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EDORA

(European Development Opportunities
for Rural Areas)

MS Comparative Country Profiles Report

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SECTION 1
PURPOSE AND METHODOLOGICAL APPROACH

CHAPTER 1.
THE PURPOSE OF THE COUNTRY PROFILES IN THE FRAME OF THE EDORA PROJECT AND THE STRUCTURE OF THE MEMBER STATE COMPARATIVE COUNTRY PROFILES REPORT

According to the reference document of the EDORA Project (see Inception Report, page. 14), Activity 2.23 "Country Profiles" consist of tabular summaries of average indicator values for each type of rural area (as defined by activity 2.22 "Typology Elaboration") within each Member State, accompanied by a brief explanatory text.

According to this description, the goal of the Country Profiles is to have national and supra-national (groups of counties) "pen-pictures" of different rural standard categories, based on available indicators and enriched with "local knowledge" of partners. The rural categories that should guide the definition of regional groups (at NUT 3 level) are those defined by the Typology of the project (Activity 2.22). However, due to time constraints and task schedule incompatibilities, the rural categories used for the Country Profiles report are those defined by the Dijkstra and Poelman typology of Rural-Urban regions (available at http://ec.europa.eu/regional_policy/index_en.htm): urban, intermediate rural accessible, intermediate rural remote, predominantly rural accessible and predominantly rural remote. Having largely exceeded the time allocation for this task, most effort will be done to incorporate a section analysing rural types of the EDORA typology.

The cross-country report is structured in four sections:

Section 1 "Purpose and methodological approach" includes two chapters. Chapter 1 presents the goal and main objectives of Country Profiles in the frame of the EDORA project. Chapter 2 "Methodological approach" describes the processes carried out, outputs achieved and difficulties encountered.

Section 2 "An analysis of the Diversity of European Regions based on the EDORA Database" presents a series of tables, figures and maps built from the contents of the extensive EDORA Database (Activity 2.21). This section is divided into thematic chapters according to the EDORA conceptual headings: chapter 3 "Demography", Chapter 4 "Employment", Chapter 5 "Services of General Interest", Chapter 6 "Farm Structural Change", and Chapter 7 "Institutional Capacity". Depending on data availability, each section is structured as following:

- Comparative analysis of relevant data and indicators by country in the ESPON area with reference to the EU27 average (EU27 average has been used instead of ESPON area average due to data availability problems).
- Comparative analysis of relevant data and indicators by non-exclusive groups of countries (ie. Mediterranean, Scandinavian, EU 15, NMS, etc.).
- Comparative analysis of relevant data and indicators by categories in the Dijkstra-Poelman rural-urban typology (Predominantly Urban, Intermediate Rural Accessible,

Intermediate Rural Remote, Predominantly Rural Accessible and Predominantly Rural Remote)[1].

- Comparative analysis of relevant data and indicators at region level (NUT 3) for the countries covered, expressed in maps.

For some EDORA conceptual headings there was not sufficient relevant data available for analysis in the Database (ie. Rural business development, rural-urban relationships, cultural heritage and climate change). Therefore, these headings were removed from Section 2 and analysed only on the basis of qualitative analysis.

Section 3 "An analysis of the Diversity of European Regions Based on the EDORA Typologies" is structured in three chapters presenting three different analyses based on the EDORA typologies. In all cases analysis is carried out considering D-P, Structural and Performance typologies (the components of the EDORA Cube) and four main variables: number of regions, total area, population and GDP.

- Chapter 8 is a comparative analysis of the three EDORA typologies for the EU27 countries as a whole. D-P, Structural and Performance typologies are considered as well as the four variables mentioned. In each case, "residuals" are calculated between types and variables.
- Chapter 9 is an analysis of the three EDORA typologies in each of the EU27 countries individually. Therefore, the four variables (number of regions, total area, population and GDP) are analysed according to their distribution in the categories of each typology considered (D-P, Structural and Performance).
- Chapter 10 is an analysis of the three EDORA typologies by non exclusive groups of countries (ie. Mediterranean, Scandinavian, EU 15, NMS, etc.). The aim of this analysis is to test the behaviour of differentiated groups of countries in the selection of key variables for the three EDORA typologies Defined groups of countries are: (i) EU 15 (Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, United Kingdom); (ii) New Member States (Bulgaria, Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovenia, Slovakia); (iii) Mediterranean countries (Greece, Spain, Malta, Italy, Portugal, Chipre); (iv) Central-West European Countries (Belgium, Germany, France, Ireland, Luxembourg, Netherlands, Austria, United Kingdom); (v) Scandinavian Countries (Denmark, Finland, Sweden, Norway). Criteria for the selection of the groups of countries have been the definition of relatively homogeneous supranational areas or, at least, areas sharing common rural and regional dynamics. Furthermore, it is not mutually exclusive groups.

[1] For a complete methodological description of this typology please visit http://ec.europa.eu/regional_policy/sources/docgener/focus/2008_01_rural.pdf

CHAPTER 2.
METHODOLOGICAL APPROACH

The methodological procedure for Activity 2.23 "Country Profiles" is simple and straight forward. The methodology has been designed to capture the variability of rural regions in the countries covered and the differential behaviour of relevant groups of regions in the EDORA themes. In doing so, a combination of quantitative data analysis and qualitative assessment by experts has been used. The following steps have been undertaken:

1.1 Step 1. Decision on the structure of the National Country Profiles Report

This decision had to do with the overall goal for Activity 2.23 consisting of tabular summaries of average indicator values for each type of rural area (as defined by activity 2.22 "Typology Elaboration") within each Member State, accompanied by a brief explanatory text. Due to the temporary mismatch in the execution of tasks 2.22 "Typology" (still in progress) and 2.23 "Country Profiles", reference rural types for analysis could not be taken from the EDORA Typology. Instead, until the EDORA Typology is completed, rural types are those matching categories of Dijkstra-Poelman rural-urban typology.

To meet the goal of the task an initial decision was made to structure the document under the EDORA thematic headings (Activity 2.11). Therefore, the report is divided into 10 main sections, each one dealing with one of the EDORA themes (demography, employment, rural-urban relationships, institutional capacity, and so on).

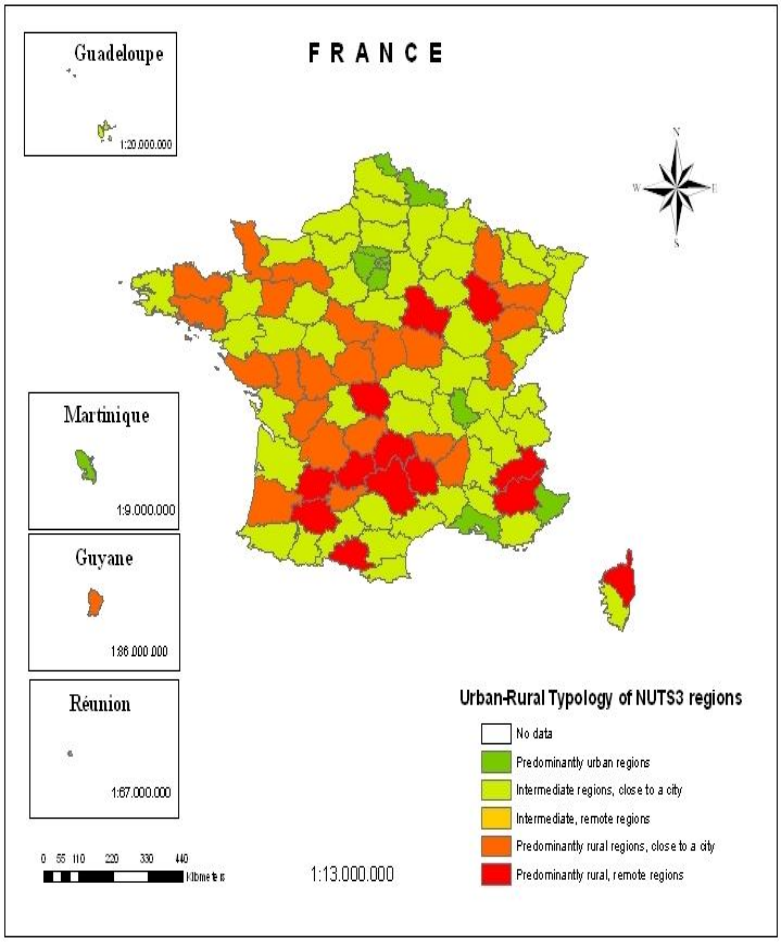
For each section, two types of information have been gathered: on the one hand, quantitative information consisting on a selection of indicators from the EDORA database that are available for a minimum number of territorial units (see Chapter 2.3 of the full Report for a more detailed description). On the other hand, a qualitative assessment of country experts through answers to a series of standard questions organized along the 10 EDORA thematic headings (see Chapter 1 and Chapter 2.4 of the full report for a more detailed description).

1.2 Step 2. Creating 27 country maps showing the results of the Dijkstra-Poelman typology at NUT 3 level

The starting point for the national reports was the analysis of the suitability of the Dijkstra-Poelman rural-urban typology to the real situation in each country covered. This assessment was based upon the expert knowledge of responsible partners and not in any quantitative data. Country maps were added to the initial part of each national report template, and an standard question was proposed asking whether the D-P typology produces a reasonable classification in the country, whether there are there significant processes hindered and which is the degree of internal variation. The aim of this exercise is to validate the results of a "top-

down" typology carried out at regional level against the specific knowledge of experts about the processes and facts happening in and within each country and NUT 3 unit.

Figure 2.1 An example of country map based on the Dijkstra-Poelman typology



Source: own elaboration from http://ec.europa.eu/regional_policy/sources/docgener/focus/2008_01_rural.pdf

1.3 Step 3. Deciding on key thematic indicators and elaborating standard tables for each of the 25 counties covered.

The creation of tables of data guide comments of national teams for each Country Report. It was important to build a collection of tables with standardised indicators classified by subject area (corresponding to the themes of Activity 2.11 "Literature Review"). The "raw" data for tables came from the development of a comprehensive database containing all thematic indicators for the 32 countries considered, based on the information contained in the database project (Activity 2.21). The EDORA database had to be complemented with data and indicators that were not available by using other reliable sources. The databases used to supplement the information contained in the Project database are Eurostat, the European Union Rural Development (RDEU): Report 2007, ESPON public database, and SERA Project. The standard tables were prepared by the lead partner. Responsibility for the commentaries for the 32 countries was shared between partners as shown in Table 2.2. The lead partner, after receiving

national inputs, was responsible for integrating each national comment into a chapter of the Cross-country Profiles Report.

Table 2.2 Partner Responsibilities for Country Profiles (2.23) (see project documents for key to partner numbers)

Partner No.	Countries
1	UK MT
2	SE FI DK NO EE LV LT IC FR
3	RO BG
4	ES
5	GR CY
6	IE
8	SL
9	DE NL LU BE
10	AT LS CH IT
12	PL CZ SK
13	HU
14	PT

Source: EDORA Application Form, Part B

The process for the development of tables started by looking at the opinion of thematic experts in relation to the most relevant indicators for characterising rural differentiation and change. Therefore, the initial reference was a set of lists of indicators (one for each theme) that would be optimal for analysis. From this starting point a search job was carried out to check the availability of these indicators for a sufficient number of NUTs III or NUTs II. Once the database was completed to a satisfactory level, the generation of tables was carried out. Each table includes, for each selected indicator, the value for each type of regions in the D-P typology (Predominantly Urban, Intermediate Rural Accessible, Intermediate Rural Remote, Predominantly Rural Accessible and Predominantly Rural Remote), the average value for the country, the average value for the ESPON area (EU27-CH+HR+IS+LI+MK+NO+TR), and the average of the EU 27 (see Table 2.3).

Table 2.3 An example of standard table: demographic indicators in Germany

DEMOGRAPHY		PU	IRA	IRR	PRA	PRR	Average country	Average EU 27 +CH+HR+IS+LI+ MK+NO+TR	Average EU 27
Variables		1	21	22	31	32			
Census pop. 2001	% pop. 0 to 14 years	14.92	16.29		16.44	17.00	15.71	16.75	16.70
	% pop. 15 to 64 years	67.80	67.09		67.09	66.69	67.40	66.62	66.65
	% pop. 64 years and over	17.29	16.63		16.47	16.31	16.89	16.53	16.55
	Age dependency rate	25.58	24.83		24.63	24.46	25.12	25.09	25.09
Population*	Population change 01-07	86.69	86.33		86.01	88.66	86.43	96.58	96.31
	% pop. 0_14_2007	16.06	15.77		15.36	17.42	15.83	16.68	15.97
	% pop.15_64_2007	76.31	76.34		76.79	75.70	76.42	69.75	70.18
	% pop. >64_2007	7.62	7.88		7.85	6.89	7.76	13.56	13.84
	Age dependency rate	31.08	31.06		30.31	32.10	30.92	44.08	43.17
	Natural increase 2001-06	-59.28	-45.4		-40.87	NA	-46.75	-5.99	-6.09
	Net migration 2001-06	-107.55	42.83		192.72	NA	64.14	7.09	8.97
Education	% ISCED 0_2**	31.41	29.28		29.47	35.68	30.28	33.63	36.66
	% ISCED 3_4**	63.97	65.25		65.46	63.34	64.72	43.29	47.14
	% ISCED 5_6**	21.94	22.76		21.98	18.10	22.22	17.03	18.55
	% farmers with basic or full education	66.99	66.57		66.50	66.20	66.74	35.34	39.55
	Life-Long Learning in Rural Areas	7.43	7.15		6.68	5.93	7.17	7.69	8.61

*Values NUT3 are replaced by values NUTS2
**% ISCED by groups are calculated for population more 15 years.

1.4 Step 4. Generating thematic standard questions

According to the goal of the task and the overall interest of EDORA in drivers, opportunities and Challenges for different types of rural areas, a number of standard questions focusing in these issues was developed for each thematic heading. These questions have already been presented and described in the previous section.

1.5 Step 5. *Elaboration of 25 draft Country Profiles Reports*

Once the leader partner produced all standard tables and questions, the "skeleton" of the Country Profiles Report for each country was ready for responsible experts to include comments as necessary. It was necessary to set up an iterative process with each of the national experts to resolve doubts. At the end of the process, the responsible partner for the Country Profiles task received draft reports from the following countries: Austria, Belgium, Bulgaria,Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

1.6 Step 6. Review of the draft Country Profiles Reports

The responsible partner has reviewed all draft Country Profile reports received to check that there were not misunderstandings on the standard questions and the comments of the tables.

1.7 Step 7. *Deciding on the structure of the Cross Country Profiles Report*

The lead partner had to deal with the information contained in the standard tables, the analysis developed at EU level by the responsible partner and the answers of the national experts to the standard questions. All this bulk of information has been used to build the structure of the Cross-country Report that was presented in full detail in Chapter 1:

Section 1 "Purpose and methodological approach"

Section 2 "An analysis of the Diversity of European Regions based on the EDORA Database"

Section 3 "An analysis of the Diversity of European Regions Based on the EDORA Typologies"

1.8 Step 8. Creation of tables, figures and maps for the available thematic indicators

The quantitative analysis at EU level carried out by the lead partner was not included in the original design of the task. However, after realising the potential of the EDORA Database and the divergences in orientation and level of detail of comments in the different national Country Profiles Reports, the lead partner decided to undertake an extensive analysis of a selection of the indicators used in the standard tables that were relevant and available in a sufficient number of countries. The analysis was fourfold:

Firstly, a comparative analysis of relevant data and indicators, by country, with reference to the EU27 average. These tables rank all 34 countries of the ESPON area according to the value in the indicator of reference. The average value shown is for the EU 27 and not for the ESPON area due to data availability problems. The goal of this analysis is to assess the position of each country in relation to the EU27 average for the selection of key indicators used to analyse each EDORA thematic heading (Table 2.4). The interpretation of this analysis is very easy with ranked countries according to their performance in the corresponding indicator. In the case of Table 2.4, the indicator belongs to the EDORA heading "Demography" and represents the percentage variation of the total population between 2001 and 2006. Countries on the top of the list are those showing a higher population growth in relation to the total population of the country. The average value for EU27 is not necessarily placed at the middle of the table. It depends on the weight of each country represented. For example, in this case the EU27 average takes position 28. The sharply negative value in Germany drags down the average for the EU27.

Secondly, a comparative analysis of relevant data and indicators, by non-exclusive groups of countries (ie. Mediterranean, Scandinavian, EU 15, NMS, etc.). The aim of this analysis is to test the behaviour of differentiated groups of countries in the selection of key indicators used to analyse each EDORA thematic heading (Figure 2.1). Defined groups of countries are: (i) EU 15 (Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, United Kingdom); (ii) New Member States (Bulgaria, Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovenia, Slovakia); (iii) Mediterranean countries (Greece, Spain, Malta, Italy, Portugal, Chipre); (iv) Central-West European Countries (Belgium, Germany, France, Ireland, Luxembourg, Netherlands, Austria, United Kingdom); (v) Scandinavian Countries (Denmark, Finland, Sweden, Norway). Criterion for the selection of the groups of countries has been the definition of relatively homogeneous supranational areas or, at least, areas sharing common rural and regional dynamics. Furthermore, it is not mutually exclusive groups. In the case of the exemplar figure (Figure 2.1) the indicator belongs to the EDORA heading "Demography" and represents the percentage variation of the total population between 2001 and 2006. The figure shows the average behaviour of all regions belonging to the defined group of countries. For instance, the population growth pace for the considered period is quicker in the Mediterranean countries (most probably linked to the immigration boom from 1999). Only the group "New Member States" shows a negative evolution (ie. a loss of total population) linked to outmigration.

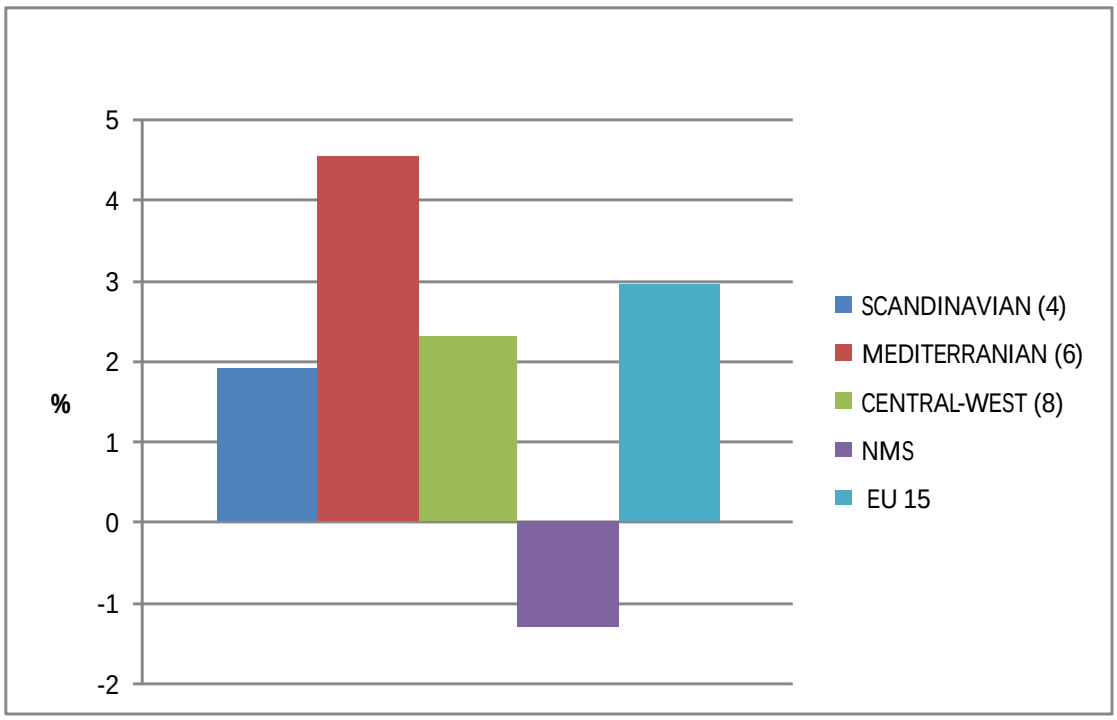
Table 2.4 Example of table for the comparison of countries in key indicators

	Population change 2001-2007
CYPRUS	11.63
ICELAND	8.58
LUXEMBOURG	8.47
SPAIN	8.33
LIECHTENSTEIN	7.01
NEDERLAND	6.12
MALTA	4.19
IRELAND	4.10
FRANCE	3.76
SWITZERLAND	3.70
ITALY	3.48
NORWAY	3.23
PORTUGAL	2.58
AUSTRIA	2.42
BELGIUM	2.13
UNITED KINGDOM	2.09
GREECE	1.45
FINLAND	1.41
SWEDEN	1.30
SLOVENIA	0.79
SLOVAKIA	0.23
CZECH REPUBLIC	0.10
POLAND	-1.52
ROMANIA	-1.63
ESTONIA	-1.81
HUNGARY	-1.92
LITHUANIA	-2.93
EU 27	**-3.16**
LATVIA	-3.51
BULGARIA	-6.51
GERMANY	-13.57
DENMARK	NA
Y.R. MACEDONIA	NA
CROATIA	NA
TURKEY	NA

Source: Own elaboration with data from the EDORA database

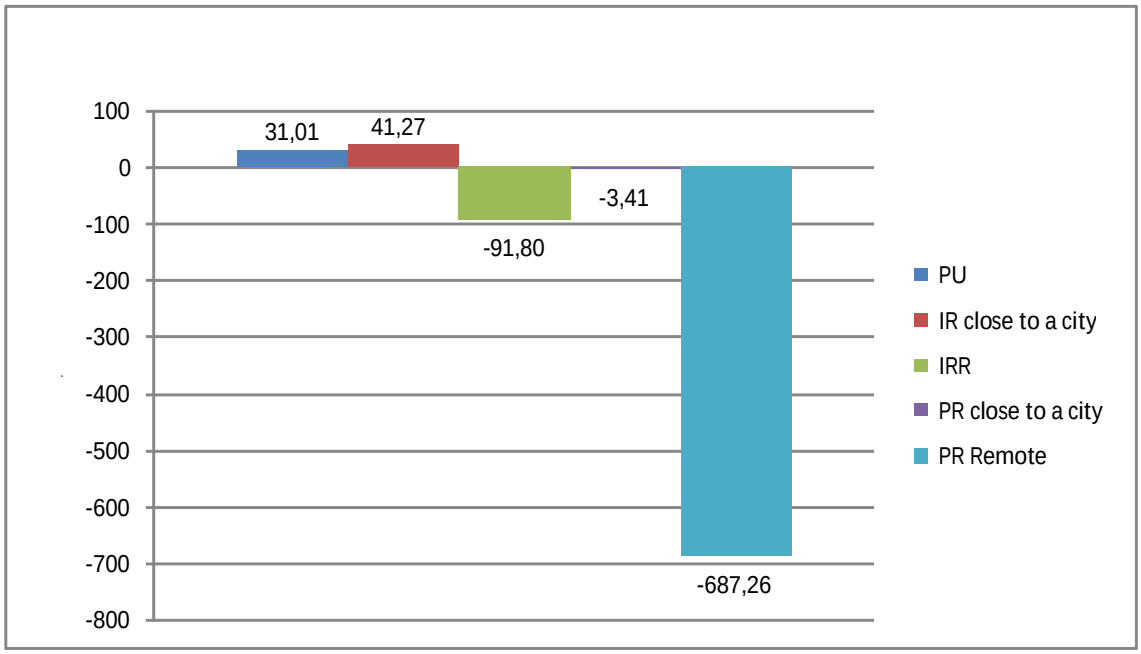
Thirdly, a comparative analysis of relevant data and indicators by categories in the Dijkstra-Poelman rural-urban typology (Predominantly Urban, Intermediate Rural Accessible, Intermediate Rural Remote, Predominantly Rural Accessible and Predominantly Rural Remote). This analysis is aimed at detecting potential differences in the behaviour of the D-P categories in the selection of key indicators used to analyse each EDORA thematic heading. In the case of the exemplar figure (Figure 2.2) the indicator belongs to the EDORA heading "Demography" and represents the total net migration balance between 2000 and 2006. Only two D-P types have a positive migration balance in the considered period, predominantly urban and intermediate rural accessible. Rurality act as inverse function for immigration. Accessibility acts as direct function of immigration even to a larger extent than rurality. As rurality increases and accessibility decreases net migration balance is worse.

