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Data and Indicators of Western Balkans

Final Report

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Data and Indicators of Western Balkans

This report represents the final results of an ECP Transnational Networking Activity conducted within the framework of the ESPON 2000-2006 programme, partly financed through the INTERREG programme.

The partnership behind the ESPON programme consists of the EU Commission and the Member States of the EU25, plus Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

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Foreword

This is the final Report of ESPON Project "**Data and Indicators of Western Balkans**". The project started on October 1 2005.
The geographic scope of the Project covers the Western Balkans, defined as the "white hole" area (Albania, Serbia and Montenegro, Croatia, FYR. of Macedonia and Bosnia-Herzegovina)**.**
The key actions and main activities of the project focus on the following topics:

- Availability of the data in the Western Balkan area.
- Selection of a minimum set of core territorial indicators which should be compatible with the ESPON territorial indicators, ESPON Core indicators list and RCE indicators regarding the Western Balkans.
- Filling in the information of core indicators, digital maps provision, using both the core indicators and proper combination of them through GIS layers and statistical techniques.
- Dissemination of the project outputs and final reports in ESPON web.

At this stage, many thanks should be given to Espon Contact Points of Germany and Slovenia and all the expert persons from the Western Balkans area.

The Hellenic Urban Environment and Human Resources (UEHR) University Institute has acted as Lead Partner for this project.
The project team was composed from three Espon Contact Points and five expert persons, via subcontractor, from the Western Balkans countries (non EU state members).

The institutes which participated in the project are listed below:

Lead Partner: ECP Greece / Hellas.
Organisation: Urban Environment and Human Resources (UEHR), University Institute.
Kalivas Dionissios, Project Manager.
Giotis Anastasios.
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Project Partner: ECP Germany.
Organisation: Federal Office for Building and Regional Planning (BBR).
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Project Partner: ECP Slovenia.
Organisation: Ministry of the Environment and Spatial Planning, Office for Spatial Development.
Miklavcic Tomaz.

The expert persons from the Western Balkans countries, who corporated in the project as subcontractors, are the following:

- Agim Shehu, Urban & Spatial Planning Design Studio, Albania.
- Vesna Karacic, Federal Ministry of Physical Planning and Environment, Bosnia-Herzegovina.

- Tijana Zivanović, Republic Agency for Spatial Planning, Serbia and Montenegro, Serbia and Montenegro/FR Yugoslavia.
- Mrs Danica Pavlovska, Head of Department of Physical Planning, Ministry of Environment and Physical Planning, FYROM.
- Marijana Sumpor, Institute of Economics, Department for spatial economics, Zagreb, Croatia (HR).

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1. Introduction

The main objective of this ESPON project is to cover the Knowledge gap of important aspects in the field of spatial development concerning the "white hole" of Western Balkans. The area of study contains the following countries: Albania, Serbia and Montenegro (Yugoslavia), Croatia, FYR. of Macedonia and Bosnia-Herzegovina. The "white hole" area of Western Balkans is significant for the territorial integration, of the total EU territory due to the geographical position and the spatial continuity with the rest of the EU territory, considering also the gate-way importance of many cities in the area in correlation with the European transport corridors (EU TINA policies).

For these reason, it is important to collect a minimum set of data (statistical data and hard core indicators) and a combination of layers between selected data/indicators as well as a map production in the area of study.
The basic sources for data are the National Statistical Offices of each of the five countries {Croatian Bureau of Statistics, the Institute of Statistics (INSTAT) in Albania, the state statistical office of Macedonia, the Serbia and Montenegro statistical offices, the Federation of Bosnia and Herzegovina}, internet sources, past projects (ESPON, ESTIA-SPOSE) and international organization (e.g UNEP, UN, World Bank, OECD) which are referred in this area. Additionally one expert person is used for each country, which coordinates the partners of the project to build a good communication with their national services.
Considering the latest policy developments regarding the situation of Montenegro, this report has been produced before the referendum on the status of Montenegro, and for this reason does not consider the new status of Montenegro as an independent State.

2. Methodological aspects

2.1 Collected Data - Territorial Indicators

The collected data and territorial indicators are suggested to be filled after they cover the basic ESPON core indicators and RCE indicators. These refer to Nuts 0, Nuts 2 geographical levels in two different dates between 1991 and 2005. The territorial indicators package is related with the availability of data. After the first contact with the Subcontractors and the National Statistic Agencies of these countries, it seemed that the following data were available. These data was added with data for EU29 (ESPON database) and new ESPON simple maps would be produced for the data/indicators which we have collected.
The definition of the indicators, for the Western Balkan countries, are the same with those of the ESPON database (see annex A). This remark ensures the comparability between the data of EU 29+5.

- Total population.
- Population by sex & age groups (every four years).
- Births and deaths.
- Total and by sex active population.
- Employment per sector.
- Gross Domestic Product per capita.
- Gross Domestic Product - million Euros.
- Gross Domestic Product per capita growth (euro).
- Number of employed and unemployed persons.

- Total employment and unemployment rate.
- Unemployed persons < 25 years.
- Labour force replacement ratio.
- Total Educated Population.
- Highly Educated Population.
- Cities population, classification based on population following ESPON guidelines.
- Population density.
- Population growth.
- Ageing (share of population in the ages over 65 in percent).
- Urbanization (population cities over 20000 inhabitants /total population).
- Length of road network.
- Length of rail network.
- Density of road network.
- Density of rail network.
- Connectivity to transport terminal.
- Mountainous areas (classification by altitude).
- Land Use classification (Forest, Agricultural areas, artificial surface, etc.).
- Protected Natural sites through national or international programs-conventions-legislation.

Tables 1 and 2 are following, which describe the availability of data, at the end of the project, for each of the five countries in the Western Balkans area.

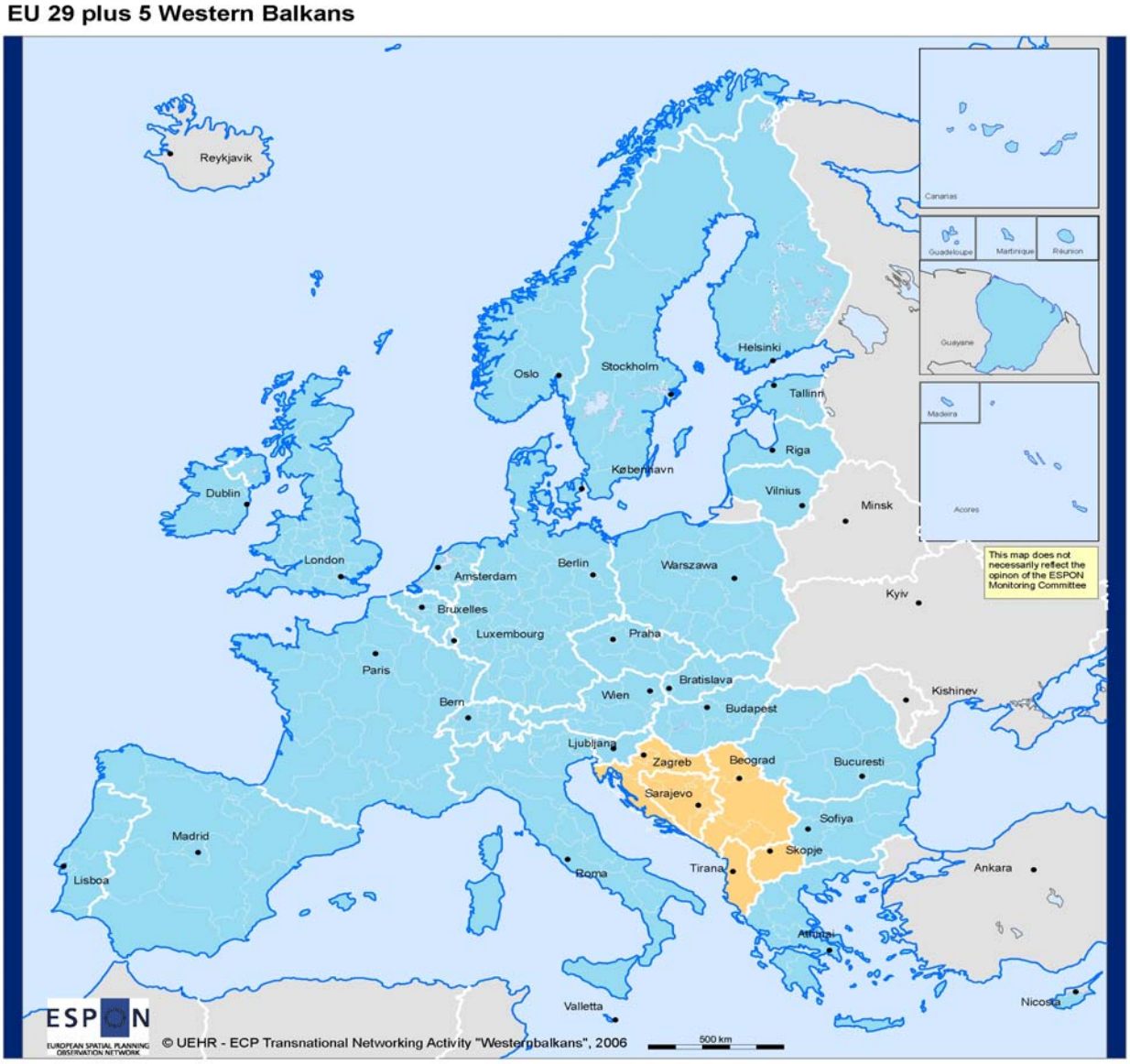
Data / Indicator	Albania	Bosnia	Croatia	FYROM	Serbia
Total Population	1995 - 2004	1991,1995, 2001 - 2002	1991,1995, 2001 - 2003	1991,1995 2002-2003	1991, 1995, 2000-2003
Male Population	1997 - 2004	2000 - 2003	1991, 2000 - 2003	1991, 2002-3	1991, 2000-3
Female Population	1997 - 2004	2000 - 2003	1991, 2000 - 2003	1991, 2002-3	1991, 2000-3
Population by age group	2000 - 2005	1991, 2000 - 2003	1991, 2000 - 2003	1991, 2002-3	1991, 2000-3
Births	1971, 1980, 1995 - 2004	1971, 1980, 2000, 2001	1971, 1980, 1991 - 2004	1971, 1980, 1991, 2000, 2002	1971, 1980, 1991, 2000, 2002
Deaths	1995 - 2004	1991, 1996 - 2004	1991 - 2004	1991, 2002	1991, 2002
Total Educated Population	no data	no data	2001	no data	1991, 2002
Persons with high education level	no data	no data	2001	1991, 2002	1991, 2002
Total Active Population	1995 - 2004	no data	2001 - 2002	1991, 2002	1991, 2002
Male Active Population	no data	no data	2001 - 2002	1991, 2002	1991, 2002
Female Active Population	no data	no data	2001 - 2002	1991, 2002	1991, 2002
Employment per primary sector	2000 - 2004	2001, 2003	1991 - 2004	1991, 2002	1991, 2002
Employment per secondary sector	2000 - 2004	2001, 2003	1991 - 2004	1991, 2002	1991, 2002
Employment per tertiary sector	2000 - 2004	2001, 2003	1991 - 2004	1991, 2002	1991, 2002
Number of Employed persons	1995 - 2004	1999 - 2003	1990 - 2004	1999 - 2003	1991, 1999 - 2003
Number of unemployed persons	1995 - 2004	1999 - 2003	1990 - 2004	1999 - 2003	1991, 1999 - 2003
Gross Domestic Product per capita	1996 - 2004	1997 - 2003	1991 - 2003	1995 - 2002	1995 - 2002
Gross Domestic Product in PPS	1996 - 2004	1997 - 2003	1991 - 2003	1995 - 2002	2000 - 2002
Cities population	2001	no data	1991 - 2001	no data	1991, 2002
Population density	1995 - 2004	1991, 2001 - 2002	1991, 2001 - 2003	1991, 2002	1991, 2002
Population growth	1995 - 2002	1995 - 2002	1995 - 2002	1995 - 2002	1995 - 2002
Urbanization	2001	no data	1991, 2001	no data	2002
Protected Natural Sites Areas	2001	no data	2001	2002	2005
Forests and semi - natural areas	2001	2001	1991, 2001	2002	1998, 2005
Agricultural Land areas	2001	no data	1991, 2001	2002	1999, 2005
Wetlands areas	no data	no data	2001	2002	no data
Artificial Areas	no data	no data	no data	no data	2005
Mountainous areas	2001	no data	no data	no data	2005
Density of road network (surface)	2002	2002	2002	2002	1991, 2002
Density of rail network (surface)	2002	2002	2002	2002	1991, 2002
Length of road network	2002	2002	2002	2002	1991, 2002
Length of rail network	2002	2002	2002	2002	1991, 2002
Connectivity to transport terminals	no data	no data	no data	no data	no data

Table 1. Data in Nuts 0 level in the Western Balkans countries

Data / Indicator	Albania	Bosnia	Croatia	FYROM	Serbia
Total Population	1995 - 2004	1995, 2000 - 2003	1991, 1995, 2000-2003	1991, 1995, 2002-2003	1991, 1995, 2000-2003
Male Population	1997 - 2004	2000 - 2003	2000 - 2003	1991, 2002-3	1991, 2000-3
Female Population	1997 - 2004	2000 - 2003	2000 - 2003	1991, 2002-3	1991, 2000-3
Population by age group	2000 - 2005	2000 - 2003	2000 - 2003	1991, 2000-3	1991, 2000-3
Births	1971, 1980, 1995 - 2004	1971, 1980, 2000, 2001	1971, 1980, 1991 - 2004	1971, 1980, 1991, 2000, 2002	1971, 1980, 1991, 2000, 2002
Deaths	1995 - 2004	2001	1991 - 2004	1991, 2002	1991, 2002
Total Educated Population	no data	no data	2001	no data	1991, 2002
Persons with high education level	no data	no data	2001	1991, 2002	1991, 2002
Total Active Population	1995 - 2004	no data	2001	1991, 2002	1991, 2002
Male Active Population	no data	no data	2001	1991, 2002	1991, 2002
Female Active Population	no data	no data	2001	1991, 2002	1991, 2002
Employment per primary sector	2000 - 2004	2003	2003	1991, 2001-3	1991, 2001-3
Employment per secondary sector	2000 - 2004	2003	2003	1991, 2001-2003	1991, 2001-2003
Employment per tertiary sector	2000 - 2004	2003	2003	1991, 2001-2003	1991, 2001-2003
Number of Employed persons	1995 - 2004	1999 - 2003	1991 - 2004	1999 - 2003	1991,1999 - 2003
Number of unemployed persons	1995 - 2004	1999 - 2003	1991 - 2004	1999 - 2003	1991,1999 - 2003
Gross Domestic Product per capita	1995 - 2004	1999 - 2003	2001 - 2003	1995 - 2002	2000 - 2002
Gross Domestic Product in PPS	1995 - 2004	1999 - 2003	2002 - 2003	1995 - 2002	2000 - 2002
Cities population	2001	no data	2001	no data	1991, 2002
Population density	1995 - 2004	2001 - 2002	1991, 2001	1991, 2002	1991, 2002
Population growth	1995 - 2002	1995 - 2002	1995 - 2002	1995 - 2002	1995 - 2002
Urbanization	2001	no data	no data	no data	2002
Protected Natural Sites Areas	2001	no data	no data	2002	2005
Forests and semi - natural areas	2001	no data	2001	2002	2005
Agricultural Land areas	2001	no data	2001	2002	2005
Wetlands areas	no data	no data	2001	2002	no data
Artificial Areas	no data	no data	no data	no data	2005
Mountainous areas	2001	no data	no data	no data	2005
Density of road network (surface)	2002	2002	2002	2002	1991, 2002
Density of rail network (surface)	2002	2002	2002	2002	1991, 2002
Length of road network	2002	2002	2002	2002	1991, 2002
Length of rail network	2002	2002	2002	2002	1991, 2002
Connectivity to transport terminals	no data	no data	no data	no data	no data

Table 2. Data in Nuts 2 level in the Western Balkans countries

Map1. EU29 plus 5 countries of Western Balkans Area



2.2 The regions comparable to Nuts 2 of the Western Balkan countries.

From the Western Balkan countries only Croatia has appeared in Eurostat website (http://europa.eu.int/comm/eurostat/ramon/nuts/codelist_en.cfm?list=cec) for the Nuts nomenclature in 2005. According to this Croatia is subdivided on Nuts 2 level into four regions called Regija as aggregated level on the basis of the Županija (Nuts 3).

For the other countries, we have used experts' opinions which are mainly based on the Official National Statistic Offices. Serbia and Montenegro has been divided into four regions (Central Serbia, Vojvodina, Kosovo and Montenegro). This division is presented in the official site of Statistical Office of the Republic of Serbia (http://webrzs.statserb.sr.gov.yu/axd/en/osn.php?kljuc=1).Kosovo which is governed by UN Security Council (UNSC) is seen as separate region.

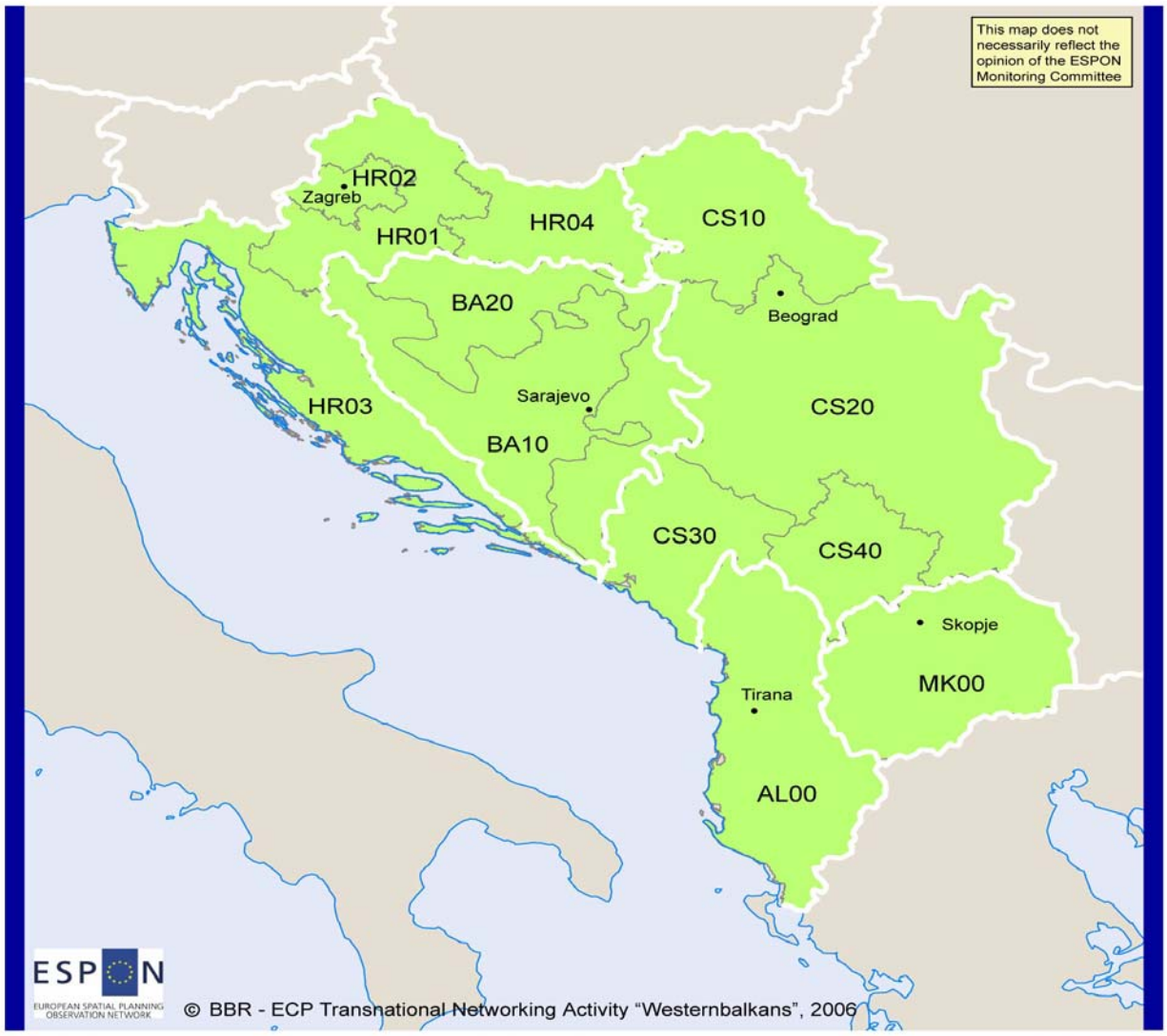
Bosnia and Herzegovina are seen in two separate regions according to the federal status into the Bosniak and Croat Federation of Bosnia and Herzegovina and the Bosnian Serb-led Republika Srpska (http://www.bhas.ba/Files/en_statistika-bih.htm).

