFHORN			0	0
DE915	GOETTINGEN	DE204	T/N	1	1B
DE916	GOSLAR	DE202	R/L	1	1C
DE917	HELMSTEDT			0	0
DE918	NORTHEIM			0	0
DE919	OSTERODE AM HARZ			0	0
DE91A	PEINE	DE421	R/L	1	1C
DE91B	WOLFENBUETTEL			0	0
DE921	HANNOVER, KRFR.ST.	DE226	T/N	1+	1+B
DE922	DIEPHOLZ			0	0
DE923	HAMELN-PYRMONT	DE222	R/L	1	1C-
DE924	HANNOVER, LANDKR.			0	0
DE925	HILDESHEIM	DE250	R/L	1	1C
DE926	HOLZMINDEN			0	0
DE927	NIENBURG (WESER)			0	0
DE928	SCHAUMBURG			0	0
DE931	CELLE	DE092	R/L	1	1C-
DE932	CUXHAVEN	DE101	R/L	1	1C-
DE933	HARBURG			0	0
DE934	LUECHOW-DANNENBERG			0	0
DE935	LUENEBURG, LANDKR.	DE337	R/L	1	1C
DE936	OSTERHOLZ			0	0
DE937	ROTENBURG (WUEMME)			0	0
DE938	SOLTAU-FALLINGBOSTEL			0	0
DE939	STADE			0	0

DE93A	UELZEN			0	0
DE93B	VERDEN			0	0
DE941	DELMENHORST, KRFR.ST.			0	0
DE942	EMDEN, KRFR.ST.	DE137	R/L	1	1C
DE943	OLDENBURG (OLD.), KRFR.ST.	DE409	R/L	1+	1+C
DE944	OSNABRUECK, KRFR.ST.	DE412	T/N	1+	1+B
DE945	WILHELMSHAVEN, KRFR.ST.	DE585	R/L	1+	1+C
DE946	AMMERLAND			0	0
DE947	AURICH			0	0
DE948	CLOPPENBURG			0	0
DE949	EMSLAND	DE324	R/L	1	1C-
DE94A	FRIESLAND			0	0
DE94B	GRAFSCHAFT BENTHEIM	DE398	R/L	1	1C-
DE94C	LEER			0	0
DE94D	OLDENBURG (OLD.), LANDKR.			0+	0+
DE94E	OSNABRUECK, LANDKR.			0+	0+
DE94F	VECHTA			0	0
DE94G	WESERMARSCH			0	0
DE94H	WITTMUND			0	0
DEA11	DUESSELDORF, KRFR.ST.	DE126	MEGA	1+	1+A
DEA12	DUISBURG, KRFR.ST.	DE123	T/N	1	1B
DEA13	ESSEN, KRFR.ST.	DE151	T/N	1	1B
DEA14	KREFELD, KRFR.ST.	DE295	R/L	1	1C
DEA15	MOENCHENGLADBACH, KRFR.ST.	DE362	R/L	1+	1+C
DEA16	MUELHEIM AN DER RUHR, KRFR.ST.			0	0
DEA17	OBERHAUSEN, KRFR.ST.			0	0
DEA18	REMSCHEID, KRFR.ST.			0	0
DEA19	SOLINGEN, KRFR.ST.			0	0
DEA1A	WUPPERTAL, KRFR.ST.	DE600	R/L	1+	1+C
DEA1B	KLEVE	DE286	R/L	1	1C-
DEA1C	METTMANN	DE598	R/L	1	1C-
DEA1D	NEUSS			0	0
DEA1E	VIERSEN			0	0
DEA1F	WESEL			0	0
DEA21	AACHEN, KRFR.ST.	DE001	T/N	1+	1+B
DEA22	BONN, KRFR.ST.	DE068	T/N	1+	1+B
DEA23	KOELN, KRFR.ST.	DE288	MEGA	1+	1+A
DEA24	LEVERKUSEN, KRFR.ST.			0	0
DEA25	AACHEN, LANDKR.			0+	0+
DEA26	DUEREN	DE125	R/L	1	1C
DEA27	ERFTKREIS			0	0
DEA28	EUSKIRCHEN	DE154	R/L	1	1C-
DEA29	HEINSBERG			0	0
DEA2A	OBERBERGISCHER KREIS	DE212	R/L	1	1C-
DEA2B	RHEINISCH-BERGISCHER-KREIS			0	0
DEA2C	RHEIN-SIEG-KREIS			0	0
DEA31	BOTTROP, KRFR.ST.			0	0
DEA32	GELSENKIRCHEN, KRFR.ST.			0	0
DEA33	MUENSTER, KRFR.ST.	DE372	T/N	1	1B

DEA34	BORKEN	DE066	R/L	1	1C-
DEA35	COESFELD			0	0
DEA36	RECKLINGHAUSEN			0	0
DEA37	STEINFURT	DE453, DE261	R/L, R/L	2	2C-
DEA38	WARENDORF			0	0
DEA41	BIELEFELD, KRFR.ST.	DE059	T/N	1+	1+B
DEA42	GUETERSLOH			0	0
DEA43	HERFORD	DE243	R/L	1	1C-
DEA44	HOEXTER			0	0
DEA45	LIPPE	DE110	R/L	1	1C-
DEA46	MINDEN-LUEBBECKE	DE360, DE037	R/L, R/L	2	2C
DEA47	PADERBORN	DE417	R/L	1	1C
DEA51	BOCHUM, KRFR.ST.	DE067	T/N	1	1B
DEA52	DORTMUND, KRFR.ST.	DE119	T/N	1	1B
DEA53	HAGEN, KRFR.ST.	DE216	T/N	1	1B
DEA54	HAMM, KRFR.ST.	DE223	R/L	1	1C
DEA55	HERNE, KRFR.ST.			0	0
DEA56	ENNEPE-RUHR-KREIS			0	0
DEA57	HOCHSAUERLANDKREIS	DE018	R/L	1	1C-
DEA58	MAERKISCHER KREIS	DE265	R/L	1	1C-
DEA59	OLPE			0	0
DEA5A	SIEGEN-WITTGENSTEIN	DE498	R/L	1	1C
DEA5B	SOEST	DE325	R/L	1	1C-
DEA5C	UNNA			0	0
DEB11	KOBLENZ, KRFR.ST.	DE287	T/N	1+	1+B
DEB12	AHRWEILER			0	0
DEB13	ALTENKIRCHEN (WESTERWALD)			0	0
DEB14	BAD KREUZNACH	DE034	R/L	1	1C
DEB15	BIRKENFELD			0	0
DEB16	COCHEM-ZELL			0	0
DEB17	MAYEN-KOBLENZ			0	0
DEB18	NEUWIED			0	0
DEB19	RHEIN-HUNSRUECK-KREIS			0	0
DEB1A	RHEIN-LAHN-KREIS			0	0
DEB1B	WESTERWALDKREIS			0	0
DEB21	TRIER, KRFR.ST.	DE532	T/N	1+	1+B
DEB22	BERNKASTEL-WITTLICH			0	0
DEB23	BITBURG-PRUEM			0	0
DEB24	DAUN			0	0
DEB25	TRIER-SAARBURG			0+	0+
DEB31	FRANKENTHAL(PFALZ), KRFR.ST			0	0
DEB32	KAISERSLAUTERN, KRFR.ST.	DE271	R/L	1+	1+C
DEB33	LANDAU I.D. PFALZ, KRFR.ST.	DE302	R/L	1+	1+C
DEB34	LUDWIGSHAFEN/RHEIN, KRFR.ST	DE336	R/L	1	1C
DEB35	MAINZ, KRFR.ST.	DE341	T/N	1+	1+B
DEB36	NEUSTADT A.D.WEINSTRASSE, KRFR.ST	DE389	R/L	1+	1+C
DEB37	PIRMASENS, KRFR.ST.	DE426	R/L	1+	1+C
DEB38	SPEYER, KRFR.ST.	DE508	R/L	1	1C

DEB39	WORMS, KRFR.ST.			0	0
DEB3A	ZWEIBRUECKEN, KRFR.ST.			0	0
DEB3B	ALZEY-WORMS			0	0
DEB3C	BAD DUERKHEIM			0	0
DEB3D	DONNERSBERGKREIS			0	0
DEB3E	GERMERSHEIM			0	0
DEB3F	KAISERSLAUTERN, LANDKR.			0+	0+
DEB3G	KUSEL			0	0
DEB3H	SUEDLICHE WEINSTRASSE			0	0
DEB3I	LUDWIGSHAFEN, LANDKR.			0	0
DEB3J	MAINZ-BINGEN			0+	0+
DEB3K	SUEDWESTPFALZ			0	0
DEC01	SAARBRUECKEN, STADTVERBAND	DE468	T/N	1+	1+B
DEC02	MERZIG-WADERN			0	0
DEC03	NEUNKIRCHEN			0	0
DEC04	SAARLOUIS			0	0
DEC05	SAARPFALZ-KREIS			0	0
DEC06	SANKT WENDEL			0	0
DED11	CHEMNITZ, KRFR.ST.	DE093	T/N	1+	1+B
DED12	PLAUEN, KRFR.ST.	DE428	R/L	1	1C
DED13	ZWICKAU, KRFR.ST.	DE607	R/L	1+	1+C
DED14	ANNABERG			0	0
DED15	CHEMNITZER LAND			0+	0+
DED16	FREIBERG	DE166	R/L	1	1C-
DED17	VOGTLANDKREIS			0	0
DED18	MITTLERER ERZGEBIRGSKREIS			0	0
DED19	MITTWEIDA			0	0
DED1A	STOLLBERG			0	0
DED1B	AUE-SCHWARZENBERG	DE023	R/L	1	1C
DED1C	ZWICKAUER LAND			0+	0+
DED21	DRESDEN, KRFR.ST.	DE121	T/N	1+	1+B
DED22	GOERLITZ, KRFR.ST.	DE201	R/L	1	1C
DED23	HOYERSWERDA, KRFR.ST.	DE257	R/L	1	1C
DED24	BAUTZEN	DE050	R/L	1	1C-
DED25	MEISSEN			0	0
DED26	NIEDERSCHLESISCHER OBERLAUSITZKREIS			0	0
DED27	RIESA-GROSSENHAIN	DE455	R/L	1	1C-
DED28	LOEBAU-ZITTAU			0	0
DED29	SAECHSISCHE SCHWEIZ			0	0
DED2A	WEISSERITZKREIS			0	0
DED2B	KAMENZ			0	0
DED31	LEIPZIG, KRFR.ST.	DE314	T/N	1	1B
DED32	DELITZSCH			0	0
DED33	DOEBELN			0	0
DED34	LEIPZIGER LAND			0	0
DED35	MULDENTALKREIS			0	0
DED36	TORGAU-OSCHATZ			0	0
DEE11	DESSAU, KRFR.ST.	DE109	R/L	1	1C
DEE12	ANHALT-ZERBST			0	0
DEE13	BERNBURG			0	0

DEE14	BITTERFELD	DE598	R/L	1	1C
DEE15	KOETHEN			0	0
DEE16	WITTENBERG	DE592	R/L	1	1C-
DEE21	HALLE/SAALE, STADTKR.	DE219	T/N	1+	1+B
DEE22	BURGENLANDKREIS	DE374	R/L	1	1C-
DEE23	MANSFELDER LAND			0	0
DEE24	MERSEBURG-QUERFURT	DE356	R/L	1	1C-
DEE25	SAALKREIS			0	0
DEE26	SANGERHAUSEN			0	0
DEE27	WEISSENFELS			0	0
DEE31	MAGDEBURG, KRFR.ST.	DE339	R/L	1	1C
DEE32	ASCHERSLEBEN-STASSFURT			0	0
DEE33	BOERDEKREIS			0	0
DEE34	HALBERSTADT	DE217	R/L	1	1C
DEE35	JERICHOWER LAND			0	0
DEE36	OHREKREIS			0	0
DEE37	STENDAL	DE520	R/L	1	1C-
DEE38	QUEDLINBURG			0	0
DEE39	SCHOENEBECK	DE478	R/L	1	1C-
DEE3A	WERNIGERODE			0	0
DEE3B	ALTMARKKREIS SALZWEDEL			0	0
DEF01	FLENSBURG, KRFR.ST.	DE159	R/L	1+	1+C
DEF02	KIEL, KRFR.ST.	DE283	T/N	1+	1+B
DEF03	LUEBECK, KRFR.ST.	DE331	R/L	1+	1+C
DEF04	NEUMUENSTER, KRFR.ST.	DE384	R/L	1	1C
DEF05	DITHMARSCHEN			0	0
DEF06	HERZOGTUM LAUENBURG			0	0
DEF07	NORDFRIESLAND			0	0
DEF08	OSTHOLSTEIN			0	0
DEF09	PINNEBERG			0	0
DEF0A	PLOEN			0	0
DEF0B	RENDSBURG-ECKERNFOERDE	DE448	R/L	1	1C-
DEF0C	SCHLESWIG-FLENSBURG			0	0
DEF0D	SEGEBERG			0	0
DEF0E	STEINBURG			0	0
DEF0F	STORMARN			0	0
DEG01	ERFURT, KRFR.ST.	DE144	R/L	1	1C
DEG02	GERA, KRFR.ST.	DE189	R/L	1	1C
DEG03	JENA, KRFR.ST.	DE267	R/L	1	1C
DEG04	SUHL, KRFR.ST.	DE527	R/L	1+	1+C
DEG05	WEIMAR, KRFR.ST.	DE565	R/L	1	1C
DEG06	EICHSFELD			0	0
DEG07	NORDHAUSEN	DE397	R/L	1	1C
DEG09	UNSTRUT-HAINICH-KREIS			0	0
DEG0A	KYFFHAEUSERKREIS			0	0
DEG0B	SCHMALKALDEN-MEININGEN			0	0
DEG0C	GOTHA	DE203	R/L	1	1C-
DEG0D	SOEMMERDA			0	0
DEG0E	HILDBURGHAUSEN			0	0
DEG0F	ILM-KREIS			0	0
DEG0G	WEIMARER LAND			0	0