Figure 2.1 Example of variable by non exclusive groups of countries. Population evolution, 2001-2006



Source: Own elaboration with data from the EDORA database

Figure 2.2 Example of variable by categories in the Dijkstra-Poelman rural-urban typology: Net migration 2001-2006

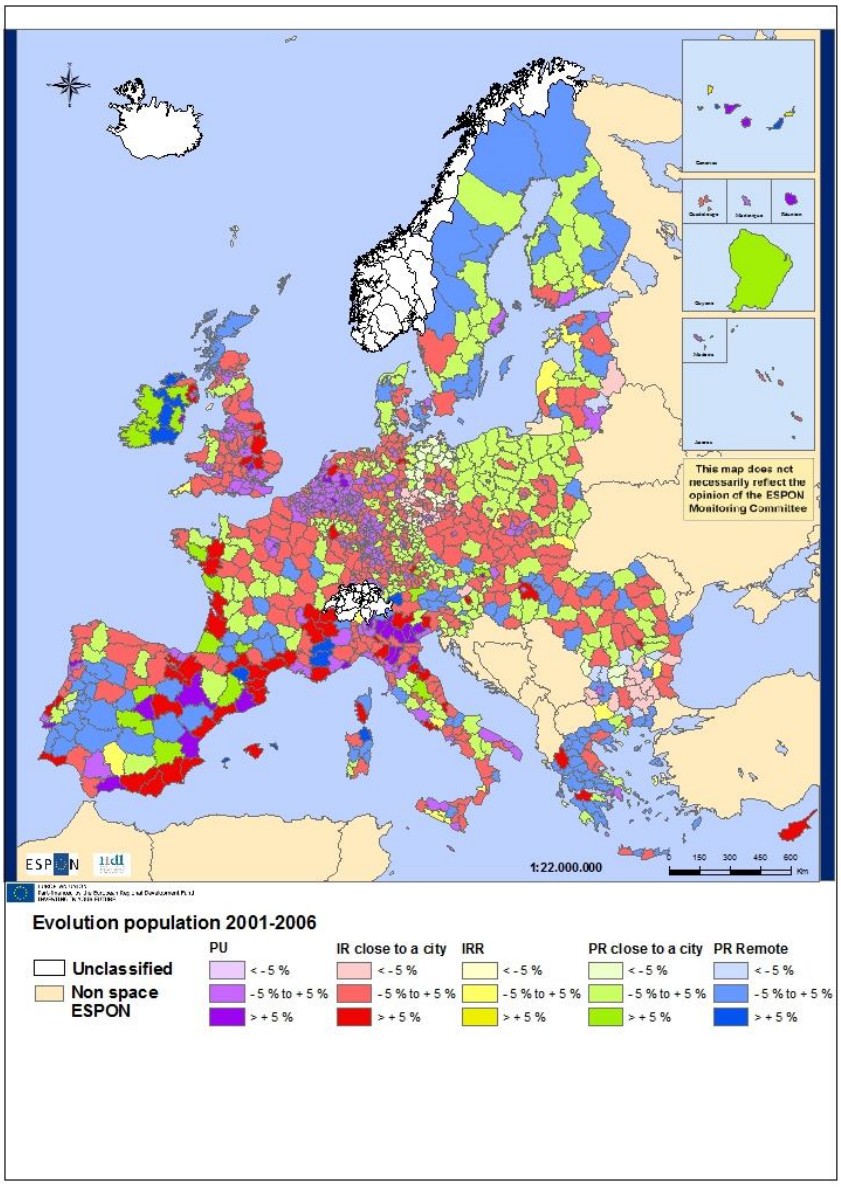


Source: Own elaboration with data from the EDORA database

Finally, a comparative analysis of relevant data and indicators at region level (NUT 3) for the countries covered, expressed in maps. This is the more complex analysis for two reasons: on the one hand, it is done at individual NUT III; on the other hand, it requires representation in

maps. However, it is considered a relevant piece since it allows for a very good identification of trends and processes at regional level. Maps represent the behaviour of each region in relation to the mean of the Dijkstra-Poelman category to which the region belongs . In the case of the exemplar figure (Figure 2.2) the indicator belongs to the EDORA heading "Demography" and represents the total net migration balance between 2000 and 2006.

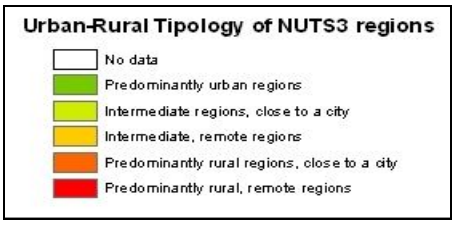
Map 2.1 Evolution of the total population 2000-2006



Source: own elaboration with data from the EDORA database

For the creation of maps, the information of the variables collected from different sources has been organised by folders. Within each folder there are different spreadsheets that stored information. From this data the following steps have been undertaken:

- Incorporation of a "GEO" variable in all databases. Is formed by the nomenclature in text characters that correspond to the different NUT levels (eg AT, AT1, AT11, AT111).
- Use of the "GEO" variable to join all data tables into a single spreadsheet. This process has been carried out, first, to integrate information from all databases in a single database and, secondly, to allow for graphic representation on maps in a geographic information system, managed through the ARCGIS 9.2 program and base mapping GISCO.
- The base-variable for organising data tables have been thematic level, Nuts, Nuts 0 variable name and Urban-Rural Category (CATG_URBRU).
- Implementation of dynamic tables for greater results in less time and for obtaining a greater combination of variables.
- Creation of tables with averages of each variable, the information has been organised in dynamic tables.
- Conducting national maps with the representation of the variable (CATG_URBRU) urban-rural category of each NUTS3 from the union of the cartographic base GISCO (geographical division NUTS3 level) with the database program ArcGis 9.2. The easiest way is giving a colour to each category of the variable displayed, as shown in the following example:



1.9 Step 9. Writing of the Cross-country Profiles Report

The elaboration of the Cross-country Profiles Report has been organised around the four sections previously described. The sources of information have been: on the one hand, the 25 draft national Country Profiles Reports including commented standard tables and answers to the standard questions; on the other hand, figures, tables and maps produced by the lead partner as described in chapter 2.8.

1.10 "Stones" found on the way

1.10.1 General difficulties

Soon, two main problems became evident: first, a relative timing mismatch which prevented the harmonious development of the task. This was due to the need to have indicators and statistical data contained in the Project Database (Activity 2. 21). The development of this

database, in turn, required a considerable time that made difficult progress in preparing thematic tables with indicators for each of the 33 countries considered.

The second problem refers to the absence or scarcity of relevant indicators available for several of the themes of the project. This reality forced to use a set of research questions that enable national leaders to develop the input of local knowledge in a guided and standardized for all (see Section 1 for a full description).

1.10.2 Building the tables of indicators

The EDORA database had to be complemented with data and indicators that were not available by using other reliable sources. This has been a very time consuming process. The databases used to supplement the information contained in the Project database are Eurostat, the European Union Rural Development (RDEU): Report 2007, ESPON public database, and SERA Project.

1.10.3 Getting feedback on the standard questions

The number of standard questions answered and level of detail varies much among the national Country Profiles Reports received. Accordingly, the synthesis of the Cross-country report has been built only from the information available for each indicator. Therefore, in most cases, comments refer to a subset of the countries for which the Country Profiles Reports have been received and not for the whole set.

SECTION 2
AN ANALYSIS OF THE DIVERSITY OF EUROPEAN REGIONS BASED ON THE EDORA DATABASE

At this stage the lead partner has received and analysed all national reports. These reports include findings and information that each author has deemed relevant to interpret the information contained in the tables and the standard questions. This set of national reports is the basis for the Member State report.

Apart from the national reports, comparisons have been made between groups of countries to analyse the behaviour of the variables and indicators considered. In a first stage, the comparative analysis was carried out between 5 subsets of countries defined[2]. In a second stage is planned the extension of the analysis to the categories of rural areas (IRA, IRR, and FOR PRR) on the basis of groups of countries. At a later stage, once the information on the territorial distribution of EDORA typology is available, the analysis will be replicated for these categories.

This Section "An analysis of the diversity of European Regions based in the EDORA Database" presents a systematic review and interpretation of the statistical data contained in the EDORA Database. The analysis has been carried out by thematic chapters according to the EDORA conceptual headings:

- Section 3.1 Demography
- Section 3.2 Employment
- Section 3.3 Rural business development
- Section 3.4 Rural-urban relationships
- Section 3.5 Cultural heritage
- Section 3.6 Services of general interest
- Section 3.7 Farm structural change
- Section 3.8 Institutional capacity
- Section 3.9 Climate change

Depending on data availability, each section is structured as following:

- Comparative analysis of relevant data and indicators by country with reference to the EU27 average
- Comparative analysis of relevant data and indicators by non-exclusive groups of countries (ie. Mediterranean, Scandinavian, EU 15, NMS, etc.)

[2] The groups of countries considered are:
- UE 15
- New Member States (12)
- Mediterranean countries (Portugal, Spain, Italy, Greece and Malta)
- Western and central Europe (Belgium, Netherlands, Luxembourg, France, United Kingdom, Ireland, Germany and Austria)
- Scandinavian countries (Norway, Sweden, Finland and Denmark)

- Comparative analysis of relevant data and indicators by categories in the Dijkstra-Poelman rural-urban typology (Predominantly Urban, Intermediate Rural Accessible, Intermediate Rural Remote, Predominantly Rural Accessible and Predominantly Rural Remote)[3].
- Comparative analysis of relevant data and indicators at region level (NUT 3) for the countries covered, expressed in maps.
- Qualitative analysis based on the individual country profile reports

[3] For a complete methodological description of this typology please visit http://ec.europa.eu/regional_policy/sources/docgener/focus/2008_01_rural.pdf

CHAPTER 3.
DEMOGRAPHY

3.1 Comparative analysis of relevant data and indicators by country with reference to the EU27 average

3.1.1 Evolution of the European population

The analysis of the **population change** of the European countries has been examined for the period 2001 to 2007. The result for the EU 27 members (2.58%) expresses a growth on the European community as a whole. It is, to a great extent, thanks to the increased immigration flows from non-EU countries and, lot a lesser extent, to the relative success of birth support policies (overall in Northern European countries). This result is sustained as well by the ranking of Europe as the third demographic power after China and India, mainly because of immigration dynamics.

Negative population change outcomes correspond to Bulgaria, Romania, Latvia, Lithuania, Estonia, Hungary and Poland. All of them obey to the consequences of the economic transition. These countries have suffered a structural economical transition towards a capitalism system, in parallel with the adhesion to Europe. Demographically, it affected to the population, producing higher mortality rates and lower birth rates –poorer sanitation conditions and quality services- (Pedroni, G. & Peinado, J. (2002) *Crecimiento natural. La población Europea* (26-28) Spain, Ed. Sintesis). Nowadays, natural increase of those countries is being smoothed with the rest of European countries, but net migration is the key factor of the present negative outcome. There is a high percentage of Eastern Europeans who migrate to other countries in search for job opportunities and a better quality of life.

Following the descending cascade of results, low outcomes correspond to Germany, Croatia, Czech Republic, Slovakia, Y.R. Macedonia and Slovenia. Germany suffers a decelerated demographic process: low birth rates and a trend to increased mortality rates (because of the ageing of the population pyramid) but a high- moderate net migration. The rest, not so far ago, were emergent economies and they had to adjust their socio-economical system to join the European Union, which caused them a period of instability. The consequences in demography were the same as in the above commented cases. A stronger economy and the improvement of basic services is leading to change the demographic situation (increase of birth rates, decrease of mortality rates)

Western and Central Europe are the richest regions of the Continent. It is reflected in the moderate population change rates (see Denmark, Finland, Sweden, Nederland, United Kingdom, Belgium, etc.) Stable and rich economies are translated into better social services, birth compensations and more immigration.

Southern Europe (except Greece and Turkey, due to its traditional social system) is characterised by low birth rates and mortality rates, but immigration is very high (especially due to Asian, Latin American and African migrations), that is the cause of the high-moderate population change rates. Spain is the second country with highest population change between

2001 and 2007, after Cyprus. Immigration is again the key factor over this result, as pointed out the increase of birth rate rates in Spain (influenced by middle age foreign population)

Particular cases, as Liechtenstein, Luxemburg, Iceland and Cyprus, with high population change rates (the highest is in Cyprus). Due to their small dimension and inherent characteristics (neuralgic business centres in the two first cases, and geographical proximity with Turkey and Greece in the last case) immigration flows are very high and variable.

Table 3.1 Population change 2001-2007 by country

	Population change 2001-2007 (pop. 2001 = 0)
CYPRUS	11.63
SPAIN	9.88
ICELAND	8.58
LUXEMBOURG	8.47
LIECHTENSTEIN	7.01
FRANCE	4.34
SWITZERLAND	4.23
MALTA	4.19
IRELAND	4.10
NORWAY	3.95
ITALY	3.81
PORTUGAL	3.34
AUSTRIA	3.27
BELGIUM	3.13
UNITED KINGDOM	3.02
TURKEY	2.64
SWEDEN	2.59
EU 27	**2.38**
NETHERLAND	2.32
GREECE	2.20
FINLAND	1.85
DENMARK	1.83
SLOVENIA	1.02
Y.R. MACEDONIA	0.53
SLOVAKIA	0.28
CZECH REPUBLIC	0.20
CROATIA	0.05
GERMANY	0.07
POLAND	-0.33
HUNGARY	-1.38
ESTONIA	-1.80
LITHUANIA	-2.93
LATVIA	-3.51
ROMANIA	-3.86
BULGARIA	-5.77

Source: Own elaboration with data from the EDORA database

3.1.2 Territorial concentration or dispersion: Evolution of the Population Density 2000-2006

The data results cover from the period 2000 to 2006. In line with the population increase there is a density increase in the EU27 of 0.92 on average. The decelerated demographic process is important but migration flow is the key factor in this result; it supposes the concentration of people in some places (usually, urban areas) and gaps in others (usually rural areas and barren places). Compared to World density data from 2000 to 2006, Europe is the second geographical area in the world (after Asia) with the highest population density. It is expressing the overcrowded of the European area, mainly because of its small dimension, regarding to the rest Continents. (United Nations (2008), *World summary 2000-2006*, table 1, http://unstats.un.org/unsd/demographic/products/dyb/dyb2006/Table01.pdf)

Some ex-socialist countries (Poland, Romania, Hungary, Bulgaria, Estonia, Latvia, and Lithuania) together with Y.R. Macedonia, Czech Yugoslavia, Croatia (ex-Yugoslavian countries) and Germany present negative population density results. Except Germany, the rest suffered the 'rural exodus' towards urban areas; frequently, it happens among the youngsters as a response to the lack of work and lack of social facilities in rural areas (Copus et.al., 2006). As a consequence, the geographical distribution of the population is unbalanced –crowded cities; empty villages.

Lower population densities correspond to Slovakia, Slovenia, Greece, Finland, Sweden, Denmark, Turkey, Austria, Portugal and Nederland. Except those Northern European countries and Austria, the rest are predominantly rural and have suffered out-migration processes in different historical stages, as well as 'rural exodus' among youngsters towards urban areas. At the present, some of them have recovered due to immigration flows and the improvement of their socio-economic situation (See Country Profiles Draft Reports reviewed from the EDORA Program). Because of their barren climate conditions, population of Scandianavian countries is concentrated in the South part of those countries.

Richer economies as Norway, United Kingdom, Belgium, Switzerland, Italy and France present moderate increase of population density rates. All of them are characterised by big and consolidate urban areas, high-moderate migration flows and better rural development policies. In relation to the last point, *counterurbanization* (ie. The *reinassance* of rural areas and recovering of rural activities or ways of life) has been happening over the last 30 years. This process leads to the dispersion of the population in the territory and, therefore, a more equilibrated density.

Finally, higher increases in population density rates correspond to Malta, Iceland, Spain, Liechtenstein, Luxembourg, Cyprus and Ireland. Geographically and climatically, Spain and Malta are demanded countries for living having immigration flows and tourism. Liechtenstein, and Luxembourg are quasi-urban states with a dynamic demography.

Table 3.2 Evolution of the population density 2000-2006, by country

	Density 2000-06 (Index 2000 = 0)
IRELAND	11.29
CYPRUS	9.87
LUXEMBOURG	6.85
LIECHTENSTEIN	6.21
SPAIN	5.79
ICELAND	5.52
MALTA	4.55
FRANCE	3.27
ITALY	2.84
SWITZERLAND	2.81
BELGIUM	2.28
UNITED KINGDOM	2.17
NORWAY	2.09
NEDERLAND	1.98
PORTUGAL	1.63
AUSTRIA	1.63
DENMARK	1.28
EU 27	**0.92**
SWEDEN	0.81
TURKEY	0.60
GREECE	0.56
FINLAND	0.26
SLOVENIA	0.24
SLOVAKIA	0.17
Y.R. MACEDONIA	-0.13
CZECH REPUBLIC	-0.20
GERMANY	-0.37
CROATIA	-0.61
POLAND	-1.11
ROMANIA	-1.22
HUNGARY	-1.59
ESTONIA	-1.99
LATVIA	-2.81
LITHUANIA	-2.91
BULGARIA	-7.34

Source: Own elaboration with data from the EDORA database

3.1.3 Demographic strength: Natural Growth Change, 2001-2006

The analysis for natural growth change (NGC) of the European countries has been examined for the period 2001 to 2006. Natural increase change is the difference between the number of births and the number of deaths. In the absence of migration flows, a positive result means an increase of the population, and vice versa. The negative result for the EU 27 members means a weak demographic behaviour of the European population on average. Europe is in a decelerated demographic process as a consequence of high living standards, rise of the life expectancy, better technology, etc. Calculation and analysis for this indicator exclude Malta, Croatia Turkey, Luxemburg and Liechtenstein for which there is no data..

The descending cascade of results shows that the countries with negative NGC rates (decline of population) are: Sweden, Ireland, Belgium, Estonia, Germany, Romania, Poland, Switzerland, Slovakia, Nederland, Czech Republic, Cyprus, Latvia, Portugal, Bulgaria, Slovenia, Y.R. Macedonia, Italy and France. The case of the population decline in eastern European countries and ex-Yugoslavian countries was a consequence of the transition from their emergent economies towards the capitalistic ones which, in parallel, influenced on the improvement of social and sanitary services (increase of life expectancy and so as the mortality rate) and new ways of living. In the rest of countries, 'single gap' and lost of traditions in the relations' understanding , as well as the ageing pyramid dynamics can affect the decline of NGC.

Moderate NGC outcomes respond to Greece, Hungary, United Kingdom and Iceland. Counter urbanization is an important factor associated with the increase of births in rural regions by the entrance of young people into these areas (see Hungary Country Profile Draft Report), as well as young immigrants who have children in the destination countries (United Kingdom). Traditional societies tend to increase or maintain birth numbers, such as Greece, maintaining a balance of the NGC.