In FYROM the regional level (Nuts 2 equivalent) is the same as national level (Nuts 0) (http://www.stat.gov.mk/english/glavna_eng.asp?br=18) as this is the case in the Baltic countries.

Concerning Albania has not yet officialised the use of the Nuts nomenclature. All the regional statistics used right now are based at the territorial division of the country, approved by the Albanian low No 8652, date 31.07.2000. According of the Nuts 1 level has decided by the draft of Eurostat (in 1999) with a population from 3 million to 7 million, this level in Albania correspond to National level. The Nuts 2 equivalent level which includes the population from 800,000 to 3 million is the same with the National level in Albania as previous described.

It must be referred that although the above Nuts 2 equivalent division in the Western Balkans countries is not official acknowledged by the EU, all the regions except one in Serbia (Central Serbia) have population between 800.000 and 3 millions which is the official minimum and maximum average size of the Nuts regions.

Map 2. Nuts 2 equivalent and comparable statistical units in the Western Balkan countries.



NUTS 2 equivalent and comparable statistical units

AL00 Albania
BA10 Federation of Bosnia and Herzegovina
BA20 Republica Srpska and District Brcko
HR01 Sredisnja Hrvatska
HR02 Zagrebacka regija
HR03 Jadranska Hrvatska
HR04 Istocna Hrvatska
MK00 Macedonia
CS10 Vojvodina
CS20 Central Serbia
CS30 Montenegro
CS40 Kosovo

Regional boundaries for BA and HR: based on Eurostat. CS: according to the regional delineation of the Statistical Office of the Republic of Serbia

2.3 The Regional Classification of Europe

Within the project 3.1 "Integrated tools for European spatial development" the analysis for a thematic orientated classification of the European regions has been introduced in the ESPON analytical context. Based on a set of in total 38 indicators, synthetic sum indicators have been built for different policy oriented themes covering the aspects of economic development, labour market, demography, environment, accessibility, hazards and spatial structures (see ESPON project 3.1 final report July 2005).

Within the ESPON project 2.4.2 "Integrated analysis of transnational and national territories based on ESPON results" this analysis has been further elaborated and adjusted in respect to ESPON projects suggestions as well to the thematic orientation. The combination of indicators has been improved towards a better policy orientation in respect to e.g. the Lisbon strategy. A combined indicator presenting the regional Lisbon performance has been introduced in this process (see ESPON project 2.4.2 draft final report December 2005).

The sources of the indicators used within the regional classification analysis were project data from 3.1 and updated data of 2.4.2 to one part indicators elaborated by different ESPON projects to the other.

This will affect the possibilities to transfer and enlarge the RCE to the Western Balkan countries fundamentally.

2.3.1 RCE Indicators

Because some of the data in ESPON stem from ESPON space related model calculations or have been gathered with lots of effort and for the first time in the coverage of the ESPON countries, it was quite obvious from the very beginning that a regional classification in the full range of ESPON indicators was not possible within this initiative.

Especially the unique ESPON indicators related to accessibility and hazards were seen as not possible to reconstruct. This is also the case for the indicators related to agriculture and land use.

That is why special focus was given to the remaining indicators in the RCE thematic fields of economy, Lisbon performance, labour market and demography. Very fast the search for comparable data for the Western Balkan countries underlined the fact that statistical consolidation and international reorientation in statistical definitions follows political and economic stability and the process of European rapprochement in a not insignificant time lag.

The statistical cooperation of Eurostat and the national statistical offices of the Western Balkan countries is besides Croatia at the very beginning. The initiative "DSIS: Statistical co-operation with Candidate and Western Balkan countries" provides the first basic statistical information for these countries, but they still do not provide the full regional coverage of the area.

It also turned out that the use of census data alone was not appropriate to build an ESPON RCE comparable dataset for the Western Balkan countries. Data from national statistical offices, from the DSIS in general and from the DG Economic and financial affairs related to the conversion of Purchasing Power Standards for the GDP data were additionally used to guarantee the full regional coverage.

Despite this fact, the number of original 16 indicators of the three thematic fields mentioned reduced to after all to 10 regionalised indicators covering the main aspects and guaranteeing a comparison of this area with the ESPON space.

The Lisbon performance turned out to be unfortunately most sensible to data restrictions. Data on R&D both related to personnel and expenditures are not available for all countries in a comparable way, as well as data on the educational level. In the labour market theme data on youth unemployment could not be integrated in comparable definitions.

In order not to base the Lisbon performance sum indicator only on productivity and employment rate and taking into account the missing indicator in the labour market, a combination of both themes into a new one, called labour market potential, seemed the most appropriate way to overcome the data restrictions. The field of economy also needed some modification compared to the original RCE indicator.

The GDP data taken from national and international sources, did not cover the same time range that was used within ESPON until now. To be able to combine the data of the ESPON data base and the Western Balkan regional data a recalculation of the development of GDP in PPS per capita into a average annual change was necessary to fit different periods by dividing the development by the years covered (see table 1 for detail). The classification of the ESPON regions did not change due to the recalculation.

Theme and indicators	Description	Polarity
Economy		
GDP	GDP per capita in PPS (EU25+2+2, MK, CS:2002; AL, HR, BA, Kosovo:2003)	+
GDP growth	Annual average growth in GDP per capita in PPS in percent (EU25+2+2, MK: 1995- 2002; AL:1995-2003, HR: 2001-2003, BA und Kosovo:1999-2003; CS: 2000-2002)	+
Labour market potential		
Selected indicators from the original RCE - Lisbon performance:		
Productivity	GDP per person employed in EURO 2002	+
Employment rate	Employed population / population aged 15-64 in 2003	+
Selected indicators from the original RCE - Labour market		
Unemployment	Unemployment rate 2003	-
Development of unemployment	Change of unemployment rate 1999-2003 in percentage points	-
Labour force replacement ratio	Population ages 10-19 / population ages 55-64	+
Employment density	Number of persons employed per km² 2003	+
Employment in tertiary sector	Share of total employment 2003	+
Demography		
Ageing	Share of population in the ages over 65 in percent	-
Reproduction potential	20-29 years in 2020 per 20-29 years in 2000	+
Population growth	Change 1995-2002 in %	+

Table 3. Thematic fields and indicators

3. The Western Balkans area in the European context

In this part of the project, a general view is given for the countries of the study area using thematic maps which present a number of indicators like population density, dependency ratio, density of road network, density of rail network etc. in Nuts 0 and Nuts 2 geographical level. These maps are integrated in this report (following the ESPON graphic design), where each map is accompanied by a short interpretation of the structures and/or trends shown. They constitute of European maps adding the information of the Western Balkans to the similar information of the EU25+2+2 counties.

The regional data of the Western Balkan countries have been integrated into the ESPON 2.4.2 RCE data base. In order to compare the regional performance of these countries with the regions of the EU25, Switzerland, Norway, Bulgaria and Romania and not to calculate a new RCE, the regional values of the additional countries have been put into relation to the existing values of the RCE and the classification has been done on the basis of the EU 25+2+2 mean values, maxima, minima and standard deviations of the related indicators (see ESPON project 2.4.2 draft final report December 2005 page 65).

An analytical description concerning the results for each indicator, in the EU 29 area and the Western Balkans countries are presented in the next lines.

3.1 General about the Western Balkan countries

Serbia and Montenegro is a Mediterranean, Southeast European, Danubian and Balkan country. It is in the central part of the Balkan Peninsula. It covers a total area of 102173 km^2, 361km^2 of them belong in the Republic of Serbia (87 % of total) and the other 13 812 km^2 belong in the Republic of Montenegro.The population is more than 10.6 million (in 2001). Montenegro has 600 thousands of people, in Central Serbia lives 5.7 million, in Vojvodina lives 1.9 million, and 2.3 million of people stay in Kosovo and Metohija[1].

Albania is located on the western edge of the Balkan Peninsula. It covers 28748 km^2 and it is one of the smallest countries in Europe. The coastline on the Adriatic and Ionian Seas is 476 km, and it is bordered by Serbia and Montenegro to the north and northeast, by the Former Yugoslavia Republic of Macedonia to the east, and by Greece on the southeast and south. Albania is a mountainous country[2].

The FYR of Macedonia is situated in the central part of the Balkan Peninsula, covering 25713 km^2. It borders with Serbia to the north, Albania to the west, Greece to the south, and Bulgaria to the east.The population of the country is almost 2 million (in 2002) and the 58 % of it living in urban areas[3].

Bosnia and Herzegovina is a country on the Balkan peninsula of southern Europe. Bordering with Croatia, Serbia and Montenegro. It covers 51209 km^2 and its coastline is only 23 km. Bosnia and Herzegovina divides in two entities: Federation of Bosnia & Herzegovina and Republica Srpska and District Brčko. The Federation of Bosnia and Herzegovina covers the 51 % of Bosnia and Herzegovina's total area, while the Republika Srpska covers around 49 %.There

[1,2, 3] ESTIA – SPOSE Project, National Reports of Albania, FYROM, Serbia and Montenegro, INTERREG IIIB, Institute of Urban Environment and Human Resources, Panteion University, Greece, 2004-2006.

are three ethnics: Bosniaks, Serbs and Croats. It is mainly a mountainous country[4].

Croatia is located between central, southern, and eastern Europe. It covers 56542 km^2. Bordering with many countries such as Slovenia, Hungary, Serbia and Montenegro, Bosnia and Herzegovina and Italy through the Adriatic sea. The coastline is 5835 km.[5]

3.2 Demography

In this theme, the Western Balkan regions cover the full regional range of the ESPON regions.

Albania and Kosovo are grouped into the above average regions together with Ireland, France, United Kingdom and Cyprus which are characterised by low shares of older people and high reproduction values due to the above average share of younger people also in population projections.

On the topic of Ageing, in national level, Albania presents a very low rate (0%-10%) in comparison with the other countries of the European Union. Ireland, Slovakia, Cyprus, Bosnia-Herzegovina and FYROM are included in the second category (10 % - 12 %). In the third category are Netherlands and Romania (12% - 14 %). In United Kingdom, Lithuania, Latvia, Estonia, Hungary, Austria, Switzerland, Denmark, Finland and Norway values fluctuate between 14 % and 16%. There are eleven countries (Belgium, Germany, Spain, Portugal, Greece, Sweden, Bulgaria, Croatia and Serbia-Montenegro) which present higher values than the average value. Italy reaches the highest values. As for the Western Balkan area the average value of ageing is 11 %. In Serbia-Montenegro and Croatia the rates of ageing are very high with respect to the average value in the Western Balkan area.

In regional level the Federation of B&H and FYROM are placed in the above category of regions. These regions show also a low share of people aged over 65 years. In the group of regions having around the average value is also the B&H Serbian Republic. The region of Zagreb, Vojvodina and Montenegro, appear higher shares of older people and less distinct reproduction potential.

With an increasing share of people aged over 65 years and a low reproduction potential compared to Western European regions. The regions of Croatia apart from the capital regions and Central Serbia are classified in the European context as below the average in demographic aspects. On the other regions Albania, Montenegro, FYROM, appear to have values above the average. The same values can be observed in Ireland and Cyprus. As a result these regions are more dynamic and developed than the other in EU34.

About the population changes between 1995 and 2000, it is displayed that the population decreases in Albania, Sredisnja, Jadranska and Istocna regions, and remains stable in Vojvodina and Montenegro regions. On the other hand the number of inhabitants increases in Bosnia and Herzegovina and Zagreb regions (1% to 3 %), Kosovo and FYROM (3 % and more).

Moreover in regional level (2002), a large number of capitals of some European Countries such as Berlin, Paris, Madrid, Bruxelles, Lisbon, Athens, Amsterdam, Rome, Valletta, Bucuresti, Praha are included in regions where the values of population density are up to 500 inhabitants per km^2. The regions of the Nordic countries, of Central Spain (except the coastal regions and the Comunidad de Madrid region) and in the north of United Kingdom appear a low population

[4] Bosnia – Herzegovina, Federal office of statistics.
[5] Republic of Croatia – Central Bureau of Statistics

density (2002), ranging among 0 and 30 inhabitants per km^2. The largest number of regions in EU is presented to have values between 30 and 100 inhabitants per km^2.

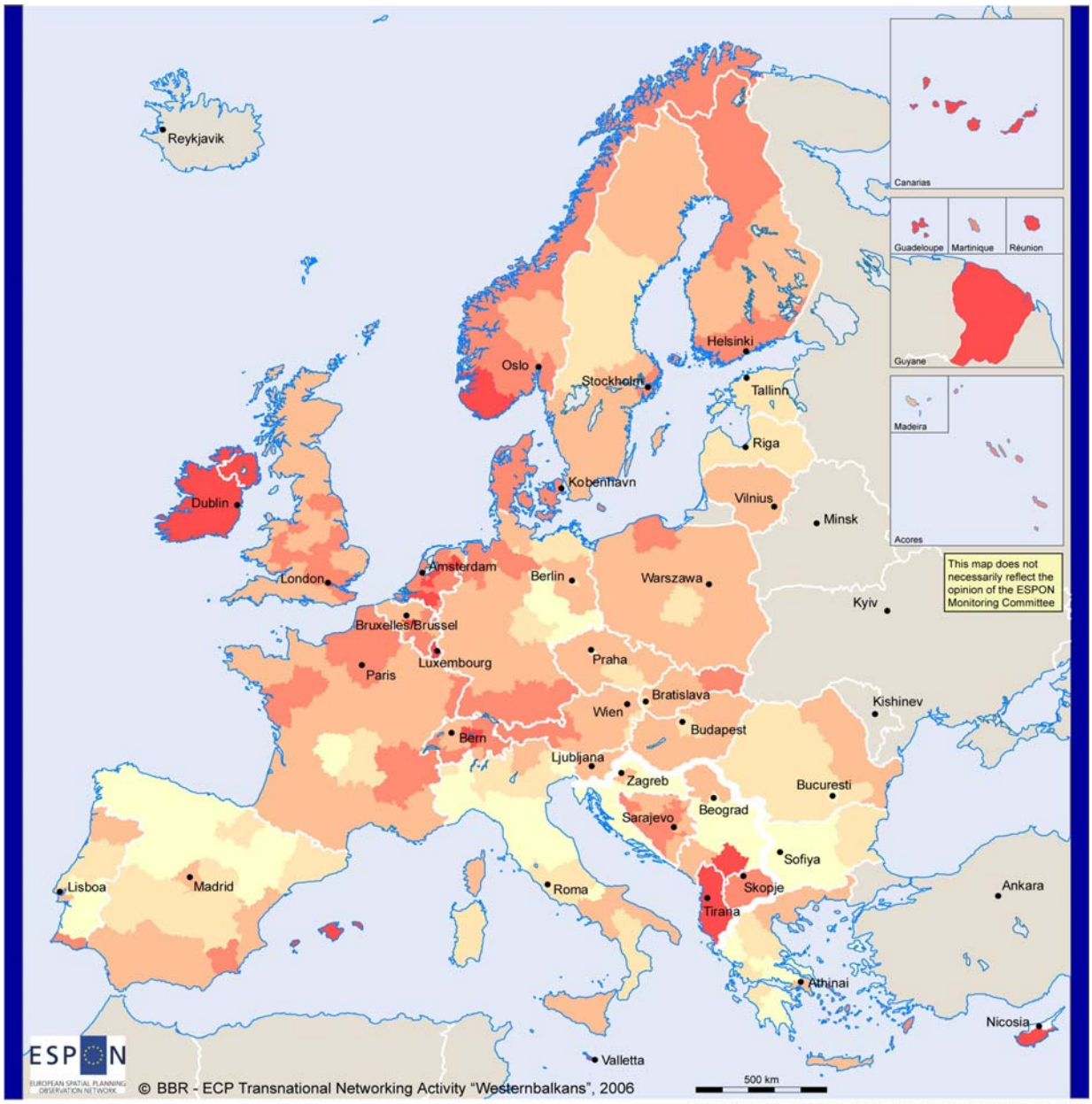
Concerning the Western Balkan area the lowest value is displayed in the Montenegro region in Serbia-Montenegro and the highest value (2002) is presented in the Zagrebacka region in Croatia. In the region Federation of Bosnia and Herzegovina the value is 107 inhabitants per km^2 and in the other region of the Bosnia and Herzegovina country, the Republica Srpska, the value of the population density is 59 inhabitants per km^2. In Serbia-Montenegro the values in the other two regions (Central Serbia and Vojvodina, no data for Kosovo and Metohia region are available) are around 100 inhabitants per km^2. In Croatia the coastal zone appears values between 30-60 inhabitants per km^2. Because of the fact that Albania and FYROM the Nuts 2 geographical level is the same with the Nuts 0, the same comments as previously referred, are valid.

Furthermore in Nuts 2 geographical level (2002), a large number of regions of the United Kingdom and two regions of north Ireland present dependency ratio values between 1,65 and 1,88. The values for the most of the regions vary among 1,39 and 1,59. The regions of the north Italy, of the central Germany, seven regions in Spain and two regions in Greece have the lowest values.

Regarding the Western Balkan area the lowest values are displayed in FYROM. In Serbia-Montenegro the highest value are presented in the Montenegro region (1,71) and the lowest are appeared in Vojvodina region (1,63). In Croatia regions the values of dependency ratio fluctuate between 1,6 and 1,7. Respecting the Kosovo-Metohia region and the Bosnia-Herzegovina regions no data was found relating to population by age groups.

Generally comparing the maps 3 to 9, Albania presents the largest percentage of people between 20 and 64 years (1,75 – 1,89) in EU34. The maximum values among 20 to 29 years in 2000 and in 2020 can be viewed in Albania, Nordic countries, United Kingdom, Cyprus and in the most France regions (0,9 and more).