DEG0H	SONNEBERG			0	0
DEG0I	SAALFELD-RUDOLSTADT	DE467, DE465	R/L, R/L	2	2C-
DEG0J	SAALE-HOLZLAND-KREIS			0	0
DEG0K	SAALE-ORLA-KREIS			0	0
DEG0L	GREIZ	DE206	R/L	1	1C
DEG0M	ALTENBURGER LAND	DE012	R/L	1	1C-
DEG0N	EISENACH, KRFR.ST.	DE132	R/L	1	1C
DEG0P	WARTBURGKREIS			0	0
DK001	KOEBENHAVN OG FREDERIKS.KOM	DK013	MEGA	1+	1+A
DK002	KOEBENHAVNS AMT			0+	0+
DK003	FREDERIKSBORG AMT			0	0
DK004	ROSKILDE AMT			0	0
DK005	VESTSJAELLANDS AMT	DK021, DK010	R/L, R/L	2	2C
DK006	STORSTROEMS AMT	DK016, DK032, DKX03, DKX04	R/L, R/L, R/L, R/L	3	3C
DK007	BORNHOLMS AMT	DK031	R/L	1	1C
DK008	FYNS AMT	DK017, DK023	T/N, R/L	2	2B
DK009	SOENDERJYLLANDS AMT	DK027, DK022, DK038, DKX07	R/L, R/L, R/L, R/L	3	3C
DK00A	RIBE AMT	DK003, DK029	R/L, R/L	2	2C
DK00B	VEJLE AMT	DK024, DK012, DK015	R/L, R/L, R/L	3	3C
DK00C	RINGKOEBING AMT	DK007, DK011, DK030, DKX01	R/L, R/L, R/L, R/L	3	3C
DK00D	AARHUS AMT	DK026, DK018, DK020, DK037	T/N, R/L, R/L, R/L	3	3B
DK00E	VIBORG AMT	DK025, DK050, DKX05	R/L, R/L, R/L	3	3C
DK00F	NORDJYLLANDS AMT	DK001, DK005, DK009, DK053, DKX02	T/N, R/L, R/L, R/L, R/L	3	3B
EE001	POHJA-EESTI	EE002	MEGA	1	1A
EE002	KESK-EESTI	EE006, EE016	R/L, R/L	2	2C-
EE003	KIRDE-EESTI	EE001, EE008, EE004	R/L, R/L, R/L	3	3C
EE004	LAANE-EESTI	EE005, EE012	R/L, R/L	2	2C-
EE005	LOUNA-EESTI	EE010, EE003	R/L, T/N	2	2B
ES111	LA CORUNA	ES184, ES102, ES073	T/N, T/N, R/L	3	3B
ES112	LUGO	ES118	R/L	1	1C-
ES113	ORENSE	ES144	R/L	1	1C-
ES114	PONTEVEDRA	ES211, ES156, ES215	T/N, T/N, R/L	3	3B
ES12	ASTURIAS	ES146, ES086, ES029	T/N, R/L, R/L	3	3B
ES13	CANTABRIA	ES183, ES200	T/N, R/L	2	2B
ES211	ALAVA	ES220	R/L	1	1C
ES212	GUIPUZCOA	ES068, ES134	T/N, R/L	2	2B
ES213	VIZCAYA	ES037, ES070	T/N, R/L	2	2B
ES22	NAVARRA	ES149	T/N	1	1B
ES23	RIOJA	ES114	T/N	1	1B
ES241	HUESCA			0	0

ES242	TERUEL			0	0
ES243	ZARAGOZA	ES225	T/N	1	1B
ES3	MADRID	ES119, ES023, ESX01	MEGA, R/L, R/L	3	3A
ES411	AVILA	ES028	R/L	1	1C-
ES412	BURGOS	ES039	T/N	1	1B
ES413	LEON	ES110, ES155	R/L, R/L	2	2C
ES414	PALENCIA	ES147	R/L	1	1C
ES415	SALAMANCA	ES171	R/L	1	1C
ES416	SEGOVIA	ES186	R/L	1	1C-
ES417	SORIA			0	0
ES418	VALLADOLID	ES208	T/N	1	1B
ES419	ZAMORA	ES224	R/L	1	1C-
ES421	ALBACETE	ES003	R/L	1	1C-
ES422	CIUDAD REAL	ES056, ES162, ES008	R/L, R/L, R/L	3	3C-
ES423	CUENCA			0	0
ES424	GUADALAJARA	ES089	R/L	1	1C
ES425	TOLEDO	ES197, ES192	R/L, R/L	2	2C-
ES431	BADAJOZ	ES030, ES128, ES067	R/L, R/L, R/L	3	3C-
ES432	CACERES	ES041	R/L	1	1C-
ES511	BARCELONA	ES033, ES088, ES127, ES210, ES123, ES214, ES095, ES213	MEGA, R/L, R/L, R/L, R/L, R/L, R/L, R/L	3	3A
ES512	GIRONA	ES038, ES079, ES085	R/L, R/L, R/L	3	3C
ES513	LLEIDA	ES111	R/L	1	1C-
ES514	TARRAGONA	ES193	T/N	1	1B
ES521	ALICANTE	ES016, ES036, ES075, ES463, ES076, ES145, ES011, ES066	T/N, R/L, R/L, R/L, R/L, R/L, R/L, R/L	3	3B
ES522	CASTELLON DE LA PLANA	ES052, ES207, ES484	T/N, R/L, R/L	3	3B
ES523	VALENCIA	ES206, ES009, ES083, ES170, ES143, ES221	MEGA, R/L, R/L, R/L, R/L, R/L	3	3A
ES53	BALEARES	ES148, ES094	MEGA, T/N	2	2A
ES611	ALMERIA	ES019, ES320, ES413	T/N, R/L, R/L	3	3B
ES612	CADIZ	ES042, ES014, ES100, ES175	T/N, T/N, R/L, R/L	3	3B
ES613	CORDOBA	ES059, ES136, ES117	T/N, R/L, R/L	3	3B
ES614	GRANADA	ES087, ES138	T/N, R/L	2	2B
ES615	HUELVA	ES092	T/N	1	1B-
ES616	JAEN	ES099, ES020, ES112, ES203	R/L, R/L, R/L, R/L	3	3C
ES617	MALAGA	ES121, ES124, ES209	T/N, R/L, R/L	3	3B
ES618	SEVILLA	ES188, ES204	MEGA, R/L	2	2A

ES62	MURCIA	ES139, ES050, ES115, ES055, ES132	T/N, R/L, R/L, R/L, R/L	3	3B
ES631	CEUTA	ES226	R/L	1	1C
ES632	MELILLA	ES227	R/L	1	1C
ES7	CANARIAS	ES108, ES026, ES182, ES181, ES105	T/N, R/L, R/L, T/N, R/L	3	3B
ES702					
FI131	ETELA-SAVO	FI032, FI021	R/L, R/L	2	2C
FI132	POHJOIS-SAVO	FI017, FI006, FI040	T/N, R/L, R/L	3	3B
FI133	POHJOIS-KARJALA	FI008	R/L	1	1C
FI134	KAINUU	FI011	R/L	1	1C
FI141	KESKI-SUOMI	FI010, FIX01	T/N, R/L	2	2B
FI142	ETELA-POHJANMAA	FI033	R/L	1	1C-
FI143	POHJANMAA	FI037, FIX02	T/N, R/L	2	2B
FI144	KESKI-POHJANMAA	FI014	R/L	1	1C
FI151	POHJOIS-POHJANMAA	FI023, FI044	T/N, R/L	2	2B
FI152	LAPPI	FI030, FI012, FI035	R/L, R/L, R/L	3	3C
FI161	UUSIMAA (MAAKUNTA)	FI003, FI043, FIX03	MEGA, R/L, R/L	3	3A
FI162	ITA-UUSIMAA			0+	0+
FI171	VARSINAIS-SUOMI	FI036, FI031	T/N, R/L	2	2B
FI172	SATAKUNTA	FI025, FI028	T/N, R/L	2	2B
FI173	KANTA-HAME	FI041, FI002, FI029	R/L, R/L, R/L	3	3C
FI174	PIRKANMAA	FI034	T/N	1	1B
FI175	PAIJAT-HAME	FI019	R/L	1	1C
FI176	KYMENLAAKSO	FI015, FI016	T/N, R/L	2	2B
FI177	ETELA-KARJALA	FI020, FI007	T/N, R/L	2	2B
FI2	AALAND	FI042	R/L	1	1C
FR101	PARIS	FR159	MEGA	1+	1+A
FR102	SEINE-ET-MARNE	FR380	R/L	1	1C-
FR103	YVELINES			0+	0+
FR104	ESSONNE			0+	0+
FR105	HAUTS-DE-SEINE			0+	0+
FR106	SEINE-SAINT-DENIS			0+	0+
FR107	VAL-DE-MARNE			0+	0+
FR108	VAL-D'OISE			0+	0+
FR211	ARDENNES	FR057, FR192	R/L, R/L	2	2C-
FR212	AUBE	FR205	R/L	1	1C
FR213	MARNE	FR170, FRX02, FR082, FR460	T/N, R/L, R/L, R/L	3	3B
FR214	HAUTE-MARNE	FR180, FR061	R/L, R/L	2	2C-
FR221	AISNE	FR186, FR196, FR108, FR287	R/L, R/L, R/L, R/L	3	3C-
FR222	OISE	FR030, FR068, FR071	T/N, R/L, R/L	3	3B-
FR223	SOMME	FR009, FR001	T/N, R/L	2	2B
FR231	EURE	FR084	R/L	1	1C-
FR232	SEINE-MARITIME	FR112, FR176, FR073, FR306, FR086	T/N, T/N, R/L, R/L, R/L	3	3B
FR241	CHER	FR040, FR217	R/L, R/L	2	2B

FR242	EURE-ET-LOIR	FR058, FR078, FR285, FR386	R/L, R/L, R/L, R/L	3	3C
FR243	INDRE	FR059	R/L	1	1C-
FR244	INDRE-ET-LOIRE	FR203	T/N	1	1B
FR245	LOIR-ET-CHER	FR036, FR411, FR454	R/L, R/L, R/L	3	3C
FR246	LOIRET	FR156, FR378	T/N, R/L	2	2B
FR251	CALVADOS	FR045, FR458, FR120, FR257, FR450	T/N, R/L, R/L, R/L, R/L	3	3B
FR252	MANCHE	FR062, FR182	R/L, R/L	2	2C-
FR253	ORNE	FR007, FR248	R/L, R/L	2	2C-
FR261	COTE-D'OR	FR074, FR029, FRX03	T/N, R/L, R/L	3	3B
FR262	NIEVRE	FR151	R/L	1	1C-
FR263	SAONE-ET-LOIRE	FR054, FR125, FR022	R/L, R/L, R/L	3	3C-
FR264	YONNE	FR023, FR193	R/L, R/L	2	2C-
FR301	NORD	FR118, FR209, FR076, FR079, FR130, FR048, FR017	MEGA, T/N, T/N, T/N, R/L, R/L, R/L	3	3A
FR302	PAS-DE-CALAIS	FR018, FR034, FR047, FR038, FR435	R/L, R/L, R/L, R/L, R/L	3	3C
FR411	MEURTHE-ET-MOSELLE	FR148, FR123, FR448	T/N, R/L, R/L	3	3B
FR412	MEUSE	FR026, FR212	R/L, R/L	2	2C-
FR413	MOSELLE	FR134, FR089, FR199, FR190, FR437, FR422	T/N, R/L, R/L, R/L, R/L, R/L	3	3B
FR414	VOSGES	FR083, FR179	R/L, R/L	2	2C-
FR421	BAS-RHIN	FR197, FR099	T/N, R/L	2	2B
FR422	HAUT-RHIN	FR147, FR066, FR331, FR418, FR444	T/N, R/L, R/L, R/L, R/L	3	3B
FR431	DOUBS	FR033, FR399, FR140	T/N, R/L, R/L	3	3B
FR432	JURA	FR121, FR075	R/L, R/L	2	2C-
FR433	HAUTE-SAONE	FR214	R/L	1	1C-
FR434	TERRITOIRE DE BELFORT	FR031	R/L	1	1C
FR511	LOIRE-ATLANTIQUE	FR149, FR184, FR284, FR405	T/N, R/L, R/L, R/L	3	3B
FR512	MAINE-ET-LOIRE	FR010, FR063, FR191	T/N, R/L, R/L	3	3B
FR513	MAYENNE	FR109, FR286, FR370	R/L, R/L, R/L	3	3C
FR514	SARTHE	FR113	T/N	1	1B
FR515	VENDEE	FR106	T/N	1	1B-
FR521	COTES-DA'RMOR	FR177, FR349, FR303, FR332	R/L, R/L, R/L, R/L	3	3C-
FR522	FINISTERE	FR042, FR168, FR381	T/N, R/L, R/L	3	3B
FR523	ILLE-ET-VILAINE	FR171, FR183, FR090, FR304	T/N, R/L, R/L, R/L	3	3B

FR524	MORBIHAN	FR122, FR211, FR401	T/N, R/L, R/L	3	3B
FR531	CHARENTE	FR011, FR065	R/L, R/L	2	2C
FR532	CHARENTE-MARITIME	FR107, FR188, FR173	T/N, R/L, R/L	3	3B-
FR533	DEUX-SEVRES	FR154	R/L	1	1C-
FR534	VIENNE	FR165, FR060	T/N, R/L	2	2B
FR611	DORDOGNE	FR032, FR161	R/L, R/L	2	2C-
FR612	GIRONDE	FR037, FR117, FR247	MEGA, R/L, R/L	3	3A
FR613	LANDES	FR138, FR299	R/L, R/L	2	2C-
FR614	LOT-ET-GARONNE	FR002, FR219, FR367	R/L, R/L, R/L	3	3C
FR615	PYRENEES-ATLANTIQUES	FR160, FR028, FR390	T/N, R/L, R/L	3	3B
FR621	ARIEGE	FR393	R/L	1	1C-
FR622	AVEYRON	FR174, FR136	R/L, R/L	2	2C-
FR623	HAUTE-GARONNE	FR202	MEGA	1	1A
FR624	GERS	FR020	R/L	1	1C-
FR625	LOT	FR046	R/L	1	1C-
FR626	HAUTES-PYRENEES	FR198, FR359	T/N, R/L	2	2B
FR627	TARN	FR006, FR052	R/L, R/L	2	2C-
FR628	TARN-ET-GARONNE	FR139	R/L	1	1C-
FR631	CORREZE	FR043, FR206	R/L, R/L	2	2C
FR632	CREUSE	FR228	R/L	1	1C-
FR633	HAUTE-VIENNE	FR119	T/N	1	1B
FR711	AIN	FR039	R/L	1	1C-
FR712	ARDECHE	FR014, FR249, FR232	R/L, R/L, R/L	3	3C-
FR713	DROME	FR208, FR175, FR142	T/N, R/L, R/L	3	3B
FR714	ISERE	FR096, FR216, FR461, FR414	T/N, R/L, R/L, R/L	3	3B
FR715	LOIRE	FR181, FR172, FR178, FR379	T/N, R/L, R/L, R/L	3	3B
FR716	RHONE	FR124, FR218	MEGA, R/L	2	2A
FR717	SAVOIE	FR240, FR056	R/L, T/N	2	2B-
FR718	HAUTE-SAVOIE	FR013, FR012, FR200, FR291	R/L, T/N, R/L, R/L	3	3B
FR721	ALLIER	FR215, FR144, FR146	R/L, R/L, R/L	3	3C
FR722	CANTAL	FR021	R/L	1	1C-
FR723	HAUTE-LOIRE	FR114	R/L	1	1C-
FR724	PUY-DE-DOME	FR064, FR340	T/N, R/L	2	2B
FR811	AUDE	FR050, FR150	R/L, R/L	2	2C-
FR812	GARD	FR153, FR008	T/N, R/L	2	2B-
FR813	HERAULT	FR145, FR035, FR194, FR363	T/N, R/L, R/L, R/L	3	3B
FR814	LOZERE			0	0
FR815	PYRENEES-ORIENTALES	FR162	T/N	1	1B
FR821	ALPES-DE-HAUTE-PROVENCE	FR225	R/L	1	1C-
FR822	HAUTES-ALPES	FR092	R/L	1	1C-
FR823	ALPES-MARITIMES	FR152, FR133	MEGA, R/L	2	2A