The highest NIC outcomes emanate from Spain, Denmark, Norway, Austria, Lithuania and Finland. Spain, because of immigration processes contributing to increase birth numbers in recent years. Finland is the first country in the ranking of the NGC. Finland, Denmark, Norway, Austria and Lithuania are composed predominantly by rural areas and there is an old population structure (except Austria). The cause of the high NGC is the continuous and strong compensatory trend provided by immigration, and the positive contribution of birth policies which motivates population to have and sustain more children.

Table 3.3 Natural increase change 2001-2006, by country

	Natural increase change 2001-2006
FINLAND	146.28
LITHUANIA	74.01
AUSTRIA	63.93
NORWAY	26.10
DENMARK	17.70
SPAIN	11.92
ICELAND	6.81
UNITED KINGDOM	6.52
HUNGARY	3.43
GREECE	2.33
EU 27	**-6.09**
FRANCE	-7.63
ITALY	-8.78
Y.R. MACEDONIA	-9.74
SLOVENIA	-10.76
BULGARIA	-11.80
PORTUGAL	-12.36
LATVIA	-14.06
CYPRUS	-17.65
CZECH REPUBLIC	-17.65
NEDERLAND	-19.97
SLOVAKIA	-21.34
SWITZERLAND	-28.13
POLAND	-41.40
ROMANIA	-42.55
GERMANY	-46.75
ESTONIA	-48.62
BELGIUM	-50.69
IRELAND	-100.00
SWEDEN	-130.44
MALTA	NA
CROATIA	NA
TURKEY	NA
LUXEMBOURG	NA
LIECHTENSTEIN	NA

Source: Own elaboration with data from the EDORA database

3.1.4 Socio-demographic sustainability: the dependency rate

The age dependency rates (ADR) for the EU members are analysed for the year 2007. These ratios are a measure of the age structure of the population. They relate the number of individuals that are likely to be "dependent" on the support of others for their daily living – youths and the elderly – to the number of those individuals who are capable of providing such support. Two other indicators are presented: the youth-dependency ratio (for individuals aged less than 20) and the old-age-dependency ratio (for persons aged 65 and more), both calculated relative to the number of individuals aged 20 to 64. Age-dependency ratios affect the global environment where social policy operates and the types of needs that it will be called to meet. Their evolution is a function of mortality, fertility rates and of net migration (OECD, 2007, *Society at a glance: OECD Social Indicators*, 2006 Edition, http://www.oecd.org/dataoecd/4/24/38148786.pdf)

The percentage of dependents for the EU 27 is 43.19%. Europe is characterised by an ageing population structure, and therefore, old-age-dependency ratio is higher than youth one. A high ADR, which means relative increase of dependents, leads to social, economical and political implications.

Lowest ADR (less dependent) pertain to Germany (30.92%), Y.R. Macedonia, Ireland, Slovakia, Czech Republic, Liechtenstein, Poland and Slovenia. There is a bigger share of population between 20-64 years old (active) than dependents. This results in a good driving force for a country's economy. The dynamics of migration play an important role in the age dependency ratio: in some countries, youth migrate to other countries (NMS, Balcans) and/or active population migrate to more advanced and richer economies (Germany, Liechtenstein) to improve their life and labour conditions.

Around the value of the ADR of the EU27 are eight countries: Cyprus, Romania, Malta, Latvia, Bulgaria, Hungary, Lithuania and Spain.

Moderate ADR outcomes correspond to Estonia, Switzerland, Luxembourg, Nederland, Austria, Iceland, Croatia and Portugal. In the case of Switzerland, Luxembourg, Nederland and Austria this result is the consequence of ageing demographic processes and social policies to promote fertility. The remaining countries (Estonia, Croatia and Portugal) are affected by outmigration of active population.

The highest ADR (more dependent) are Finland, Italy, United Kingdom, Norway, Greece, Belgium, Sweden, France and Turkey. Ageing processes, social policies to promote fertility and improve maternity conditions or processes as emigration of youth (in the case of Turkey) are conditional factors into highest AD ratios.

Table 3.4 Age dependency rate 2007, by country

	Age dependency rate (2007)
TURKEY	55.83
FRANCE	54.75
SWEDEN	54.00
BELGIUM	52.94
GREECE	52.83
NORWAY	52.37
UNITED KINGDOM	52.21
ITALY	52.03
FINLAND	51.37
PORTUGAL	50.50
CROATIA	48.96
ICELAND	48.94
AUSTRIA	48.64
NEDERLAND	48.47
LUXEMBOURG	47.85
SWITZERLAND	47.21
ESTONIA	46.96
SPAIN	46.31
LITHUANIA	45.93
HUNGARY	45.37
BULGARIA	45.18
LATVIA	45.04
MALTA	43.88
ROMANIA	43.72
CYPRUS	43.34
EU 27	**43.19**
SLOVENIA	42.38
POLAND	41.23
LIECHTENSTEIN	40.78
CZECH REPUBLIC	40.58
SLOVAKIA	38.69
IRELAND	34.83
Y.R. MACEDONIA	32.67
GERMANY	30.92
DENMARK	NA

Source: Own elaboration with data from the EDORA database

3.1.5 Mobility of the population: Net Migration

Migration rates are complex to measure because of several controversial factors, for instance the unregistered immigration and the particular migration policy of each country. In this analysis the **Net migration change** (NMC) is measured for the period 2001-2006. Migration in Europe is characterised by internal and international migration: In 2006, there were relatively more non-EU than EU citizens among immigrants (Herm A., 98/2008, Population and social conditions, *Recent migration trends: citizens of EU-27 Member States become ever more mobile while EU remains attractive to non-EU citizens*, Eurostat). Net Migration has increased in 8.97% in the EU 27 during the period 2001-2006. Analysis of NMC is not possible for Malta, Croatia and Turkey due to the lack of data.

As it is shown on Table 3.5, negative NMC outcomes are for Iceland (-263.34), Spain, Netherlands, Slovakia, Greece, Bulgaria, Y.R. Macedonia, Liechtenstein and Austria (-76.48). It expresses a decline of Net Migration from 2001 to 2006. It does not mean, therefore, there are fewer immigrants or more emigrants. Actually, Spain, as well as Ireland (with negative result too), are the EU countries with the highest increase of immigrants during this period (Herm A., 98/2008, Population and social conditions, *Recent migration trends: citizens of EU-27 Member States become ever more mobile while EU remains attractive to non-EU citizens*, Eurostat, http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-08-098/EN/KS-SF-08-098-EN.PDF)

Moderate negative outcomes for NMC are represented by Portugal (-54.07), Romania, France, United Kingdom, Finland, Ireland and Switzerland (-7.15). This decline could be explained by several factors. For traditionally destination countries of immigration, as France, United Kingdom, Ireland, etc., this decline is interrelated with tough migration policies to restrict the entrance of immigrants.

A positive NMC is shown in Denmark (5.35) and Poland (8.25). It means a rise of Net Migration from 2001 to 2006. Partly, it is due to national immigrants returning home. (http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Migration_statistics)

Moderate positive outcomes correspond to Hungary (11.04), Latvia, Norway, Italy, Slovenia, Germany and Luxembourg (86.34). Increase in NMC responds to two variables before commented: national immigrants returning home and/or entrance of more immigrants because of the attractive destinations (related to economical stability or prosperity, better labour and social conditions, etc.)

High NMC outcomes are shown for Czech Republic (214.58), Cyprus, Belgium, Estonia, Sweden and Lithuania, which has the highest rate (1123.92). An improvement and stabilization of those countries, as well as suitable migration policies, stimulate the entrance of people.

Table 3.5 Net migration change 2001-2006, by country

	Net migration change 2001-2006
LITHUANIA	1123.92
SWEDEN	620.60
ESTONIA	418.96
BELGIUM	300.46
CYPRUS	214.58
CZECH REPUBLIC	214.58
LUXEMBOURG	86.34
GERMANY	64.14
SLOVENIA	61.25
ITALY	55.59
NORWAY	20.01
LATVIA	12.62
HUNGARY	11.04
EU 27	**8.97**
POLAND	8.25
DENMARK	5.35
SWITZERLAND	-7.15
IRELAND	-12.98
FINLAND	-36.06
UNITED KINGDOM	-38.90
FRANCE	-50.68
ROMANIA	-52.45
PORTUGAL	-54.07
AUSTRIA	-76.48
LIECHTENSTEIN	-77.27
Y.R. MACEDONIA	-92.93
BULGARIA	-97.30
GREECE	-112.03
SLOVAKIA	-135.76
NEDERLAND	-143.58
SPAIN	-221.52
ICELAND	-263.34
TURKEY	NA
CROATIA	NA
MALTA	NA

Source: Own elaboration with data from the EDORA database

3.1.6 Formal education and skills of the population

The indicator *% of population above 15 years with ISCED 5-6 level* expresses the percentage of population with tertiary education, according to ISCED classification system (International Standard Classification of Education) (Marcela M., Lubor T., Milan S. (2007), *How does tertiary education level insure people against unemployment?,* Labour Market Changes and Education Perspectives in the Czech Republic project (222), Czech Science Foundation, http://homel.vsb.cz/~tvr12/PUBLIKACE/2007/2007_pojisteni_VS.pdf)

In the EU 27 there is 18.55% of population 15 years and older in the third level of education. The accession of NMS has influenced this result even though a considered amount of population could not access to third level of education in the past because of economical, social and political factors. Furthermore, educative system in almost all the EU countries has become more accessible for EU citizens. Countries without data are as followed: Iceland, Y.R. Macedonia, Liechtenstein, Switzerland, Turkey, Slovenia and Denmark.

Low rates for people older than 15 years in the third level of education correspond to Romania, Portugal, Italy, Czech Republic, Malta, Slovakia and Hungary. Those countries suffered processes as the ones before commented.

Moderate rates, below EU27 average, are for Croatia, Greece, Austria, Poland, Bulgaria, Latvia and France. The remarkable cases here are Austria and France, advanced economies with good and qualified education system. This is caused by the flow of foreign workers with low level of qualification (Marcela M., Lubor T., Milan S. (2007), *How does tertiary education level insure people against unemployment?,* Labour Market Changes and Education Perspectives in the Czech Republic project (225), Czech Science Foundation, http://homel.vsb.cz/~tvr12/PUBLIKACE/2007/2007_pojisteni_VS.pdf) or immigrants whose third level studies are not recognized by the destination's educative system.

Moderate rates, above EU 27 result, are for Luxembourg, Sweden, United Kingdom, Spain, Lithuania and Germany. Those countries strongly promote education policies. The notable case here is Lithuania, a country in constant economical reactivation, with a young population. The urban region has the lowest share of farmers with basic or full educational attainment (see Lithuania Profile Draft Report)

Highest values of education have been reached for Belgium, Norway, Estonia, Cyprus, Finland, Ireland and Nederland. Northern education is one of the best of Europe because of the importance and investment in education. Cyprus has a lot of active population.

Table 3.6 % of population above 15 years with ISCED 5-6 level

	% of population above 15 years with ISCED 5-6 level
NEDERLAND	33.88
IRELAND	27.46
FINLAND	25.95
CYPRUS	25.32
ESTONIA	24.77
NORWAY	23.86
BELGIUM	23.40
GERMANY	22.22
LITHUANIA	21.78
SPAIN	20.97
UNITED KINGDOM	20.53
SWEDEN	20.34
LUXEMBOURG	20.16
EU 27	**18.55**
FRANCE	18.42
LATVIA	16.76
BULGARIA	15.97
POLAND	13.80
AUSTRIA	12.65
GREECE	12.48
CROATIA	11.59
HUNGARY	11.41
SLOVAKIA	11.24
MALTA	10.30
CZECH REPUBLIC	10.28
ITALY	10.01
PORTUGAL	8.84
ROMANIA	8.15
DENMARK	NA
SLOVENIA	NA
TURKEY	NA
SWITZERLAND	NA
LIECHTENSTEIN	NA
Y.R. MACEDONIA	NA
ICELAND	NA

Source: Own elaboration with data from the EDORA database

The indicator *% of population above 15 years with ISCED 0-2 level* expresses the percentage of population with pre-primary, primary and lower secondary level of education, according to ISCED (International Standard Classification of Education) classification system. (Marcela M., Lubor T., Milan S. (2007) *How does tertiary education level insure people against unemployment?* Labour Market Changes and Education Perspectives in the Czech Republic project (222), Czech Science Foundation, http://homel.vsb.cz/~tvr12/PUBLIKACE/2007/2007_pojisteni_VS.pdf).

In the EU 27 there is 36.66% of population older than 15 years old in the lower secondary level of education. The annex of NMS to the EU 27 affected in the results of this indicator too, as well as complex and particular socio-economic problems of each country. Comparing with the low EU 5_6 level result, the EU 0_2 level result points out the need to improve funds towards education and consolidate active policies to ensure alphabetization and lower secondary levels of education. Countries without data are as followed: Iceland, Y.R. Macedonia, Liechtenstein, Switzerland, Turkey, Slovenia and Denmark.

Table 3.6 % of population above 15 years with ISCED 0-2 level

	% of population above 15 years with ISCED 0-2 level
PORTUGAL	78.53
MALTA	72.01
SPAIN	59.38
ITALY	57.28
GREECE	56.18
NEDERLAND	50.78
IRELAND	44.38
BELGIUM	43.64
LUXEMBOURG	40.21
FRANCE	39.62
ROMANIA	39.60
BULGARIA	37.46
CROATIA	37.24
EU 27	**36.66**
CYPRUS	36.23
FINLAND	33.97
AUSTRIA	30.50
GERMANY	30.28
HUNGARY	29.93
NORWAY	28.19
LITHUANIA	27.89
POLAND	25.87
LATVIA	23.91
SLOVAKIA	23.40
UNITED KINGDOM	20.58
SWEDEN	20.48
ESTONIA	19.80
CZECH REPUBLIC	19.65
DENMARK	NA
SLOVENIA	NA
TURKEY	NA
SWITZERLAND	NA
LIECHTENSTEIN	NA
Y.R. MACEDCONIA	NA
ICELAND	NA

Source: Own elaboration with data from the EDORA database

Low rates for people older than 15 years old in the lower secondary level of education correspond to Czech Republic, Estonia, Sweden, United Kingdom, Slovakia, Latvia and Poland. Citizens older than 15 –active population- of some countries (like Czech Republic, Estonia, Slovakia, Latvia and Poland) out-migrate, and historically, the socialist education system was equal for everyone and good. Sweden and United Kingdom have moderate third level of education among citizens older than 15, which is the cause of the low rate for lower secondary level of education.

Moderate rates, below EU 27 result, are for Lithuania, Norway, Hungary, Germany, Austria, Finland and Cyprus. The same reasoning as before can be applied here: citizens older 15 pursue third level of education.

Moderate-high rates, above EU 27 result, are for Croatia, Bulgaria, Romania, France, Luxembourg and Belgium. The three last countries can be explained because of the historically foreign workers with low level qualification. The first three countries, as emergent economies, suffered from a lack of educative formation because of the lack of funds and bad social services.

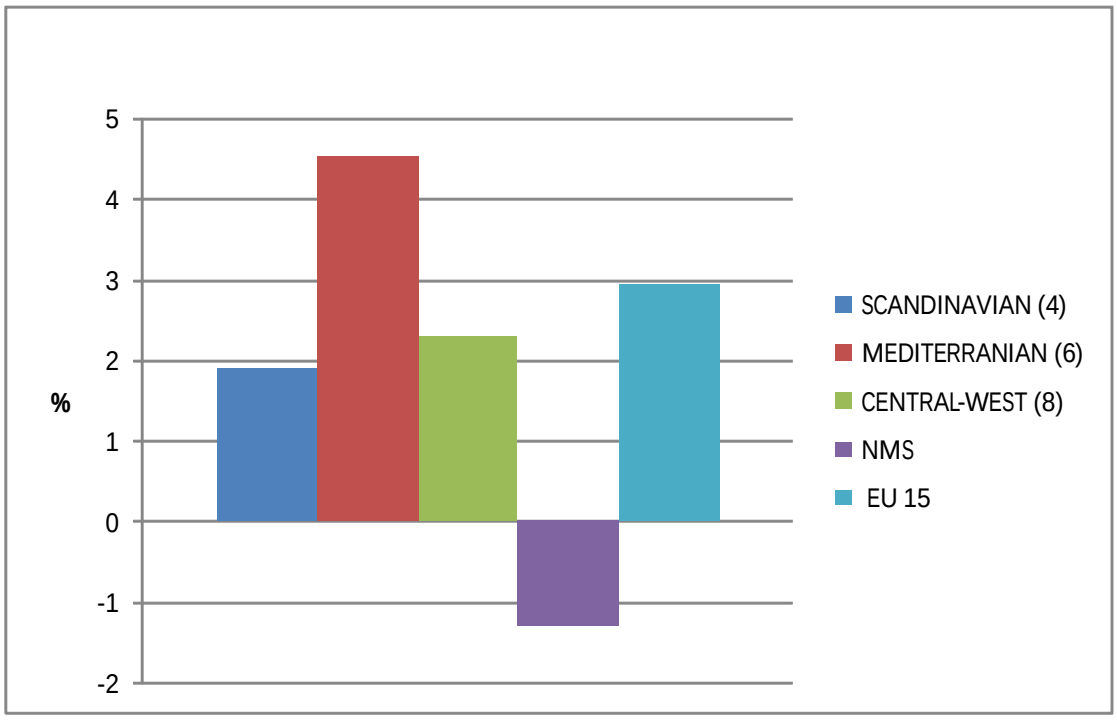
Highest values of population older than 15 with lower secondary level of education have been reached for Ireland, Nederland, Greece, Italy, Spain, Malta and Portugal (with a rate of 78.53%, the highest one) Nederland has a strong education investment, so all the education levels are covered and citizens can choose according to their personal preferences. It happens as well in the rest of countries with the highest values, adding the accessibility component as a problem in rural areas (case of Portugal)

3.2 Comparative analysis of relevant data and indicators by non-exclusive groups of countries

3.2.1 Evolution of the European population

The evolution of the population for the period 2001-2006 is positive for all groups of countries except for the NMS European members (rate of -1.3% aprox.). In 2006, EU 15 presents 3% more population than in 2001. Central-West population has evolved around 2.3% while Scandinavian population does not reach 2% increase. Mediterranean countries have achieved an increase of almost 4.5% of their population. There are two main trends behind this data: on the one hand, the logics of migration flows that have brought population mainly from NMS to Western Europe and; on the other hand, an increase of the birth rate (consequence of migrants in active age who have children in the destination countries). These two processes have been pushed by a prosperity economic period.

Figure 3.1 Population evolution by non exclusive groups of countries, 2001-2006

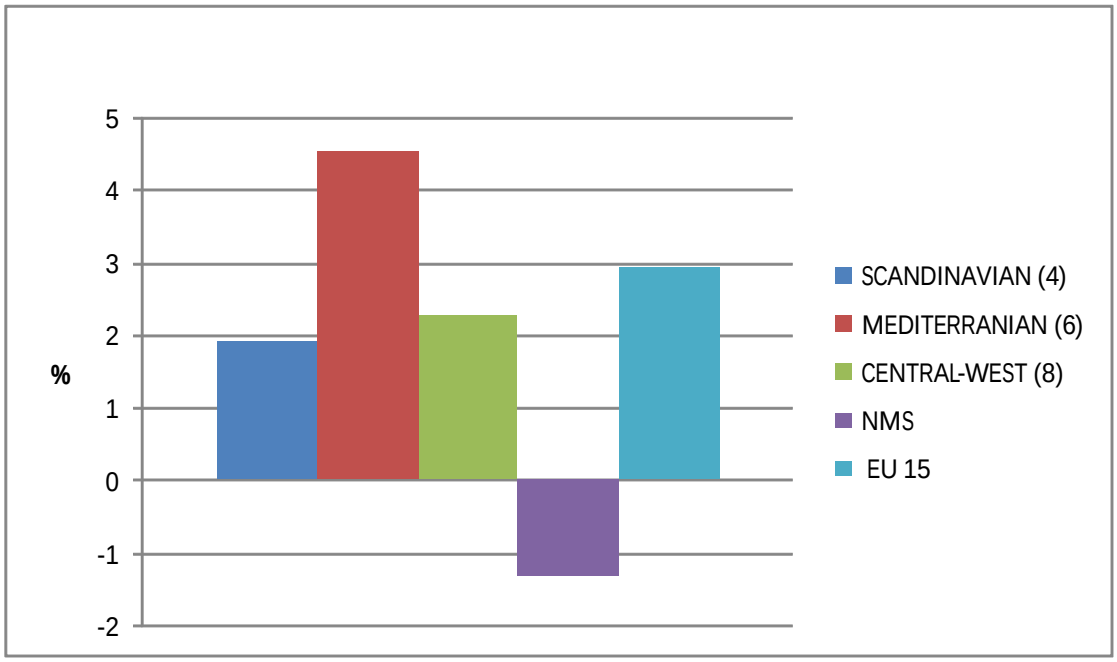


Source: Own elaboration with data from the EDORA database
Note: for some regions the raw calculation value is the corresponding NUT2 unit

3.2.2 Territorial concentration or dispersion: the evolution of the population density 2001-2006

Evolution density is linked to the historical occupation of the territory, to recent demographic trends like migration and natural growth, and to other social trends like urbanisation, coaunterurbanisation or periurbanisation. The evolution of population density for the period 2001-2006 is positive for the EU 15 (3%) but negative for the NWS 12 (approximately, -1.3%) A relevant percentage of NMS population emigrate to EU 15 countries to improve their living condition, mainly to Mediterranean countries where agriculture and building sectors made possible a relatively easy inclusion (4.5% increase of population density between 2001-2006) Central-West countries have a moderate rate of 2.2% increase also hosting significant immigration flows from other parts of the continent and abroad. Scandinavian countries show minor evolution density (between 1.9-2%) than Central-West countries..