Map 3. Classification of the regions: Demography



Degree of population profile challenges as an aggregate of 3 indicators:

- Ageing (Share of population in the age over 65, in %) -
- Reproduction potential (20-29 years in 2020 per 20-29 years in 2000) +
- Population growth (Change 1995-2002, in %) +

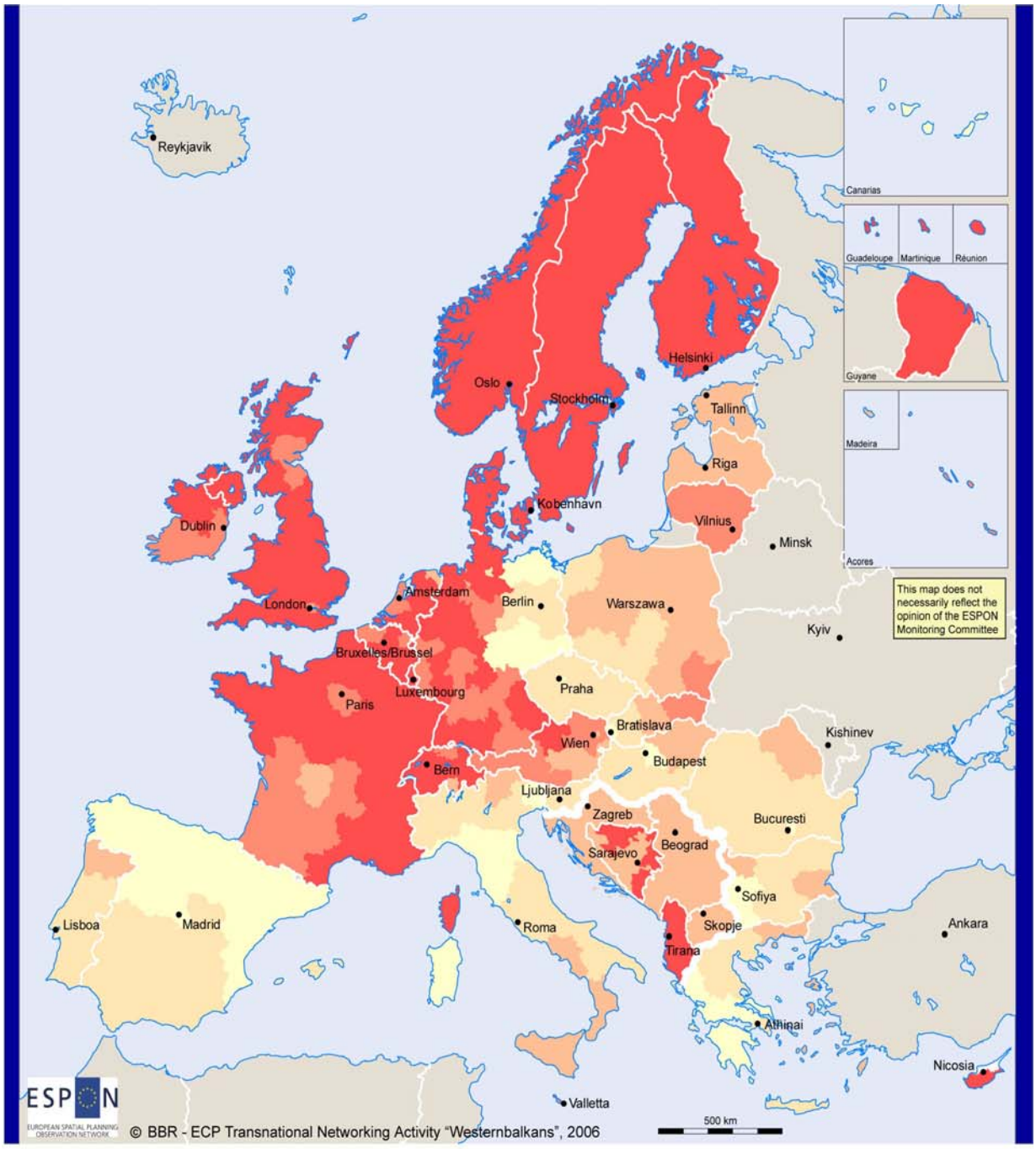
Below average
Moderately below average
Average
Moderately above average
Above average
no data

Regional level: NUTS 2
Origin of data: EU25 +CC's: Eurostat; CH, NO + AL, BA, HR, MK, CS: National Statistical Offices, BBR, own calculations

Source: ESPON database

Standardised based on the European mean value (EU25 +2 +2)

Map 4. Reproduction potential



Changes in natural growth potential

20-29 years in 2020 (born 1991-2000) per
20-29 years in 2000 (born 1971-1980)

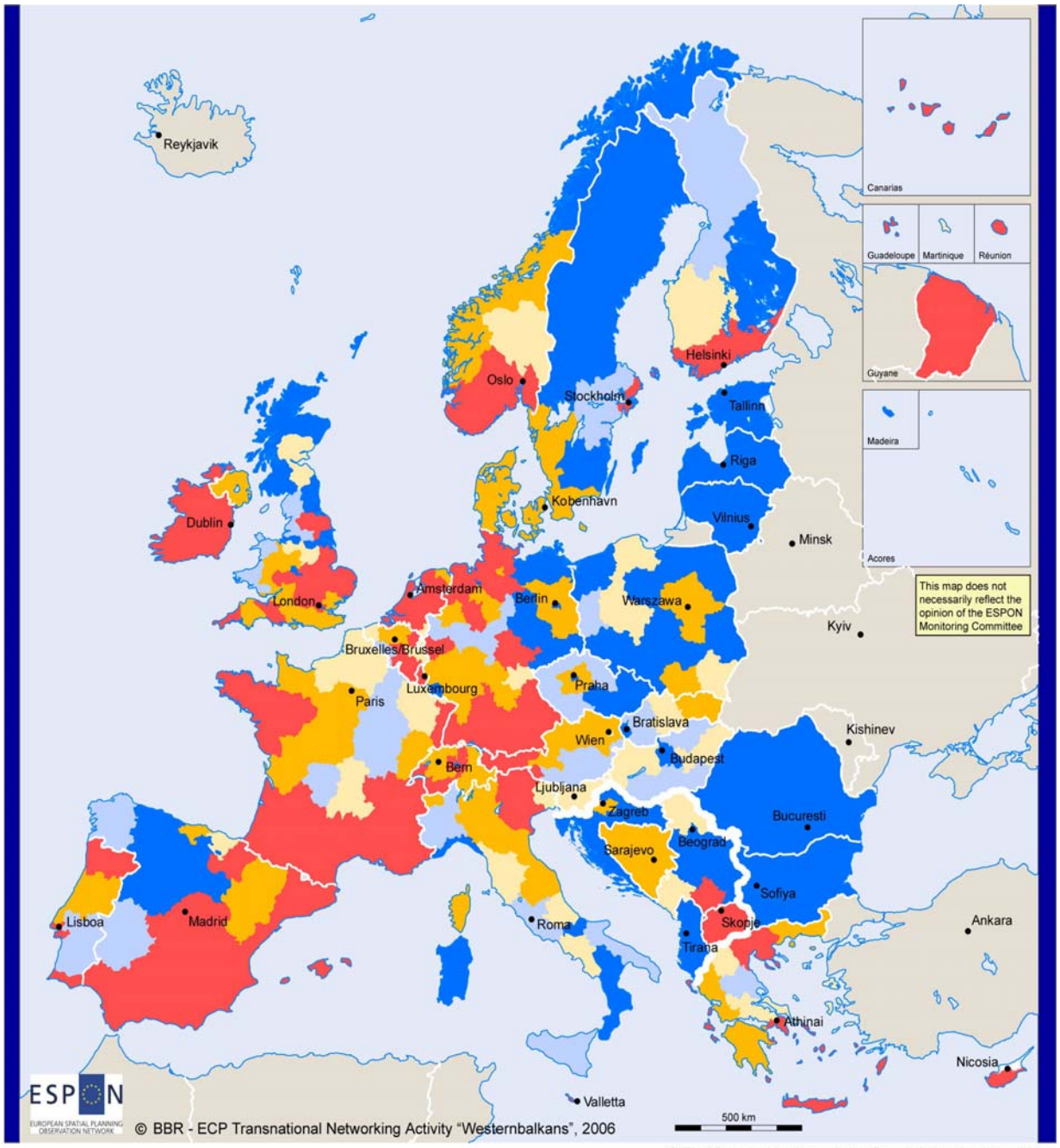
- up to 0,6
- 0,6 to below 0,7
- 0,7 to below 0,8
- 0,8 to below 0,9
- 0,9 and more
- no data

Regional level: NUTS 2

Origin of data: EU25 +2 +2: Project 1.1.4, ITPS;
AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

Map 5. Population growth



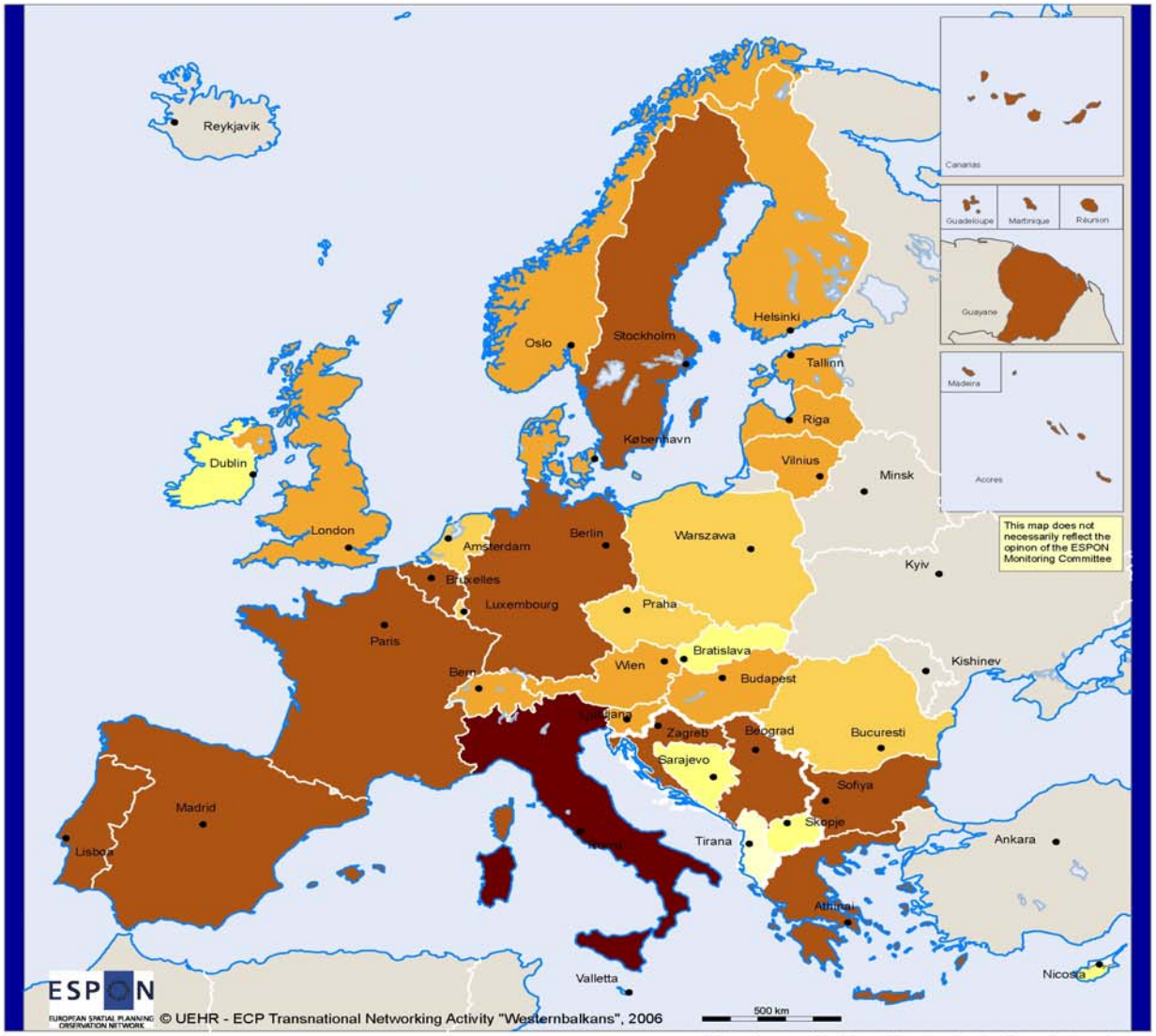
Change in population 1995 - 2000 in percent

- up to -1
- -1 to below 0
- 0 to below 1
- 1 to below 3
- 3 and more
- no data

Regional level: NUTS 2
Origin of data: EU25 +2 +2: Project 3.1, TAURUS, BBR;
AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

Map 6. Ageing



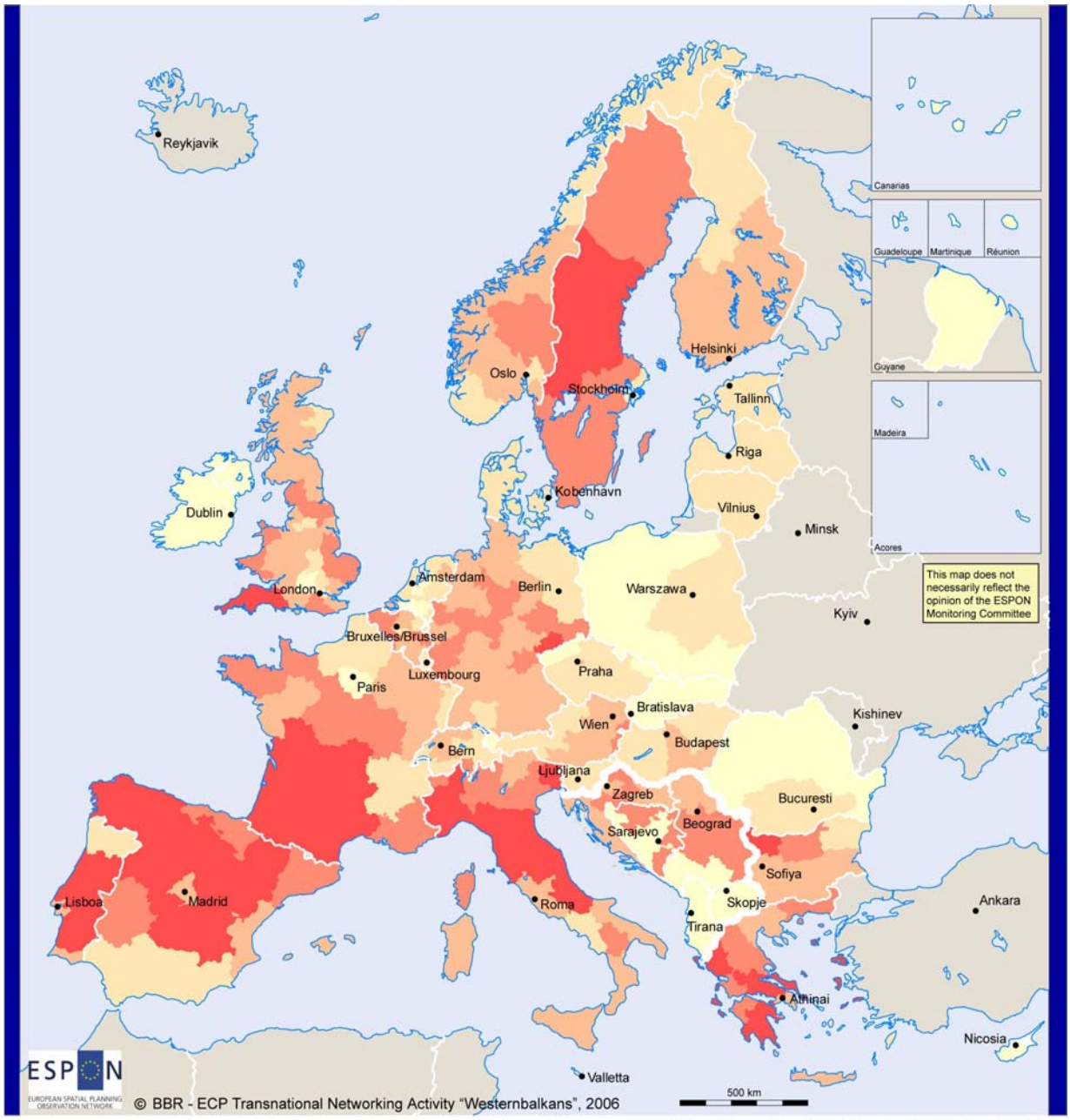
Share of population in the ages over 65 in percent in 2002

- up to10
- 10 to below 12
- 12 to below 14
- 14 to below 16
- 16 to below 18
- 18 and more
- no data

Regional level: NUTS 0
Origin of the data: EU15 and CC's: Eurostat; CH, NO + AL, BH, HR, MK, YU: National Statistical Offices
UEHR, own calculations

Source: ESPON Data Base

Map 7. Ageing



Share of population in the age over 65 years in total population 2000 in percent

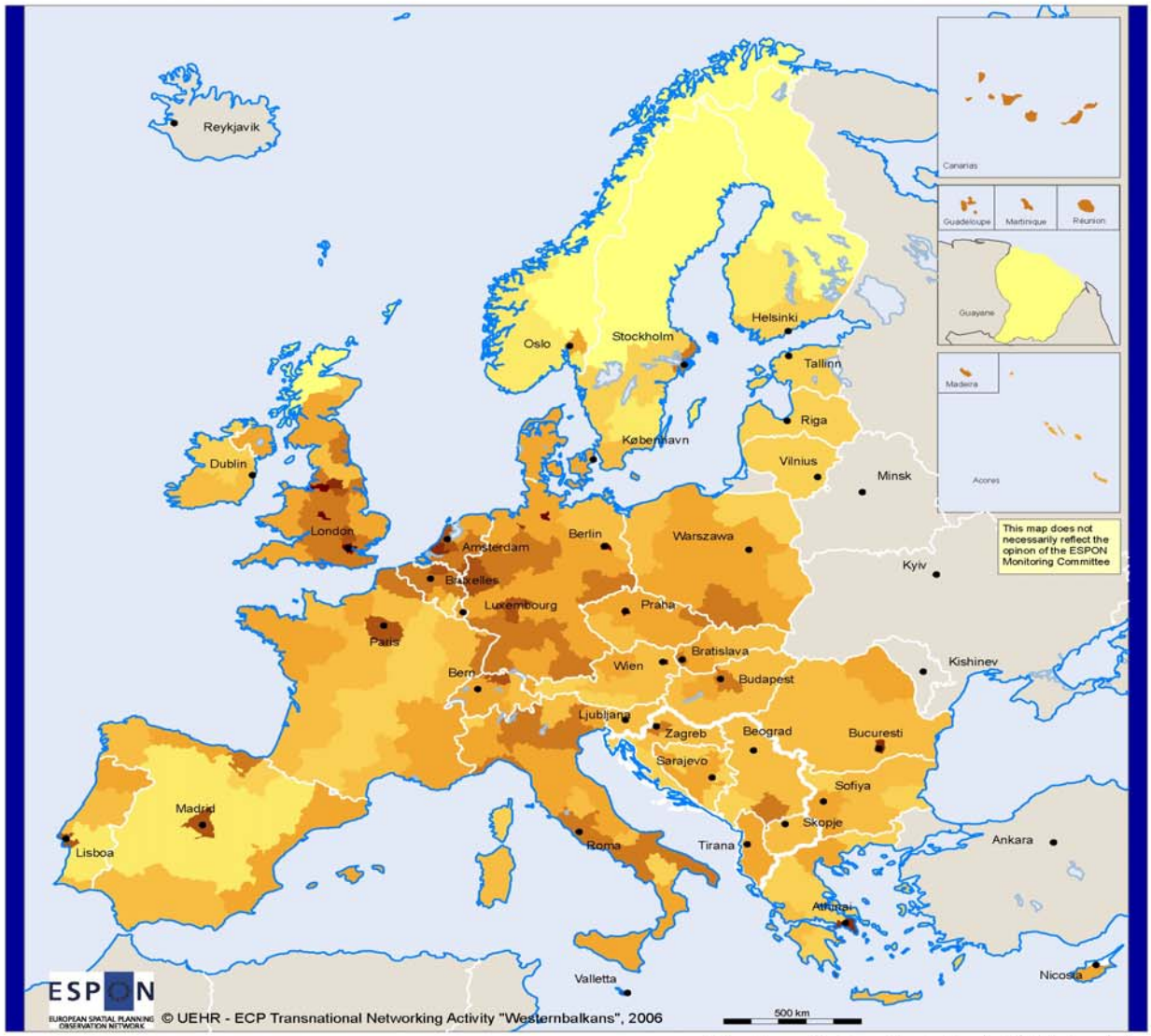
- up to 13
- 13 to below 15
- 15 to below 17
- 17 to below 19
- 19 and more
- no data