FR824	BOUCHES-DU-RHONE	FR128, FR016, FR102, FR189	MEGA, R/L, R/L, R/L	3	3A
FR825	VAR	FR201, FR077, FR091	T/N, R/L, R/L	3	3B
FR826	VAUCLUSE	FR024	T/N	1	1B
FR831	CORSE-DU-SUD	FR005	T/N	1	1B
FR832	HAUTE-CORSE	FR027	R/L	1	1C
FR91	GUADELOUPE			0	0
FR92	MARTINIQUE			0	0
FR93	GUYANE			0	0
FR94	REUNION			0	0
GR111	EVROS	GR003, GR075	R/L, R/L	2	2C
GR112	XANTHI	GR036	R/L	1	1C
GR113	RODOPI	GR019	R/L	1	1C
GR114	DRAMA	GR006	R/L	1	1C
GR115	KAVALA	GR014	R/L	1	1C-
GR121	IMATHIA	GR034, GR072	R/L, R/L	2	2C-
GR122	THESSALONIKI	GR031	T/N	1	1B
GR123	KILKIS	GR047	R/L	1	1C-
GR124	PELLA	GR040, GR008	R/L, R/L	2	2C-
GR125	PIERIA	GR013	R/L	1	1C-
GR126	SERRES	GR030	R/L	1	1C-
GR127	CHALKIDIKI			0	0
GR131	GREVENA			0	0
GR132	KASTORIA			0	0
GR133	KOZANI	GR021, GR027	R/L, R/L	2	2C
GR134	FLORINA			0	0
GR141	KARDITSA	GR012	R/L	1	1C-
GR142	LARISA	GR023	T/N	1	1B-
GR143	MAGNISIA	GR035	R/L	1	1C-
GR144	TRIKALA	GR032	R/L	1	1C-
GR211	ARTA	GR038	R/L	1	1C-
GR212	THESPROTIA			0	0
GR213	IOANNINA	GR009	R/L	1	1C-
GR214	PREVEZA			0	0
GR221	ZAKYNTHOS			0	0
GR222	KERKYRA	GRX02	R/L	1	1C-
GR223	KEFALLINIA			0	0
GR224	LEFKADA			0	0
GR231	AITOLOAKARNANIA	GR001	R/L	1	1C-
GR232	ACHAIA	GR025, GR060	T/N, R/L	2	2B
GR233	ILEIA	GR026, GR062	R/L, R/L	2	2C-
GR241	VOIOTIA	GR059, GR076	R/L, R/L	2	2C-
GR242	EVVOIA	GR015	T/N	1	1B-
GR243	EVRYTANIA			0	0
GR244	FTHIOTIDA	GR022	R/L	1	1C-
GR245	FOKIDA			0	0
GR251	ARGOLIDA	GR004	R/L	1	1C-
GR252	ARKADIA	GR033	R/L	1	1C-
GR253	KORINTHIA	GR020	R/L	1	1C-
GR254	LAKONIA			0	0
GR255	MESSINIA	GR066	R/L	1	1C-

GR3	ATTIKI	GR005	MEGA	1	1A
GR411	LESVOS	GR024	R/L	1	1C-
GR412	SAMOS			0	0
GR413	CHIOS	GR017	R/L	1	1C-
GR421	DODEKANISOS	GR028	T/N	1	1B-
GR422	KYKLADES	GR065	R/L	1	1C-
GR431	IRAKLEIO	GR010	T/N	1	1B
GR432	LASITHI	GRX03	R/L	1	1C-
GR433	RETHYMNI	GR054	R/L	1	1C-
GR434	CHANIA	GR016	T/N	1	1B-
HU011	BUDAPEST	HU006	MEGA	1	1A
HU012	PEST	HU068, HU070, HU011, HU016, HU064, HU007, HU076, HU117, HU120, HUX18	R/L, R/L, R/L, R/L, R/L, R/L, R/L, R/L, R/L, R/L	3	3C
HU021	FEJER	HU055, HU012, HU087	R/L, R/L, R/L	3	3C
HU022	KOMAROM-ESZTERGOM	HU015, HU062, HU045	R/L, R/L, R/L	3	3C
HU023	VESZPREM	HUX03, HU066, HU001, HU048	R/L, R/L, R/L, R/L	3	3C
HU031	GYOR-MOSON-SOPRON	HU018, HU053, HU040	T/N, R/L, R/L	3	3B
HU032	VAS	HU060, HU086	R/L, R/L	2	2C
HU033	ZALA	HU067, HU041, HU030	R/L, R/L, R/L	3	3C
HU041	BARANYA	HU049, HU039	R/L, R/L	2	2C
HU042	SOMOGY	HU052, HU094, HUX08, HU026	R/L, R/L, R/L, R/L	3	3C
HU043	TOLNA	HU047, HU056	R/L, R/L	2	2C
HU051	BORSOD-ABAÚJ-ZEMPL+N	HU038, HU051, HU090, HU028, HU046, HU069, HU127	T/N, R/L, R/L, R/L, R/L, R/L, R/L	3	3B
HU052	HEVES	HU013, HU017, HU022	R/L, R/L, R/L	3	3C
HU053	NOGRAD	HU050, HUX19	R/L, R/L	2	2C-
HU061	HAJDU-BIHAR	HU009, HU021, HU075, HU020, HU079, HU080	T/N, R/L, R/L, R/L, R/L, R/L	3	3B
HU062	JASZ-NAGYKUN-SZOLNOK	HU027, HU104, HU059, HU024	R/L, R/L, R/L, R/L	3	3C
HU063	SZABOLCS-SZATMAR-BEREG	HU043, HUX07, HU036, HU071	R/L, R/L, R/L, R/L	3	3C
HU071	BACS-KISKUN	HU029, HU002, HU032, HU025, HU031, HU095	R/L, R/L, R/L, R/L, R/L, R/L	3	3C
HU072	BEKES	HU005, HU081, HU044, HU123	R/L, R/L, R/L, R/L	3	3C
HU073	CSONGRAD	HU054, HU023, HU035, HU057	T/N, R/L, R/L, R/L	3	3B
IE011	BORDER	IE004	R/L	1	1C-
IE012	MIDLAND			0	0
IE013	WEST	IE005	T/N	1	1B-

IE021	DUBLIN	IE006	MEGA	1	1A
IE022	MID-EAST			0	0
IE023	MID-WEST	IE007	T/N	1	1B-
IE024	SOUTH-EAST (IRL)	IE008	R/L	1	1C-
IE025	SOUTH-WEST (IRL)	IE002, IE036	T/N, R/L	2	2B-
IT111	TORINO	IT410, IT197, IT308, IT076, IT108, ITX04, IT509	MEGA, R/L, R/L, R/L, R/L, R/L, R/L	3	3A
IT112	VERCELLI	IT433	R/L	1	1C-
IT113	BIELLA	IT050, IT519	R/L, R/L	2	2C
IT114	VERBANO-CUSIO-OSSOLA	IT526, ITX100	R/L, R/L	2	2C
IT115	NOVARA	IT279, IT464	R/L, R/L	2	2C
IT116	CUNEO	IT135, IT012, IT162	R/L, R/L, R/L	3	3C
IT117	ASTI	IT032	R/L	1	1C
IT118	ALESSANDRIA	IT016, IT079, IT281, IT413	R/L, R/L, R/L, R/L	3	3C
IT12	VALLE D'AOSTA	IT023	R/L	1	1C
IT131	IMPERIA	IT367, IT195, IT431	R/L, R/L, R/L	3	3C
IT132	SAVONA	IT449, IT378	R/L, R/L	2	2C
IT133	GENOVA	IT174, IT107	MEGA, R/L	2	2A
IT134	LA SPEZIA	IT200	T/N	1	1B
IT201	VARESE	IT062, IT426, IT170, ITX96, IT566	R/L, R/L, R/L, R/L, R/L	3	3C
IT202	COMO	IT123	R/L	1	1C
IT203	LECCO	IT206	R/L	1	1C
IT204	SONDRIO	IT397	R/L	1	1C-
IT205	MILANO	IT240, IT138	MEGA, R/L	2	2A
IT206	BERGAMO	IT048, IT418	T/N, R/L	2	2B
IT207	BRESCIA	IT058, IT218, IT508, IT137, IT525, IT573, IT610, IT648, ITX42, ITX65, ITX70	T/N, R/L, R/L, R/L, R/L, R/L, R/L, R/L, R/L, R/L, R/L	3	3B
IT208	PAVIA	IT301, IT438, IT445	R/L, R/L, R/L	3	3C
IT209	LODI	IT214	R/L	1	1C
IT20A	CREMONA	IT133, IT132	R/L, R/L	2	2C
IT20B	MANTOVA	IT224, IT688	R/L, R/L	2	2C
IT311	BOLZANO-BOZEN	IT237, IT055, IT468, IT470	R/L, R/L, R/L, R/L	3	3C
IT312	TRENTO	IT639, IT417, IT349	R/L, T/N, R/L	3	3B
IT321	VERONA	IT434, IT651, IT207	T/N, R/L, R/L	3	3B
IT322	VICENZA	IT437, IT044, IT029, IT382, IT424, IT696, ITX49	R/L, R/L, R/L, R/L, R/L, R/L, R/L	3	3C
IT323	BELLUNO	IT150, IT046	R/L, R/L	2	2C
IT324	TREVISO	IT419, IT089, IT124, IT258, IT600, IT444	R/L, R/L, R/L, R/L, R/L, R/L	3	3C
IT325	VENEZIA	IT430, IT356, IT324	T/N, R/L, R/L	3	3B
IT326	PADOVA	IT293, ITX29	T/N, R/L	2	2B
IT327	ROVIGO	ITX86, IT350	R/L, R/L	2	2C
IT331	PORDENONE	IT320	R/L	1	1C
IT332	UDINE	IT423	T/N	1	1B
IT333	GORIZIA	IT255, IT182	R/L, R/L	2	2C
IT334	TRIESTE	IT421	T/N	1	1B

IT401	PIACENZA	IT305	R/L	1	1C
IT402	PARMA	IT298, IT153	T/N, R/L	2	2B
IT403	REGGIO NELL' EMILIA	IT336, IT548	R/L, R/L	2	2C
IT404	MODENA	IT246, IT377, IT720, IT077	R/L, R/L, R/L, R/L	3	3C
IT405	BOLOGNA	IT054, IT194	MEGA, R/L	2	2A
IT406	FERRARA	IT152, ITX34	R/L, R/L	2	2C
IT407	RAVENNA	IT217, IT334, IT145	R/L, R/L, R/L	3	3C
IT408	FORLI-CESENA	IT105, IT159	R/L, R/L	2	2C
IT409	RIMINI	IT342	R/L	1	1C
IT511	MASSA-CARRARA	IT078, IT231	R/L, R/L	2	2C
IT512	LUCCA	IT215, ITX06, ITX21, IT435	R/L, R/L, R/L, R/L	3	3C
IT513	PISTOIA	IT259, IT312	R/L, R/L	2	2C
IT514	FIRENZE	IT154, IT140	T/N, R/L	2	2B
IT515	PRATO	IT327	R/L	1	1C
IT516	LIVORNO	IT213, IT310, ITX89	T/N, R/L, R/L	3	3B
IT517	PISA	IT311, IT319, IT668	T/N, R/L, R/L	3	3B
IT518	AREZZO	IT025, IT130	R/L, R/L	2	2C-
IT519	SIENA	IT313, IT394	R/L, R/L	2	2C
IT51A	GROSSETO	IT186	R/L	1	1C-
IT521	PERUGIA	IT302, IT156, IT190	T/N, R/L, R/L	3	3B-
IT522	TERNI	IT407	R/L	1	1C
IT531	PESARO E URBINO	IT303, IT147	R/L, R/L	2	2C
IT532	ANCONA	IT019, IT144, IT198, IT288, IT387	R/L, R/L, R/L, R/L, R/L	3	3C
IT533	MACERATA	IT219	R/L	1	1C-
IT534	ASCOLI PICENO	IT030, IT354, IT151	R/L, R/L, R/L	3	3C
IT601	VITERBO	IT442	R/L	1	1C-
IT602	RIETI	IT341	R/L	1	1C
IT603	ROMA	IT344, IT428, IT117	MEGA, R/L, R/L	3	3A
IT604	LATINA	IT204, IT024, IT160, IT408	R/L, R/L, R/L, R/L	3	3C
IT605	FROSINONE	IT166, IT087, IT398	R/L, R/L, R/L	3	3C
IT711	L'AQUILA	IT199, IT036, IT401	R/L, R/L, R/L	3	3C
IT712	TERAMO	IT403, IT180	R/L, R/L	2	2C
IT713	PESCARA	IT304	R/L	1	1C
IT714	CHIETI	IT109, IT203, IT427	R/L, R/L, R/L	3	3C
IT721	ISERNIA	IT196	R/L	1	1C
IT722	CAMPOBASSO	IT069, IT406	R/L, R/L	2	2C
IT801	CASERTA	IT084, IT035	R/L, R/L	2	2C
IT802	BENEVENTO	IT047	R/L	1	1C-
IT803	NAPOLI	IT267, IT090, IT276, IT364, IT411, IT684	MEGA, R/L, R/L, R/L, R/L, R/L	3	3A
IT804	AVELLINO	IT034	R/L	1	1C-
IT805	SALERNO	IT353, IT273, IT045, IT139	T/N, R/L, R/L ,R/L	3	3B
IT911	FOGGIA	IT155, IT100, IT223, IT368	R/L, R/L, R/L, R/L	3	3C
IT912	BARI	IT042, IT043, IT051, IT177	T/N, R/L, R/L, R/L	3	3B
IT913	TARANTO	IT402, IT176, IT230	R/L, R/L, R/L	3	3C
IT914	BRINDISI	IT060	R/L	1	1C