Figure 3.2 Population density change by non exclusive groups of countries, 2001-2006

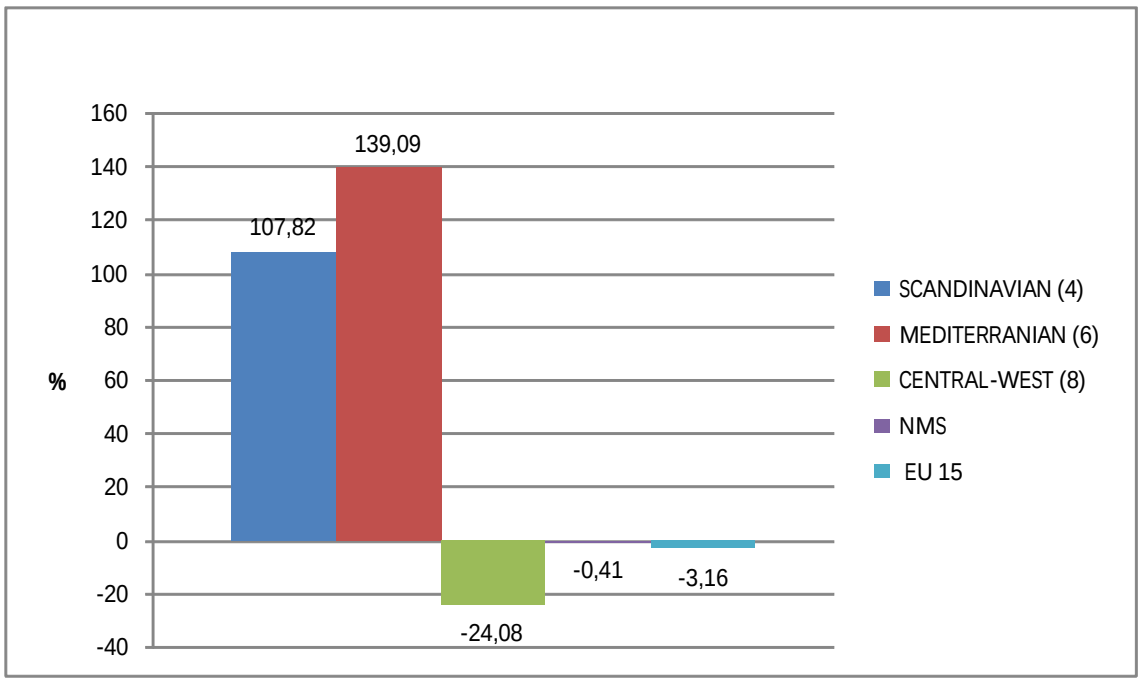


Source: Own elaboration with data from the EDORA database

3.2.3 Demographic strength: natural growth change 2000-2006

Figure 3.3 expresses the results of NGC for non exclusive groups of countries: decelerated demographic processes in EU 15 (population decrease of 3.16), NMS (population decrease of 0.41) and Central- West countries. Population ageing processes and low birth rates in those countries are evident. On the other hand, Mediterranean and Scandinavian countries have a positive natural increase evolution, mostly due to immigration showing birth rates and pattersn much more dynamic than those of the local population.

Figure 3.3 Natural change evolution by non exclusive groups of countries, 2001-2006

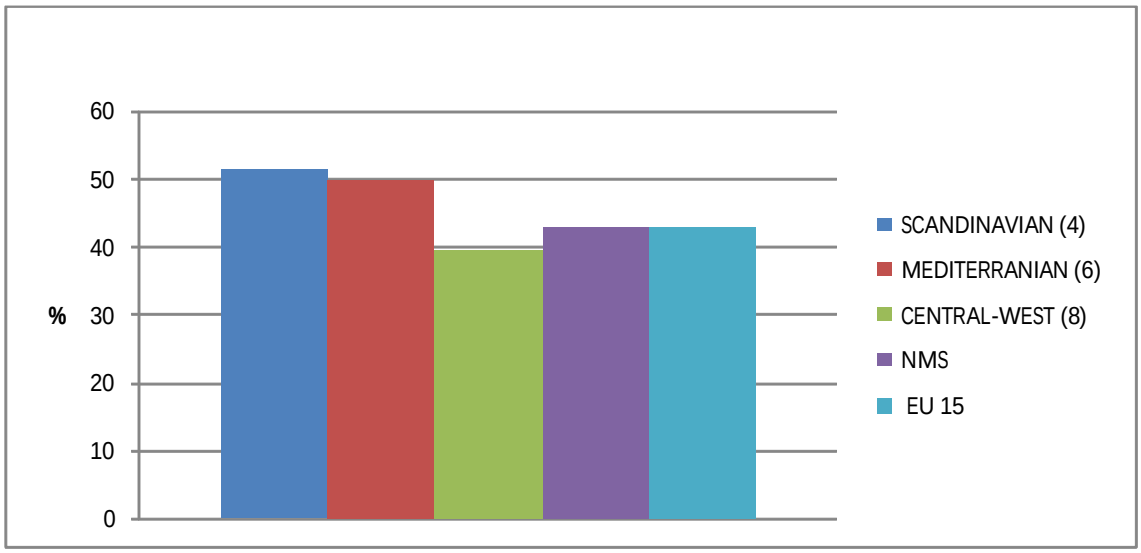


Source: Own elaboration with data from the EDORA database

3.2.4 Socio-demographic sustainability: the age dependency rate

Figure 3.4 shows the Age Dependency rate graphic for 2007. The analysis corroborates the quantitative increase of dependents over the EU Members. This is due to a rise of the old-age-dependency ratio (for persons aged 65 and more) because of the ageing processes of the modern society. Repercussions for a high age dependency ratio lead to social, economical and political changes. EU 15 and NMS have approximately 42% of dependents. Qualitatively, NMS have a major youth-age-dependency ratio and a minor old one in relation to EU 15 (which has the opposite). Age dependency rates for Central-West European countries are, on average, 40%. There are 50% of dependents in Mediterranean countries and 51% in Scandinavian countries.

Figure 3.4 Age Dependency Rate by non exclusive groups of countries, 2007

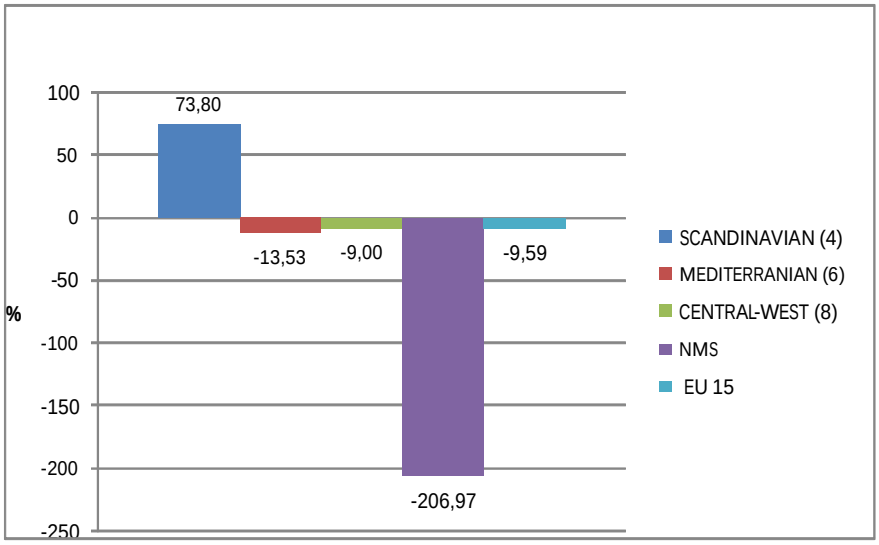


Source: Own elaboration with data from the EDORA database

3.2.5 Mobility of the population: net migration rate

There has been a negative evolution net migration between 2001 and 2006 in all the European countries, except the Scandinavians (with a remarkable high rate of 73.80%). The lowest rate pertains to the NMS, with an evolution of the net migration of -206,97%, a massive emigration from their countries. EU 15 suffers a decrease of 9.59% in the net migration rate between 2001 and 2006. Central-West countries suffer a decrease of 9% while Mediterranean countries suffer a decrease of 13.53% of the net migration evolution.

Figure 3.5 Population net migration evolution by non exclusive groups of countries, 2001-2006



Source: Own elaboration with data from the EDORA database

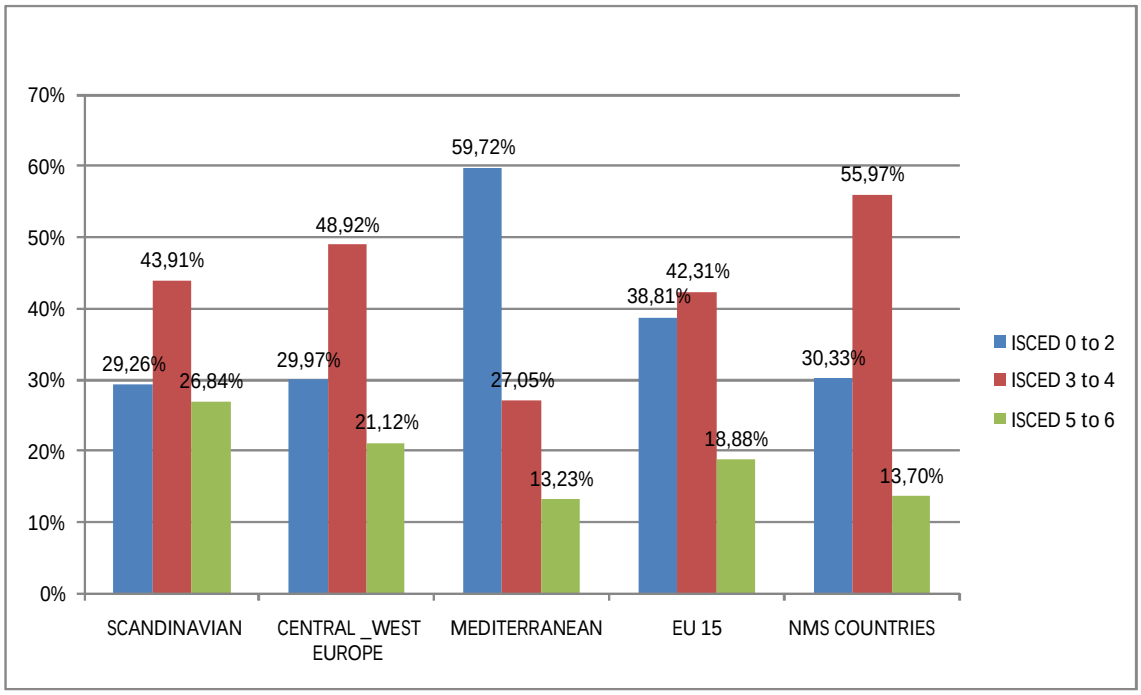
3.2.6 Education and skills of the population

The representation of all the ISCED levels in this graphic, i.e. academic qualification of population, shows that ISCED 3-4 (upper secondary education and post-secondary non tertiary education) is the most representative educational level in EU15 (42%) and the rest of countries' categories (except Mediterranean countries, responsible to diminish the EU 15 ISCED 3-4 result, and swell the ISCED 0-2 result of EU-15 due to Mediterranean high primary and lower secondary education –around 60%). Third educational level only represents 19% in the EU-15, i.e. high professional profiles are scarce among the EU-15 (stronger represented in Scandinavian and Central-West countries, richest and stable economies of the EU territory)

It is remarkable that NMS countries surpass Mediterranean countries in educational level, being ISCED 3-4 the one with highest percentage (56%) from the others levels, while in Mediterranean the highest percentage of academic qualifications of population correspond to ISCED 0-2 (60%). In both cases, third level of education is the lowest (around 13-14%) comparing to the other group of countries.

Scandinavian and Central-West countries have similar rates: predominance of ISCED 3-4 (higher in the second group of countries, reaching 49%), followed by around 29-30% of population with primary and secondary educational level, and finally ISCED 5-6 levels pass the 20% of population (higher in Scandinavian countries, reaching 27% and being the maximum rate in the whole Europe)

Figure 3.6 Academic qualification of population (ISCED levels), by non exclusive groups of countries, 2007



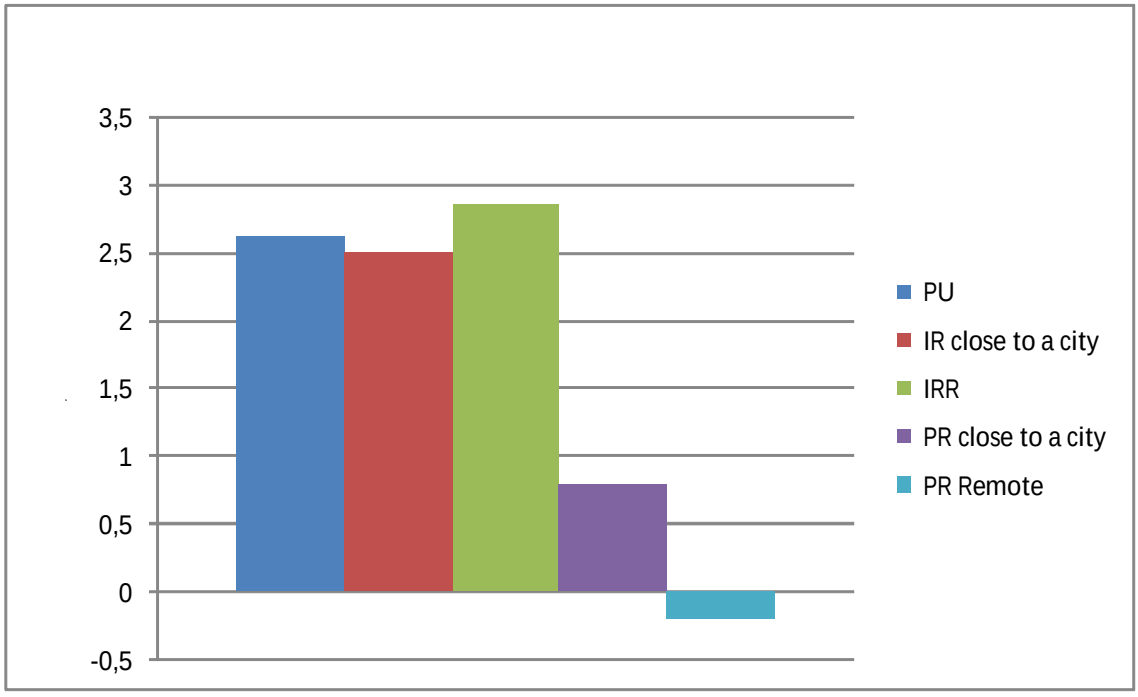
Source: Own elaboration with data from the EDORA database

3.3 Comparative analysis of relevant data and indicators by categories in the Dijkstra-Poelman rural-urban typology

3.3.1 Evolution of the European population

The evolution of the population for the period 2001-2006 is positive for all the areas except for the PRR, which result expresses a decrease of 0.2% of the population in 2006 respect to 2001. PRC has a soft change around 0.7% in the evolution of the population. As the PU as IRC areas have similar evolution percentages: 2.6% for PU and 2.5% for IRC. The most notable evolution pattern happens in the IRR area, with an increase of 2.9% of population in 2006. Explanation for this evolution is related to those addressed to the above indicators (e.g. evolution of natural increase and net migration)

Figure 3.7 Total population change 2001-2006, by categories in the Dijkstra-Poelman rural-urban typology



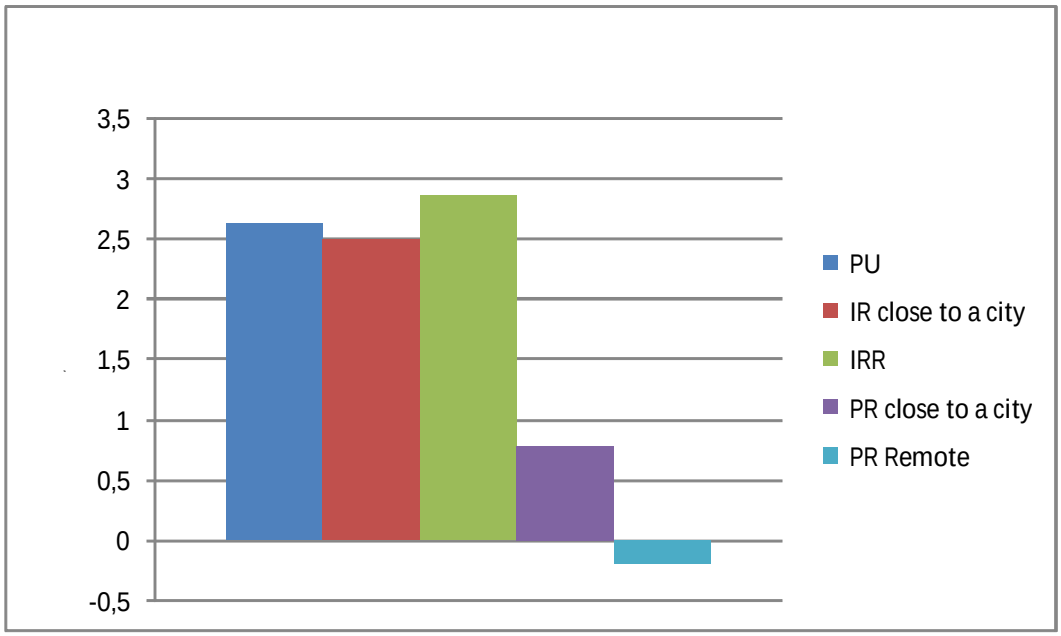
Source: Own elaboration with data from the EDORA database

3.3.2 Territorial concentration or dispersion: the evolution of the population density 2000-2006

Predominantly remote rural areas (PRR) have suffered a depopulation process between 2001 and 2006 of approximately 0.3%. Low results are followed by predominantly rural areas closed to a city (PRC), with an evolution density aprox. 0.7%. Urban areas and Intermediate rural areas possess a qualitative major percentage referring to evolution density. The highest one

(aprox. 2,9%) pertains to Intermediate Remote areas. A relevant fact is the predominance of IRR in the European territory and the big amount of foreigners who work in farming. IRC has a result of 2,5% while PU has an increase of 0.1% respect IRC.

Figure 3.8 Population density change 2001-2006, by categories in the Dijkstra-Poelman rural-urban typology



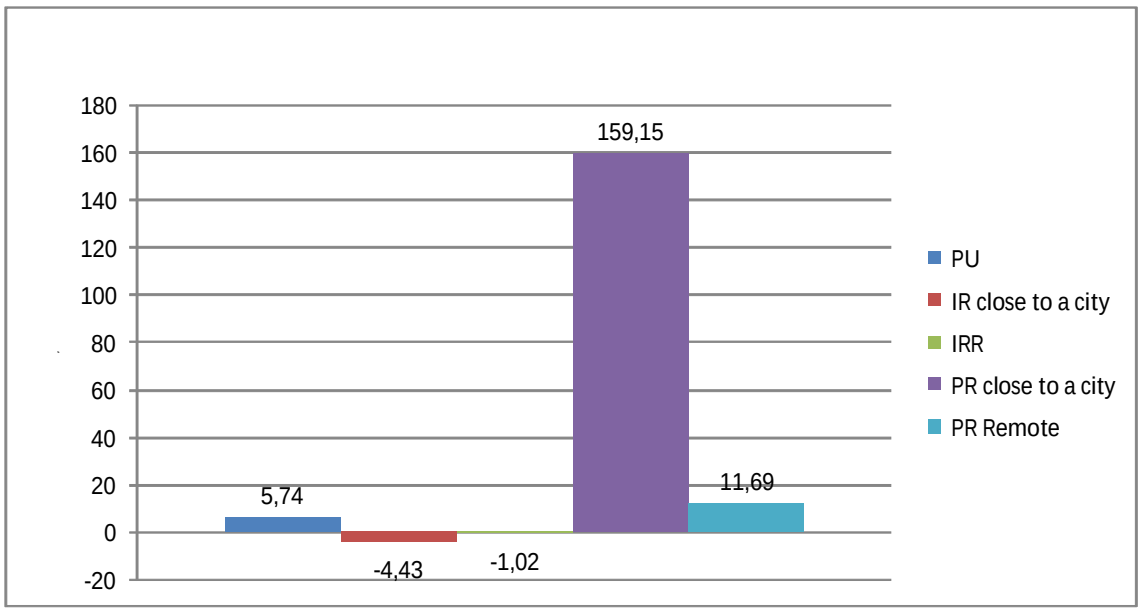
Source: Own elaboration with data from the EDORA database

3.3.3 Demographic strength: natural growth change 2000-2006

The evolution of natural increase between 2001 and 2006 is slightly positive in urban areas (5.74%) These areas concentrate mostly young population since they have a wide amount of education centres. PRR areas have a higher rate than PU, which respond to 11.69. But the highest rate from all the rural typologies is in the PRC, with a 159.15% increase of the natural growth change. Migration and geographical position closed to the city are the key factors for this result. They are cheapest place to live as well as comfortable at the communication level.