Regional level: NUTS 2

Origin of data: EU25 +2 +2: Project 3.1, BBR; AL, BA, HR, MK, CS: National Statistical Offices,

Source: ESPON database

Map 8. Population Density



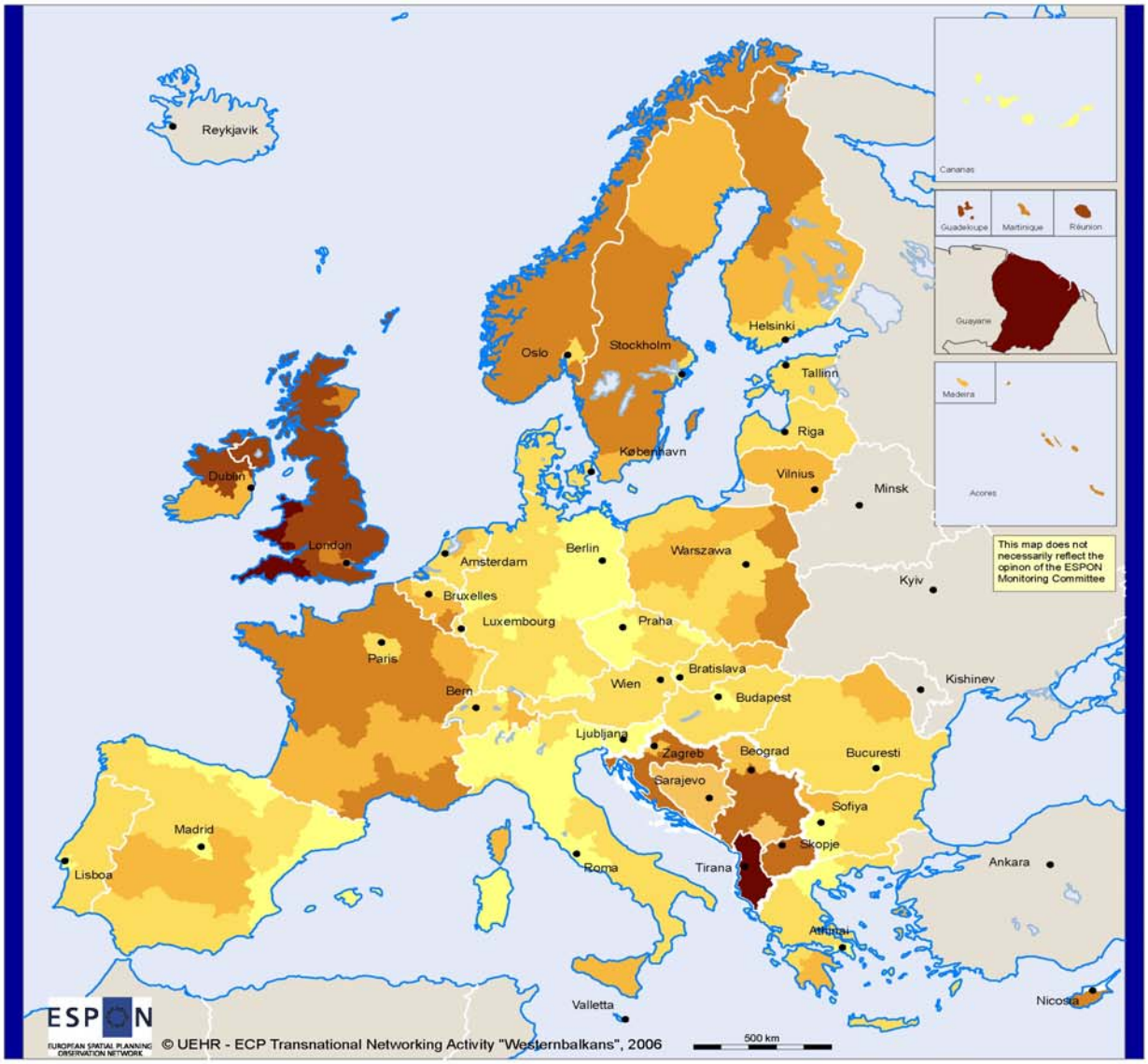
Inhabitants per qkm in 2002

- 0 - 15
- 15 - 30
- 30 - 60
- 60 - 100
- 100 - 200
- 200 - 500
- 500 - 1000
- 1000 - 2000
- 2000 and more
- no data

Regional level: NUTS 2
Origin of the data: EU15 and CC's: Eurostat; CH, NO + AL, BH, HR, MK, YU: National Statistical Offices
UEHR, own calculations

Source: ESPON Data Base

Map 9. Dependency ratio



Total population / population aged 20 to 64 years in 2002

- 1,39 - 1,48
- 1,48 - 1,55
- 1,55 - 1,59
- 1,59 - 1,65
- 1,65 - 1,75
- 1,75 - 1,89
- no data

Regional level: NUTS 2
Origin of the data: EU15 and CC's: Eurostat; CH, NO + AL, BH, HR, MK, YU: National Statistical Offices
UEHR, own calculations

Source: ESPON Data Base

3.3 Economy

Within the national classification of this field, the Western Balkan countries show quite different regional characteristics.

The Zagreb region and the Jandranska Hrvastka region along the coast of the Adriatic Sea as well as Montenegro show above average values in this respect. Albania and the Vojvodina in Serbia and Montenegro follow with average values in European comparison. The unfavourable situation in the other regions of this area underlines the economic situation in these countries on their way to political and economic stability on this phase of the transition. Bosnia and Herzegovina, Central Serbia, Kosovo and FYROM are characterised by below the average economic performance related to economic situation.

With a GDP per capita of about 2000 PPS, Kosovo takes the last place of the European regions taken into account. This value represents about 10 % of the mean value of the regions of the 29 ESPON countries. Central Serbia, the Republica Srpska and Albania have a GDP value of around 4500 PPS, Montenegro and the Vojvodina range from 6000 to almost 7000 PPS. The region with the highest GDP per capita in the Western Balkan area is Zagreb, which reaches with just under 15000 PPS per capita almost 75 % of the regional average of EU 25+2+2.

In relation to Gross Domestic Product per capita in euros (2002), in national level, the countries of the Western Balkans area, Bulgaria and Romania have the lowest values (1543-4000 euros per capita) in comparison with the other countries of the European Union. In the countries which are included in the Accession 12 group (except for Cyprus) as well as in Croatia, values fluctuate between 4000 and 12000 euros. Spain, Portugal, Greece and Cyprus are presented in the third category (12000 to below 22000 euros per capita). In all the other Countries in EU values display between 22000 euros and 52000 euros.

Regarding the Western Balkan area the average of GDP per capita (euros) is 2724. This value is much lower than the other averages such as EU29: 19070 euros, EU25: 18920 euros, EU15: 26430 euros, Accession 12: 6739 euros, Accession 10: 7654 euros.

In Croatia the value of GDP per capita (euros) is very high (5828 euros) concerning the average value in the Western Balkan area. Albania and Bosnia-Herzegovina (around 1500 euros) have the lowest values in the study area.

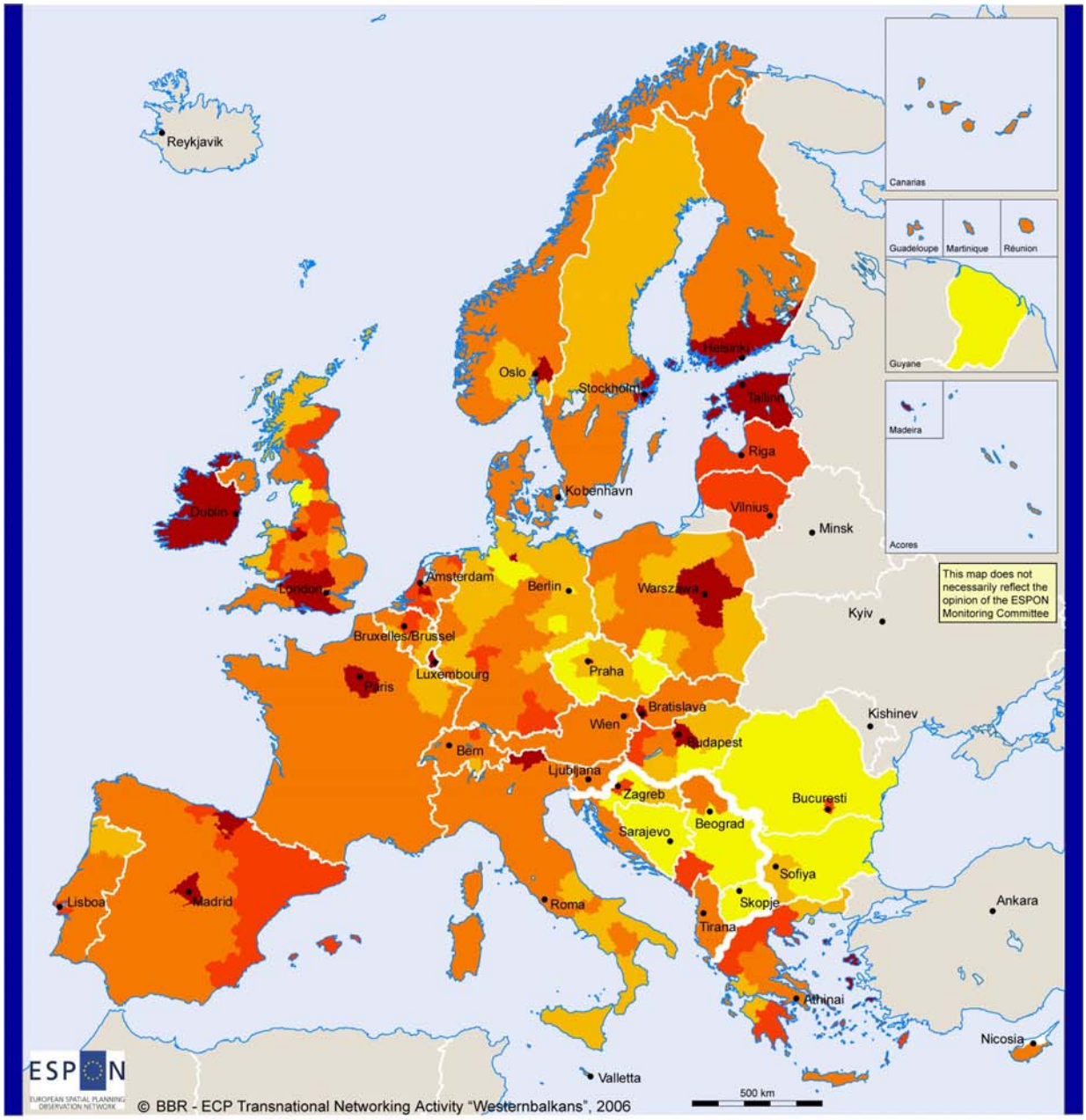
In regional level (2002), most of the regions in the European Union appear GDP per capita rates (in euros) in the middle of 18000 to below 28000 euros. Regarding the Western Balkan area the lowest values are displayed in Kosovo region (912 euros). In Serbia-Montenegro the maximum value is presented in the Montenegro region (2113 euros per capita) and the minimum is appeared in Central Serbia region (1205 euros). In all the Croatian regions the values fluctuate between 4000 and 8000 euros. The highest value can be traced in the Zagreb region (8670 euros).

Regarding the EU 34 area, it can be observed that the countries which are included in the Western Balkan area group contain the minimum value (3062 euros). On the other hand, in the EU25 group, the maximum average can be visible (20162 euros). Comparing the previous values, it can be assumed that the average value in the Western Balkan area (Nuts 2) has increased per 338 euros per capita in relation to the Nuts 0 geographical level.

The development on the basis of a low level influences the growth rates of the GDP per capita. Nevertheless, significant differences can be identified within the regions. An obvious decrease in the GDP per capita could be identified in Central

Serbia and in the Kosovo region. Croatia, beside the region of Istocna Hrvatska, Albania and Montenegro show the highest growth rates in this area.

Map 10. Classification of the regions: Economy



Degree of economic success as an aggregate of 2 indicators:

- GDP per capita in PPS (2002) +
- Annual average growth in GDP per capita in PPS in %
  (EU25 +2 +2 +MK = 1995-2002; AL = 1995-2003;
  HR = 2001-2003, BA + Kosovo = 1999-2003;
  CS = 2000-2002) +

Below average
Moderately below average
Average
Moderately above average
Above average

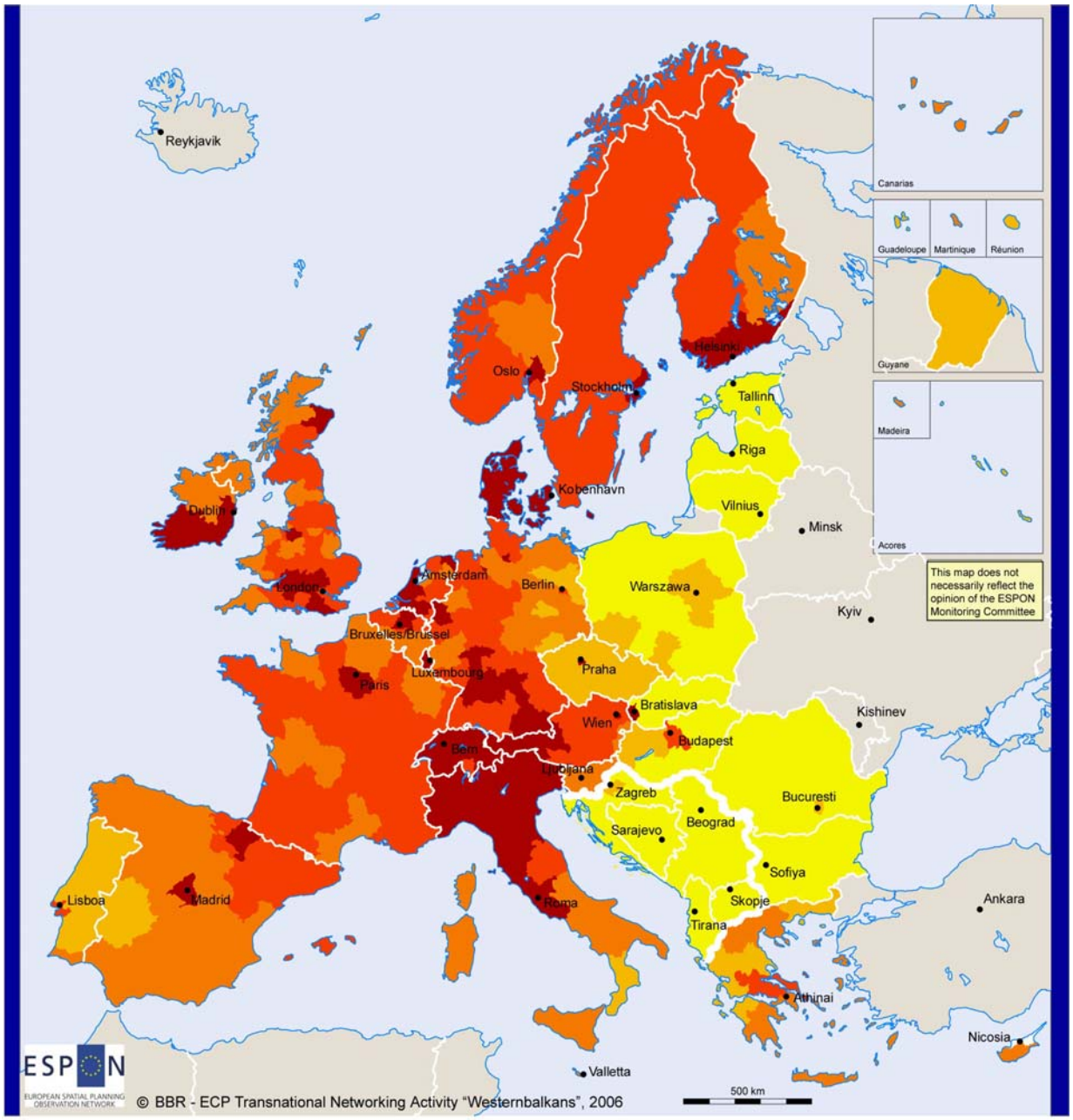
no data

Regional level: NUTS 2
Origin of data: EU25 +CC's: Eurostat; CH, NO + AL, BA, HR, MK, CS: National Statistical Offices, BBR, own calculations

Source: ESPON database

Standardised based on the European mean value (EU25 +2 +2)

Map 11. Gross Domestic Product per capita in PPS



Gross domestic product in purchasing power standards per inhabitant 2002

- up to 10.000
- 10.000 to below 15.000
- 15.000 to below 20.000
- 20.000 to below 25.000
- 25.000 and more
- no data