IT915	LECCE	IT205, IT171, IT268, IT486	R/L, R/L, R/L, R/L	3	3C
IT921	POTENZA	IT325, IT578	R/L, R/L	2	2C-
IT922	MATERA	IT233	R/L	1	1C-
IT931	COSENZA	IT131, IT348	R/L, R/L	2	2C-
IT932	CROTONE	IT134	R/L	1	1C
IT933	CATANZARO	IT094, ITX102	R/L, R/L	2	2C
IT934	VIBO VALENTIA	IT436	R/L	1	1C-
IT935	REGGIO DI CALABRIA	IT335, IT612, IT543	R/L, R/L, R/L	3	3C
ITA01	TRAPANI	IT229, IT416, IT015, IT091	R/L, R/L, R/L, R/L	3	3C
ITA02	PALERMO	IT295, IT039, IT405	T/N, R/L, R/L	3	3B
ITA03	MESSINA	IT239, IT041, IT241	R/L, R/L, R/L	3	3C
ITA04	AGRIGENTO	IT010, IT383	R/L, R/L	2	2C
ITA05	CALTANISSETTA	IT066, IT173	R/L, R/L	2	2C
ITA06	ENNA	IT141	R/L	1	1C
ITA07	CATANIA	IT093, IT007, IT065, IT175	T/N, R/L, R/L, R/L	3	3B
ITA08	RAGUSA	IT247, IT332, IT443	R/L, R/L, R/L	3	3C
ITA09	SIRACUSA	IT395, IT209	R/L, R/L	2	2C
ITB01	SASSARI	IT376, IT017, IT283	R/L, R/L, R/L	3	3C
ITB02	NUORO	IT568, IT282	R/L, R/L	2	2C-
ITB03	ORISTANO	IT285	R/L	1	1C-
ITB04	CAGLIARI	IT063, IT193	T/N, R/L	2	2B
LT001	ALYTAUS (APSKRITIS)	LT001	R/L	1	1C-
LT002	KAUNO (APSKRITIS)	LT002	T/N	1	1B-
LT003	KLAIPEDOS (APSKRITIS)	LT003	T/N	1	1B-
LT004	MARIJAMPOLES (APSKRITIS)	LT007	R/L	1	1C-
LT005	PANEVEZIO (APSKRITIS)	LT004	R/L	1	1C-
LT006	SIAULIU (APSKRITIS)	LT005	R/L	1	1C-
LT007	TAURAGES (APSKRITIS)			0	0
LT008	TELSIU (APSKRITIS)	LT035	R/L	1	1C-
LT009	UTENOS (APSKRITIS)			0	0
LT00A	VILNIAUS (APSKRITIS)	LT006	MEGA	1	1A
LU	LUXEMBOURG (GRAND-DUCHE)	LU002, LU001	MEGA, R/L	2	2A
LV001	RIGA	LV004	MEGA	1	1A
LV002	VIDZEME	LV008	R/L	1	1C-
LV003	KURZEME	LV003, LV005	R/L, R/L	2	2C-
LV004	ZEMGALE	LV002, LV009	R/L, R/L	2	2C-
LV005	LATGALE	LV001, LV007	R/L, R/L	2	2C-
MT001	MALTA	MT001	MEGA	1	1A
MT002	GOZO AND COMINO			0	0
NL111	OOST-GRONINGEN			0	0
NL112	DELFZIJL E.O.			0	0
NL113	OVERIG GRONINGEN	NL030	T/N	1	1B
NL121	NOORD-FRIESLAND	NL042	T/N	1	1B-
NL122	ZUIDWEST-FRIESLAND			0	0
NL123	ZUIDOOST-FRIESLAND			0	0
NL131	NOORD-DRENTHE	NL010	R/L	1	1C-
NL132	ZUIDOOST-DRENTHE	NL023	R/L	1	1C
NL133	ZUIDWEST-DRENTHE			0	0
NL211	NOORD-OVERIJSSEL	NL084	T/N	1	1B-

NL212	ZUIDWEST-OVERIJSSEL	NL018	R/L	1	1C
NL213	TWENTE	NL024	T/N	1	1B
NL221	VELUWE	NL008, NL221	R/L, R/L	2	2C
NL222	ACHTERHOEK			0	0
NL223	ARNHEM/NIJMEGEN	NL009, NL049	T/N, T/N	2	2B
NL224	ZUIDWEST-GELDERLAND			0	0
NL23	FLEVOLAND	NL085, NLX01	R/L, R/L	2	2C
NL31	UTRECHT	NL066, NL006, NL069	T/N, R/L, R/L	3	3B
NL321	KOP VAN NOORD-HOLLAND	NL039, NL017	R/L, R/L	2	2C-
NL322	ALKMAAR E.O.	NL003	R/L	1	1C-
NL323	IJMOND	NL070	R/L	1	1C-
NL324	AGGLOM. HAARLEM	NL031	R/L	1+	1+C
NL325	ZAANSTREEK			0	0
NL326	GROOT-AMSTERDAM	NL007	MEGA	1	1A
NL327	HET GOOI EN VECHTSTREEK	NL036	R/L	1	1C-
NL331	AGGLOM. LEIDEN EN BOLLENST.	NL043	T/N	1	1B
NL332	AGGLOM.'S-GRAVENHAGE	NL001	T/N	1+	1+B
NL333	DELFT EN WESTLAND			0	0
NL334	OOST ZUID-HOLLAND	NL029, NL005	R/L, R/L	2	2C-
NL335	GROOT-RIJNMOND	NL056	MEGA	1	1A
NL336	ZUIDOOST ZUID-HOLLAND	NL020	R/L	1	1C
NL341	ZEEUWSCH-VLAANDEREN			0	0
NL342	OVERIG ZEELAND			0	0
NL411	WEST-NOORD-BRABANT	NL013, NL011, NL055	T/N, R/L, R/L	3	3B
NL412	MIDDEN-NOORD-BRABANT	NL065	T/N	1	1B
NL413	NOORDOOST-NOORD-BRABANT	NL002	T/N	1	1B-
NL414	ZUIDOOST-NOORD-BRABANT	NL022	T/N	1	1B
NL421	NOORD-LIMBURG	NL071	R/L	1	1C-
NL422	MIDDEN-LIMBURG			0	0
NL423	ZUID-LIMBURG	NL045, NL033, NL026	T/N, R/L, R/L	3	3B
NO011	OSLO	NO017	MEGA	1+	1+A
NO012	AKERSHUS			0+	0+
NO021	HEDMARK	NO032, NO037, NO041	R/L, R/L, R/L	3	3C
NO022	OPPLAND	NO014, NO007	R/L, R/L	2	2C
NO031	OSTFOLD	NO006, NO016, NO035, NO038	R/L, R/L, R/L, R/L	3	3C
NO032	BUSKERUD	NO005, NO011, NOX02	R/L, R/L, R/L	3	3C
NO033	VESTFOLD	NO027, NO013	R/L, R/L	2	2C
NO034	TELEMARK	NOX06, NOX05	R/L, R/L	2	2C
NO041	AUST-AGDER	NO030	R/L	1	1C
NO042	VEST-AGDER	NO012	T/N	1	1B
NO043	ROGALAND	NO025, NO009	T/N, R/L	2	2B
NO051	HORDALAND	NO003, NOX03	MEGA, R/L	2	2A
NO052	SOGN OG FJORDANE			0	0
NO053	MORE OG ROMSDAL	NO001, NO015, NO042, NOX08	T/N, R/L, R/L, R/L	3	3B
NO061	SOR-TRONDELAG	NO029	T/N	1	1B

NO062	NORD-TRONDELAG	NO026, NOX04	R/L, R/L	2	2C
NO071	NORDLAND	NO004, NO044, NO045, NO008, NOX07	R/L, R/L, R/L, R/L, R/L	3	3C
NO072	TROMS	NO028	R/L	1	1C-
NO073	FINNMARK			0	0
PL011	JELENIOGÓRSKO-WALBRZYSKI	PL058, PL181	R/L, R/L	2	2C-
PL012	LEGNICKI	PL084	R/L	1	1C-
PL013	WROCLAWSKI			0	0
PL014	M. WROCLAW	PL189	MEGA	1	1A
PL021	BYDGOSKI	PL017	T/N	1	1B-
PL022	TORUNSKO_WLOCLAWSKI	PL176, PL186, PL047	R/L, R/L, R/L	3	3C-
PL031	BIALSKOPODLASKI	PL006	R/L	1	1C-
PL032	CHELMSKO-ZAMOJSKI	PL196, PL019	R/L, R/L	2	2C-
PL033	LUBELSKI	PL093	T/N	1	1B-
PL041	GORZOWSKI	PL042	R/L	1	1C-
PL042	ZIELONOGÓRSKI	PL201	T/N	1	1B-
PL051	LÓDZKI			0	0
PL052	PIOTRKOWSKO-SKIERNIEWICKI	PL127, PL149	R/L, R/L	2	2C-
PL053	M. LÓDZ	PL086	T/N	1	1+B
PL061	KRAKOWSKO-TARNOWSKI	PL171	R/L	1	1C-
PL062	NOWOSADECKI	PL107	R/L	1	1C-
PL063	M. KRAKÓW	PL074	MEGA	1	1A
PL071	CIECHANOWSKO-PLOCKI	PL128	R/L	1	1C-
PL072	OSTROLECKO-SIEDLECKI	PL145, PL117	R/L, R/L	2	2C-
PL073	WARSZAWSKI			0	0
PL074	RADOMSKI	PL138	R/L	1	1C-
PL075	M. WARZAWA	PL183	MEGA	1	1A
PL08	OPOLSKI	PL115	T/N	1	1B-
PL091	RZESZOWSKO-TARNOBRZESKI	PL142	T/N	1	1B-
PL092	KRÓSNIENSKO-PRZEMYSKI	PL134, PL078	R/L, R/L	2	2C-
PL0A1	BIALOSTOCKO-SUWALSKI	PL008, PL161	T/N, R/L	2	2B-
PL0A2	LOMZYNSKI	PL087	R/L	1	1C-
PL0B1	SLUPSKI	PL150	R/L	1	1C-
PL0B2	GDANSKI			0	0
PL0B3	GDANSK-GDYNIA-SOPOT	PL034	MEGA	1	1A
PL0C1	PÓLNOCNOSLASKI	PL027	T/N	1	1B-
PL0C2	POLUDNIOWOSLASKI	PL010, PL141	T/N, R/L	2	2B
PL0C3	CENTRALNY SLASKI	PL061	MEGA	1	1A
PL0D	SWIETOKRZYSKI	PL064	T/N	1	1B-
PL0E1	ELBLASKI	PL032	R/L	1	1C-
PL0E2	OLSZTYNSKI	PL113	T/N	1	1B-
PL0E3	ELCKI			0	0
PL0F1	PILSKI			0	0
PL0F2	POZNANSKI	PL085	R/L	1	1C-
PL0F3	KALISKI	PL059	R/L	1	1C-
PL0F4	KONINSKI	PL069	R/L	1	1C-
PL0F5	M.POZNAN	PL130	T/N	1	1B
PL0G1	SZCZECINSKI	PL167, PL166	T/N, R/L	2	2B-
PL0G2	KOSZALINSKI	PL073	R/L	1	1C-
PT111	MINHO-LIMA	PTX13	R/L	1	1C-

PT112	CAVADO	PT007, PTX06	T/N, R/L	2	2B
PT113	AVE	PT016, PT090, PT050, PTX10	R/L, R/L, R/L, R/L	3	3C
PT114	GRANDE PORTO	PT022	MEGA	1	1A
PT115	TAMEGA	PTX03	R/L	1	1C-
PT116	ENTRE DOURO E VOUGA	PTX14, PT091	R/L, R/L	2	2C
PT117	DOURO	PT101, PTX02	R/L, R/L	2	2C-
PT118	ALTO TRAS-OS-MONTES	PT037, PT043	R/L, R/L	2	2C-
PT121	BAIXO VOUGA	PT006, PTX09, PTX08, PTO64, PTX04, PT057	T/N, R/L, R/L, R/L, R/L, R/L	3	3B
PT122	BAIXO MONDEGO	PT009, PT052	T/N, R/L	2	2B
PT123	PINHAL LITORAL	PT061	R/L	1	1C-
PT124	PINHAL INTERIOR NORTE			0	0
PT125	DAO-LAFOES	PT027	R/L	1	1C-
PT126	PINHAL INTERIOR SUL			0	0
PT127	SERRA DA ESTRELA			0	0
PT128	BEIRA INTERIOR NORTE	PTX01, PT056	R/L, R/L	2	2C
PT129	BEIRA INTERIOR SUL	PT008	R/L	1	1C-
PT12A	COVA DA BEIRA	PT011	R/L	1	1C-
PT131	OESTE	PT040, PT095, PT077	R/L, R/L, R/L	3	3C-
PT132	GRANDE LISBOA	PT018, PT075	MEGA, R/L	1+	1+A
PT133	PENINSULA DE SETUBAL			0	0
PT134	MEDIO TEJO	PTX12	R/L	1	1C-
PT135	LEZIRIA DO TEJO	PT088	R/L	1	1C-
PT141	ALENTEJO LITORAL			0	0
PT142	ALTO ALENTEJO			0	0
PT143	ALENTEJO CENTRAL	PT013	R/L	1	1C-
PT144	BAIXO ALENTEJO	PT036	R/L	1	1C-
PT15	ALGARVE	PT014, PT082, PT020, PTX11, PTX07, PTX05	T/N, R/L, R/L, R/L, R/L, R/L	3	3B
PT2	ACORES	PT021	R/L	1	1C-
PT3	MADEIRA	PT015	T/N	1	1B-
RO011	BACAU	RO006, RO050	R/L, R/L	2	2C-
RO012	BOTOSANI	RO016	R/L	1	1C-
RO013	IASI	RO056	T/N	1	1B-
RO014	NEAMT	RO075, TO083	R/L, R/L	2	2C-
RO015	SUCEAVA	RO094	R/L	1	1C-
RO016	VASLUI	RO107, RO011	R/L	2	2C-
RO021	BRAILA	RO018	R/L	1	1C
RO022	BUZAU	RO022	R/L	1	1C-
RO023	CONSTANTA	RO036, RO059	T/N, R/L	2	2B-
RO024	GALATI	RO049	T/N	1	1B-
RO025	TULCEA	RO104	R/L	1	1C-
RO026	VRANCEA	RO048	R/L	1	1C-
RO031	ARGES	RO076, RO030, RO132	T/N, R/L, R/L	3	3B-
RO032	CALARASI	RO023	R/L	1	1C-
RO033	DAMBOVITA	RO097	R/L	1	1C-
RO034	GIURGIU	RO053	R/L	1	1C-