In contrast to positive rates, IRC and IRR have negative results: for the first one the result is -4.43% and for the second one is -1.02%. They are a consequence of the ageing processes and the intrinsic characteristics of Intermediate areas as peripheral 'sleep centres' (cheaper accommodation places than cities and closed to them to their job centres)

Figure 3.9 Natural growth change 2001-2006, by categories in the Dijkstra-Poelman rural-urban typology



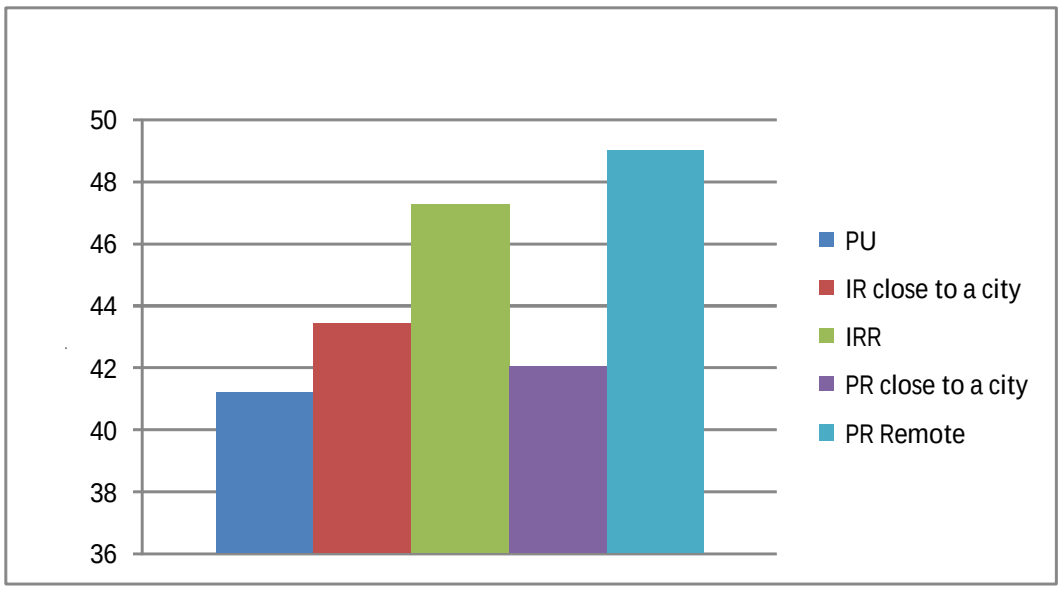
Source: Own elaboration with data from the EDORA database

3.3.4 Socio-demographic sustainability: the dependency rate

Age dependency rates are very high in remote areas which mean a high percentage of dependents, particularly population older than 65 years old. Quantitatively, in IRR there is a dependent population around 47.5% and in PRR it is aprox. 49% (almost the half of the population). The cause of these results is due to 'rural exodus' processes among youngest towards urban areas, depopulating rural areas where, as a final consequence, only old inhabitants live there.

Urban areas, as a result of the reverse process and because they usually are work epicentres, have the lowest rate of dependency, 41%. As followed, PRC areas present a 42% of dependent population and IRC areas present around 43.5%. These areas, as being closed to the city, receive flows of active population to work and/or live in the periphery.

Figure 3.10 % Age Dependency Rate, by categories in the Dijkstra-Poelman rural-urban typology, 2007



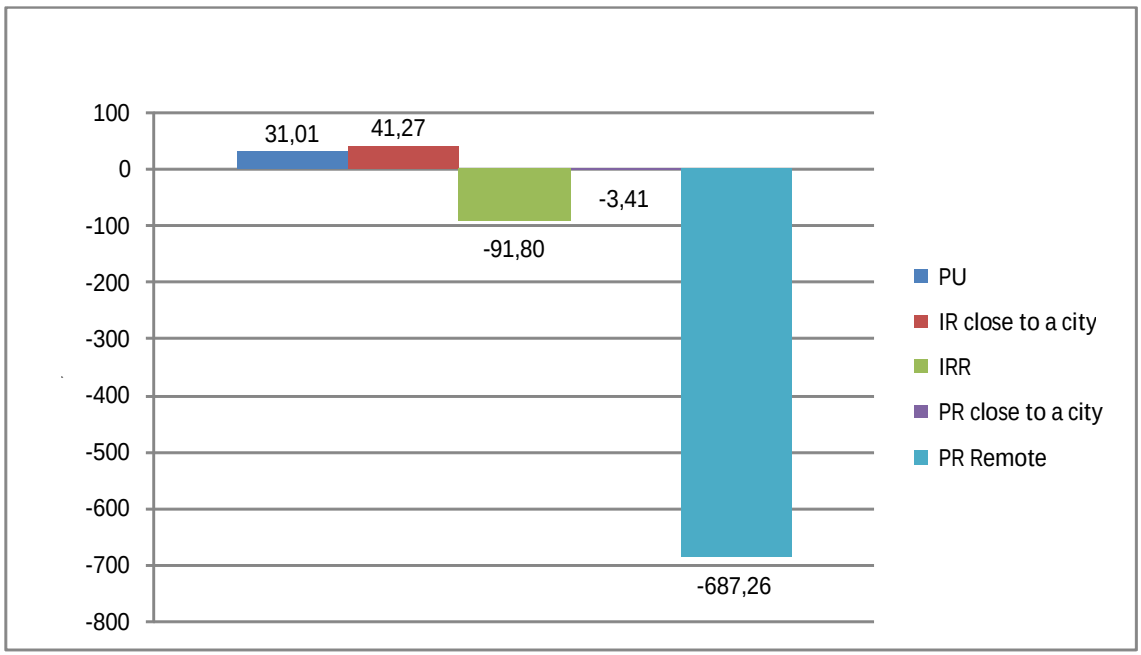
Source: Own elaboration with data from the EDORA database

3.3.5 Mobility of the population: net migration rate

The lowest and negative evolution net migration result occurs in PRR, with a rate of -687.26%, so net migration in 2006 was extremely lowest than in 2001. In IRR there is a fall of 91.80% of the net migration while in PRC is just 3.41 less than in 2001. Urban areas as well as IRC have positive results, an increase of the net migration of 31% in PU and 41.27 % in IRC in 2006 comparing to 2001. Urban areas as well as Intermediate areas are job centres and accommodation centres, respectively, so a high percentage of active population is concentrated in those areas.

Basically negative results express a decrease in the net migration rate between 2001-2006 as an increase of emigrants in 2006 to areas with better communications and services.

Figure 3.11 Net migration 2001-2006, by categories in the Dijkstra-Poelman rural-urban typology



Source: Own elaboration with data from the EDORA database

3.3.6 Education and skills of the population

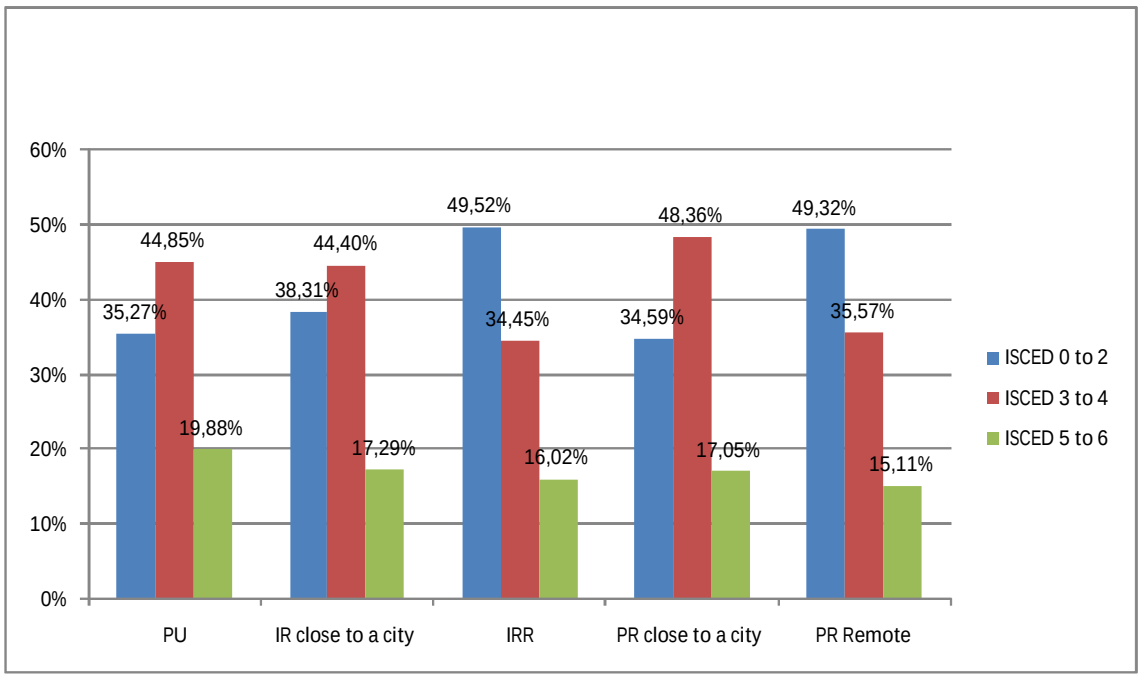
This graphic represents the academic qualification of population in all the ISCED levels associated with the rural typologies. The general picture assesses that urban areas represents the areas with more % population older than 15 years old with third educational level (ISCED 5-6) raising 20%, followed by areas closed to a city (IRC, PRC) and after that importance of intermediate rural areas front to predominantly rural. On the other hand, remote rural areas present more percentage of % population older than 15 years old with elementary educational level (ISCED 0-2), where the highest rate correspond to IRR areas (49,52%) and PRR (49,32%).

In areas closed to a city predominates population with ISCED 3-4 level (upper secondary education and post-secondary non tertiary education). In PRC the rate (48%) is higher than in IRC (44%), compensated in the last one by 4 times more of population with elementary education and a small more percentage of population with a third educational level than in PRC.

As before commented, remote rural areas have the highest rates of % population older than 15 years old ISCED 0-2 level and the lowest rates for third educational level, as well as for ISCED 3-4 (with a rate around 20 times more representative than for the elementary educational level). Normally, those areas do not have universities or high-education centres and rural population have necessarily to migrate to areas where they exist (usually urban areas)

As a conclusion, the clue is the accessibility, the size of the area and the concentration of services in urban areas instead of decentralised basic services (as education, sanity, etc.) in heterogenic and disperse areas.

Figure 3.12 Academic qualification of population (ISCED levels), by categories in the Dijkstra-Poelman rural-urban typology, 2007



Source: Own elaboration with data from the EDORA database

3.4 Comparative analysis of relevant data and indicators at region level (NUT 3) for the countries covered, expressed in maps

3.4.1 Evolution of the European population

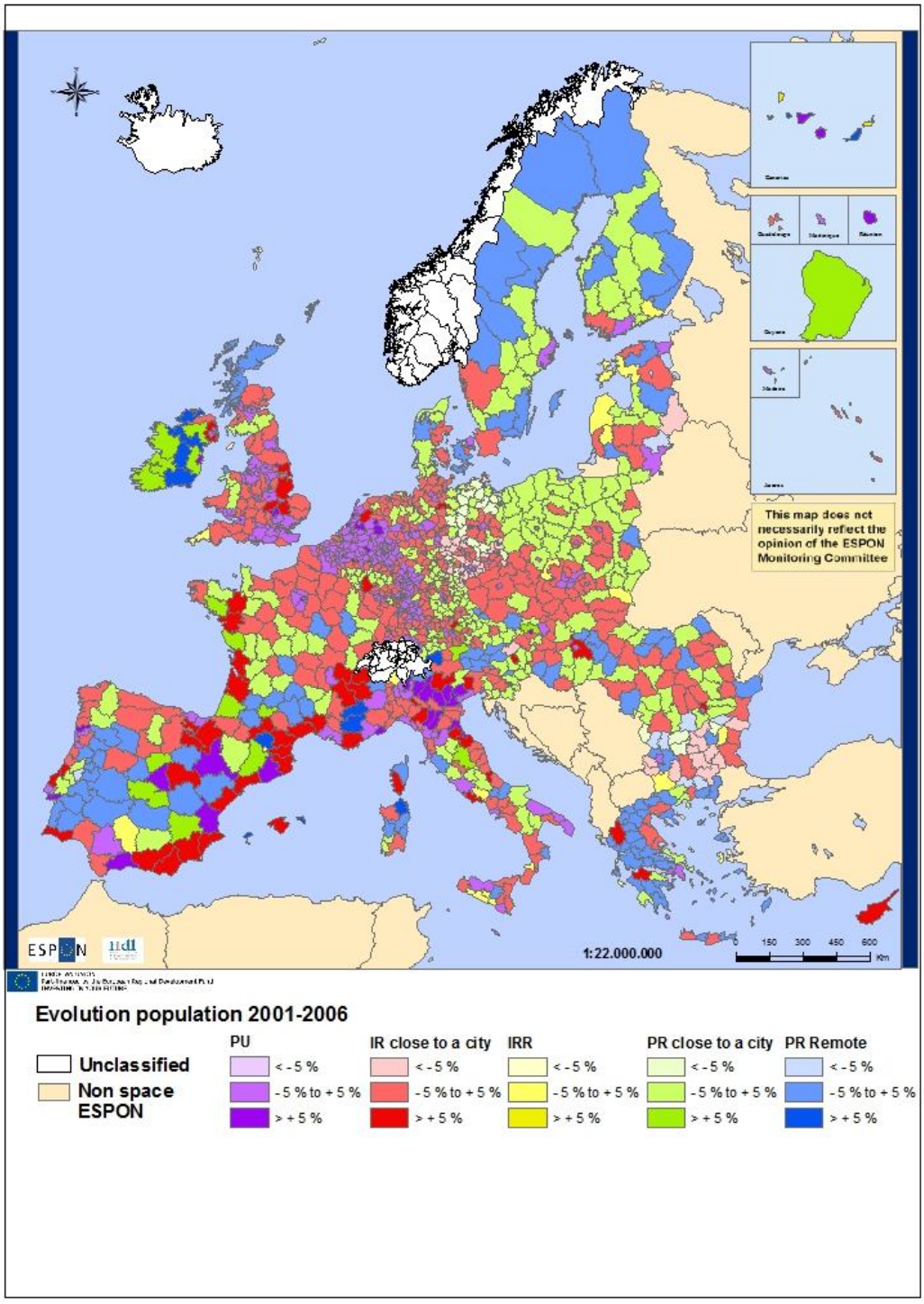
The evolution of the population for the period 2001-2006 is represented in this map over all the European territory. The first impression of the represented areas and population distribution is similar to the observed in the evolution density map (map 3.2)

In general, there is a moderate evolution population rate in Europe. Concentration of population matches up with South Europe (coastal environments) -concretely, in PU and IRC areas with more than 5% for this rate- since they are tourist attraction centres and migratory centres for other Europeans, as well as foreign workers (job opportunities in tertiary sector)

Moderate rates (between -5% to +5%) are extended in IRC and PRC areas all over Europe. The same happen in PRR areas (they occupy a big surface in Sweden and Finland, and are important for Greece and Scotland, due to their particular climate –in some cases- and disperse territorial structure)

IRR areas are negligible, as in the evolution density map, because they are not representative for the evolution population indicator in this map.

Map 3.1 Evolution of the total population 2000-2006



Source: own elaboration with data from the EDORA database

3.4.2 Territorial concentration or dispersion: the evolution of the population density 2000-2006

Evolution density is showed in this map for the period 2001-2006 over all the European territory.

At first glance, the most extended results correspond to IRC and PRC areas between -5% to +5% all over Europe. It means a moderate evolution density from 2000-2006, excepting South Europe (specially the coastal environment) has more population density (>5% in IRC) because of its touristic attractive (e.g. Spain)

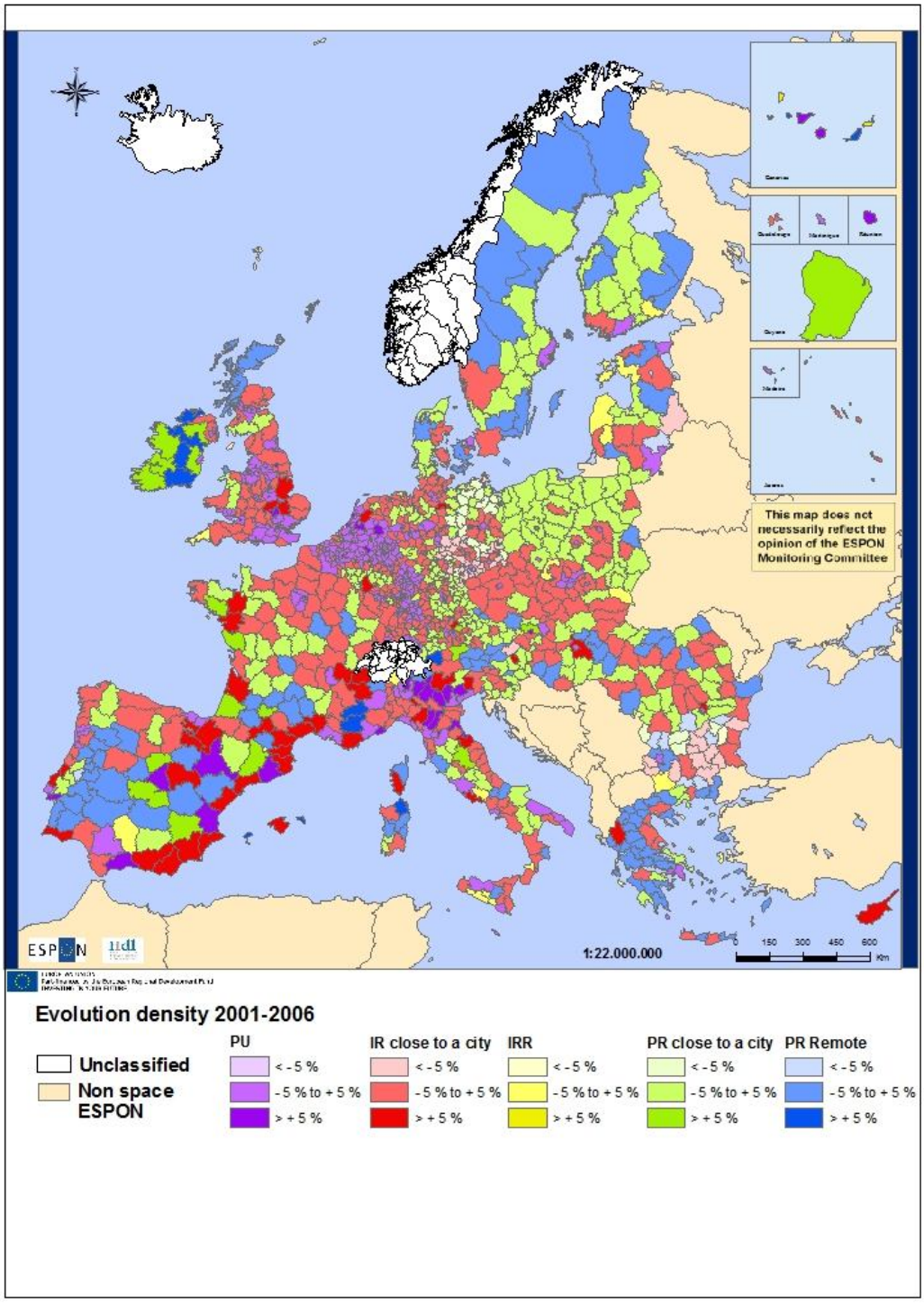
PRR areas between -5% to +5% rate (moderate evolution density) are extensively distributed among Europe (they occupy a big surface in Sweden and Finland)

Urban areas are distributed between South and Central Europe, as well as in United Kingdom. In the majority of cases, rates in PU are between -5% to +5%, except in Spain where rates are higher than 5% because of the tourism.

IRR areas with an evolution density indicator do not represent even a 1% of the area of the European territory, so they are negligible.

In sum, Europe posses a moderate evolution density rate for the analysed period. The most represented areas for this rate are IRC and PRC. Hence, population are concentrated the most in urban areas and areas closed to cities. A wider service offer and job opportunities can be found in those areas.

Map 3.2 Evolution of the population density, 2001-2006



Source: own elaboration with data from the EDORA database

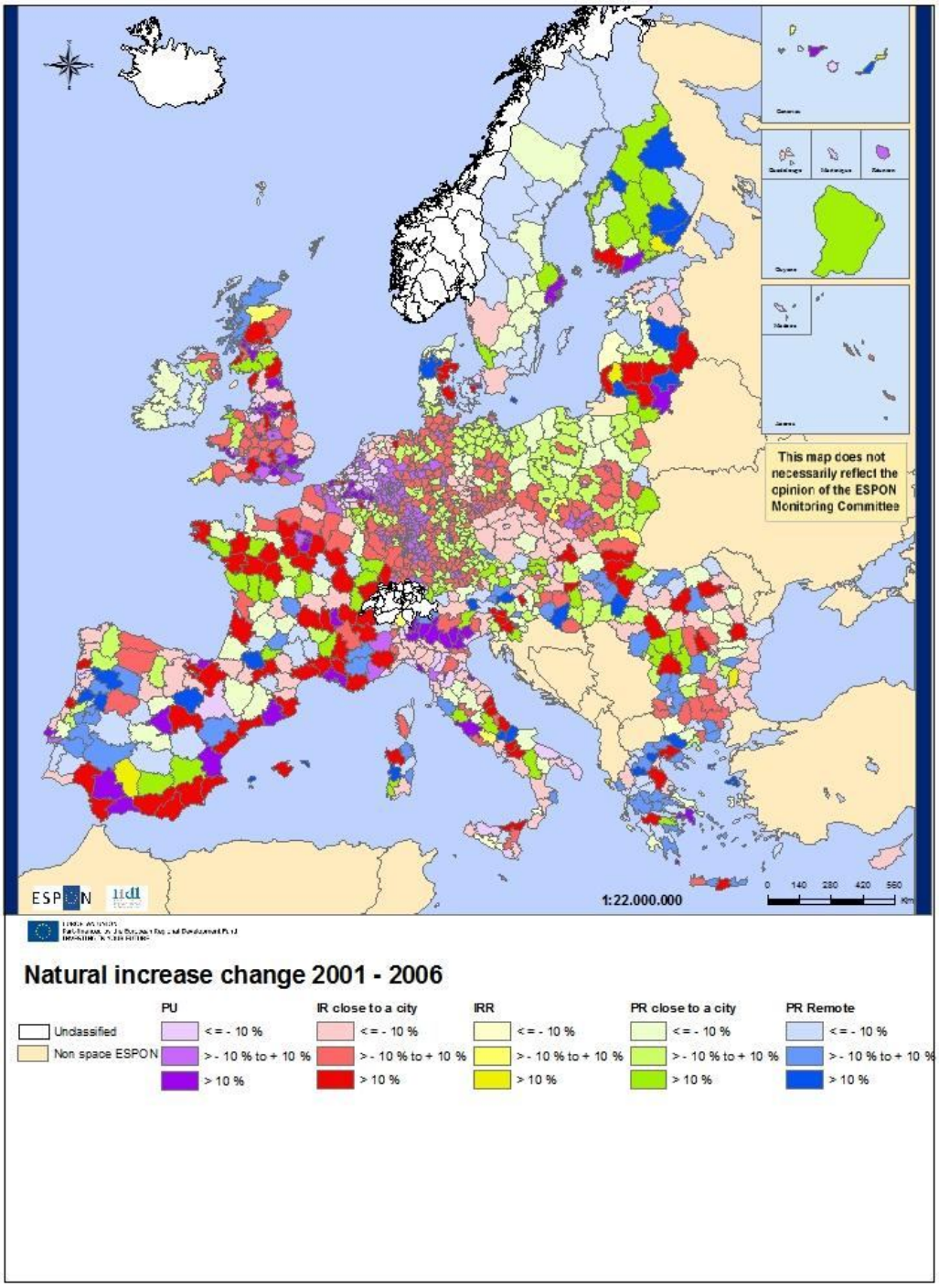
3.4.3 Demographic strength: natural growth change 2001-2006

The sixth map reflects the natural increase change (NIC) for the period 2001-2006 in the EU Continent.