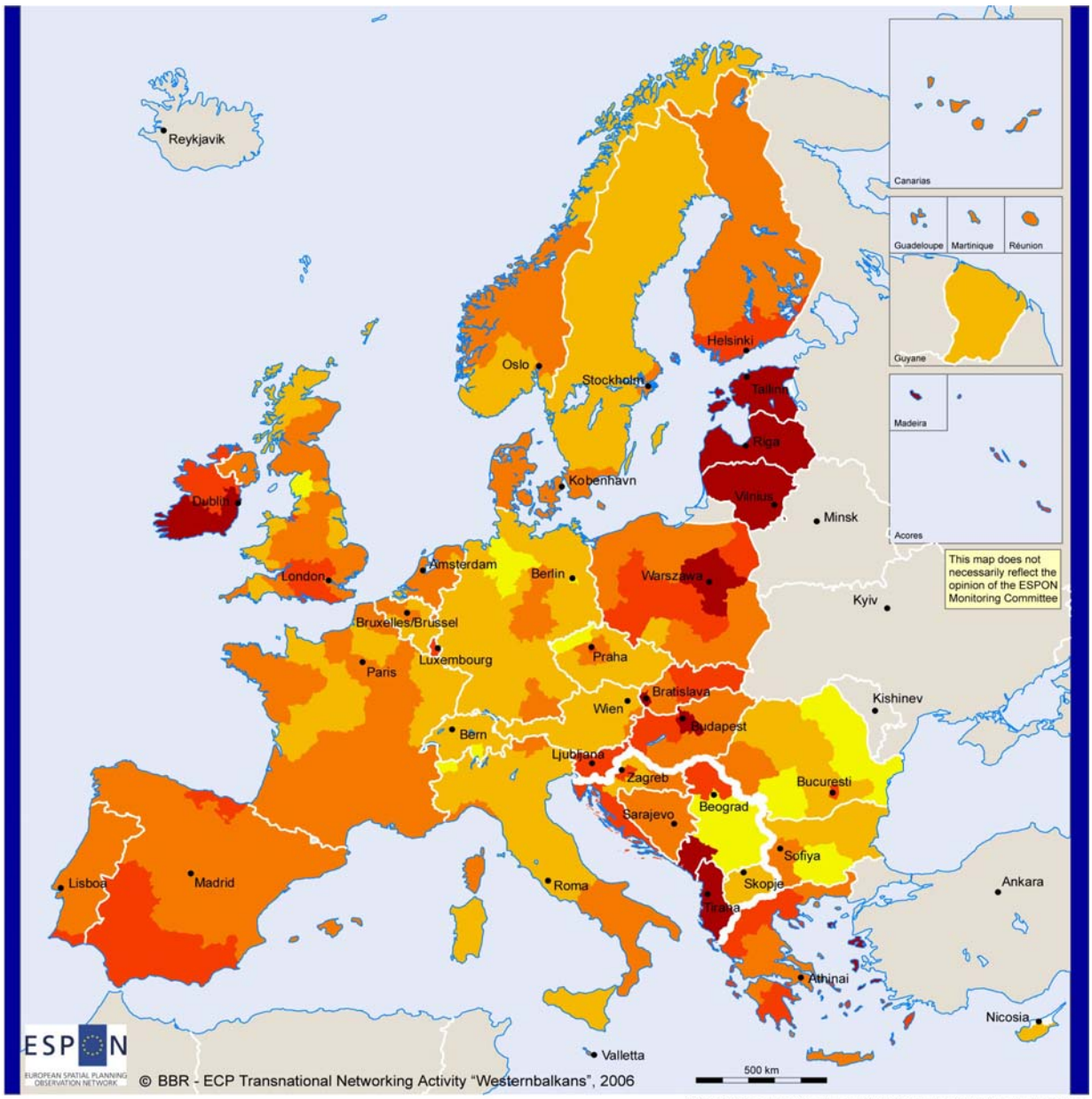
Regional level: NUTS 2

Origin of data: EU25 +2 +2: Project 2.4.2, BBR

AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

Map 12. Growth of Gross Domestic Product



Development of gross domestic product in purchasing power standards per capita GDP in percent (annual average)

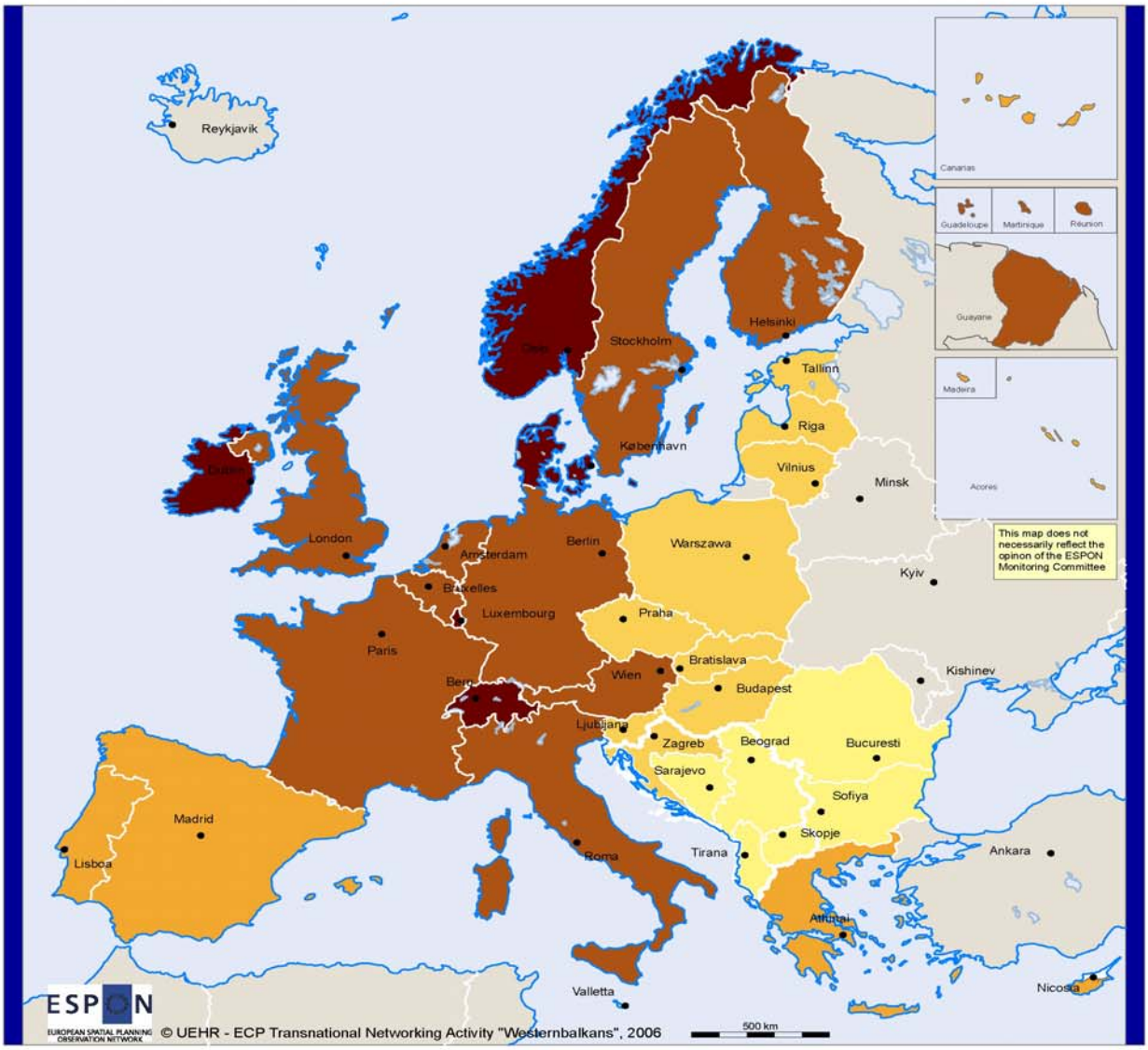
(EU25 +2 +2 +MK = 1995-2002; AL = 1995-2003;
HR = 2001-2003, BA + Kosovo = 1999-2003;
CS = 2000-2002)

- up to 2,5
- 2,6 to below 5
- 5,1 to below 7,5
- 7,6 to below 10
- 10,1 and more
- no data

Regional level: NUTS 2
Origin of data: EU25 +2 +2: Project 2.4.2, BBR
AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

Map 13. Gross Domestic Product per Capita (euros)



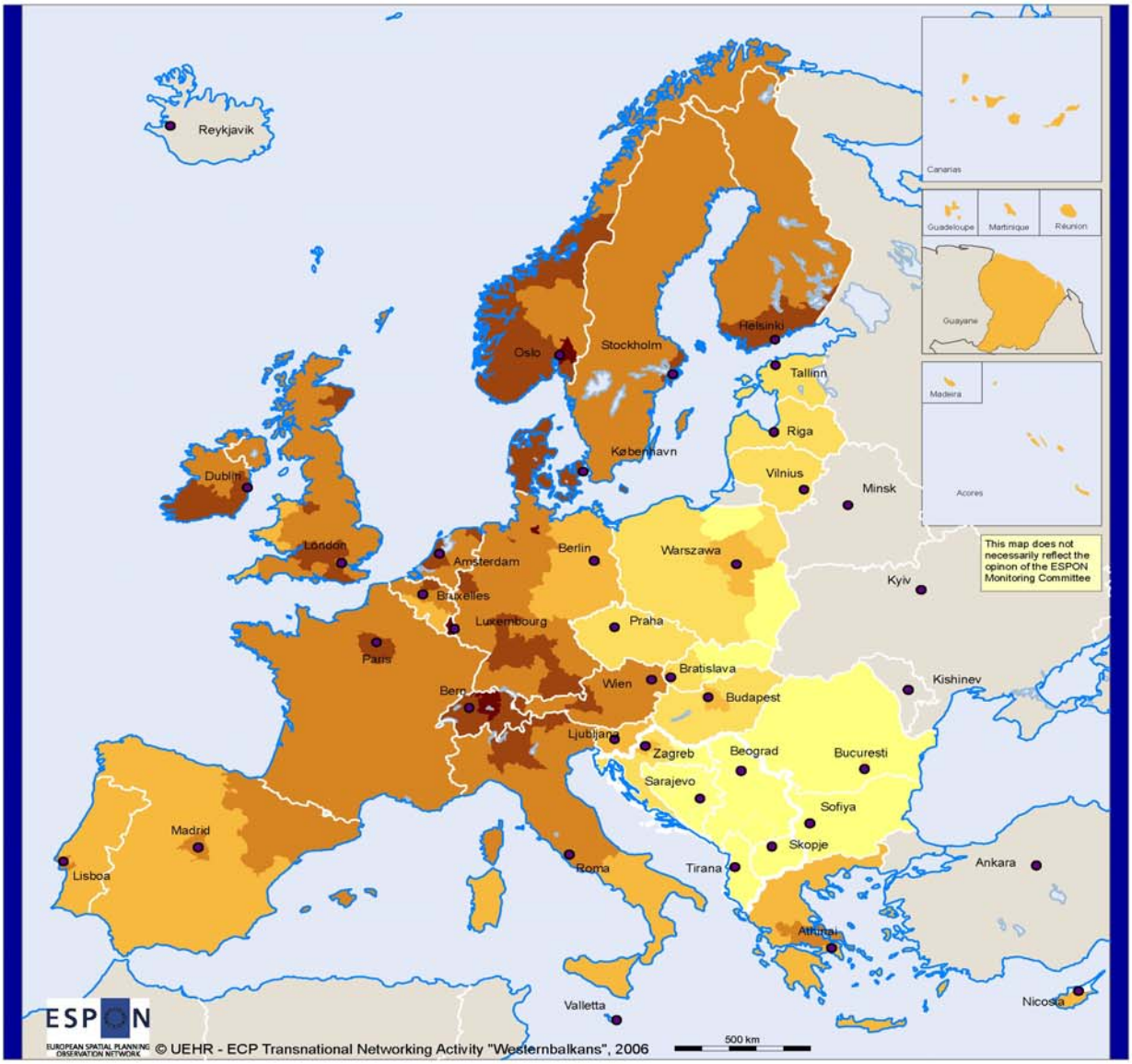
GDP per capita in euros in 2002

- up to 4000
- 4000 to below 12000
- 12000 to below 22000
- 22000 to below 32000
- 32000 and more
- no data

Regional level: NUTS 0
Origin of the data: EU15 and CC's: Eurostat; CH, NO + AL, BH, HR, MK, YU: National Statistical Offices
UEHR, own calculations

Source: ESPON Data Base

Map 14. Gross Domestic Product per Capita (euros)



GDP per capita in euros in 2002

- 912- 4000
- 4001 - 8000
- 8001 - 18000
- 18001 - 28000
- 28001 - 40000
- 40001 - 75025
- no data

Regional level: NUTS 2
Origin of the data: EU15 and CC's: Eurostat; CH, NO + AL, BH, HR, MK, YU: National Statistical Offices
UEHR, own calculations

Source: ESPON Data Base

3.4 Employment and Labour market potential

The labour market in the Western Balkan countries could be characterized in a tense situation. Only two regions of Croatia show better than below the average value in comparison with the European (EU 25+2+2). The region Jadranska Hrvatska is moderately below average and comparable to the level of Hungarian and Czech region outside the capital regions and also comparable with East German, Portuguese and Greek regions.

The region of Zagreb with an average value according to the classification could be seen in the same league with many other capital regions in the new Member states.

Only the regions of Croatia and especially the Zagreb region reach for instance the average level of the ESPON regions of about 65 % in respect to the labour participation. Regions like Zagrebacka regija and Albania follow with 47 %. All the other regions have values below the minimum, of about 40 % of the region in the ESPON space.

The GDP per person employed in the Western Balkan countries is comparable to the productivity values of Eastern European countries, whereas Croatia (except Zagrep) in general exceeds Polish values. Montenegro is on the same level with the Slovak regions, while FYROM, Albania and Kosovo have comparable values with the Bulgarian and Romanian regions. The same results can be observed in Baltic, Czech and Poland regions (up to 20.000 euros per person).

The tertiary sector plays a minor role in employment especially in Albania, Serbia, FYROM and the Serbian Republic of Bosnia and Herzegovina with a share of total employment of around 30%. This sector is of higher significance in Montenegro, Sredisnja Hrvatska and Kosovo, but the values of around 50% are still below the regional average of ESPON the countries, which is 65%. The Federation of B&H with 62 %, almost reaches the average and Zagreb and Jadranska Hrvatska are ranked on European average with an employment share of 67 % and 69%.Observing the all the above maps, it can be presented that the coastal regions in Croatia, Serbia and Montenegro and Bosnia and Herzegovina are developed more than the other regions in the study area.

Unemployment is the most important problem of the Western Balkan countries. Whereas Croatia shows unemployment rates lower than that Sicily and comparable to the regions of the South and Albania with a rate comparable to Eastern regions in Germany, unemployment rates of the Balkan countries start a level of the maximum regional level of the ESPON regions of about 32 %. This is the value of Central Serbia, whereas this value goes up to 40 % in FYROM, 44 % in the Federation of Bosnia and Herzegovina and almost 50 % in Kosovo.

In relation to unemployment rate in 2002, in national level Poland, Slovakia, Lithuania, Burgaria, FYROM and Serbia-Montenegro present the highest values (up to 15 %) in comparison with the other countries of the European Union. Other Western Balkans countries, Spain, Estonia and Latvia are following whose values fluctuate between 10 % and 15 %. Switzerland, Luxembourg, Norway and Netherlands appear the minimum values (0 % - 2 %).

Concerning the Western Balkans area the average of unemployment rate has the maximum value (15 %). This value is almost double relating to the average values of EU29, EU25, EU15 group of countries. About the values of each country, in Croatia is 13 %, in FYROM is 29 %, in Bosnia-Herzegovina is 10 %, in Albania is 11 % and in Serbia-Montenegro is 18 %.

In all countries of the Western Balkans the values of the rate are much higher than the averages of the other EU countries. FYROM presents the maximum unemployment rate value; Bosnia-Herzegovina and Albania have the lowest value in the area of study.

Moreover the change of unemployment rate has been increased about 4 % between 1999 and 2003 in Bosnia and Herzegovina, FYROM and around 6 % in Serbia and Montenegro. In the remaining countries (Albania and Croatia) the unemployment rate decreased in this period with round 3 %.

On the other hand the employment density in national level (2002), in the Nordic countries, in the countries of the Western Balkans area (except Albania) and in the Baltic countries (except Lithuania) appears the lowest values (0 - 22 number of employed persons per km^2) in comparison with the other countries of the European Union. Spain, Greece, Ireland and Bulgaria are included in the second category (22 to below 35). The countries which are included in the pentagon area and Italy present the highest values.

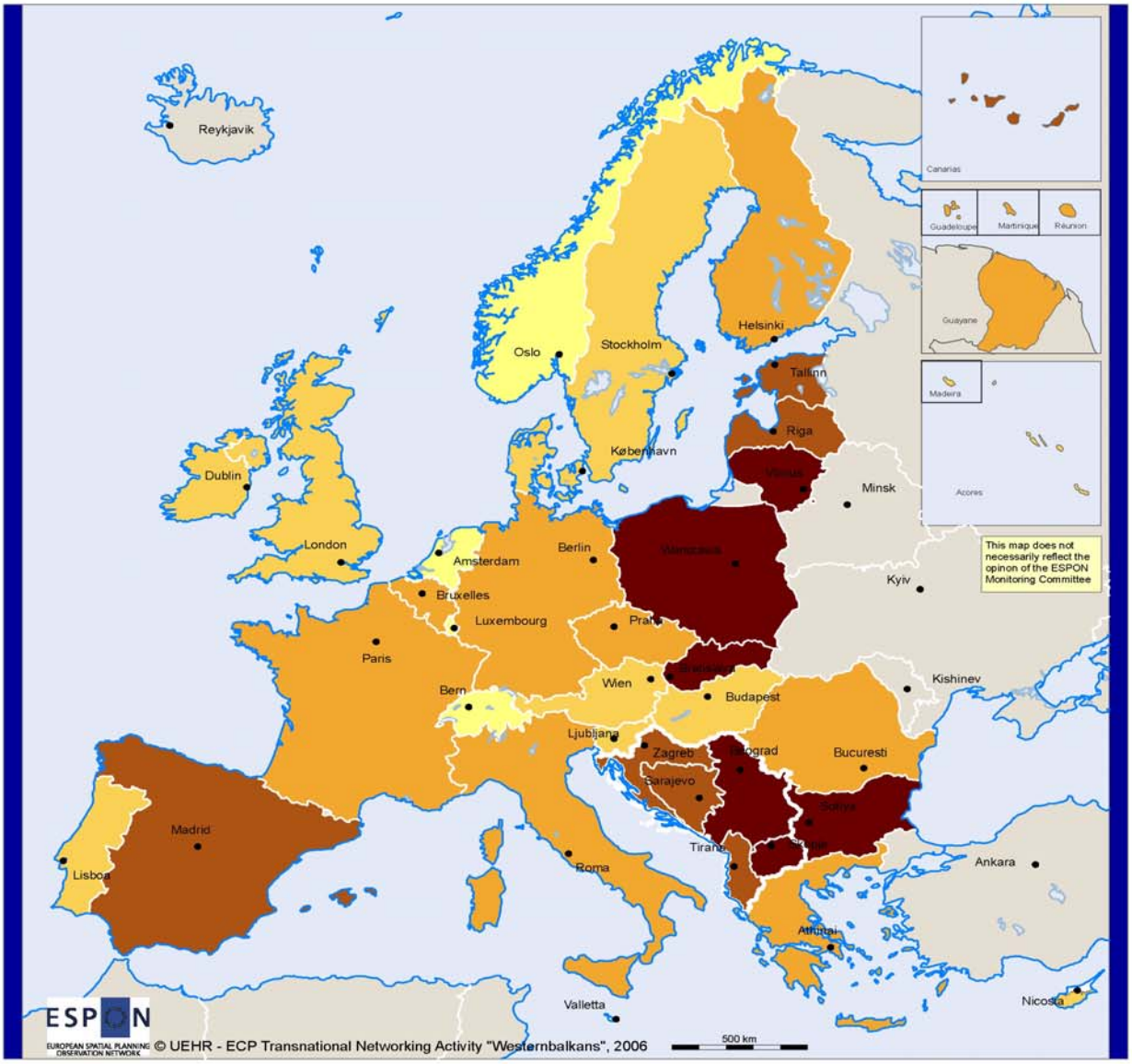
Regarding the Western Balkan area the average of Employment Density has the minimum value (21,5 %). This value is much lower than the other averages which can be seen in the table 10. The values for the Western Balkan countries are: Croatia 21 %, FYROM 21 %, Bosnia-Herzegovina 8 %, Albania 37 % and Serbia-Montenegro 20 %.