RO035	IALOMITA	RO093	R/L	1	1C-
RO036	PRAHOVA	RO077, RO029	T/N, R/L	2	2B-
RO037	TELEORMAN	RO004	R/L	1	1C-
RO041	DOLJ	RO038	T/N	1	1B-
RO042	GORJ	RO099	R/L	1	1C-
RO043	MEHEDINTI	RO112	R/L	1	1C-
RO044	OLT	RO092, RO010	R/L, R/L	2	2C-
RO045	VALCEA	RO082	R/L	1	1C-
RO051	ARAD	RO005	R/L	1	1C-
RO052	CARAS-SEVERIN	RO080	R/L	1	1C-
RO053	HUNEDOARA	RO042, RO054, RO074	R/L, R/L, R/L	3	3C-
RO054	TIMIS	RO096, RO057	T/N, R/L	2	2B
RO061	BIHOR	RO070	T/N	1	1B-
RO062	BISTRITA-NASAUD	RO012	R/L	1	1C-
RO063	CLUJ	RO033, RO105	T/N, R/L	2	2B
RO064	MARAMURES	RO007	R/L	1	1C-
RO065	SATU MARE	RO087	R/L	1	1C-
RO066	SALAJ	RO110	R/L	1	1C-
RO071	ALBA	RO003, RO013	R/L, R/L	2	2C-
RO072	BRASOV	RO019, RO034, RO085	T/N, R/L, R/L	3	3B
RO073	COVASNA	RO089	R/L	1	1C-
RO074	HARGHITA	RO062, RO068	R/L, R/L	2	2C-
RO075	MURES	RO100	R/L	1	1C-
RO076	SIBIU	RO090, RO061	R/L, R/L	2	2C-
RO081	BUCURESTI	RO020	MEGA	1	1A
RO082	ILFOV	RO195	R/L	1	1C-
SE011	STOCKHOLM LÄN	SE036	MEGA	1	1A
SE021	UPPSALA LAEN	SE044	T/N	1	1B
SE022	SOEDERMANLANDS LAEN	SE006, SE029	R/L, R/L	2	2C
SE023	OESTERGOETLANDS LAEN	SE023, SE028	T/N, R/L	2	2B
SE024	OEREBRO LAEN	SE030, SE014	R/L, R/L	2	2C
SE025	VAESTMANLANDS LAEN	SE054, SE068, SE070	T/N, R/L, R/L	3	3B
SE041	BLEKINGE LAEN	SE015, SE083	R/L, R/L	2	2C
SE044	SKAANE LAEN	SE026, SE011, SE019	MEGA, T/N, R/L	3	3A
SE061	VAERMLANDS LAEN	SE016	T/N	1	1B-
SE062	DALARNAS LAEN	SE007	T/N	1	1B
SE063	GAEVLEBORGS LAEN	SE049, SE099	T/N, R/L	2	2B
SE071	VAESTERNORRLANDS LAEN	SE037, SE085, SE050	R/L, R/L, R/L	3	3C
SE072	JAEMTLANDS LAEN	SE052	R/L	1	1C
SE081	VAESTERBOTTENS LAEN	SE042, SE032	T/N, R/L	2	2B
SE082	NORRBOTTENS LAEN	SE024, SE018	T/N, R/L	2	2B
SE091	JOENKOEPINGS LAEN	SE012, SE073, SE075	T/N, R/L, R/L	3	3B
SE092	KRONOBERGS LAEN	SE055, SE079	R/L, R/L	2	2C
SE093	KALMAR LAEN	SE013, SE080, SE081	T/N, R/L, R/L	3	3B
SE094	GOTLANDS LAEN	SE047	R/L	1	1C

SE0A1	HALLANDS LAEN	SE010, SE046, SE090	T/N, R/L, R/L	3	3B
SE0A2	VAESTRA GOETALANDS LAEN	SE008, SE004, SE033, SE040, SE041, SE022, SE051	MEGA, R/L, R/L, R/L, R/L, R/L, R/L	3	3A
SI001	POMURSKA			0	0
SI002	PODRAVSKA	SI010	R/L	1	1C
SI003	KOROSKA			0	0
SI004	SAVINJSKA	SI002	R/L	1	1C
SI005	ZASAVSKA			0	0
SI006	SPODNJEPOSAVSKA			0	0
SI009	GORENJSKA			0+	0+
SI00A	NOTRANJSKO-KRASKA			0	0
SI00B	GORISKA	SI024	R/L	1	1C
SI00C	OBALNO-KRASKA	SI023	T/N	1	1B
SI00D	JUGOVZHODNA SLOVENIJA	SI012	R/L	1	1C-
SI00E	OSREDNJESLOVENSKA	SI009	MEGA	1+	1+A
SK01	BRATISLAVSKÝ	SK004	MEGA	1	1A
SK021	TRNAVSKÝ KRAJ	SK035, SK055, SK030	T/N, R/L, R/L	3	3B-
SK022	TRENCIANSKÝ KRAJ	SK034, SK024, SK026, SK001	R/L, R/L, R/L, R/L	3	3C
SK023	NITRIANSKÝ KRAJ	SK018, SK019, SK013, SK032, SK053	T/N, R/L, R/L, R/L, R/L	3	3B
SK031	ZILINSKÝ KRAJ	SK038, SK014, SK016, SKXXX	T/N, R/L, R/L, R/L	3	3B
SK032	BANSKOBYSTRICKÝ KRAJ	SK002, SK015, SK037	T/N, R/L, R/L	3	3B
SK041	PRESOVSKÝ KRAJ	SK025, SK023, SK003, SK057	T/N, R/L, R/L, R/L	3	3B
SK042	KOSICKÝ KRAJ	SK012, SK017, SK033	T/N, R/L, R/L	3	3B
UKC11	HARTLEPOOL AND STOCKTON-ON-TEES	UK142	R/L	1	1C-
UKC12	SOUTH TEESIDE	UKX09	R/L	1	1C
UKC13	DARLINGTON	UK093	R/L	1	1C
UKC14	DURHAM CC			0	0
UKC21	NORTHUMBERLAND	UK429	R/L	1	1C-
UKC22	TYNESIDE-NEWCASTLE-GATESHEAD	UK274	T/N	1+	1+B
UKC23	SUNDERLAND	UK256	R/L	1	1C
UKD11	WEST CUMBRIA	UK283, UK297	R/L, R/L	2	2C-
UKD12	EAST CUMBRIA	UK067, UK164	R/L, R/L	2	2C-
UKD21	HALTON AND WARRINGTON	UK275	R/L	1	1C-
UKD22	CHESHIRE CC	UK071, UK090	R/L, R/L	2	2C-
UKD31	GREATER MANCHESTER SOUTH	UK133	MEGA	1+	1+A
UKD32	GREATER MANCHESTER NORTH	UK287, UKX02, UKX11	R/L, R/L, R/L	3	3C-
UKD41	BLACKBURN WITH DARWEN	UK038	R/L	1	1C
UKD42	BLACKPOOL	UK039	R/L	1	1C
UKD43	LANCASHIRE CC	UK055, UK223	R/L, R/L	2	2C-

UKD51	EAST MERSEYSIDE			0	0
UKD52	LIVERPOOL	UK178	T/N	1	1B
UKD53	SEFTON			0	0
UKD54	WIRRAL			0	0
UKE11	CITY OF KINGSTON UPON HULL			0	0
UKE12	EAST RIDING OF YORKSHIRE	UK050	R/L	1	1C-
UKE13	NORTH AND NORTH EAST LINCOLSHIRE	UKX06, UK235	T/N, R/L	2	2B
UKE21	YORK	UK301	T/N	1	1B
UKE22	NORTH YORKSHIRE CC	UK141	R/L	1	1C-
UKE31	BARNSLEY, DONCASTER AND ROTHERHAM	UK022, UK098	R/L, R/L	2	2C-
UKE32	SHEFFIELD	UK238	T/N	1	1B
UKE41	BRADFORD	UKX03	T/N	1	1B
UKE42	LEEDS	UKX07	T/N	1	1B
UKE43	CALDERDALE, KIRKLEES AND WAKEFIELD	UKX05, UK317	T/N, R/L	2	2B-
UKF11	DERBY	UK097	T/N	1	1B
UKF12	EAST DERBYSHIRE			0	0
UKF13	SOUTH AND WEST DERBYSHIRE			0	0
UKF14	NOTTINGHAM	UK208	T/N	1	1B
UKF15	NORTH NOTTINGHAMSHIRE	UK190	R/L	1	1C-
UKF16	SOUTH NOTTINGHAMSHIRE			0	0
UKF21	LEICESTER CITY	UK173	T/N	1	1B
UKF22	LEICESTERSHIRE CC AND RUTLAND	UK182, UK191	R/L, R/L	2	2C-
UKF23	NORTHAMPTONSHIRE	UK204, UK277	R/L, R/L	2	2C-
UKF3	LINCOLNSHIRE	UK177, UK043, UK128, UK245	R/L, R/L, R/L, R/L	3	3C-
UKG11	HEREFORDSHIRE			0	0
UKG12	WORCESTERSHIRE	UK166, UK296	R/L, R/L	2	2C-
UKG13	WARWICKSHIRE	UK276, UK230	T/N, R/L	2	2B-
UKG21	THE WREKIN	UK523, UK319	R/L, R/L	2	2C
UKG22	SHROPSHIRE CC	UK239	R/L	1	1C-
UKG23	STOKE-ON-TRENT	UKX12	T/N	1	1B
UKG24	STAFFORDSHIRE CC	UK057, UK063, UK249	R/L, R/L, R/L	3	3C-
UKG31	BIRMINGHAM	UKX01	MEGA	1	1A
UKG32	SOLIHULL			0	0
UKG33	COVENTRY	UK087	T/N	1	1B
UKG34	DUDLEY AND SANDWELL	UKX04	R/L	1	1C-
UKG35	WALSALL AND WOLVERHAMPTON	UKX14	T/N	1	1B
UKH11	PETERBOROUGH	UK214	R/L	1	1C
UKH12	CAMBRIDGESHIRE CC	UK062	R/L	1	1C-
UKH13	NORFOLK	UK207, UK131, UK169, UK338	T/N, R/L, R/L, R/L	3	3B-
UKH14	SUFFOLK	UK058, UK159, UK183, UK116	R/L, R/L, R/L, R/L	3	3C-
UKH21	LUTON	UK184	T/N	1+	1+B
UKH22	BEDFORDSHIRE CC	UK030	R/L	1	1C-
UKH23	HERTFORDSHIRE	UK252	R/L	1	1C-

UKH31	SOUTHEND-ON-SEA	UK243	R/L	1	1C
UKH32	THURROCK			0	0
UKH33	ESSEX CC	UK081, UK139, UK077	R/L, R/L, R/L	3	3C-
UKI11	INNER LONDON - WEST			0+	0+
UKI12	INNER LONDON - EAST	UK132	MEGA	1+	1+A
UKI21	OUTER LONDON - EAST AND NORTH EAST			0+	0+
UKI22	OUTER LONDON - SOUTH			0+	0+
UKI23	OUTER LONDON - WEST AND NORTH WEST			0+	0+
UKJ11	BERKSHIRE	UK224, UK045, UK241	T/N, R/L, R/L	3	3B
UKJ12	MILTON KEYNES	UK193	R/L	1	1C
UKJ13	BUCKINGHAMSHIRE CC	UK018	R/L	1	1C-
UKJ14	OXFORDSHIRE	UK211, UK021	T/N, R/L	2	2B-
UKJ21	BRIGHTON AND HOVE	UK051	T/N	1	1B
UKJ22	EAST SUSSEX CC	UK108, UK143	R/L, R/L	2	2C-
UKJ23	SURREY	UK136	T/N	1	1B-
UKJ24	WEST SUSSEX	UK089	R/L	1	1C-
UKJ31	PORTSMOUTH	UK221	T/N	1	1B
UKJ32	SOUTHAMPTON	UK242	T/N	1	1B
UKJ33	HAMPSHIRE CC	UK027, UK013	R/L, R/L	2	2C-
UKJ34	ISLE OF WIGHT			0	0
UKJ41	MEDWAY TOWNS			0	0
UKJ42	KENT CC	UK064, UK015, UK189, UK267, UK099	R/L, R/L, R/L, R/L, R/L	3	3C-
UKK11	CITY OF BRISTOL	UK052	T/N	1	1B
UKK12	NORTH AND NORTH EAST SOMERSET, SOUTH GLOUCESTERSHIRE	UK028, UK281	R/L, R/L	2	2C-
UKK13	GLOUCESTERSHIRE	UK070, UK125, UK255	R/L, R/L, R/L	3	3C-
UKK14	SWINDON	UK260	R/L	1	1C
UKK15	WILTSHIRE CC	UK233, UK273	R/L, R/L	2	2C-
UKK21	BOURNEMOUTH AND POOLE	UK044, UKX10	T/N, R/L	2	2B
UKK22	DORSET CC			0	0
UKK23	SOMERSET	UK262, UK049, UK300	R/L, R/L, R/L	3	3C-
UKK3	CORNWALL AND ISLES OF SCILLY	UK115, UK247	R/L, R/L	2	2C-
UKK41	PLYMOUTH	UK216	R/L	1	1C
UKK42	TORBAY	UKX13	R/L	1	1C-
UKK43	DEVON CC	UK112, UK023, UK202	T/N, R/L, R/L	3	3B-
UKL11	ISLE OF ANGLESEY			0	0
UKL12	GWYNEDD	UK513	T/N	1	1B
UKL13	CONWY AND DENBIGHSHIRE	UK003, UK082	R/L, R/L	2	2C-
UKL14	SOUTH WEST WALES	UK180	R/L	1	1C-
UKL15	CENTRAL VALLEYS	UK219	R/L	1	1C-
UKL16	GWENT VALLEYS			0	0

UKL17	BRIDGEND AND NEATH PORT TALBOT			0	0
UKL18	SWANSEA	UK259	R/L	1	1C
UKL21	MONMOUTHSHIRE AND NEWPORT			0	0
UKL22	CARDIFF AND VALE OF GLAMORGAN	UK066	T/N	1	1B
UKL23	FLINTSHIRE AND WREXHAM			0	0
UKL24	POWYS			0	0
UKM11	ABERDEEN CITY, ABERDEEN AND NORTH EAST MORAY	UK002	T/N	1	1B-
UKM21	ANGUS AND DUNDEE CITY	UK103	R/L	1	1C
UKM22	CLACKMANNANSHIRE AND FIFE	UK104, UK170	R/L, R/L	2	2C
UKM23	EAST LOTHIAN AND MIDLOTHIAN			0	0
UKM24	THE SCOTTISH BORDERS			0	0
UKM25	EDINBURGH, CITY OF	UK110	MEGA	1	1A
UKM26	FALKIRK	UK114	R/L	1	1C
UKM27	PERTH AND KINROSS AND STIRLING	UK253, UK213	R/L, R/L	2	2C-
UKM28	WEST LOTHIAN			0	0
UKM31	E AND W DUNBARTONSHIRE, HELENSBURGH AND LOMOND			0	0
UKM32	DUMFRIES AND GALLOWAY			0	0
UKM33	EAST AYRSHIRE AND NORTH AYRSHIRE MAINLAND	UK161, UK167	R/L, R/L	2	2C
UKM34	GLASGOW CITY	UK122	T/N	1+	1+B
UKM35	INVERCLYDE, EAST RENFREWSHIRE AND RENFREWSHIRE	UK134	R/L	1	1C-
UKM36	NORTH LANARKSHIRE			0	0
UKM37	SOUTH AYRSHIRE	UK020	R/L	1	1C
UKM38	SOUTH LANARKSHIRE			0	0
UKM41	CAITHNESS AND SUTHERLAND AND ROSS AND CROMARTY			0	0
UKM42	INVERNESS AND NAIRN AND MORAY, BADENOCH AND STRATHSPEY	UK158	R/L	1	1C
UKM43	LOCHABER, SKYE AND LOCHALSH AND ARGYLL AND THE ISLANDS			0	0
UKM44	COMHAIRLE NAN EILAN (WESTERN ISLES)			0	0
UKM45	ORKNEY ISLANDS			0	0
UKM46	SHETLAND ISLANDS			0	0
UKN01	BELFAST	UK031	T/N	1+	1+B
UKN02	OUTER BELFAST	UKX08	R/L	1	1C-
UKN03	EAST OF NORTHERN IRELAND	UK573	R/L	1	1C-
UKN04	NORTH OF NORTHERN IRELAND	UK318	R/L	1	1C-
UKN05	WEST AND SOUTH OF NORTHERN IRELAND			0	0