At first glance, this map is very heterogenic. It can be seen an important displacement of population (affecting almost all the demographic indicators, as the analysed current one) like an invisible trajectory from North to South. Rates below 10% (soft colours) are predominant in Central Europe (except France) and East Europe. Those results have been explained in the sections related to NIC. In sum, key factors are emigration (East Europe) and ageing demographic processes (Central Europe) In general terms, cross-section areas for this rate in these territories are PU, IRC and PRC.

Moderate changes (rates from -10% to 10%) and high rates (above 10%) happen in South Europe, France, some ex-socialist countries (in North and East Europe), United Kingdom and South of Finland. Predominant areas with those rates are the PRC, followed by IRC, PU and PRR. IRR areas are negligible again.

Map 3.3 Natural growth change 2001-2006



Source: own elaboration with data from the EDORA database

3.4.4 Socio-demographic sustainability: the age dependency rate

This first map reflects the age dependency rate of 2007 for the five rural typologies among all the EU countries. There are three different colour ranges for each typology based of an age dependency rate percentage criteria. This structure is applied for the rest of maps.

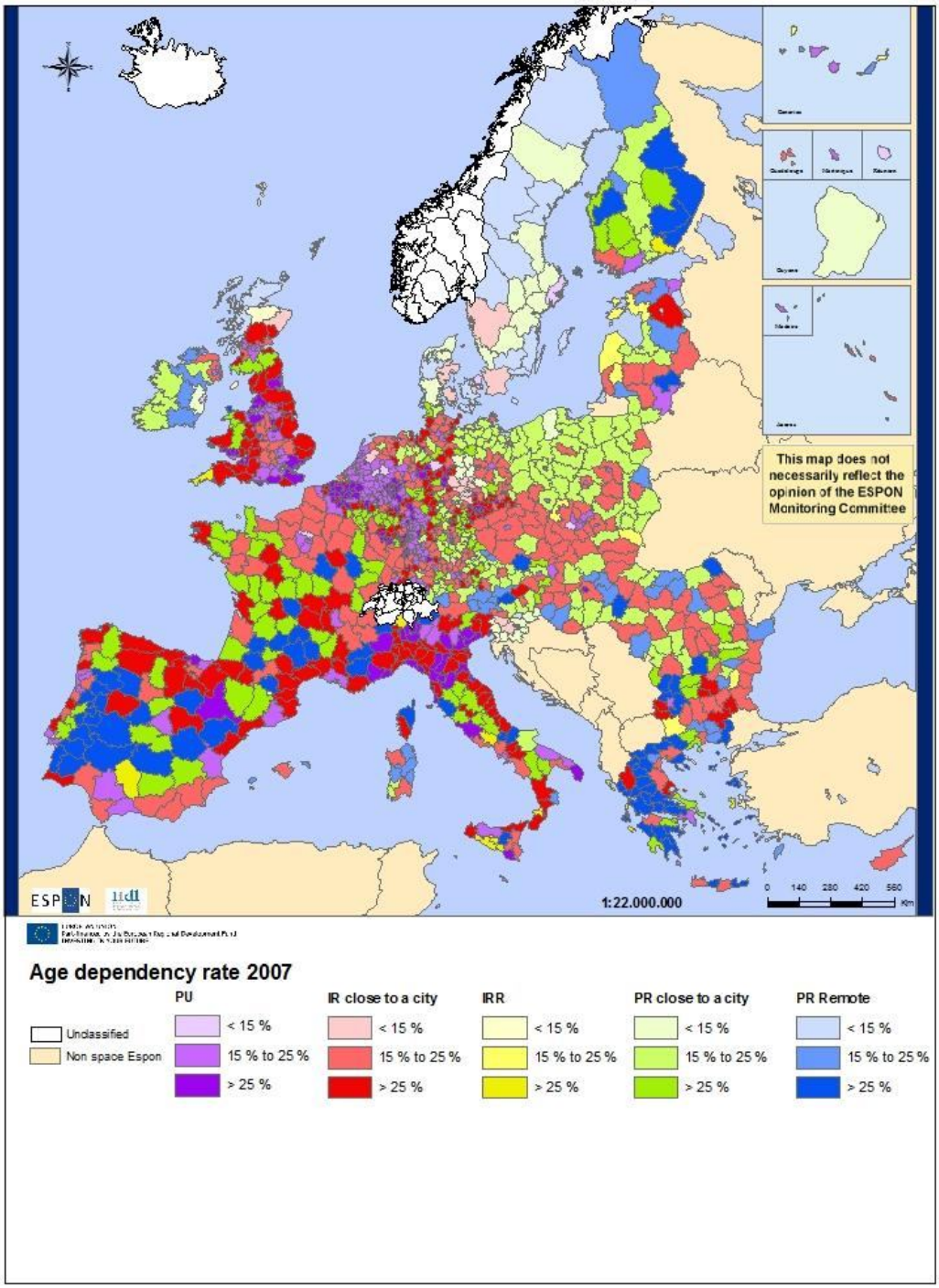
At first glance, the predominance of IRC areas with 15-25% of age dependency rate in West Europe and PRC with 15-25% (mostly in East Europe) and more than 25% (all over the EU, but mostly in East Europe) are significant.

In general, PU and IRR areas, besides age dependency rate, are not remarkable in the territory, and respond better to rates between 15-25% of dependents.

PRR areas with more than 25% of age dependency rate are concentrated in South Europe, along the coast (caused mainly due to retired European foreigners who establish their residence in warm climates from the South), as well as in the East part of Finland. PRR areas with less than 15% of ADR are concentrated in North Europe (predominantly in Sweden)

As conclusion for those data results, there is a high-moderate age dependency rate trend in the whole Europe, but higher in West and South Europe than in East Europe. Referring to rural typologies, IRC and PRC areas with high-moderate ADR are the striking ones.

Map 3.4 Age Depencency Rate 2007



Source: own elaboration with data from the EDORA database

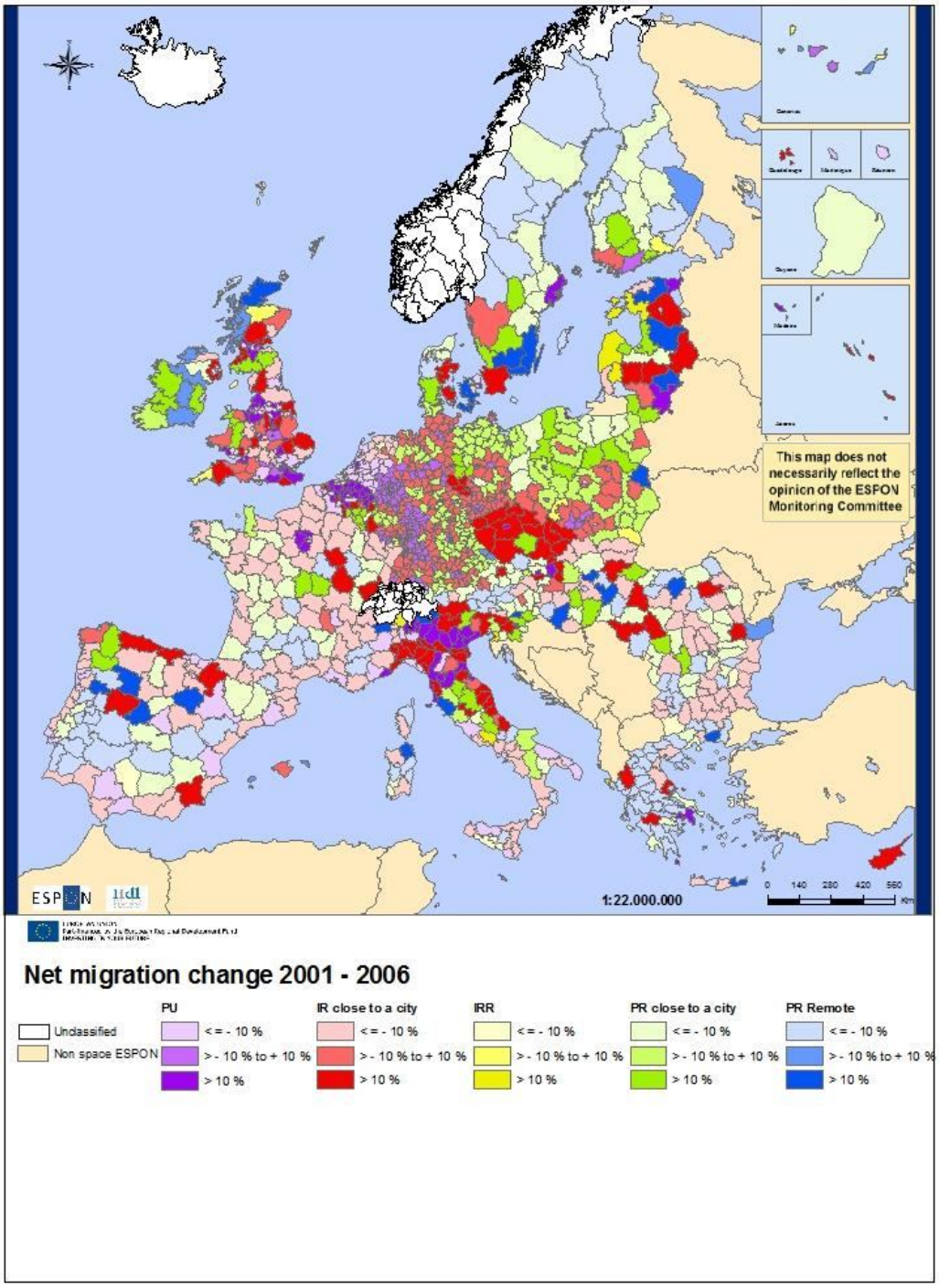
3.4.5 Mobility of the population: net migration change 2001-2006

This map expresses the spatial distribution of the Net Migration Change results for the period 2001-2006 at the NUT3 level. Simplifying, the map can be divided in two parts: Occidental part (low NMC rates, less changeable) and Oriental part –except in some spots from the South- (moderate-high NMC rates, more changeable). The difference between both processes is the return of national migrants to their origin countries.

The Occidental part, as well as South Oriental part, are characterised by NMC<10%, predominantly in IRC, IRR and PRR, except in some NUT3 with change rates of more than 10%.

The Oriental part (Central Europe, North Europe -excluding North part of Scandinavian countries-, United Kingdom and Ireland) are characterised by NMC from -10% to +10% and NMC>10% among all the rural typologies. The North part of the Scandinavian countries is remarkable because of its low rates below 10% in vast regions of PRR and IRR; this is due to severe climate conditions, immigration to these places is very rare, the contrary is more common.

Map 3.5 Met migration change, 2001-2006



Source: own elaboration with data from the EDORA database

3.4.6 Formal education and skills of the population

This map reflects the distribution of the *% pop.> 15 years with ISCED 0_2 level* (lower secondary level of education) all over Europe for the year 2007. The EU 27 average is 36.6% which is a low rate since less than the half of population have basic education formation.

The distribution of IRC with more than 40% of this indicator is remarkable in the map, mainly in West and South Europe. The same happen with IRC areas with less than 30% of population older than 15 with lower secondary education level. In this case, the rate's distribution varies from East Europe, some Northern countries and United Kingdom.

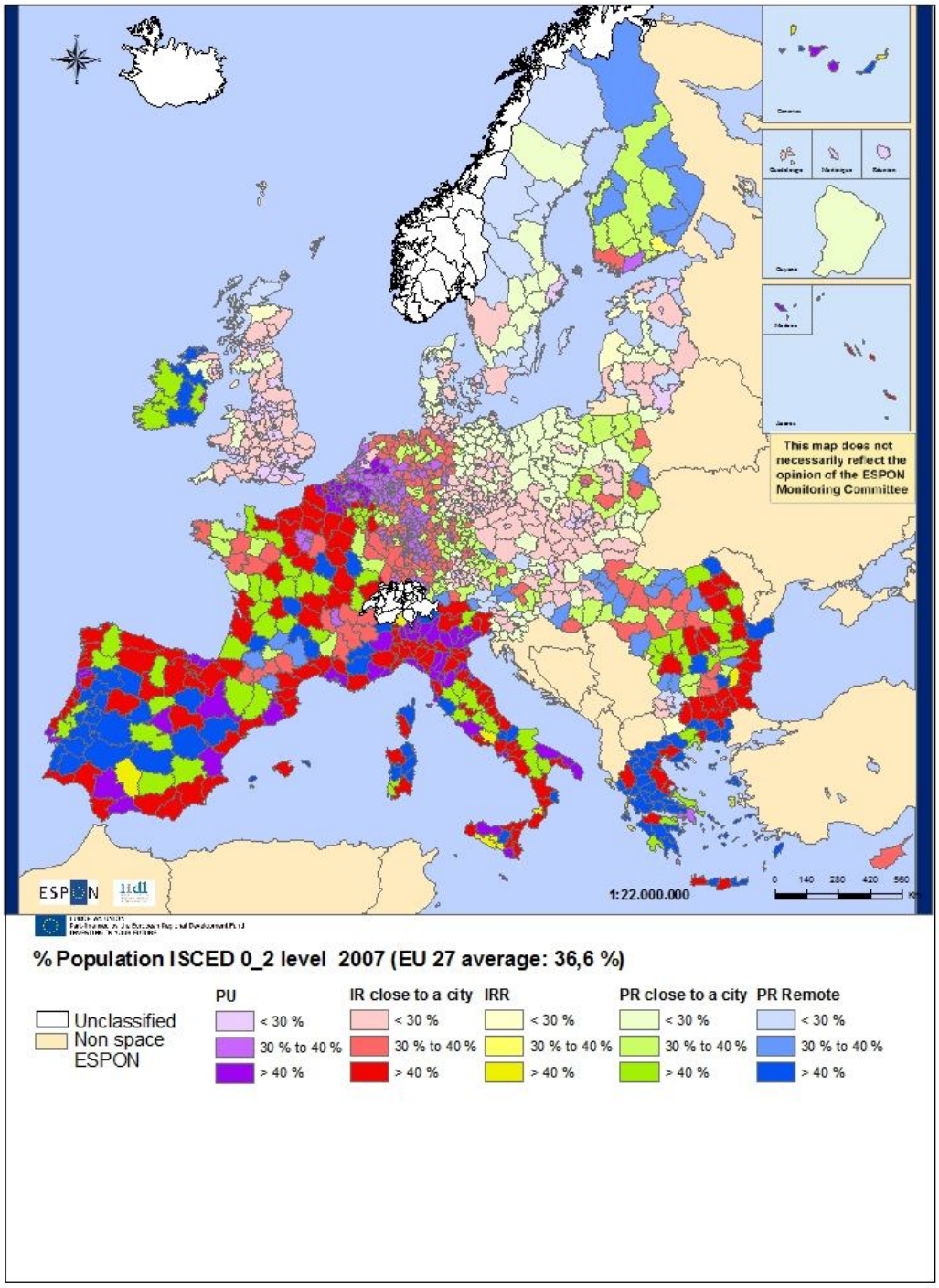
In parallel with the vast IRC distribution, PRC areas with more than 40% of the indicator have a noticeable distribution among West and South Europe and Ireland. PRC areas with results between 30-40% correspond to East Europe.

IRR areas with less than 30% of population with lower secondary level of education (the important ones in this map) are distributed in North Europe. This is due to the high education standards of those countries, where population structure have a third education level profile.

Following the distribution path of the indicator, PRR with more than 40% of the rate are situated in South Europe and Ireland, rates between 30-40% correspond to East Europe and Finland while rates less than 30% belong to North Europe.

In Urban areas the significant results are for rates of more than 40% of population with lower secondary level of education, distributed in South Europe, and rates between 30-40% distributed in the North coast of Central Europe.

Map 3.6 % of population 15 or more years with ISCED 0-2 level, 2007



Source: own elaboration with data from the EDORA database

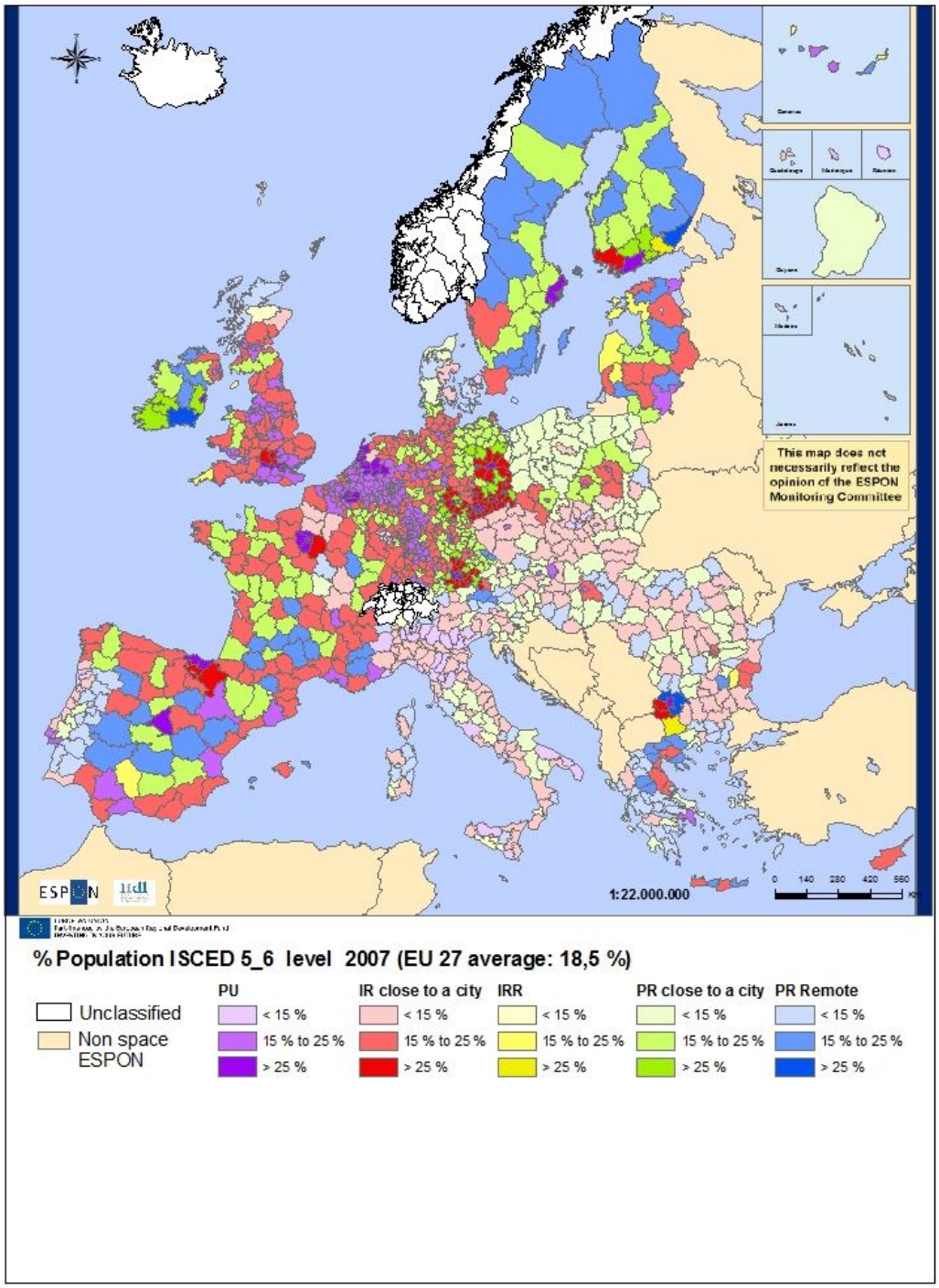
Map 3.7 reflects the distribution of the *% pop.> 15 years with ISCED 5_6 level* (third level of education) all over Europe for the year 2007. The EU 27 average is 18.5%, lower than for the indicator of the ISCED 0_2 level. It does not means that European citizens have low educative qualification since there are a lot of play role factors, as the recent adhesion to the UE of other countries with less education opportunities and/or investments.