In Croatia and FYROM the values of employment density are almost the same in relation to the average value in the Western Balkan area. Albania appears the maximum value and Bosnia-Herzegovina has the lowest values in the study area.

In the region is considerably low and rank on the level of rural and peripheral regions. The regions of: Zagreb, Vojvodina, Central Serbia and FYROM show the highest values of the area, Zagreb absolutely on the level of less agglomerated regions like Veneto or Hannover. The other regions of the study area present lower values (up to 20 %) like the more of the regions in Greece, Nordic countries, Latvia and Ethonia.

Regarding the labour force replacement ratio Albania presents the highest values (1.8 % and more) in 2000. In FYROM and Montenegro the values fluctuate between 1.5 % and 1.8 %. In the other regions of Western Balkan area the values are between 0.9 % and 1.5 %.

Map 15. Unemployment rate



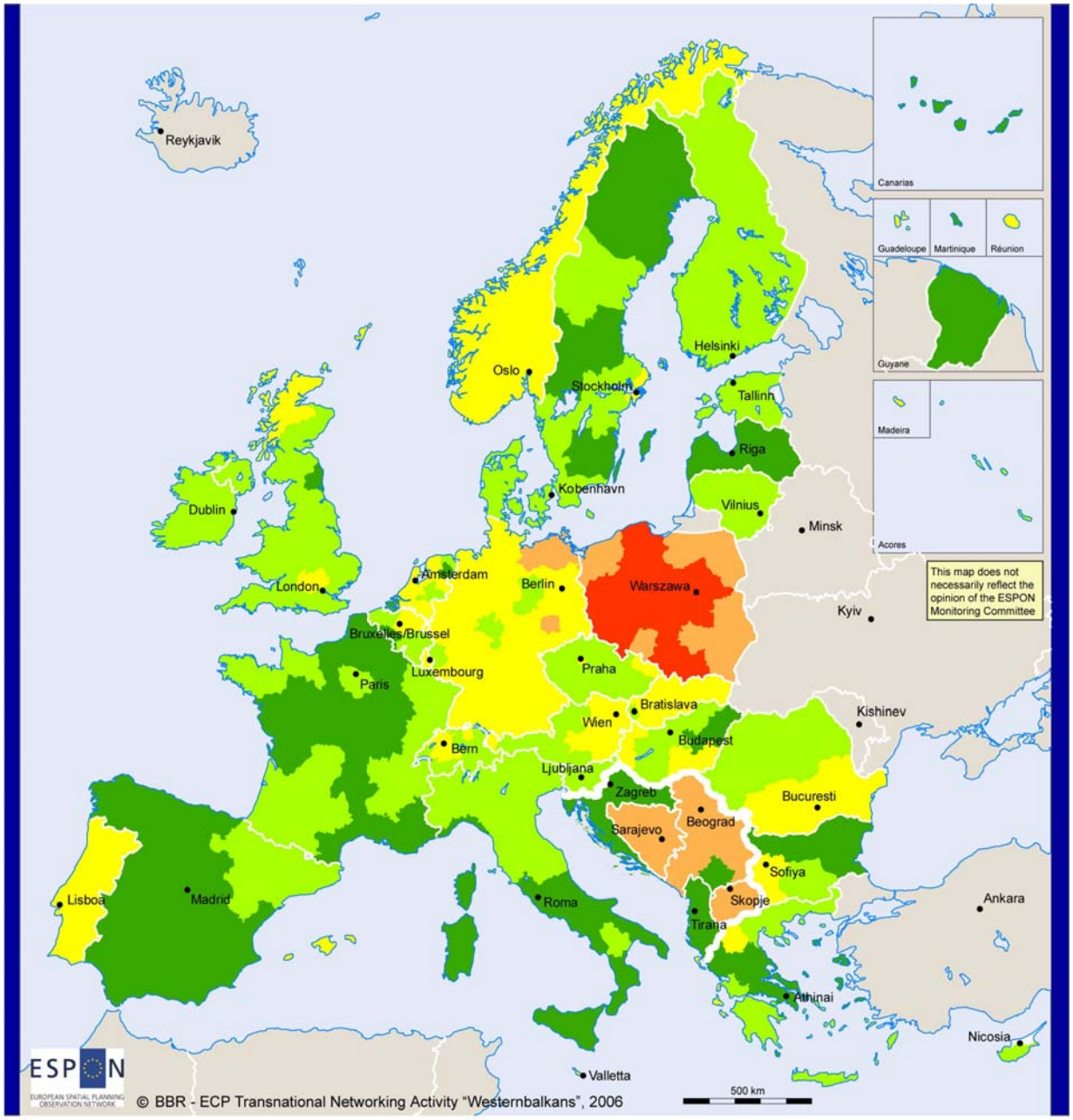
Unemployment rate in 2002

- up to 2,0
- 2,0 to below 6,0
- 6,0 to below 10,0
- 10,0 to below 15,0
- 15,0 and more
- no data

Regional level: NUTS 0
Origin of the data: EU15 and CC's: Eurostat; CH, NO + AL, BH, HR, MK, YU: National Statistical Offices
UEHR, own calculations

Source: ESPON Data Base

Map 16. Development of unemployment



Change of unemployment rate 1999 - 2003 in percentage points

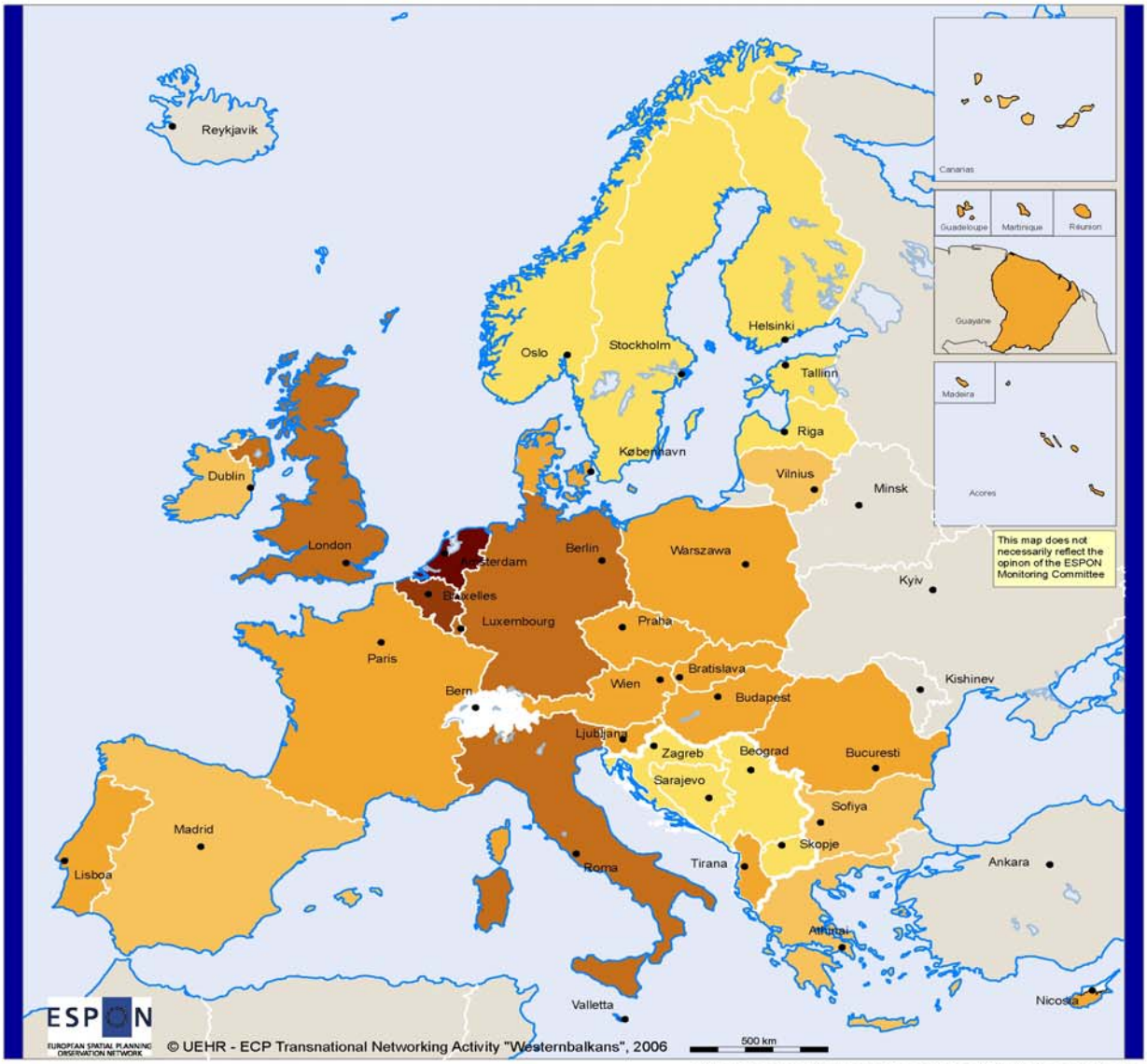
- up to -3
- -3 to below 0
- 0 to below 3
- 3 to below 6
- 6 and more
- no data

Regional level: NUTS 2

Origin of data: EU25 +2 +2: Project 3.1, TAURUS, BBR; AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

Map 17. Employment Density



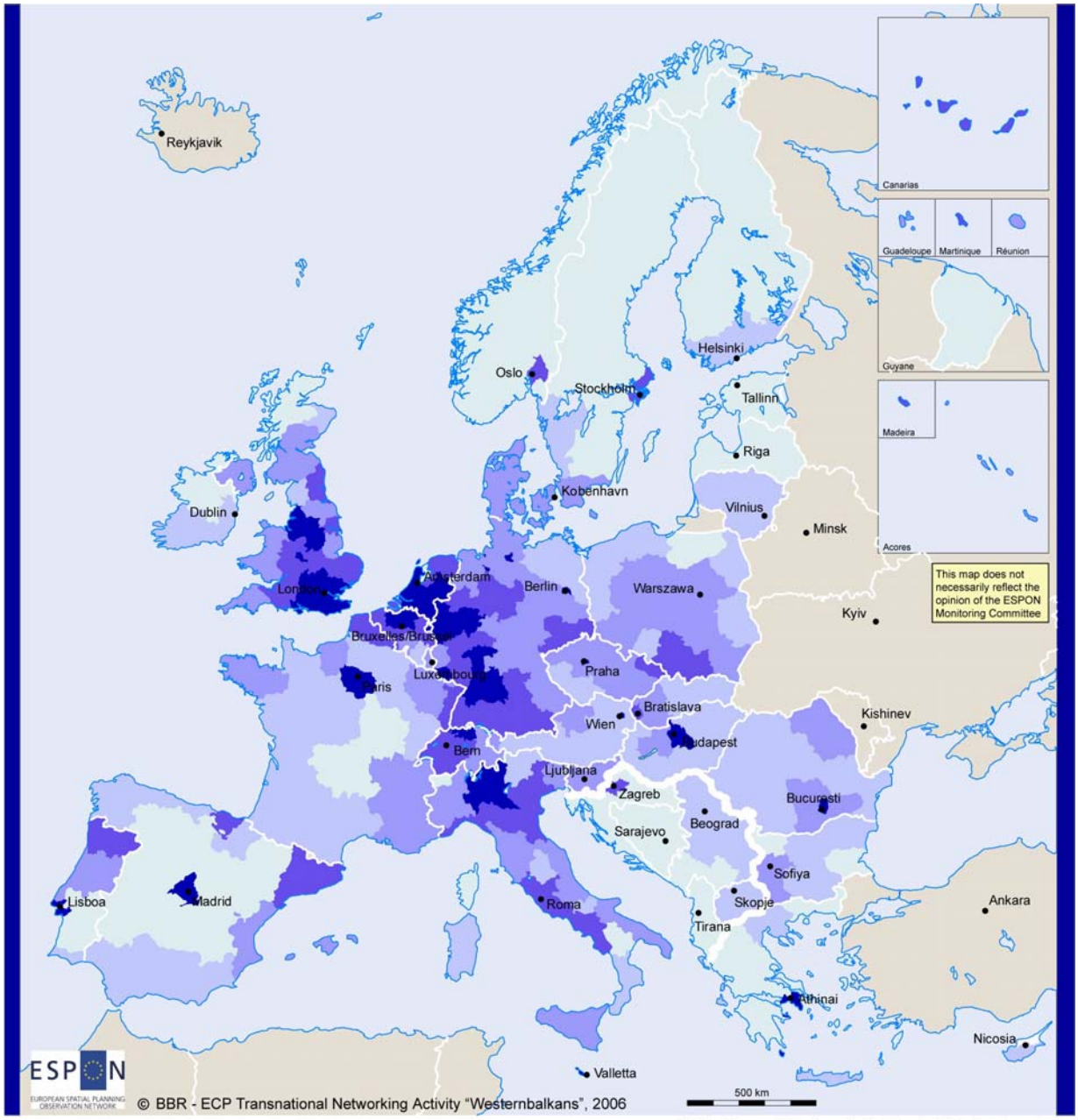
Number of employed persons per qkm in 2001

- up to 22
- 22 to below 35
- 35 to below 70
- 70 to below 130
- 130 to below 190
- 190 and more
- no data

Regional level: NUTS 0
Origin of the data: EU15 and CC's: Eurostat; CH, NO + AL, BH, HR, MK, YU: National Statistical Offices
UEHR, own calculations

Source: ESPON Data Base

Map 18. Employment Density



Persons employed per km² 2003

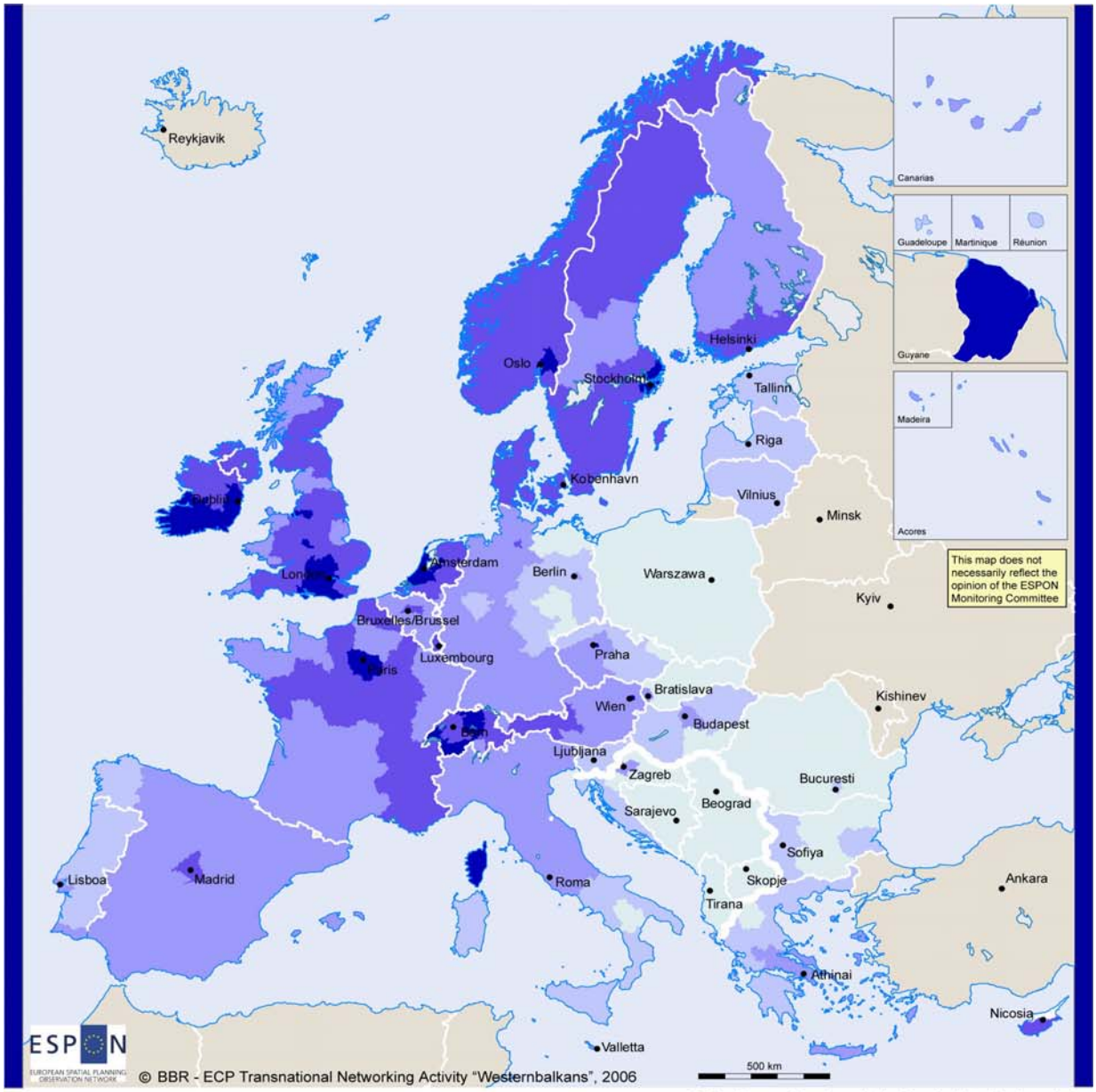
- up to 20
- 21 to below 40
- 41 to below 80
- 81 to below 160
- 161 and more
- no data

Regional level: NUTS 2

Origin of data: EU25 +2 +2: Project 3.1, BBR;
AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

Map 19. Classification of the regions: Labour market potential



Degree of labour market efficiency as an aggregate of 7 indicators:

- Unemployment (Unemployment rate 2003) -
- Development of unemployment (Change of unemployment rate 1999-2003 in pp) -
- Labour force replacement ratio (Population ages 10-19 / pop. ages 55-64) +
- Employment density (Number of persons employed per km2 2003) +
- Employment in tertiary sector (Share of total employment 2003) +
- Productivity (GDP per person employed 2002) +
- Employment rate (Employed population / population aged 15-64 2003) +

Below average
Moderately below average
Average
Moderately above average
Above average