Annex 9. Level of polycentricity – draft run of polycentric areas

Code	Rank	Main cities	Total population	Population of most important FUA	Number of FUAs	Proportion of population living in most important FUA
976	1	Amsterdam - Bruxelles	16 916 409	1 378 873	55	8,15 %
696	2	Paris	13 372 352	11 174 743	18	83,57 %
593	3	Stuttgart - Mannheim - Frankfurt - Strasbourg	12 331 353	2 593 087	36	21,03 %
767	4	Köln - Düsseldorf	11 025 426	1 823 475	25	16,54 %
903	5	London	10 590 193	7 651 634	27	72,25 %
963	6	Manchester - Sheffield	9 518 287	2 277 330	41	23,93 %
952	7	Milano	8 280 716	2 890 384	35	34,91 %
557	8	Madrid	5 581 921	5 086 635	6	91,13 %
564	9	Barcelona	5 085 394	3 765 994	10	74,06 %
826	10	Napoli	4 558 145	2 381 483	14	52,25 %
653	11	Berlin	4 396 846	4 101 213	5	93,28 %
807	12	Roma	4 360 153	3 314 237	8	76,01 %
312	13	Ostrava	4 144 121	1 157 918	22	27,94 %
723	14	Athinai	3 875 769	3 761 810	4	97,06 %
948	15	Venezia - Padova	3 684 152	611 236	22	16,59 %
594	16	Hamburg	3 316 703	2 515 468	5	75,84 %
874	17	Bologna	3 004 463	682 724	18	22,72 %
854	18	Koebenhavn - Malmö	2 971 304	1 881 187	4	63,31 %
939	19	Budapest	2 912 607	1 775 203	16	60,95 %
504	20	Lisboa	2 698 578	2 590 792	3	96,01 %
591	21	Muenchen	2 505 795	1 893 715	4	75,57 %
873	22	Torino	2 477 506	1 545 202	10	62,37 %
683	23	Wien	2 329 054	1 550 123	7	66,56 %
876	24	Firenze	2 314 821	876 697	12	37,87 %
713	25	Lyon - Saint-Etienne	2 210 994	1 648 216	6	74,55 %
230	26	Bucuresti	2 184 198	1 921 751	3	87,98 %
848	27	Stockholm	2 171 702	1 890 253	2	87,04 %
536	28	Marseille - Aix	2 170 688	1 516 340	4	69,86 %
563	29	Valencia	2 134 758	1 397 809	6	65,48 %
525	30	Hannover	1 960 802	996 586	8	50,83 %
971	31	Porto	1 918 512	1 231 438	11	64,19 %
778	32	Zürich	1 868 697	940 180	16	50,31 %
917	33	Glasgow	1 850 320	1 323 100	7	71,51 %
357	34	Bielefeld - Osnabrück	1 678 079	578 980	8	34,50 %
199	35	Warszawa	1 606 701	1 606 701	1	100,00 %
520	36	Nurnberg	1 476 870	1 018 211	6	68,94 %
819	37	Bari	1 463 467	1 123 419	4	76,76 %
122	38	Praha	1 406 435	1 335 733	2	94,97 %
304	39	Riga	1 289 309	1 195 310	2	92,71 %
313	40	Helsinki	1 284 775	1 284 775	1	100,00 %
260	41	Sofia	1 278 436	1 173 811	2	91,82 %
474	42	Sevilla	1 261 806	1 180 197	2	93,53 %
929	43	Oslo	1 220 920	1 036 900	3	84,93 %
966	44	Newcastle	1 171 360	885 981	3	75,64 %
714	45	Saarbrücken	1 144 123	959 084	4	83,83 %
788	46	Nice	1 142 841	933 080	4	81,65 %
458	47	Bilbao	1 061 142	947 334	3	89,27 %
545	48	Thessaloniki	1 057 825	1 057 825	1	100,00 %
717	49	Basel - Mulhouse	1 054 489	406 391	8	38,54 %
350	50	Bremen	1 041 338	849 800	2	81,61 %
499	51	Dublin	1 009 100	1 009 100	1	100,00 %
790	52	Genova	1 000 737	795 689	3	79,51 %

SQRTNR	CITY_NAME	Total
SQRT976	AALST	262 337
	ALKMAAR	92 965
	ALMERE	158 976
	ALPHEN AAN DEN RIJN	70 573
	AMERSFOORT	254 571
	AMSTERDAM	1 378 873
	ANTWERPEN	931 567
	APELDOORN	210 027
	ARMENTIERES	58 706
	ARNHEM	321 694
	ARRAS	124 206
	BERGEN OP ZOOM	65 710
	BETHUNE	268 439
	BREDA	296 727
	BRUGGE	271 437
	BRUXELLES/BRUSSEL	964 405
	CAMBRAI	58 828
	CHARLEROI	420 214
	DEN BOSCH	182 052
	DEN HAAG	859 878
	DEVENTER	85 946
	DORDRECHT	280 037
	DOUAI	552 682
	EDE	103 762
	EINDHOVEN	383 090
	GENT	496 608
	GOUDA	71 654
	HAARLEM	389 929
	HILVERSUM	83 210
	HOORN	66 455
	IEPER	104 320
	KLEVE	61 392
	KORTRIJK	277 786
	LA LOUVIERE	174 124
	LEIDEN	327 549
	LELYSTAD	66 307
	LEUVEN	458 265
	LILLE	1 143 125
	MAUBEUGE	117 470
	MECHELEN	306 413
	MONS	249 153
	MOUSCRON	70 016
	NAMUR	283 793
	NIJMEGEN	268 237
	OOSTENDE	142 946
	ROESELARE	140 684
	ROOSENDAAL	77 558
	ROTTERDAM	1 173 533
	SINT NIKLAAS	224 356
	TILBURG	279 654
	TOURNAI	140 673
	UTRECHT	535 814
	VALENCIENNES	399 677
	VEENENDAAL	60 650
	VELSEN	67 356
Somme SQRT976		16 916 409
SQRT963	BARNSLEY	75 120
	BIRMINGHAM	965 928
	BLACKBURN/DARWEN	105 994
	BLACKPOOL	146 262
	BOLTON	139 020
	BRADFORD	289 376
	BURNLEY/NELSON	74 661
	BURTON UPON TRENT	60 525
	CANNOCK/GREAT WYRLEY	95 682
	CHESTER	80 110
	COVENTRY/BEDWORTH	299 316

	CREWE	63 351
	DERBY	223 836
	DONCASTER	71 595
	DUDLEY	192 171
	GREATER MANCHESTER	2 277 330
	HARROGATE	66 178
	HUDDERSFIELD	143 726
	KIDDERMINSTER	54 644
	LEEDS	424 194
	LEICESTER	318 518
	LIVERPOOL	481 786
	LOUGHBOROUGH	46 867
	MANSFIELD	71 858
	MELTON MOWBRAY	24 348
	NEWPORT	115 522
	NOTTINGHAM	270 222
	PRESTON	177 660
	ROCHDALE	94 313
	RUGBY	61 106
	SHEFFIELD	552 987
	SHREWSBURY	64 219
	STAFFORD	61 885
	STOKE	266 543
	TELFORD	119 340
	WAKEFIELD	73 955
	WARRINGTON	82 812
	WARWICK/LEAMINGTON	77 872
	WIGAN	192 112
	WOLVERHAMPTON	432 682
	WORCESTER	82 661
Somme SQRT963		9 518 287
SQRT593	ASCHAFFENBURG	168 369
	BAD KREUZNACH	106 354
	BAD NAUHEIM	83 985
	BADEN BADEN	145 671
	BUEHL	67 418
	DARMSTADT	525 046
	FRANKFURT AM MAIN	1 896 741
	FRIEDBERG (HESSEN)	26 751
	FRIEDRICHSDORF	81 680
	GIESSEN	308 727
	HAGUENAU	59 894
	HANAU	88 801
	HEIDELBERG	141 509
	HEILBRONN	319 899
	KAISERSLAUTERN	130 051
	KARLSRUHE	590 718
	LANDAU IN DER PFALZ	52 971
	LIMBURG	75 374
	LUDWIGSHAFEN AM RHEIN	162 458
	MAINZ	377 026
	MANNHEIM	1 568 679
	MARBURG AN DER LAHN	84 609
	NEUSTADT AN DER WEINSTRASSE	71 738
	OFFENBACH AM MAIN	118 429
	OFFENBURG	84 934
	PFORZHEIM	169 648
	REUTLINGEN	358 010
	RUESSELSHEIM	59 551
	SCHWAEBISCH GMUEND	86 359
	SPEYER	49 776
	STRASBOURG	612 104
	STUTTGART	2 593 087
	TUEBINGEN	208 535
	WEINGARTEN	23 604
	WETZLAR	52 657
	WIESBADEN	780 190
Somme SQRT593		12 331 353
SQRT952	ALESSANDRIA	150 915
	BERGAMO	456 333

	BORGOMANERO	91 656
	BRESCIA	381 454
	BUSTO ARSIZIO	357 443
	CHIARI	80 525
	CHIASSO-MENDRISIO	42 550
	COMO	400 262
	CREMA	96 802
	DESENZANO DEL GARDA	64 607
	DESIO	482 490
	GALLARATE	185 551
	ISEO	57 516
	LECCO	285 692
	LODI	141 592
	LUGANO	104 547
	LUINO	53 387
	LUMEZZANE	71 742
	MANERBIO	54 933
	MILANO	2 890 384
	MONTICHIARI	53 166
	NOVARA	170 134
	NOVI LIGURE	68 224
	ORZINUOVI	34 311
	PALAZZOLO SULL'OGLIO	73 443
	PAVIA	196 697
	PIACENZA	167 085
	SALO'	60 548
	SESTOCALENDE	117 235
	TORTONA	59 268
	TREVIGLIO	190 725
	VARESE	254 157
	VERCELLI	77 143
	VIGEVANO	225 015
	VOGHERA	83 184
Somme SQRT952		8 280 716
SQRT903	ASHFORD	52 002
	AYLESBURY	58 058
	BASINGSTOKE	77 837
	BEDFORD/KEMPSTON	73 917
	BRACKNELL	289 376
	BRIGHTON/WORTHING/LITTLEHAMPTON	220 583
	BURY ST. EDMUNDS	62 633
	CAMBRIDGE	95 682
	CANTERBURY/BLEAN	39 734
	CLACTON-ON-SEA/LITTLE CLACTON/WEELEY	49 437
	COLCHESTER	96 063
	CRAWLEY	88 203
	EASTBOURNE	94 793
	GUILDFORD	117 354
	HARLOW	74 629
	HASTINGS/BEXHILL	81 139
	LONDON	7 651 634
	LUTON/DUNSTABLE	221 337
	MAIDSTONE	90 878
	MILTON KEYNES	156 148
	NORTHAMPTON	179 596
	OXFORD	118 795
	READING/WOKINGHAM	213 474
	SLOUGH	110 708
	SOUTHEND	158 517
	STEVENAGE	76 064
	WELLINGBOROUGH	41 602
Somme SQRT903		10 590 193
SQRT767	AACHEN	584 342
	BOCHUM	390 087
	BONN	878 742
	DORTMUND	589 240
	DUEREN	134 756
	DUESSELDORF	1 315 736
	DUISBURG	512 030
	ESSEN	591 889

	EUSKIRCHEN	54 047
	GELEEN	168 682
	GUMMERSBACH	74 164
	HAGEN	202 060
	HAMM	183 505
	HASSELT	384 503
	HEERLEN	267 781
	ISERLOHN	98 865
	KOELN	1 823 475
	KREFELD	239 559
	LIEGE	584 398
	MAASTRICHT	186 138
	MONCHEN-GLADBACH	476 306
	VENLO	91 347
	VERVIERS	266 334
	WUELFRATH	80 625
	WUPPERTAL	846 815
Somme SQRT767		11 025 426
SQRT312	BYTOM	204 092
	CHORZOW	119 546
	DABROWA GORNICZA	131 349
	FRYDEK-MISTEK	226 497
	GLIWICE	211 055
	HAVIROV	85 502
	JASTRZEBIE-ZDROJ	101 233
	JAWORZNO	97 784
	KARVINA	64 653
	KATOWICE	342 270
	MYSLOWICE	79 228
	OPAVA	180 916
	OSTRAVA	1 157 918
	PIEKARY SLASKIE	65 350
	RUDA SLASKA	156 540
	RYBNIK	144 416
	SIEMIANOWICESLASKIE	76 813
	SOSNOWIEC	242 164
	SWIETOCHLOWICE	59 096
	TYCHY	132 512
	ZABRZE	199 188
	ZORY	65 999
Somme SQRT312		4 144 121
SQRT948	ARZIGNANO	75 283
	BASSANO DEL GRAPPA	130 801
	BELLUNO	82 578
	CASTELFRANCO VENETO	111 448
	CITTADELLA	113 934
	CONEGLIANO	103 162
	LONIGO	86 185
	MONTEBELLUNA	100 457
	ODERZO	65 801
	PADOVA	505 963
	PORDENONE	221 521
	PORTOGRUARO	80 473
	SAN BONIFACIO	61 130
	SAN DONA' DI PIAVE	105 491
	SCHIO	66 763
	THIENE	96 293
	TREVISO	247 413
	VALDAGNO	58 864
	VENEZIA	611 236
	VERONA	469 996
	VICENZA	233 566
	VITTORIO VENETO	55 794
Somme SQRT948		3 684 152
SQRT696	AMIENS	270 870
	BEAUVAIS	100 733
	CHARTRES	130 681
	CHATEAUDUN	23 728
	CHATEAU-THIERRY	32 401
	COMPIEGNE	108 234