Central Europe, South Europe –except Italy-, Ireland, United Kingdom and Scandinavian countries present the highest rates of this indicator due to their developed education policies and the funds distribution towards the education sector. It is a sign of first economies countries with basic services achieved.

Referring to rural typologies, PU and IRC (except in the case of North Europe due to their territorial particularities: PRC and PRR areas are predominant) concentrate the highest rates of % pop.> 15 years with ISCED 5_6 level.

East Europe presents rates less than 15% for this indicator, classified in four different typologies: IRC, IRR, PRC and PRR. Countries from this part of Europe are gradually evolving in the entire social and economical sectors and they are achieving better and stronger policies, as for instance education.

Map 3.7 % of population 15 or more years with ISCED 5-6 level, 2007



Source: own elaboration with data from the EDORA database

CHAPTER 4.
EMPLOYMENT

Unemployment rates represent unemployed persons as a percentage of the active population of the same age. Unemployed people, according to the International Labour Organisation (ILO) criteria, are those persons aged 15 and over who are: (i) without work, (ii) available to start work within the next two weeks and, (iii) have actively sought employment at some time during the previous four weeks or have found a job to start later (Daguerre A., 2002, *Labour market and unemployment in the European Union*, note 2, p.3, University of Kent)[4]. In general, unemployment rates are higher in disadvantages groups as women, youth and disabled people. Those groups suffer stronger the lack of employment or the bad labour conditions.

In this Report, unemployment rate data are shown referring to the year 2007. Economics' rates might not be understood making an isolated analysis for one year period because they are related to change flows over time. Hence, economics' evolution is a key factor to figure out economics' indicators. Unemployment rate was a bit stuck from 2002 to 2005 and from then on, it decreases drastically till 2008, when it starts to rise again in relation to the global economic crisis starting in mid 2008 (Euro indicators, 2009, *Euro area unemployment rate stable at 9.8%*, see graphs, Eurostat)[5]. Hence, 2007 was a year of low unemployment rates comparing to the indicator's evolution, so as it meant a year with an increased employment rate (Massarelli N., 2009, *Persisting weakness in the EU labour market*, Chart 1. Employment and unemployment. EU-27. Seasonally adjusted, Eurostat)[6]. High unemployment rates in regions in the new Member States are on the decrease. (Martins P., 2007, *New Member States contribute to reducing unemployment in Europe*, p.2, Statistics in Focus, Eurostat)[7].

4 http://www.kent.ac.uk/wramsoc/workingpapers/firstyearreports/backgroundreports/labourmarketbackgroundreport.pdf)

5 http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/3-01122009-AP/EN/3-01122009-AP-EN.PDF

6 http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-09-087/EN/KS-SF-09-087-EN.PDF

7 http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-07-124/EN/KS-SF-07-124-EN.PDF

4.1 Comparative analysis of relevant data and indicators by country with reference to the EU27 average

4.1.1 The impact of unemployment in national economies

The unemployment rate in 2007 for EU-27 shown on this table is 7.63. A commented above, comparing to other periods, this is a low outcome for the unemployment. There are no data for Turkey, Y.R. Macedonia, Switzerland, Liechtenstein, Slovenia, Iceland and Denmark.

Low rates of unemployment correspond to industrialised countries with a growing and healthy economy as Northern European countries (Norway and Lithuania) and Central European countries (Nederland, Austria, Luxembourg), as well as the striking cases of Cyprus and Ireland; both countries are manufacturing and service economies, where lower unemployment rates are frequently significant ((see Ireland Country Profile Draft Report, EDORA) & (Department of Enterprise, Trade and Investment, 2007, *Northern Ireland's unemployment rate remains low*, Northern Ireland Executive))[8].

There are several heterogenic countries with moderate unemployment rate: Estonia (with 5.06% of unemployment), United Kingdom, Czech Republic, Latvia, Sweden, Malta, Italy, Portugal, Romania and Belgium (with 7.23 of unemployment, closed to the EU 27 average). There is not a specific socio-political pattern that explains those results due to the different realities of each of these countries. Traditionally, Northern and Central European countries have had higher labour productivity levels than ex-socialist countries and Southern countries, as well as a technological labour market instead of agricultural (Daguerre A., 2002, *Labour market and unemployment in the European Union*, note 2, p.5, University of Kent)[9].

The highest rates in unemployed correspond to Finland, Hungary, France, Spain, Germany, Bulgaria, Greece, Poland, Croatia, and Slovakia. There is a trend in the labour market philosophy towards part-time jobs, jobs per hour and self-employment, which is associated with low incomes and under-employment (see Copus et al, 2009, EDORA, *Rural employment*, p.7, The ESPON 2013 Programme) This trend leads to precarious labour situations and finally it has a direct effect on the rise of long-term unemployment rates.

Some Southern countries as well as some ex-socialist countries have in common traditional cultures. It affects the women society role, pushed her into the background in the labour market (black economy, worse paid jobs than men, problems with maternity leave, etc.). It should be mentioned that this phenomenon increases in rural areas.

Nowadays, women role is improving thanks to women right campaigns. For instance, in Northern countries the trend is that they remain for a long time on the formation period (reaching university level) and delaying the insertion to the labour market. All those factors (as

[8] http://www.northernireland.gov.uk/news/news-deti/news-deti-april-2007/news-deti-180407-northern-irelands-unemployment.htm)

[9] http://www.kent.ac.uk/wramsoc/workingpapers/firstyearreports/backgroundreports/labourmarketbackgroundreport.pdf

positive as negative) contribute to increase unemployment rate among women and, as a consequence, it should be considered on the total unemployment rate.

Table 4.1 Unemployment rate (pop. > 15 years) 2007, by country

	Unemployment rate (pop.> 15 years) in 2007
SLOVAKIA	10.96
CROATIA	10.46
POLAND	9.65
GREECE	9.36
BULGARIA	9.11
GERMANY	8.86
SPAIN	8.55
FRANCE	8.36
HUNGARY	8.04
FINLAND	7.96
EU 27	**7.63**
BELGIUM	7.23
ROMANIA	7.16
PORTUGAL	7.11
ITALY	6.51
MALTA	6.40
SWEDEN	6.24
LATVIA	6.12
CZECH REPUBLIC	5.44
UNITED KINGDOM	5.23
ESTONIA	5.06
IRELAND	4.61
LITHUANIA	4.52
LUXEMBOURG	4.10
CYPRUS	3.90
AUSTRIA	3.61
NEDERLAND	3.22
NORWAY	2.56
DENMARK	NA
ICELAND	NA
SLOVENIA	NA
LIECHTENSTEIN	NA
SWITZERLAND	NA
Y.R. MACEDONIA	NA
TURKEY	NA

Source: own elaboration with data from the EDORA Database

4.1.2 Economic structure: employment by sector of activity

The employment growth rate is determined by the sectorial structure. Nowadays in the EU 27, the **primary sector** accounts for less than 10 per cent of total employment (exactly 7.98%), in a third of rural regions its share is less than 5 per cent. However, in more remote rural areas of the Central and Eastern European Countries this sector still covers 25 per cent of the whole working force (see Copus et al, 2009, EDORA, *Rural employment*, p.18, The ESPON 2013 Programme) There are no data for Turkey, Y.R. Macedonia, Switzerland and Liechtenstein.

Employment in services is now the largest of the three sectors in all three region types. As shown on the table, the majority of countries have primary sector employment rates below the EU 27 average, which means that their economies tend more to secondary or tertiary sector structure than primary sector. Such is the case of some countries, with primary sector rates less than 5 per cent of the total employment, as Luxembourg, United Kingdom, Germany, Sweden, Denmark, Belgium, Malta, Nederland, Czech Republic, Slovakia, Norway and Cyprus. The majority of those countries have passed a long industrialised and technological history era. The rest (as Malta, Czech Republic, Slovakia and Cyprus) have accelerated their reconversion into the capitalism system since their annex to the EU; today, most of them are tourist attractive places and most of the country's GDP comes from tourism.

Above 5% but below EU 27 average the followed countries are targeted: France, Italy, Hungary, Estonia, Finland and Ireland (this last one has a rate of primary sector employment of 7.56% of the total employment, closed to the EU 27 rate). The characteristic rurality of those countries predicts an economy based partially on the resources use productivity. At any rate, as far they are industrialised countries tertiary and secondary sectors occupy a big proportion of the total employment.

Moderate percentage of primary sector employment over the total employment, and above EU 27 rate, correspond to Spain (8.01%), Iceland, Croatia, Slovenia and Latvia (15.42%). Rurality, as well as pristine and diverse landscapes (in some cases), turn them into (eco)-tourism attractions and it enhances primary sector activities.

Rates of more than 18% of primary sector employment are for Poland (18.12%), Austria (18.31%), Lithuania, Portugal, Greece, Bulgaria and Romania (35.65%). To a great extent, rural areas are predominant among the territory of those countries, so primary sector activities are involved in the labour market economy of each of these countries. Some of them have not done yet the transition towards a high-technologic society, so tertiary sector is restricted (based primarily on the tourism)

Table 4.2 % of employed in the primary sector 2007, by country

	% Employment in primary sector
ROMANIA	35.65
BULGARIA	25.14
GREECE	22.00
PORTUGAL	20.17
LITHUANIA	18.94
AUSTRIA	18.31
POLAND	18.12
LATVIA	15.42
SLOVENIA	12.46
CROATIA	9.25
ICELAND	8.53
SPAIN	8.01
EU 27	**7.98**
IRELAND	7.56
FINLAND	7.42
ESTONIA	7.27
HUNGARY	6.18
ITALY	5.92
FRANCE	5.29
CYPRUS	4.90
NORWAY	4.80
SLOVAKIA	4.68
CZECH REPUBLIC	4.33
NEDERLAND	4.26
MALTA	4.17
BELGIUM	3.60
DENMARK	3.44
SWEDEN	3.38
GERMANY	3.12
UNITED KINGDOM	2.17
LUXEMBOURG	1.30
LIECHTENSTEIN	NA
SWITZERLAND	NA
Y.R. MACEDONIA	NA
TURKEY	NA

Source: own elaboration with data from the EDORA Database

The **secondary sector** is the economic sector which activities produce manufactured goods from primary sector outputs. Activities such construction and manufacturing are included in this kind of economic sector. Old industrialised countries, with long trajectory of goods exportation, such ex-socialist countries are characterised by high secondary sector employment rates. The EU 27 average rate for this indicator represents the 26.71% over the total employment, so it does not represent even the half of the total employment of the EU economy. There are no data for Turkey, Y.R. Macedonia, Switzerland and Liechtenstein.

Low rates for secondary sector employment (less than 23%) belong to Greece, Cyprus, Norway, Denmark, United Kingdom, Luxembourg and Belgium. Both first cases are catching because of

their particular rurality and moderate GDP, but they lean toward tertiary sector (major in the case of Cyprus). The rest countries base their economies on tertiary sectors, helped by high-tech infrastructure, and nourished by basic good imports, being potentially dependant on primary and secondary activities of other countries.

Table 4.3 % of employed in the secondary sector 2007, by country

	% Employment in secondary sector
CZECH REPUBLIC	41.24
SLOVENIA	38.57
ESTONIA	36.14
HUNGARY	35.72
SLOVAKIA	35.16
CROATIA	32.98
IRELAND	30.32
ROMANIA	29.96
ITALY	28.86
LITHUANIA	28.77
SPAIN	28.71
PORTUGAL	28.67
BULGARIA	28.51
GERMANY	28.15
FINLAND	27.29
POLAND	27.26
EU 27	**26.71**
ICELAND	26.36
LATVIA	25.87
MALTA	25.07
SWEDEN	24.74
AUSTRIA	24.38
FRANCE	23.46
NEDERLAND	23.16
BELGIUM	22.52
LUXEMBOURG	21.43
UNITED KINGDOM	21.20
DENMARK	20.79
NORWAY	20.40
CYPRUS	20.16
GREECE	19.49
LIECHTENSTEIN	NA
SWITZERLAND	NA
Y.R. MACEDONIA	NA
TURKEY	NA

Source: own elaboration with data from the EDORA Database

Moderate rates below EU 27 average imply countries as: Nederland (23.16%), France, Austria, Sweden, Malta (25%), Latvia and Iceland (there is a 26.36% of employment in secondary sector) Similar explanation than the above commented can be applied for these results. Malta and Iceland are remarkable, as they are islands so because of their condition, they are more isolated from the European territory. Malta's economy is dependent on foreign trade, manufacturing - especially electronics and pharmaceuticals - and tourism (2009, The World

Factbook, *Economy of Malta*, Central Intelligence Agency –CIA-, https://www.cia.gov/library/publications/the-world-factbook/geos/mt.html) Similar facts happen in Iceland.

Moderate-high rates, above EU average, pertain to Poland (27.26%), Finland, Germany, Bulgaria, Portugal, Spain, Lithuania and Italy (28.86%) This economic sector does not represent a high percentage from the total employment, but manufacturing and construction are relevant and contribute to the country's GDP. Some of them (e.g. Bulgaria and Lithuania) are in a transition process towards services and high-tech industries.

The majority of the ex-Yugoslavian countries (Romania, Croatia, Slovenia and Czech Republic) and some ex-socialist countries (Slovakia, Hungary and Estonia) possess the highest rates of secondary sector employment, as it can be seen in the table results. Ireland is the conspicuous case of this group, with a 30.32% of secondary sector employment over the total employment. It has suffered a transition from agriculture to services and high-tech industries, based on a knowledge economy, and it is dependent on trade, industry and investment (Hill K. & all, 2005, Lessons from the 'Irish Miracle', W.P. Carey School of Business, http://wpcarey.asu.edu/seidman/reports/ireland.pdf).

Among the EU economic sectors, **tertiary sector** enjoy the highest employment proportions. It advocates for services (tourism, high-tech enterprises, catering trade, etc.) The EU 27 rate for tertiary sector employment is 65.31% over the total employment, so more than a half of employment in Europe is set for tertiary sector. Countries like the Scandinavians and Central European countries (as Germany, France, Nederland, etc.) influence on those results. There are no data for Turkey, Y.R. Macedonia, Switzerland and Liechtenstein.

Most of the ex-socialist countries, as well as some Southern countries have low rates of employment in tertiary sector (below 60%): Romania, Bulgaria, Slovenia, Portugal, Lithuania, Czech Republic, Poland, Estonia, Austria, Croatia, Hungary, Greece and Latvia. Those results match with the ones from the primary and secondary sector tables; primary and secondary activities are more competitive and occupy more prominence in the economy of ex-socialist countries and Southern ones.

Moderate rates, below EU 27 result, are distributed in a heterogenic way in countries as Slovakia (60.16%), Ireland, Spain, Iceland, Italy and Finland (65.29%). Partially this is due to their rural typologies configuration and the still importance of primary and secondary sector. Finland has a rate closed to EU 27 average because Finland's economy is basically based on high-tech services and wood manufacturing, management and monitoring; it does not raise high rates because of the inhospitable climate conditions of the North part where only seasonally there are economic incomes (winter tourism)

Central countries and Scandinavian ones (except Finland) reach high rates of employment in the tertiary sector (the highest one is 77.27% in Luxembourg) due to the long economy growth trajectory, focusing on knowledge economy, high-tech services and importation of basic goods.

Climate conditions are a handicap for those countries that limit them over the primary activities.

Table 4.4 % of employed in the tertiary sector 2007, by country

	% Employment in tertiary sector
LUXEMBOURG	77.27
UNITED KINGDOM	76.63
DENMARK	75.77
CYPRUS	74.93
NORWAY	74.80
BELGIUM	73.88
NEDERLAND	72.57
SWEDEN	71.88
FRANCE	71.26
MALTA	70.76
GERMANY	68.72
EU 27	**65.31**
FINLAND	65.29
ITALY	65.21
ICELAND	65.12
SPAIN	63.29
IRELAND	62.12
SLOVAKIA	60.16
LATVIA	58.71
GREECE	58.51
HUNGARY	58.10
CROATIA	57.78
AUSTRIA	57.31
ESTONIA	56.59
POLAND	54.63
CZECH REPUBLIC	54.43
LITHUANIA	52.29
PORTUGAL	51.16
SLOVENIA	48.97
BULGARIA	46.35
ROMANIA	34.39
LIECHTENSTEIN	NA
SWITZERLAND	NA
Y.R.MACEDONIA	NA
TURKEY	NA

Source: own elaboration with data from the EDORA Database

4.1.3 High technology in the labour market

High and medium technologies manufacturing (HMHT) are further focused on product innovation instead of process innovation (more typical of Low-medium technologies manufacturing -LMT-). Product innovation produces different innovation effects as: increased range of goods and services, new markets or increased market share and improved quality in goods or services. Nowadays, there is a prevalence of LMT over HMHT, which means that flexibility of production or reduced labour costs are more important than an increased range of goods and services and access to new markets.

LMT are concentrated in low-wage industrialised countries, with below-average growth rates, as less prosperous Central and Eastern European countries, as well as Portugal and Italy. HMHT are correlated with high-wage regions that have concentrated on advanced knowledge-based services (situated in metropolitan regions because of their higher economic potential).

Knowledge-intensive services and highly qualified employees have a strong positive influence on regional economic performance, correlated with the level of employment. One to point out is that the different innovation pattern between HMHT and LMT may have an ambiguous effect on income and employment due to its cost-cutting nature, since LMT are an important employment sector and an important prerequisite for the development of high- and medium-high-technology industries. (Heidenreich M., 2008, *Innovation patterns and location of European low- and medium-technology industries*, European Studies in Social Sciences, University of Oldenburg, Elsevier B.V.)[10].

In 2004, the result of this indicator in EU 27 is outright positive: there was a 107.13% of employment in high and medium technologies manufacturing. The employment rate in this kind of industry sector was completely covered. Eastern and Central European countries reinforced this result thanks to their wager towards innovation and the replacement from LMT to HMHT in Eastern Europe, taking advantage of the collateral opportunity investments. There are no data for Turkey, Switzerland, Liechtenstein, Iceland, Norway, Romania, Bulgaria and Croatia.

Employment in HMHT below 90% rates correspond to Greece (very low rate of 18.05%), Cyprus, Luxembourg, Y.R. Macedonia, Latvia, Portugal, Lithuania (45.77%), and countries where there is half or more than a half of employment in HMHT like Estonia, Spain, Nederland and Poland (72.06%) The majority of these countries have above-average growth rates but they do not fund R&D (Research & Development) investments as much as they could.

The next group of countries has rates above 90% of employment in HMHT but not reaching EU 27 average. This group is made up of Denmark (92.45%), Malta, Ireland, Austria, Belgium, Finland, United Kingdom, France and Italy (101.97%). Most of them are Central European countries. Almost all of the countries of this group pertain to high-wage economies and they are characteristic by having advanced, knowledge-based metropolitan areas, investing in R&D,

[10] http://www.sozialstruktur.uni-oldenburg.de/en/download/heidenreich_2008_Innovation_patterns_and_location_of_European_low-_and_medium-technology_industries.pdf

new markets and improving goods and materials. This high-tech framework permit to install HMHT manufactories and it requires a considerable amount of labour force.

Table 4.5 Employment in high and medium technologies manufacturing (2004)

	Employment in high and medium technologies manufacturing (2004)
GERMANY	164.68
SWEDEN	140.03
CZECH REPUBLIC	137.35
SLOVENIA	135.05
HUNGARY	131.10
SLOVAKIA	122.34
EU 27	**107.13**
ITALY	101.97
FRANCE	97.78
UNITED KINGDOM	97.36
FINLAND	95.70
BELGIUM	94.63
AUSTRIA	94.12
IRELAND	93.94
MALTA	92.75
DENMARK	92.45
POLAND	72.06
NEDERLAND	62.28
SPAIN	60.96
ESTONIA	50.60
LITHUANIA	45.77
PORTUGAL	40.47
LATVIA	27.95
Y.R. MACEDONIA	27.95
LUXEMBOURG	20.54
CYPRUS	18.73
GREECE	18.05
CROATIA	NA
BULGARIA	NA
ROMANIA	NA
NORWAY	NA
ICELAND	NA
LIECHTENSTEIN	NA
SWITZERLAND	NA
TURKEY	NA

Source: own elaboration with data from the EDORA Database

Above EU average and reaching very high rates of employment in HMHT, the leader countries in HMHT and LMT are: Slovakia (122.34%), Hungary, Slovenia, Czech Republic, Sweden and Germany (164.68%) Those manufactories have been contracting, especially in Western Europe, and relocating to Eastern Europe, taking advantage of the lower labour cost in Eastern Europe.

(Heidenreich M., 2008, *Innovation patterns and location of European low- and medium-technology industries*, p.9-11, European Studies in Social Sciences, University of Oldenburg, Elsevier B.V.)[11].