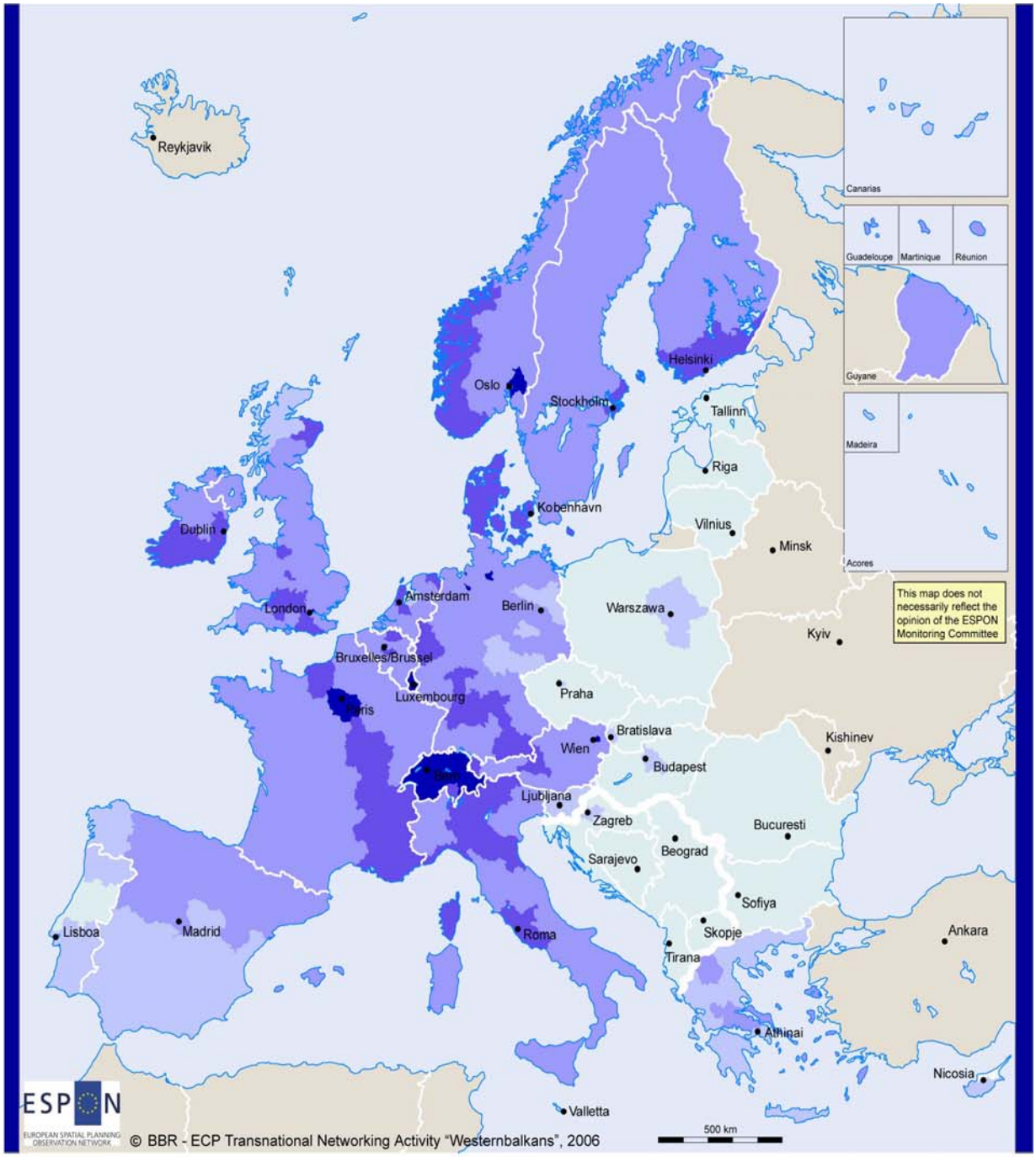
no data

Regional level: NUTS 2
Origin of data: EU25 +CC's: Eurostat; CH, NO + AL, BA, HR, MK, CS: National Statistical Offices, BBR, own calculations

Source: ESPON database

Standardised based on the European mean value (EU25 +2 +2)

Map 20. Productivity



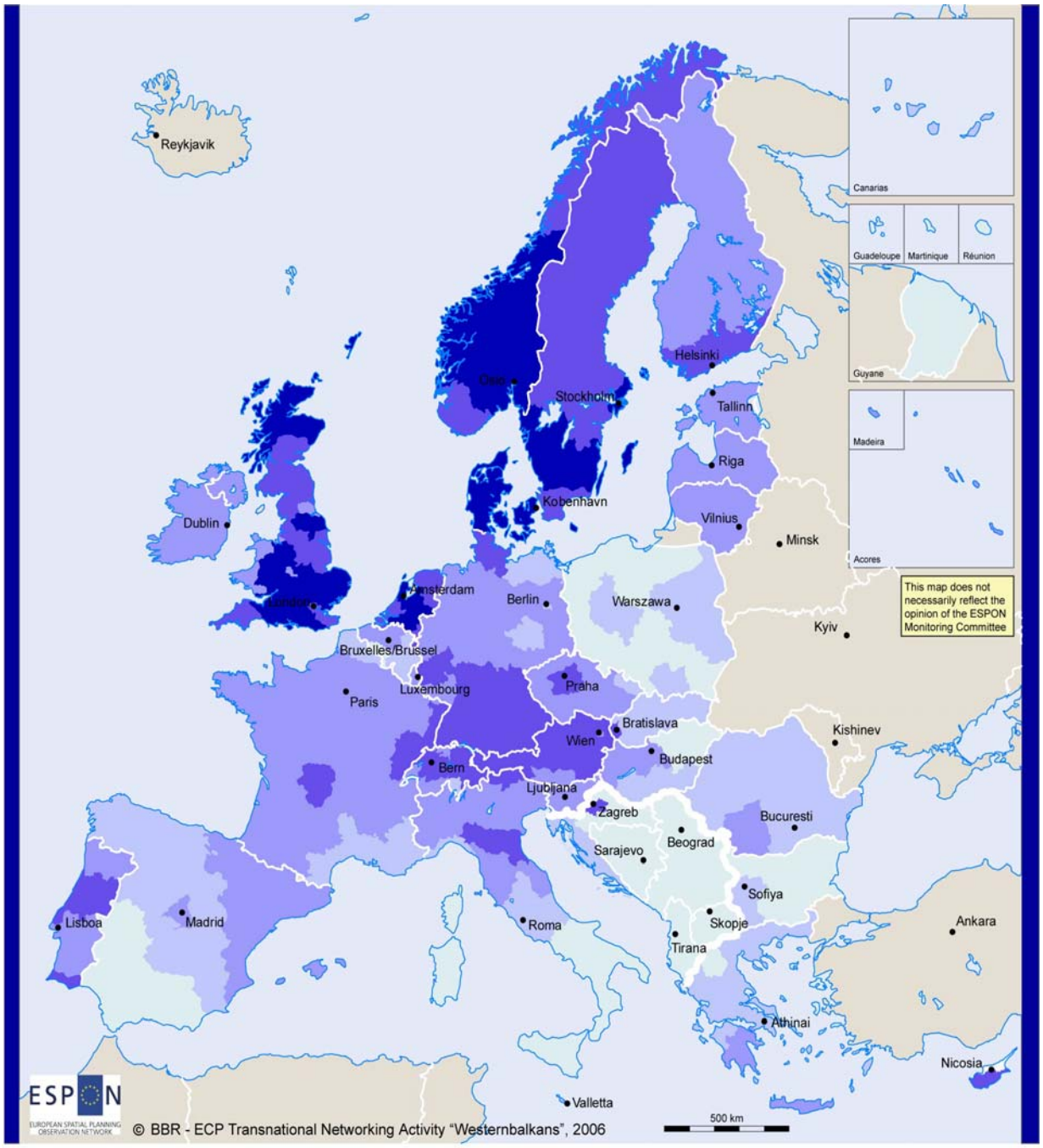
Gross domestic product in purchasing power standards per person employed 2002

- up to 20.000
- 20.000 to below 40.000
- 40.000 to below 60.000
- 60.000 to below 80.000
- 80.000 and more
- no data

Regional level: NUTS 2
Origin of data: EU25 +2 +2: Project 2.4.2, BBR
AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

Map 21. Employment rate



Share of employed population in population aged 15-64 years 2003

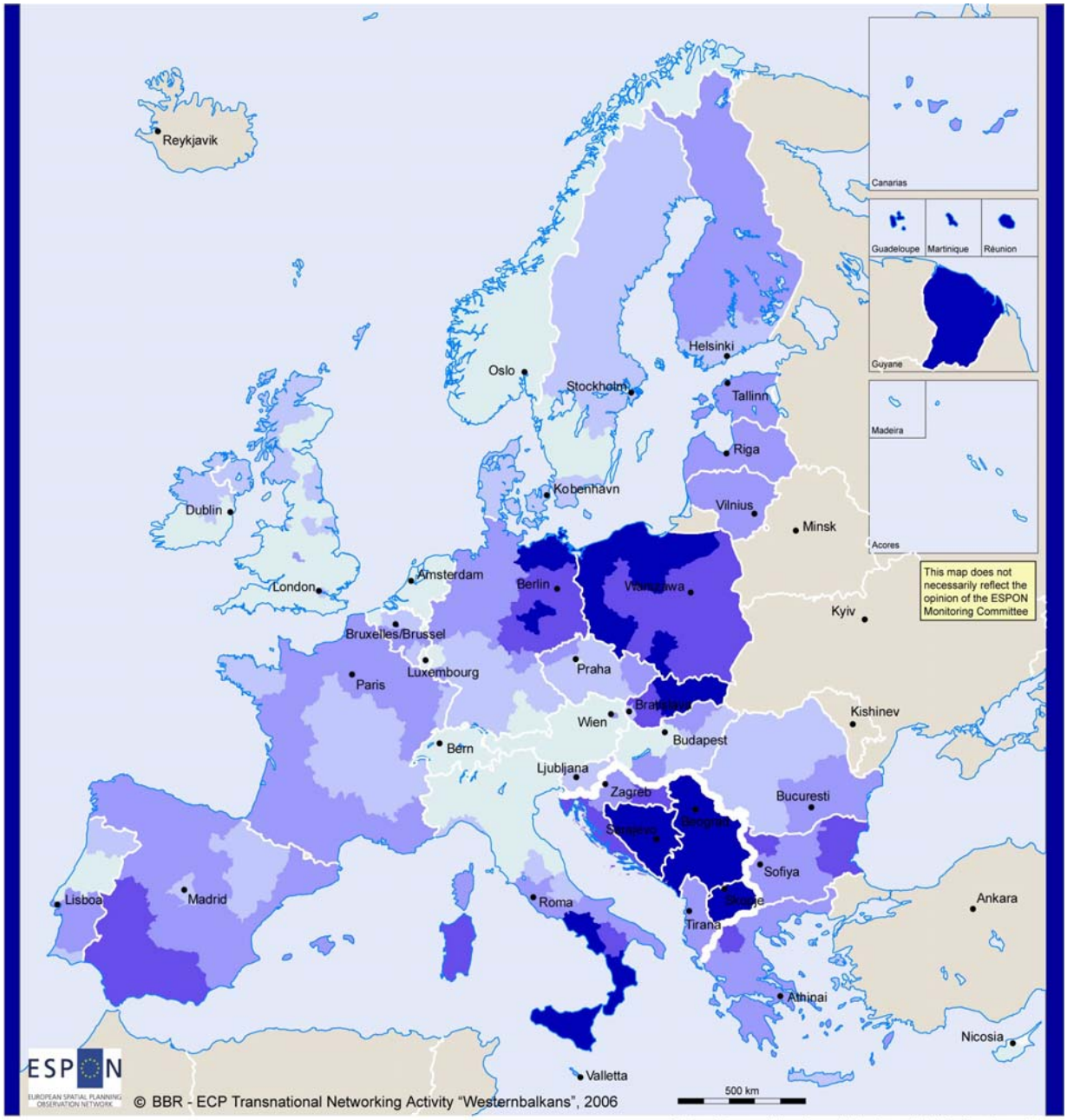
- up to 53
- 53 to below 60
- 60 to below 67
- 67 to below 74
- 74 and more
- no data

Regional level: NUTS 2

Origin of data: EU25 +2 +2: Project 2.4.2, BBR; AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

Map 22. Unemployment



Unemployment rate 2003

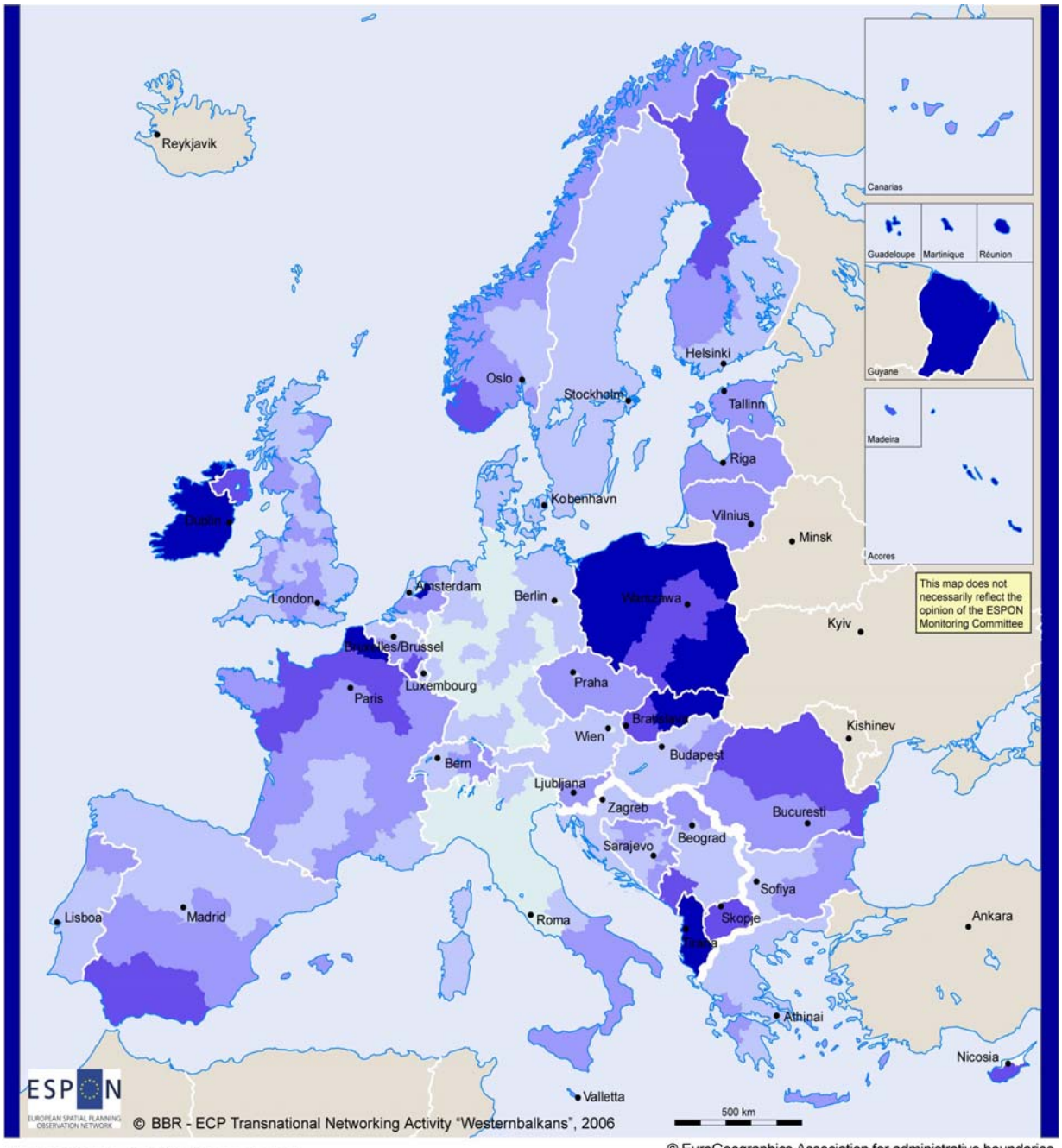
- up to 5
- 5 to below 7,5
- 7,5 to below 15
- 15 to below 20
- 20 and more
- no data

Regional level: NUTS 2

Origin of data: EU25 +2 +2: Project 3.1, BBR;
AL, BA, HR, MK, CS: National Statistical Offices,

Source: ESPON database

Map 23. Labour force replacement ratio



Population aged 10-19 years per population aged 55-64 years in 2000

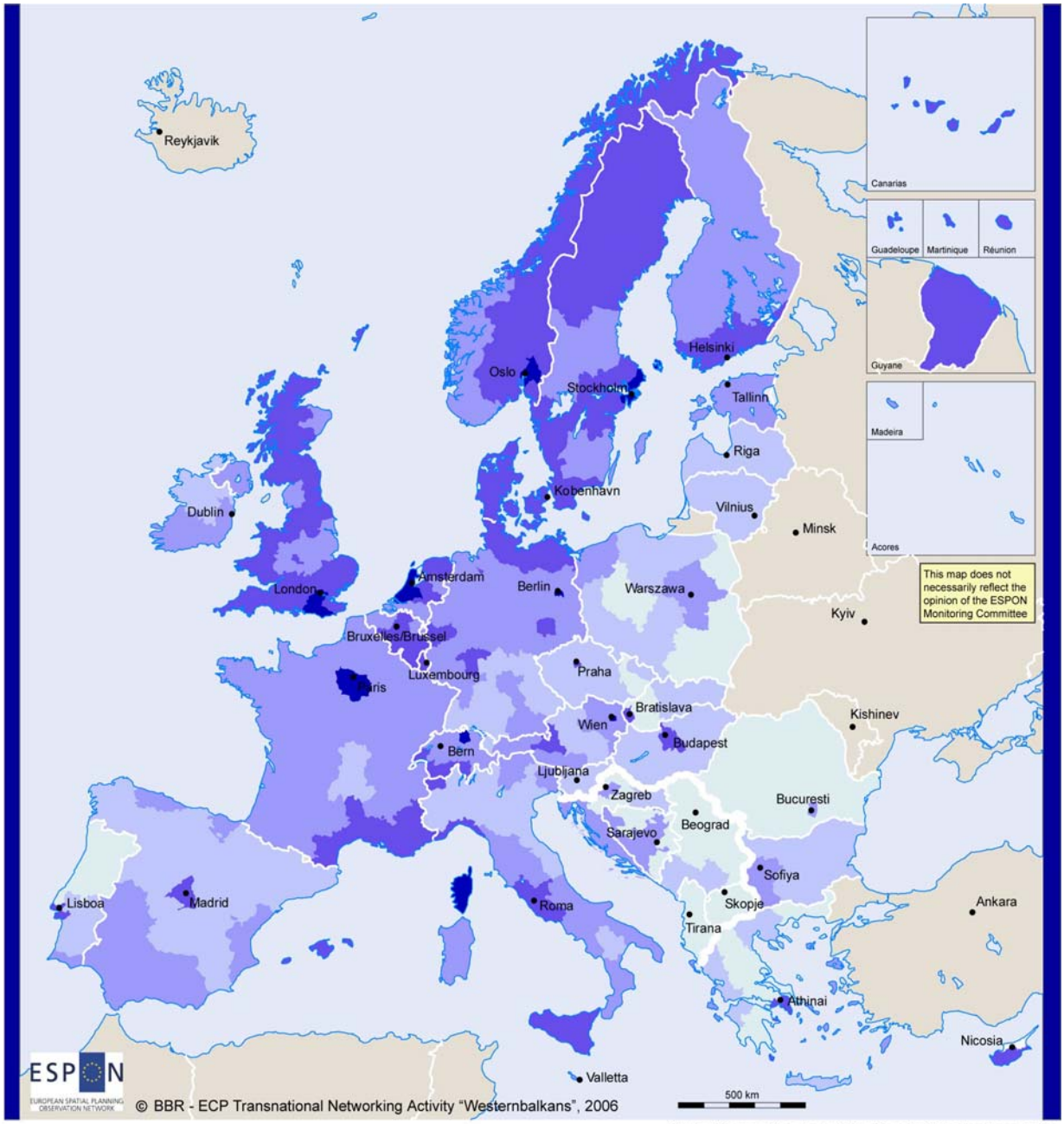
- up to 0,9
- 0,9 to below 1,2
- 1,2 to below 1,5
- 1,5 to below 1,8
- 1,8 and more
- no data

Regional level: NUTS 2

Origin of data: Project 1.1.4, ITPS;
CH, NO +AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

Map 24. Employment in tertiary sector



Share of persons employed in tertiary sector in total persons employed 2003 in percent

- up to 50
- 50 to below 60
- 60 to below 70
- 70 to below 80
- 80 and more
- no data

Regional level: NUTS 2

Origin of data: EU25 +2 +2: Project 3.1, BBR; AL, BA, HR, MK, CS: National Statistical Offices

Source: ESPON database

3.5 Infrastructures (road and rail density)

Generally the countries of the central and Northwest Europe appear to have high values concerning the density of road and rail networks (2002). Concerning the road and rail networks, Nordic and Baltic countries present low values. In the South-east Europe, Greece, Slovenia and Bulgaria have the highest road density values. On the other hand Croatia, Serbia-Montenegro, Bulgaria, Romania, have the highest rail density values.
Relating to the Western Balkan area the average of road density is 0,06 and the mean value for rail density is 0,03. An analytical description of the values of each country is following:

1. Road Density.
- Croatia: 0,09.
- FYROM: 0,05.
- Bosnia-Herzegovina: 0,067.
- Albania: 0,05.
- Serbia-Montenegro: 0,05.