	CREIL	98 277
	DREUX	57 982
	ELBEUF	86 162
	EVREUX	97 177
	MONTARGIS	66 299
	MONTEREAU-FAUT-YONNE	26 455
	ORLEANS	355 811
	PARIS	11 174 743
	ROUEN	518 316
	SAINT QUENTIN	103 781
	SENS	56 660
	SOISSONS	64 042
Somme SQRT696		13 372 352
SQRT874	BOLOGNA	682 724
	CARPI	82 196
	CESENA	155 230
	FAENZA	81 780
	FIDENZA	52 338
	FORLI'	149 842
	GUASTALLA	57 458
	IMOLA	109 624
	LUGO	96 657
	MANTOVA	138 638
	MODENA	243 348
	PARMA	257 525
	RAVENNA	172 017
	REGGIO NELL'EMILIA	254 087
	RIMINI	218 112
	SASSUOLO	110 429
	SUZZARA	71 181
	VIGNOLA	71 277
Somme SQRT874		3 004 463
SQRT939	BUDAORS	124 783
	BUDAPEST	1 775 203
	DUNAKESZI	61 282
	DUNAUJVAROS	112 113
	ESZTERGOM	55 592
	GODOLLO	115 919
	GYAL	97 675
	HATVAN	56 412
	OROSZLANY	28 240
	PILISVOROSVAR	85 519
	RACKEVE	118 049
	RETSAG	25 993
	STUROVO	21 678
	SZENTENDRE	68 971
	TATABANYA	89 850
	VAC	75 328
Somme SQRT939		2 912 607
SQRT778	AARAU	73 731
	BADEN	80 617
	BRUGG	25 255
	FRAUENFELD	24 792
	LENZBURG	24 495
	LUZERN	177 734
	OLTEN	50 839
	RAPPERSWIL-JONA	22 727
	SCHAFFHAUSEN	59 819
	SINGEN	93 256
	STANS	22 075
	WETZIKON-PFAFFIKON (Z	48 366
	WINTERTHUR	114 669
	ZOFINGEN	38 969
	ZUERICH	940 180
	ZUG	71 173
Somme SQRT778		1 868 697
SQRT826	AVELLINO	158 688
	AVERSA	234 128
	BATTIPAGLIA	105 337

	BENEVENTO	102 564
	CASERTA	364 473
	CASTELLAMMARE DI STABIA	138 978
	EBOLI	58 059
	NAPOLI	2 381 483
	NOCERA INFERIORE	183 796
	NOLA	183 972
	SALERNO	294 318
	SAN GIUSEPPE VESUVIANO	109 884
	SORRENTO	75 503
	TORRE ANNUNZIATA	166 962
Somme SQRT826		4 558 145
SQRT876	EMPOLI	90 855
	FIRENZE	876 697
	LIVORNO	186 769
	LUCCA	155 604
	MONTECATINI-TERME	109 477
	PISA	179 331
	PISTOIA	120 009
	POGGIBONSI	59 965
	PONTEDERA	100 280
	PRATO	240 461
	SANTA CROCE SULL'ARNO	88 314
	VIAREGGIO	107 059
Somme SQRT876		2 314 821
SQRT971	BARCELOS	63 880
	BRAGA	152 693
	FAFE	32 097
	FEIRA	114 906
	GUIMARAES	126 745
	OVAR	55 198
	PACOS DE FERREIRA	40 577
	PENAFIEL	23 651
	PORTO	1 231 438
	SANTO TIRSO	56 225
	SAO JOAO DA MADEIRA	21 102
Somme SQRT971		1 918 512
SQRT564	BARCELONA	3 765 994
	BLANES	131 433
	GRANOLLERS	160 127
	IGUALADA	79 655
	MANRESA	122 360
	MATARO	168 756
	TARRAGONA	325 333
	VIC	110 582
	VILAFRANCA DEL PENEDES	65 475
	VILANOVA I LA GELTRU	155 679
Somme SQRT564		5 085 394
SQRT873	ASTI	128 736
	AVIGLIANA	76 049
	BIELLA	123 938
	CARMAGNOLA	86 424
	CHIERI	94 098
	CIRIE'	99 048
	COSSATO	58 791
	IVREA	149 673
	PINEROLO	115 547
	TORINO	1 545 202
Somme SQRT873		2 477 506
SQRT807	APRILIA	114 361
	CIVITAVECCHIA	72 235
	FROSINONE	259 382
	LATINA	170 945
	RIETI	97 680
	ROMA	3 314 237
	VELLETRI	198 010
	VITERBO	133 303
Somme SQRT807		4 360 153
SQRT525	BRAUNSCHWEIG	346 815

	CELLE	86 843
	HAMELN	59 052
	HANNOVER	996 586
	HILDESHEIM	147 177
	PEINE	72 589
	SALZGITTER	124 131
	WOLFSBURG	127 609
Somme SQRT525		1 960 802
SQRT357	BAD OEYNHAUSEN	173 585
	BIELEFELD	578 980
	DETMOLD	109 928
	HERFORD	120 185
	IBBENBUEREN	61 995
	MINDEN	145 822
	OSNABRUECK	309 878
	PADERBORN	177 706
Somme SQRT357		1 678 079
SQRT717	BASEL	406 391
	GUEBWILLER	30 738
	LIESTAL	37 914
	LOERRACH	164 439
	MULHOUSE	271 024
	SAINT LOUIS	83 732
	THANN	31 309
	WEIL	28 942
Somme SQRT717		1 054 489
SQRT683	BADEN-TRAISKIRCHEN	24 502
	BRATISLAVA	599 015
	KLOSTERNEUBURG	24 797
	MOEDLING	20 405
	MOSONMAGYAROVAR	72 585
	WIEN	1 550 123
	WIENER NEUSTADT	37 627
Somme SQRT683		2 329 054
SQRT917	AYR	100 000
	FALKIRK	145 270
	GLASGOW	1 323 100
	GREENOCK	84 150
	IRVINE	55 900
	KILMARNOCK	80 900
	STIRLING	61 000
Somme SQRT917		1 850 320
SQRT780	BERN	332 494
	BIEL (BE)	87 683
	BURGDORF	26 530
	FRIBOURG	80 006
	GRENCHEN	24 934
	SOLOTHURN	68 272
	THUN	84 436
Somme SQRT780		704 355
SQRT557	ARANJUEZ	52 489
	COLLADOVILLALBA	176 251
	GUADALAJARA	103 998
	MADRID	5 086 635
	SEGOVIA	67 441
	TOLEDO	95 107
Somme SQRT557		5 581 921
SQRT713	LYON	1 648 216
	ROUSSILLON	38 675
	SAINT CHAMOND	84 925
	SAINT ETIENNE	321 703
	VIENNE	53 843
	VILLEFRANCHE-SUR-SAONE	63 632
Somme SQRT713		2 210 994
SQRT563	ALZIRA	241 472
	CASTELLON DE LA PLANA	258 532
	SAGUNTO	101 002
	VALENCIA	1 397 809
	VALL D'UIXO (LA)	59 322

	XATIVA	76 621
Somme SQRT563		2 134 758
SQRT520	ANSBACH	40 165
	ERLANGEN	229 717
	FUERTH	111 257
	NEUMARKT	39 307
	NURNBERG	1 018 211
	SCHWABACH	38 213
Somme SQRT520		1 476 870
SQRT897	BATH	85 202
	BRISTOL	407 992
	CARDIFF	272 129
	PONTYPRIDD	39 658
	TROWBRIDGE	29 334
	WESTON-SUPER-MARE	69 372
Somme SQRT897		903 687
SQRT653	BERLIN	4 101 213
	BRANDENBURG	81 444
	EBERSWALDE-FINOW	51 156
	NEURUPPIN	32 598
	POTSDAM	130 435
Somme SQRT653		4 396 846
SQRT594	HAMBURG	2 515 468
	KIEL	328 553
	LUEBECK	289 373
	LUENEBURG	99 207
	NEUMUENSTER	84 102
Somme SQRT594		3 316 703
SQRT761	CHOMUTOV	124 506
	DECIN	133 601
	MOST	116 655
	TEPLICE	126 274
	USTI NAD LABEM	117 324
Somme SQRT761		618 360
SQRT675	GORIZIA	71 941
	KOPER	77 287
	MONFALCONE	130 015
	NOVA GORICA	61 227
	TRIESTE	261 825
Somme SQRT675		602 295
SQRT723	ATHINAI	3 761 810
	KHALKIS	53 584
	KORINTHOS	36 555
	THIVA	23 820
Somme SQRT723		3 875 769
SQRT854	HELSINGBORG	293 615
	HOLBAEK	129 221
	KOEBENHAVN	1 881 187
	MALMOE	667 281
Somme SQRT854		2 971 304
SQRT591	AUGSBURG	430 308
	FREISING	40 890
	MUENCHEN	1 893 715
	ROSENHEIM	140 882
Somme SQRT591		2 505 795
SQRT536	ISTRES	38 993
	MARSEILLE-AIX-EN-PROVENCE	1 516 340
	SALON-DE-PROVENCE	50 532
	TOULON	564 823
Somme SQRT536		2 170 688
SQRT819	BARI	1 123 419
	BARLETTA	160 615
	BISCEGLIE	114 247
	GIOIA DEL COLLE	65 186
Somme SQRT819		1 463 467
SQRT714	FORBACH	104 074
	SAARBRUECKEN	959 084
	SAINT-AVOLD	38 888
	SARREGUEMINES	42 077

Somme SQRT714		1 144 123
SQRT788	MENTON	66 692
	NICE	933 080
	SAN REMO	85 157
	VENTIMIGLIA	57 912
Somme SQRT788		1 142 841
SQRT588	ESCH-SUR-ALZETTE	134 846
	LUXEMBOURG	125 055
	METZ	429 588
	THIONVILLE	156 433
Somme SQRT588		845 922
SQRT642	AUE	96 109
	CHEMNITZ	432 445
	GREIZ	65 091
	ZWICKAU	230 376
Somme SQRT642		824 021
SQRT836	ADRANO	62 039
	CATANIA	608 249
	GIARRE	86 130
	LENTINI	59 525
Somme SQRT836		815 943
SQRT645	ERFURT	204 510
	GOTHA	48 872
	JENA	102 909
	WEIMAR	66 420
Somme SQRT645		422 711
SQRT270	BALMAZUJVAROS	30 240
	DEBRECEN	296 502
	HAJDUBOSZORMENY	59 521
	HAJDUSZOBOSZLO	33 725
Somme SQRT270		419 988
SQRT969	AGUEDA	46 218
	AVEIRO	67 003
	ILHAVO	35 688
	OLIVEIRA DE AZEMÉIS	34 700
Somme SQRT969		183 609
SQRT504	LISBOA	2 590 792
	PAREDES	62 652
	TORRES VEDRAS	45 134
Somme SQRT504		2 698 578
SQRT230	BUCURESTI	1 921 751
	PLOIESTI	232 452
	VOLUNTARI	29 995
Somme SQRT230		2 184 198
SQRT929	DRAMMEN	142 646
	HONEFOSS	41 374
	OSLO	1 036 900
Somme SQRT929		1 220 920
SQRT966	NEWCASTLE	885 981
	SUNDERLAND/WHITBURN	183 310
	TYNESIDE	102 069
Somme SQRT966		1 171 360
SQRT458	BILBAO	947 334
	DURANGO	52 843
	MONDRAGON O ARRASATE	60 965
Somme SQRT458		1 061 142
SQRT790	CHIAVARI	72 331
	GENOVA	795 689
	SAVONA	132 717
Somme SQRT790		1 000 737
SQRT831	ALCAMO	68 143
	BAGHERIA	76 522
	PALERMO	818 356
Somme SQRT831		963 021
SQRT763	HALLE	313 609
	LEIPZIG	568 200
	MERSEBURG	37 127
Somme SQRT763		918 936

SQRT255	ASENOVGRAD	52 116
	PAZARDZHIK	127 900
	PLOVDIV	721 905
Somme SQRT255		901 921
SQRT925	BELFAST	675 000
	LISBURN	111 300
	LURGAN	79 700
Somme SQRT925		866 000
SQRT507	AVILES	138 593
	GIJON	279 837
	OVIEDO	425 829
Somme SQRT507		844 259
SQRT583	ANNECY	189 674
	ANNEMASSE	212 248
	GENEVE	424 028
Somme SQRT583		825 950
SQRT860	BRINDISI	367 399
	LECCE	398 937
	NARDO'	51 687
Somme SQRT860		818 023
SQRT561	ALICANTE	380 357
	ELCHE	264 536
	ELDA	148 061
Somme SQRT561		792 954
SQRT165	GDANSK	456 850
	GDYNIA	254 114
	SOPOT	42 025
Somme SQRT165		752 989
SQRT918	DUNFERMLINE	55 083
	EDINBURGH	533 390
	KIRCALDY	148 500
Somme SQRT918		736 973
SQRT462	EIBAR	69 561
	MURCIA	503 568
	ORIHUELA	119 365
Somme SQRT462		692 494
SQRT558	CADIZ	400 157
	JEREZ DE LA FRONTERA	189 370
	SANLUCAR DE BARRAMEDA	78 551
Somme SQRT558		668 078
SQRT554	PONTEVEDRA	142 364
	VIGO	412 939
	VILAGARCIA	82 795
Somme SQRT554		638 098
SQRT701	LUNEL	28 558
	MONTPELLIER	459 916
	SETE	66 177
Somme SQRT701		554 651
SQRT124	OLOMOUC	224 106
	PREROV	135 025
	PROSTEJOV	109 502
Somme SQRT124		468 633
SQRT718	LUNEVILLE	27 572
	NANCY	410 508
	TOUL	23 180
Somme SQRT718		461 260
SQRT737	LAUSANNE	294 604
	THONON-LES-BAINS	70 154
	VEVEY	70 797
Somme SQRT737		435 555
SQRT945	DARLINGTON	86 767
	HARTLEPOOL	87 310
	MIDDLESBROUGH	231 006
Somme SQRT945		405 083
SQRT791	CARRARA	75 332
	LA SPEZIA	215 977
	MASSA	75 895
Somme SQRT791		367 204

SQRT213	BRASOV	283 901
	CODLEA	24 256
	SACELE	30 044
Somme SQRT213		338 201
SQRT961	COPPARO	41 678
	FERRARA	196 416
	ROVIGO	89 981
Somme SQRT961		328 075
SQRT882	ALMERIA	191 768
	EJIDO (EL)	59 389
	ROQUETAS DE MAR	70 994
Somme SQRT882		322 151
SQRT838	MODICA	107 589
	RAGUSA	90 318
	VITTORIA	91 826
Somme SQRT838		289 733
SQRT896	CHELTENHAM/CHARLTON KINGS	91 301
	GLOUCESTER	126 149
	STROUD	38 835
Somme SQRT896		256 285
SQRT102	LEONDING	22 203
	LINZ	183 504
	TRAUN	23 470
Somme SQRT102		229 177
SQRT735	ARBON RORSCHACH	42 494
	ROMANSHORN-AMRISWIL	22 701
	ST. GALLEN	134 606
Somme SQRT735		199 801
SQRT776	BREGENZ	26 752
	DORNBIRN	42 301
	HEERBRUGG-ALTSTATTEN	34 825
Somme SQRT776		103 878
SQRT848	STOCKHOLM	1 890 253
	UPPSALA	281 449
Somme SQRT848		2 171 702
SQRT122	KLADNO	70 702
	PRAHA	1 335 733
Somme SQRT122		1 406 435
SQRT304	JELGAVA	93 999
	RIGA	1 195 310
Somme SQRT304		1 289 309
SQRT260	PERNIK	104 625
	SOFIA	1 173 811
Somme SQRT260		1 278 436
SQRT474	SEVILLA	1 180 197
	UTRERA	81 609
Somme SQRT474		1 261 806
SQRT350	BREMEN	849 800
	OLDENBURG	191 538
Somme SQRT350		1 041 338
SQRT485	BORDEAUX	925 253
	LIBOURNE	31 662
Somme SQRT485		956 915
SQRT559	MALAGA	775 458
	VELEZ MALAGA	68 649
Somme SQRT559		844 107
SQRT639	DRESDEN	681 953
	FREIBERG	59 713
Somme SQRT639		741 666
SQRT505	LAS PALMAS DE GRAN CANARIA	587 641
	SANTA LUCIA	78 551
Somme SQRT505		666 192
SQRT721	GRENOBLE	514 559
	VOIRON	42 131
Somme SQRT721		556 690
SQRT817	MARTINA FRANCA	58 822
	TARANTO	491 593
Somme SQRT817		550 415

SQRT469	LA OROTAVA	139 713
	SANTA CRUZ DE TENERIFE	399 104
Somme SQRT469		538 817
SQRT555	FERROL	154 973
	LA CORUNA	375 697
Somme SQRT555		530 670
SQRT220	BRAILA	216 929
	GALATI	298 584
Somme SQRT220		515 513
SQRT677	KOSICE	343 092
	PRESOV	161 782
Somme SQRT677		504 874
SQRT829	MESSINA	236 183
	REGGIO DI CALABRIA	221 751
Somme SQRT829		457 934
SQRT416	ASSEN	60 273
	GRONINGEN	332 562
Somme SQRT416		392 835
SQRT954	HULL	310 636
	SCUNTHORPE	75 982
Somme SQRT954		386 618
SQRT891	PORTSMOUTH	174 690
	SOUTHAMPTON/EASTLEIGH	210 138
Somme SQRT891		384 828
SQRT472	SANTANDER	248 761
	TORRELAVEGA	116 249
Somme SQRT472		365 010
SQRT280	KAZINCBARCIKA	65 292
	MISKOLC	282 832
Somme SQRT280		348 124
SQRT810	CHIETI	101 455
	PESCARA	246 155
Somme SQRT810		347 610
SQRT528	KOLDING	170 841
	VEJLE	162 218
Somme SQRT528		333 059
SQRT355	DILLENBURG	73 080
	SIEGEN	256 520
Somme SQRT355		329 600
SQRT119	HRADEC KRALOVE	159 357
	PARDUBICE	160 618
Somme SQRT119		319 975
SQRT770	LE HAVRE	296 773
	TROUVILLE-SUR-MER	22 168
Somme SQRT770		318 941
SQRT354	NEU-ULM	50 709
	ULM	243 372
Somme SQRT354		294 081
SQRT941	BOURNEMOUTH	155 488
	POOLE	138 479
Somme SQRT941		293 967
SQRT637	MAGDEBURG	256 041
	SCHOENEBECK (ELBE)	36 397
Somme SQRT637		292 438
SQRT582	BELFORT	104 962
	MONTBELIARD	180 064
Somme SQRT582		285 026
SQRT678	MARTIN	97 813
	ZILINA	156 361
Somme SQRT678		254 174
SQRT619	CALTANISSETTA	154 547
	ENNA	93 963
Somme SQRT619		248 510
SQRT669	GIURGIU	69 587
	RUSE	178 379
Somme SQRT669		247 966
SQRT625	ROVERETO	79 567
	TRENTO	154 666

Somme SQRT625		234 233
SQRT565	ROMANS-SUR-ISERE	65 933
	VALENCE	167 155
Somme SQRT565		233 088
SQRT794	ANCONA	164 226
	OSIMO	66 297
Somme SQRT794		230 523
SQRT627	BOLZANO	156 674
	MERANO	68 274
Somme SQRT627		224 948
SQRT895	LLANELLI	44 953
	SWANSEA	171 038
Somme SQRT895		215 991
SQRT672	MIOVENI	35 849
	PITESTI	168 756
Somme SQRT672		204 605
SQRT624	FANO	71 459
	PESARO	108 878
Somme SQRT624		180 337
SQRT155	FREDRIKSTAD	126 798
	MOSS	50 996
Somme SQRT155		177 794
SQRT796	GIULIANOVA	76 433
	SAN BENEDETTO DEL TRONTO	99 501
Somme SQRT796		175 934
SQRT272	JASZBERENY	88 585
	NAGYKATA	78 133
Somme SQRT272		166 718
SQRT648	DIMITROVGRAD	64 852
	HASKOVO	99 181
Somme SQRT648		164 033
SQRT878	CASARANO	80 633
	GALLIPOLI	78 604
Somme SQRT878		159 237
SQRT927	FELIXSTOWE	20 900
	IPSWICH	130 157
Somme SQRT927		151 057
SQRT222	DEVA	69 390
	HUNEDOARA	71 380
Somme SQRT222		140 770
SQRT258	CALARASI	70 046
	SILISTRA	61 942
Somme SQRT258		131 988
SQRT958	FAMALICAO	99 853
	GUARDA	25 807
Somme SQRT958		125 660
SQRT779	LA CHAUX-DE-FONDS	48 207
	NEUCHATEL	70 709
Somme SQRT779		118 916
SQRT731	LEIRIA	82 762
	MARINHA GRANDE	34 153
Somme SQRT731		116 915
SQRT319	KONSTANZ	91 505
	KREUZLINGEN	23 804
Somme SQRT319		115 309
SQRT965	BALATONALMADI	24 790
	VESZPREM	86 260
Somme SQRT965		111 050
SQRT957	FEHERGYARMAT	39 488
	MATESZALKA	67 754
Somme SQRT957		107 242
SQRT967	DOMODOSSOLA	53 878
	VERBANIA	53 071
Somme SQRT967		106 949
SQRT830	BARCELLONA POZZO DI GOTTO	51 945
	MILAZZO	52 817
Somme SQRT830		104 762
SQRT695	DINARD	25 089

	SAINT MALO	70 303
Somme SQRT695		95 392
SQRT888	BRIDGWATER	34 610
	TAUNTON	55 855
Somme SQRT888		90 465
SQRT935	NEWTON ABBOT	23 801
	TORQUAY	59 587
Somme SQRT935		83 388
SQRT667	NAKSKOV	29 074
	NYKOEBING F	54 204
Somme SQRT667		83 278
SQRT478	FARO	46 643
	OLHAO	33 217
Somme SQRT478		79 860
SQRT910	ABERGELE/RHYL/PRESTATYN	46 696
	COLWYN BAY	29 883
Somme SQRT910		76 579
SQRT928	GIOIA TAURO	18 700
	PALMI	54 593
Somme SQRT928		73 293
SQRT290	SAROSPATAK	27 950
	SATORALJAUJHELY	44 000
Somme SQRT290		71 950
SQRT973	PORTIMAO	41 220
	SILVES	23 029
Somme SQRT973		64 249
SQRT964	BARGA	36 229
	CASTELNUOVODIGARFAGNANA	25 482
Somme SQRT964		61 711
SQRT641	RUDOLSTADT	27 528
	SAALFELD	29 511
Somme SQRT641		57 039
SQRT937	HARSTAD	30 820
	SORTLAND	25 494
Somme SQRT937		56 314
SQRT914	WHITEHAVEN	26 542
	WORKINGTON	25 579
Somme SQRT914		52 121

Annex 10. Acknowledgement, abbreviations and questionnaire of governing polycentrism study (WP5)

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Abbreviations (Governing Polycentrism)

B/Z	Braganca/Zamora Co-operation Work Community
BP	Baltic Palette
BSW	Bergisches Stadtedreieck Remscheid – Solingen – Wuppertal
CSM	Council of the Stockholm-Malar region
FUA	Functional Urban Areas
FUR	Functional Urban Regions
GMPG	Greater Manchester Strategic Planning Officers Group
HAMAR	The Regional Council for the Hamar Region
KVR	Kommunalverband Ruhrgebiet
LIMA	Association of Municipalities of the Lima River Valley
LRD	Latgale Region Development Council
MVK	Metropolis Vilnius-Kaunas
OECD	Organisation for Economic Co-operation and Development
OSLO	Action programme for regional development in Oslo city and Akershus country
Phare	EU Assistance for Economic Re-structuring in Central and Eastern Europe (initially only Poland and Hungary)
PR	Polycentric Regions
PTS	Patto Territoriale del Sangone
RSD	Rhine-Scheldt Delta
SCC	Saimaa city co-operation
SINA	SINA project
SLL	Saar-Lor-Lux
SMA	Snieznik Municipalities Association
SPNM	Strategic Plan North Milan Development
SR	Samenwerkingsverband Randstad
SYF	South Yorkshire Forum
Tacis	EU Technological Assistance Programme to the former republics of the Soviet Union
TPG	Transnational Project Groups
UCB	The Union of Copper Basin Municipalities
VDM	Vereniging Deltametropool
VID	Valdres Industrial Development Ltd.
WL	Western Lithuania 2020

Questionnaire: Partnerships and Networks

Introduction

This questionnaire is designed within the context of the ESPON Project 1.1.1, which examines the role, specific situation and potentials of urban areas as nodes of polycentric development[1]. Development of polycentric urban regions is strongly promoted by the ESDP[2] as a way of enhancing economic competitiveness of the EU regions, and achieving balanced territorial development across the EU. In order to fulfil this objective, the ESDP emphasises the need for building up co-operations and partnerships between towns and cities and their surrounding rural areas. Existence of effective governance relationships is therefore seen as an important prerequisite for developing and sustaining economically, socially and environmentally balanced regions across Europe. The purpose of this questionnaire is to ***collect examples of recent and current network/ partnership arrangements between municipalities (with or without other partners) from two or more cities whose focus is on developing or implementing a joint strategy for spatial development of their area***[3]. If you know of any such networks or partnerships please use the following questionnaire to provide us with ***at least 2*** examples.

General

1. Name of the partnership/ network:

2. When was it established?

3. Which municipalities/ organisation(s) initiated it?

4. How was it initiated? Was it by the partners within the framework of (tick):
   an EU programme of co-operation a national/regional prog.
   the partners' own prog. of co-operation

Nature of the partnership

5. Name and number of the partners involved:
   Municipalities

   Private sector

   Voluntary sector

   Other public agencies /organisations

[1] Further information about the ESPON Programme can be found at: **http://www.espon.lu**

[2] European Spatial Development Perspective can be downloaded from: **http://www.nordregio.se**

[3] Please do not include partnerships that are engaged in any other specific projects. The focus of this survey is on an established partnership between municipalities who work together on a joint spatial strategy

6. Is the number of partners fixed or is the membership open to other interested parties?

7. What kind of position do the partners hold in their own organisations?

Senior management middle management junior staff

8. How often do the partners meet?

Every 2 weeks monthly quarterly every 6 months

9. Is this a tine-limited co-operation (if so, for how long) or is it a long-term partnership?

*10. Is the partnership sub-divided into a number of working groups? If so, please draw a simple chart to show the organisational structure and outline the key tasks of the key sub-divisions/working group**S***

Powers and resources of the partnership

11. Is the partnership accountable to a higher tier body? If so, which one?

National government Regional government Others

12. How does the partnership seek implementation of its decisions?

By making recommendations to respective municipalities and other organisations

Through its own executive powers, if so, over what type of issues does it have such powers?

13. Does the partnership have a regular source of funding? If so, is it short-term or long-term funding? How long?

14. Who provides the funding?

National government Regional government Municipalities
Private sector partners joint funding by all partners
Others

15. How the secretariat for the partnership is arranged?

By employed staff jointly paid by the partners
Rotates among the partners who host it in turn
By one of the partners

The purpose and achievements of the partnership

16. What were the initial purposes of developing a joint spatial strategy? (score between 1 to 5 according to the significance: 1 is the lowest, 5 is the highest)

To bid for the EU or national funding
To address common trends (threats & opportunities)
To create critical mass by joining resources and efforts
To strengthen internal co-operation between the partners
To become an influential player / lobbyist vis-à-vis external players (regional, national, EU and international)

17. Has the complementarity of urban functions between the partner cities been an explicit driver of co-operation? If so, please provide further comments

18. What are the current aims and objectives of the partnership?

19. What concrete results has the partnership achieved in pursuing / implementing its aims and objectives?

20. Have they yet produced a joint spatial strategy for their area? If so, what are the key elements of the strategy?

21. How successful has the partnership been in relation to the following areas?

	very	partially	Not at all
*Shared ownership of strategy			
*Building mutual trust /confidence			
*Developing common understanding of key regional/sub-regional issues			
*Working across political boundaries			
*Developing joint economic/ social/ environmental projects			
*Delivering objectives / targets of the partnerships			
*Securing external financial/ institutional / political supports to achieve their key aims			
*Sustaining the partnership over time			
*Extending the life of partnership beyond what was initially expected			

Comments

22. What are the key factors that have contributed to the success of the partnership? (tick all those that apply)

Availability of resources (staff time, funding) Access to knowledge and expertise Pro-activity of the partners Sense of mutual trust Past history of joint working Effective leadership
Motivated individuals Shared agenda Support from higher tier government
Comment

23. What are the key factors that have (or will in the future) weakened the partnership and its ability to deliver or inhibit their co-operation? (tick all those that apply)

National/ regional policy context National legal/taxation system
Limited resources (staff time, funding) Limited knowledge and expertise
Lack of motivation Parochial attitude Lack of trust
Little previous experience of joint working Weak leadership
Disagreement on key issues

Comment

24. In your view, what are the key weaknesses and strengths of the partnership?

Weaknesses

Strengths

25. What can be done to make the partnerships work more effectively?

26. Is this model of partnership/network a common practice in your country or is this one of only few examples?

Further information

If the network has a **web site**, please provide its address

Please also attach any written (preferably in English) materials (organisational chart, review articles, commentaries, other related websites), which may provide further useful information about this or similar partnerships arrangements

Thank You

Contact details of the respondent

Name:
Organisation:
Email:
Phone:
Country:

Please email or send the completed questionnaire and additional information by 15 February 2003 to:

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