2. Rail Density.
- Croatia: 0,44.
- FYROM: 0,028.
- Bosnia-Herzegovina: 0,028.
- Albania: 0,01.
- Serbia-Montenegro: 0,35.

Observing the above rates and the maps 25 and 26, the maximum values in road and rail densities are appeared in Croatia. In Serbia-Montenegro the values in road and rail density are nearly the same. Albania's value of road and rail density is the lowest within Europe.

The road network in Albania, especially the local road network in the internal of the country, is poor compared with the other Balkan countries. The total road network in Albania including the national, prefecture, district and rural roads capable of taking vehicles and urban streets open to the public is around 18,440 km.[6]

On the other hand the Albanian railway infrastructure is in very poor condition related to the age of the line, to the rate of the amortization of the slippers, rails switch etc. The railway tracts network of Albania extends in total length of around 600 km from which 447 km the main line, 96 km secondary[7].

Moreover FYROM has a very favourable geographic position with regard to the road structure. It has about 9573 km categorized road network (state of 1995), 900 km are highway roads, 3058 km are regional, and the other 5.606 km are local roads. Most part of highway roads - 584 km are included in the system of the European road network - "E" roads, and only 138 km of them can be included in the TEM road system (Trans-Europe Motorway)[8].

In Serbia and Montenegro the road network contains six highways and a large number of regional and local roads. The railway network is defined based on the International Railroad Union development plan of the European railroad network.

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[6] ESTIA – SPOSE Project, National Report of Albania, INTERREG IIIB, Institute of Urban Environment and Human Resources, Panteion University, Greece, 2004-2006.
[7] Albania Railways, http://www.hsh.com.al/eng/default.htm.
[8] ESTIA – SPOSE Project, National Report of FYROM, INTERREG IIIB, Institute of Urban Environment and Human Resources, Panteion University, Greece, 2004-2006.

Six high-speed rail routes connect Serbia and Montenegro with the European rail network and other nine double-track lines are internal railroad system in Serbia and Montenegro, with technical characteristics for trains over 100 km/h[9].

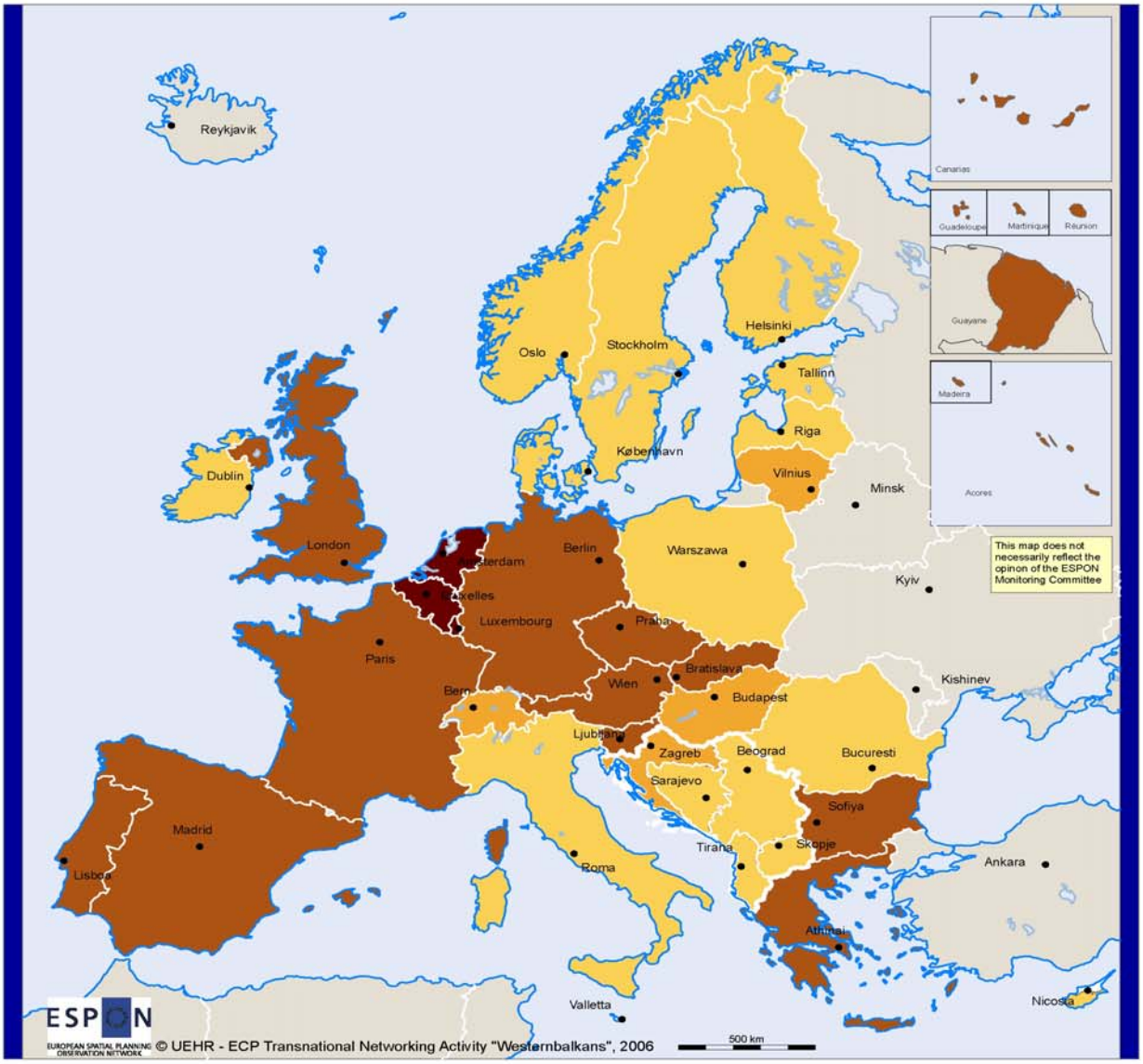
In Croatia the highways are the most modern in Europe. The total length of roads and highways is 28344 km. On the other hand the total railway length is 2726 km. There are several basic railway routes in the country and other routes to Slovenia, Hungary, Bosnia and Herzegovina and Serbia.[10]

Finally in Bosnia and Herzegovina the total length of roads is 21800 km and the length of railways is 1000 km. By reason of the war a large number of these need repair and reconstruction.

[9] ESTIA – SPOSE Project, National Report of Serbia and Montenegro, INTERREG IIIB, Institute of Urban Environment and Human Resources, Panteion University, Greece, 2004-2006.

[10] Croatia railways: http://www.hznet.hr/eng/, Croatia Motorways:http://www.hac.hr/index.php?l=en

Map 25. Density of Road Network



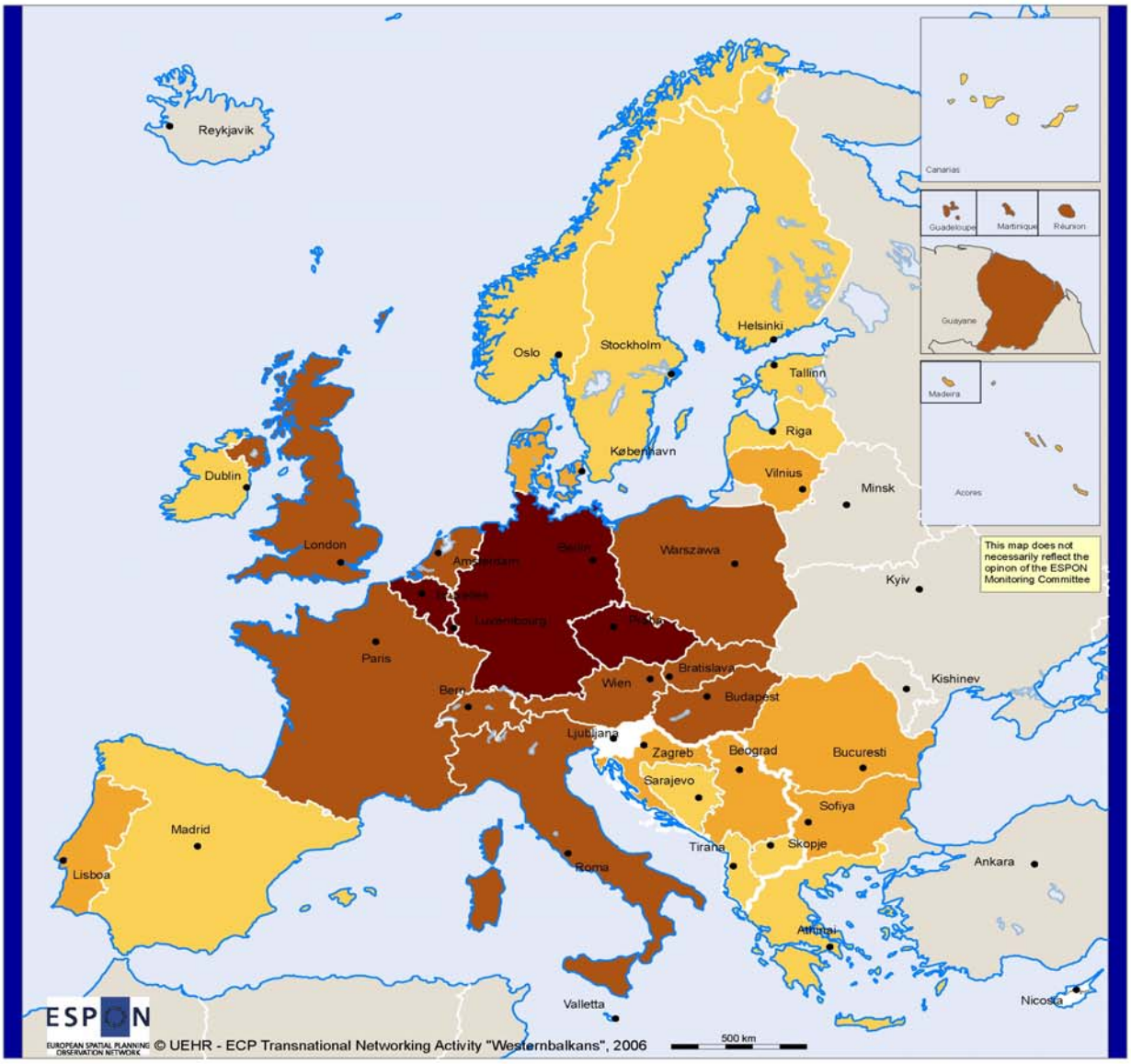
Km of roads per qkm in 2002

- up to 0,0673
- 0,0673 - 0,0932
- 0,0932 - 0,1652
- 0,1652 and more
- no data

Regional level: NUTS 0
Origin of the data: EU15 and CC's: Eurostat; CH, NO + AL, BH, HR, MK, YU: National Statistical Offices
UEHR, own calculations

Source: ESPON Data Base

Map 26. Density of Rail Network



Km of rail lines per qkm in 2002

- up to 0,0285
- 0,0285 - 0,0449
- 0,0449 - 0,0684
- 0,0684- 0,1042
- no data

Regional level: NUTS 0
Origin of the data: EU15 and CC's: Eurostat; CH, NO + AL, BH, HR, MK, YU: National Statistical Offices
UEHR, own calculations

Source: ESPON Data Base

4. Conclusion

Data and indicators availability

In the first part of the project, we have tried to identify the demographic and economic trends for the study area, compared with the rest of the EU29 space, through the calculation and mapping of a large number of simple and RCE indicators. Therefore we have decided to present the following indicators in two geographical levels (Nuts 0 and Nuts 2) namely:

- Population Density in Nuts 0 and Nuts 2.
- Dependency Ratio in Nuts 0 and Nuts 2.
- Ageing in Nuts 0 and Nuts 2.
- Gross Domestic Product per capita (in euro) in Nuts 0 and Nuts 2.
- Employment Density in Nuts 0 and Nuts 2.
- Unemployment Rate in Nuts 0.
- Density of rail and road networks in Nuts 0.
- Gross Domestic Product per capita (in euro) in PPS in Nuts 2.
- Gross of gross domestic product in Nuts 2.
- Labour market potential in Nuts 2.
- Productivity in Nuts 2.
- Employment rate in Nuts 2.
- Unemployment in Nuts 2.
- Development of unemployment in Nuts 2.
- Labour force replacement ratio in Nuts 2.
- Employment in Tertiary sector in Nuts 2.
- Demography in Nuts 2.
- Reproduction potential in Nuts 2.
- Population growth in Nuts 2.

Concerning the data collection, the contribution of experts was very helpful, especially for the comparability of data. Comparing the tables 1 and 2, it can be observed that in Nuts 0 and Nuts 2 geographical level in Bosnia, a large number of data/indicators were not found. In Albania, we did not find data/indicators for education sector, active population, artificial and mountainous areas in the above geographical levels. In Croatian, in Nuts 2 equivalent, we did not find data about employment sectors, urbanization, artificial and mountainous areas. In Serbia-Montenegro, we did not find data about the wetlands areas.

Western Balkans Figures

Within the SE Europe spatial zone can be diagnosed several spatial disparities between the countries, related to their socio – economic and political past, as well as to the transition period which increased the disparities in terms of demography, economy, employment and labour market conditions and infrastructures (road and rail networks).

In general, by comparing the average values and the maps of the above indicators in the space of EU34, it can be observed that Croatia is the most developed country concerning the countries of the Western Balkans area and mainly the region pf Zagreb.

Especially, in the flied of demography, Albania and Kosovo presents the highest values of younger people in the study area. Furthermore the dependency values of the Albania and Bosnia-Herzegovina ratio are very high. Hence, the active population of these two countries is greater than the elder people (over 65 years old). The opposite situation takes place in Serbia-Montenegro and Croatia about

ageing in the same period. Also Zagreb observes the maximum value of population density in 2002.

Regarding the economic situation in the study area, Croatia presents the highest values and particularly the Zagreb and the Jandranska regions, following the values of Albania and Montenegro regions. This happens because the previous regions are the coastal regions. In Kosovo the values of GDP are the lowest in the EU34.

About the employment and labour market can be observed the same situation as above. Only Zagreb and Jandranska regions of Croatia view better average values in comparison with the other country of EU34. In general the Western Balkan is characterised by low employment rates and low productivity, because it is characterised by highest unemployment values, and lower employment values.

Finally, we notice that Croatia, Serbia-Montenegro have the highest values of the infrastructure sector (density of road and rail networks).

5. Annexes

5.1 Indicators' definition

The same definition of indicators is used as those described in ESPON 2.4.2 and 3.1 projects.

- **Ageing**: Ageing is the population aged over 65 as a share of total population.
- **Population Density**: Population density is the division of total population with the area in km².
- **Population growth**: Population growth is the change of population in time period, in percent.
- **Reproduction potential**: Reproduction potential is the projection of population aged 20-29 in 2020 divided by the population aged 20-29 in 2000.
- **Dependency ratio**: Dependency ratio is the total population divided by the population aged 20-64.
- **GDP per Capita**: GDP per Capita is the Gross domestic product divided by the total population.
- **Growth of gross domestic product**: Growth of gross domestic product is the change in GDP per capita in PPS, in a 5 year period, in percent.
- **Productivity**: Productivity is GDP divided by the number of persons employed.
- **Employment Density**: Employment Density is the number of employed persons divided by the area in km².
- **Employment rate**: Employment rate is the number of employed persons divided by the population aged 15-64.
- **Employment in tertiary sector**: Employment in tertiary sector is the number of the employed persons in the tertiary sector of the economy as a share of the total population.
- **Unemployment rate**: Unemployment rate is the number of unemployed persons divided by the population aged 15-64.
- **Development of unemployment**: Development of unemployment is the change of the unemployment rate in a time period, in percentage points.
- **Labour force replacement ratio**: Labour force replacement ratio is the population aged 10-19 divided by the population aged 55-64.
- **Labour market potential**: degree of labour market efficiency as an aggregate of 7 indicators (unemployment, development of unemployment, labour force replacement ratio, employment density, employment in tertiary sector, productivity, employment rate).
- **Density of road network**: Density of road network is the length of roads in km divided by the area in km².
- **Density of Rail Network**: Density of rail Network is the length of railway lines in km divided by the area in km².

5.2 Source of data

- In **Albania** the basic source of data was the Albanian Institute of Statistics: http://www.instat.gov.al.
- Albania Railways, http://www.hsh.com.al/eng/default.htm.
- In **Bosnia-Herzegovina** the sources of the statistical data were the Agency for statistics of Bosnia and Herzegovina: http://www.bhas.ba, the Federation of Bosnia and Herzegovina Federal office of Statistics: http://www.fzs.ba and the Republika Srpska Institute of Statistics: http://www.rzs.rs.ba.
- In **Croatia** the basic source of data was CROSTAT, Republic of Croatia – Central Bureau of Statistics: http://www.dzs.hr/.
- Croatia railways, http://www.hznet.hr/eng/.
- Croatia Motorways, http://www.hac.hr/index.php?l=en.
- In **FYROM** the basic source of data was Republic of Macedonia State Statistical Office: http://www.stat.gov.mk/.
- In **Serbia and Montenegro** the basic source of data was Serbia Republic Statistical office: http://www.statserb.sr.gov.yu/ and Serbia and Montenegro Statistical Office: http://www.szs.sv.gov.yu/.
- Eurostat http://europa.eu.int .
- The ESPON database has been used for EU29 area.
- ESTIA – SPOSE Project, National Reports of Albania, FYROM, Serbia and Montenegro, INTERREG IIIB, Institute of Urban Environment and Human Resources, Panteion University, Greece, 2004-2006.