[11] http://www.sozialstruktur.uni-oldenburg.de/en/download/heidenreich_2008_Innovation_patterns_and_location_of_European_low-_and_medium-technology_industries.pdf

4.2 Comparative analysis of relevant data and indicators by non-exclusive groups of countries

4.2.1 The impact of unemployment in national economies

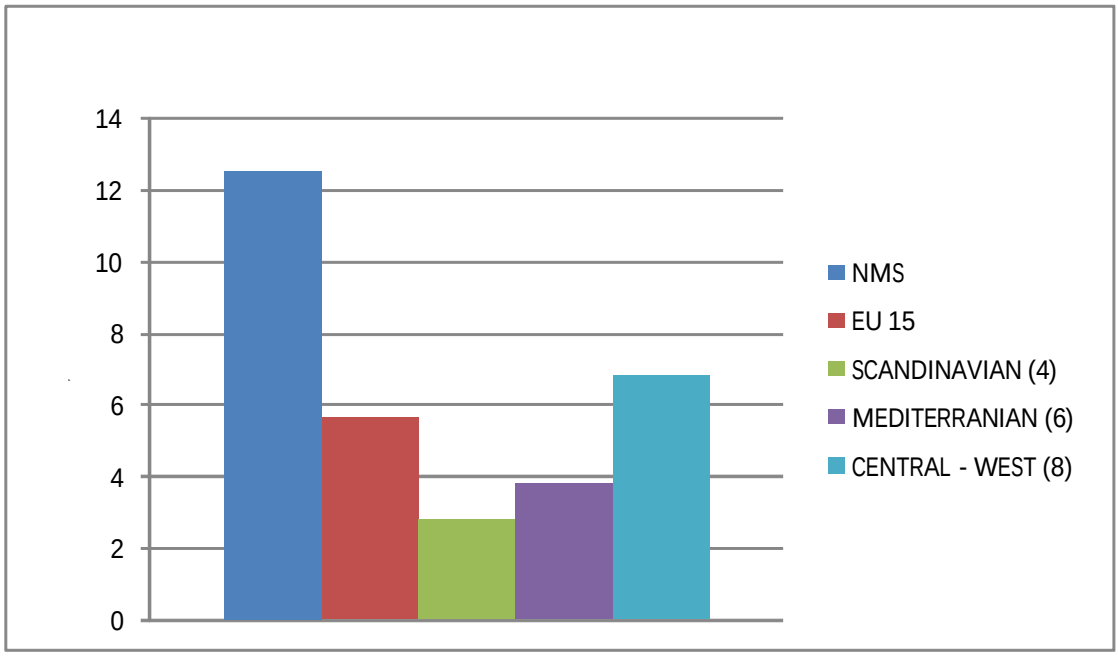
The highest unemployment rate in 2007 belongs to the NMS Members and it raises a percentage around 12.5%, more than 6% than EU 15 unemployment rate. Nowadays, NMS and EU 15 unemployment rates narrow the gap between them because productivity system of NMS is increasing, and so is the employment (slightly in the case of women and youth cases)

Central-West countries possess higher unemployment rates (around 6.5%) than Mediterranean (approximately a 2% less) and Scandinavian (approximately a 3% less). The figure of Germany (in the case of Central-West countries) and Spain (in the case of Mediterranean countries) swell the results for this rate of each country's group.

Long-term unemployment, part-time job, unequal gender access and conditions to work supplies, low pensions…in sum, unstable situations, are common labour conditions in the present labour market of modern societies and influence negatively in the employment supply.

Obviously, unemployment analysis has to be updated to the new circumstances as a consequence of the current global financial crisis causing higher unemployment rates that are expected to remain over the next few years. The current financial crunch and the loss of employment, linked to high debts, high prices, etc., is causing triggered effects on social and economical problems.

Figure 4.1 Unemployment rate, 2007



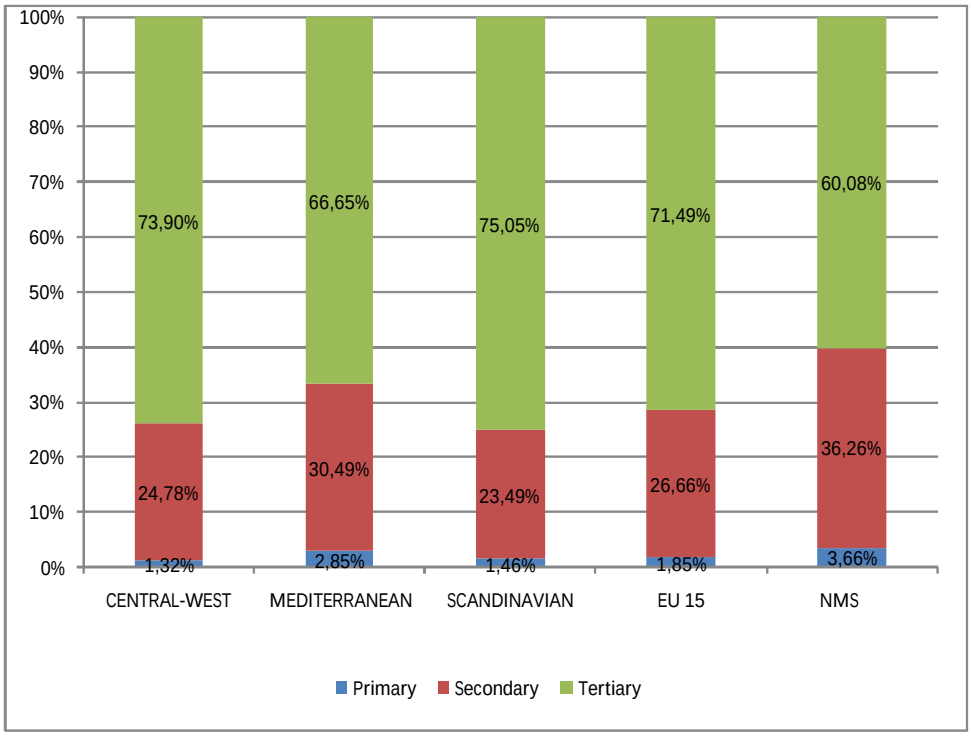
Source: own elaboration with data from the EDORA Database

4.2.2 Economic structure: employment by sector of activity

The European Union is predominantly a tertiary economy, so secondary and primary sectors represent less proportion among the economic sectors and the productivity growth. Concretely, in the EU-15 there is a 71% of employment in tertiary sector, more than the half than in the secondary sector, being the primary sector the one with less representation, which does not arrive to 2%.

The results for the employment proportion in primary sector drive to a similar behaviour over the percentage rates among the Central-West and Scandinavian countries with a decrease of around 22-23% respect to the employment proportion in secondary sector. However, in NMS Members and Mediterranean countries there is, respectively, around a 32% and 27% less of the employment rate in primary sector over the secondary sector; primary and overall secondary sector are stronger in these group of countries than in the rest. Exportation of primary goods in an International scale contributes to the GDP of those areas. Nevertheless, as time goes by, employment in primary sector is decreasing, and cheap labour force (immigrants) is replacing national labour force because of the hard and discredited labour conditions in the primary sector.

Figure 4.2 % of employed by economic sector, 2005



Source: own elaboration with data from the EDORA Database

In NMS manufacturing and construction prevail over services because they suffered an economic transition period since their annex to the EU, putting a lot of effort on increase their

productivity and opening internationally their market trade. Process is still running for those countries and results are increasingly positive.

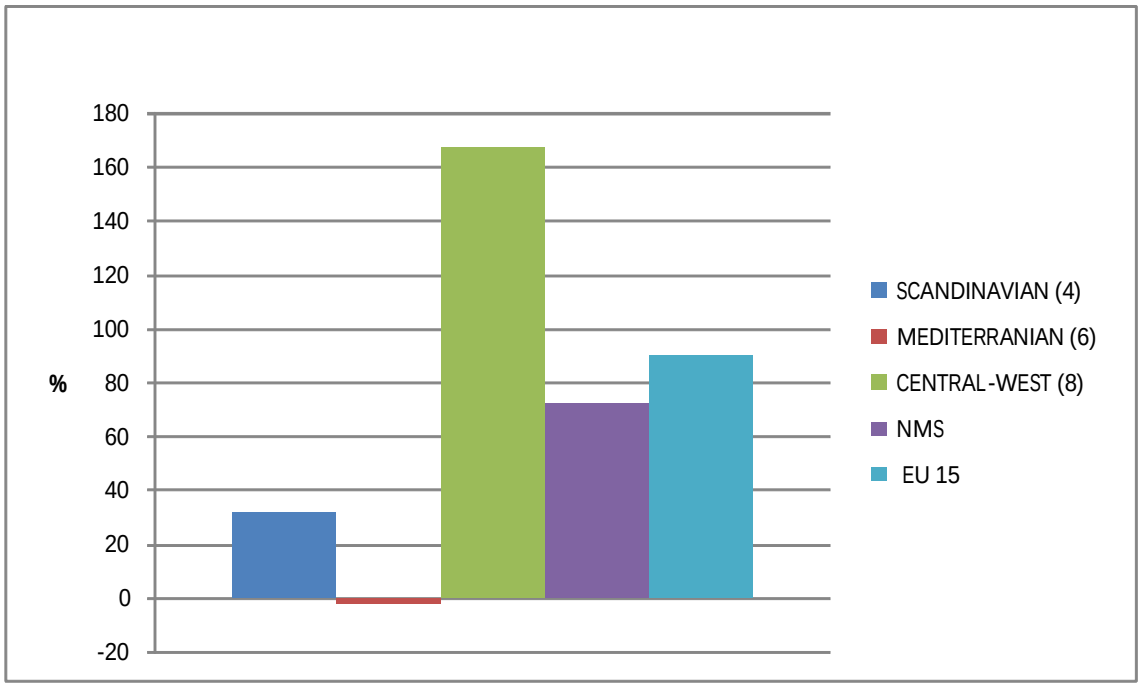
Those processes have their consequences on the employment rate in the tertiary sector, as in Mediterranean and NMS countries (representing 10% less employment rate than in Central-West and Scandinavian countries –which rates are 74% and 75% respectively-). It manifests the tertiary sector structure of Old Member States, more focused over knowledge economy and high-tech industries, which activities and employment rates are less seasonally dependant than tourism.

4.2.3 Evolution of unemployment 2002-2005

New Member States, or NMS, evolves diminishing the unemployment rates between 2002 and 2005 (their rate is approximately 75%) They are reaching EU rates, although they have still high unemployment rates.

On the other hand, EU 15 unemployment increases from 2002 to 2005 until 85%; this is partly due to Central West influence (high increase in the evolution of unemployment in that period around 165%), specifically the influence of Germany on the results because it has a notable weight in the representation of the Central West countries. Scandinavian countries have 30 times more unemployment in 2005 than in 2002, affected by Swedish positive evolution of the unemployment rates. Several factors play role in those processes: since precarious jobs and education level till migration deregulation policies.

Figure 4.5 Evolution of unemployment, 2002-2005



Source: own elaboration with data from the EDORA Database

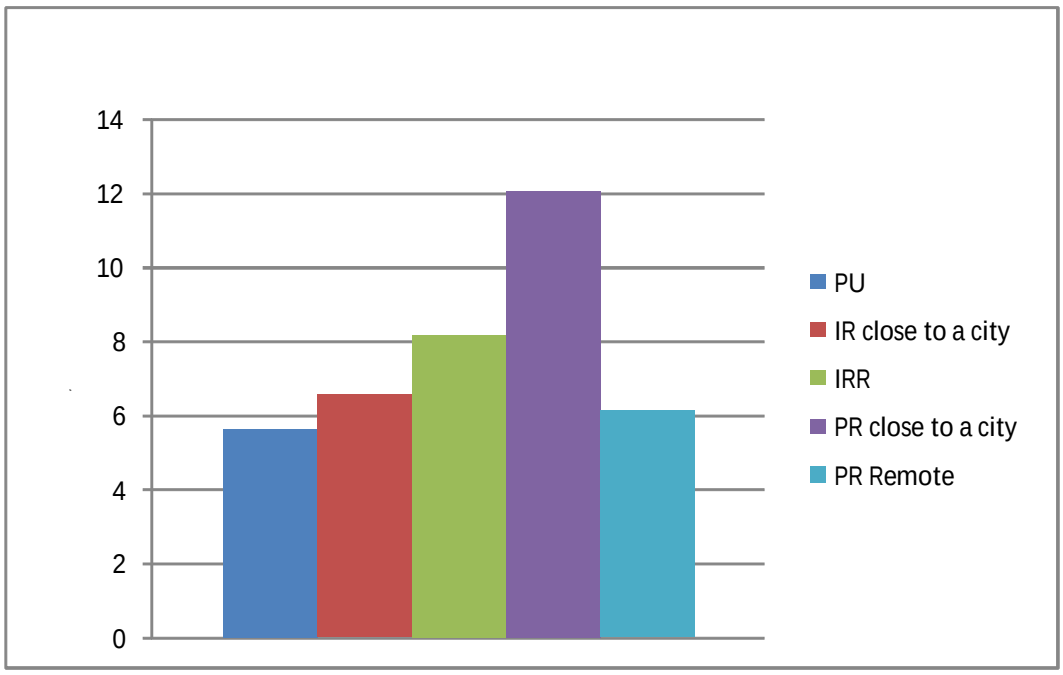
In opposition to those results, Mediterranean countries possess negative results below 0 (around -2%), which mean a decrease of unemployment evolution rate between 2002 and 2005. For this European area, results are positive since in 2005 unemployment decrease and as a consequence, employment increase. This could be explained by a higher tourism demand over those countries and a major activity role of the construction sector. Furthermore, it must be pointed out that countries such Spain, posses one of the highest rates of unemployment and one of their targets is to balance this rate (i.e. to decrease it) till European levels, so efforts put into it are visible through this result (but it has to be taken into account, anyway, that unemployment is still high in these Mediterranean countries)

4.3 Comparative analysis of relevant data and indicators by categories in the Dijkstra-Poelman rural-urban typology

4.3.1 The impact of rurality and accessibility in unemployment

In 2007, unemployment was low comparing to other years so high rates were not reached. Respect to rural typologies, the highest unemployment rate (12%) was in PRC areas, followed by 8% of unemployment in IRR. In a descendent order of results, IRC had around 6.5%, PRR had 6% of unemployment and PU had the lowest rate from all the rural typologies, a rate closed to 6%. As commented on the table for unemployment rate, in general, youth and women unemployment rates rise in rural areas. This phenomenon and the lower economic activity in rural areas (basically related to primary and secondary sector) influence in the unemployment rate of rural areas. Furthermore, in rural areas the social assistance referring to labour opportunities and employment search is not as wide as in metropolitan areas, or in the case it will, has not the same effectiveness. Telecommuting could be one of the alternatives to improve employment conditions in rural areas (overall for third educational level professionals), especially in the remote ones.

Figure 4.6 Unemployment rate 2007



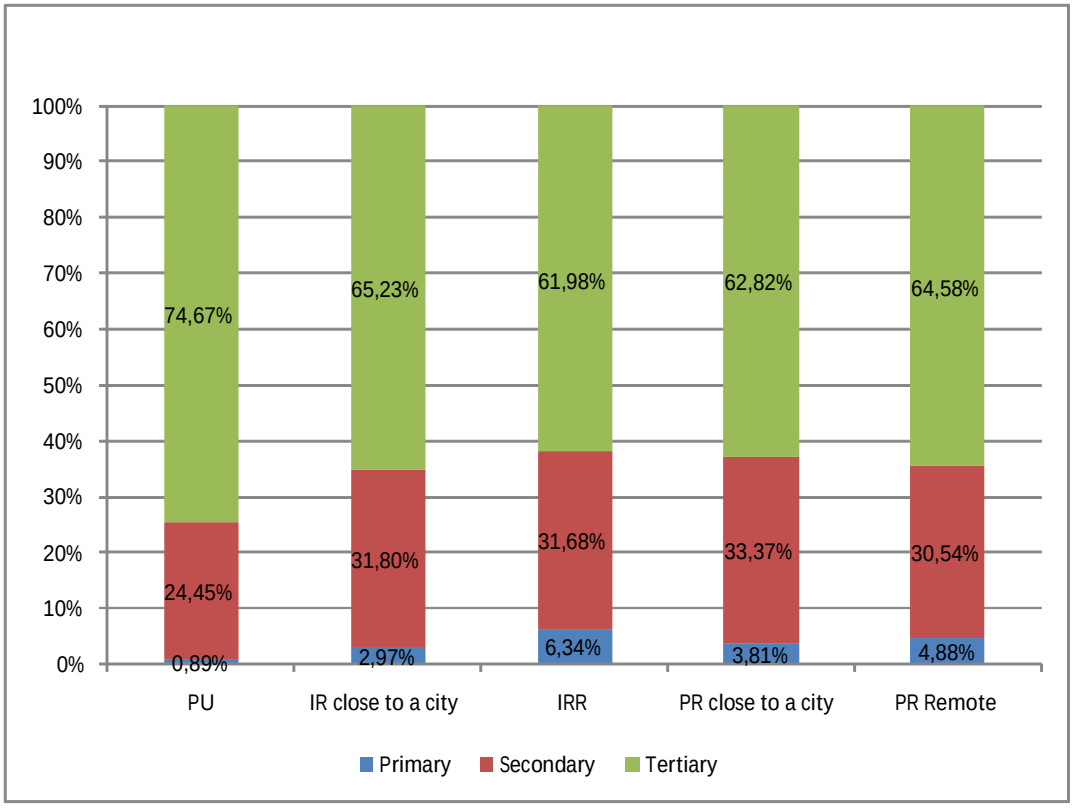
Source: own elaboration with data from the EDORA Database

4.3.2 Economic structure: employment by sector of activity

Extrapolating results and observing this graphic, one could lead to assert than productivity and economic activities are concentrated in PU and IRC areas. On the other hand, IRR and PRR are the most static population places, suffering low economy growth and productivity and hence, low employment percentage.

In 2005, the highest percentage of employment in primary sector occurred in remote rural areas (IRR had 6,34% of this indicator over the total employment, and PRR had around 5%). This sector is characterised by activities as agriculture, livestock, fishing, mining industry, apiculture, etc. The rest areas had results below 4%. Firstly, predominantly rural areas possessed higher representation on primary sector (PRC with 4%) while IRC possessed the half of % employment, and PU did not arrive to represent even 1%. It is known that urban areas are tertiary economies.

Figure 4.7 % of employment by economic sector, 2005



Source: own elaboration with data from the EDORA Database

Referring to employment in secondary sector, the highest rates are given for PRC (around 34%) and IRC (around 32%) Following the cascade of results, IRR areas have 32% (a bit less than IRC), PRR have 31% and PU areas do not reach 25%. In general, intermediate remote areas, overall the ones closed to cities, are characterised by being industrial centres due to the proximity to the city, good communication infrastructures and space capacity to build industries.

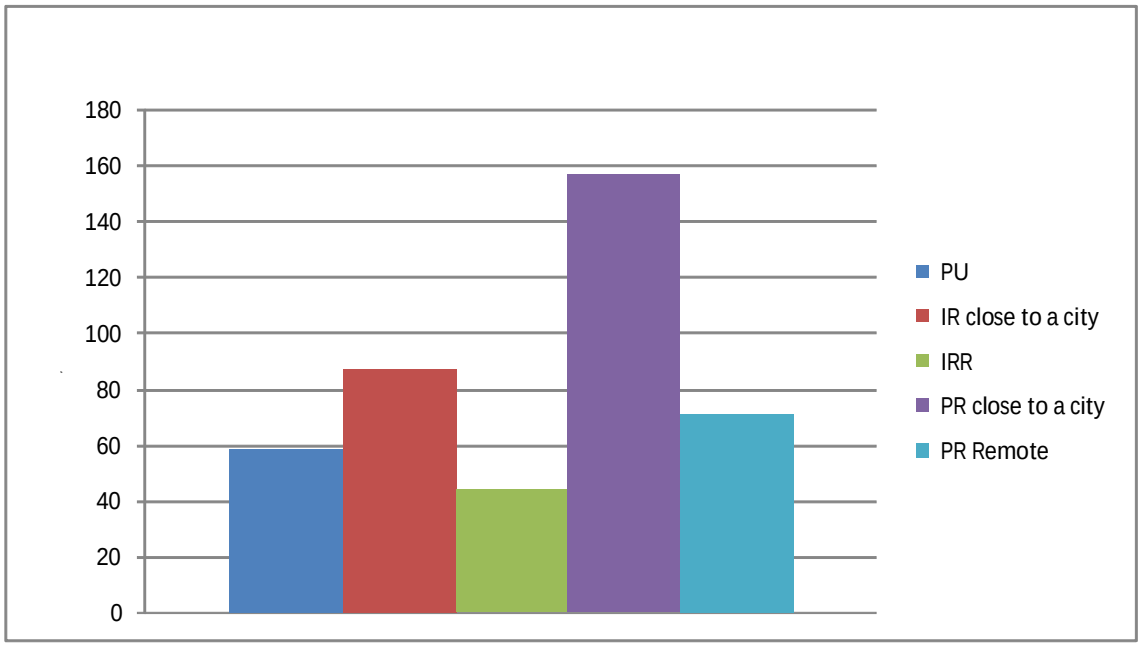
Tertiary sector is characteristic of modern and high-tech societies. Normally, urban regions are the best spheres for tertiary activities, as the graphic results demonstrate, with a rate above 75%. IRC areas have a moderate rate of 65% of employment in this sector, mainly due its connexion with metropolitan areas. The rest areas have results below 65%. Concretely, in PRR the rate is 64,6%, followed by PRC (63%) and IRR with a rate closed to 62%

4.3.3 High technology in the labour market

At the NUT3 level, from 2002 to 2005 the evolution of unemployment rate increased more in peripheral areas closed to the city than in other of the rural typologies, especially in PRC (with a rise of 158%) while in IRC is the half of this percentage, around 85%. Those results are followed by a 75% outcome for PRR areas, around 60% of unemployment rise in urban areas and approximately a 43% for IRR.

Peripheral areas configure a communication net with metropolitan areas but usually job spots are on urban areas. Peripheral areas are constituted by industrial zones; when labour force decline in the industry sector, population search for job in the cities. Furthermore, most of those areas are 'sleeping accommodation places' because of the economic accommodation advantages comparing to rent prices of metropolitan areas, but population do not usually work there. This phenomenon is noticeable nowadays.

Figure 4.9 Evolution of unemployment, 2002-2005



Source: own elaboration with data from the EDORA Database

4.4 Comparative analysis of relevant data and indicators at region level (NUT 3) for the countries covered, expressed in maps.

4.4.1 Employment by economic sector

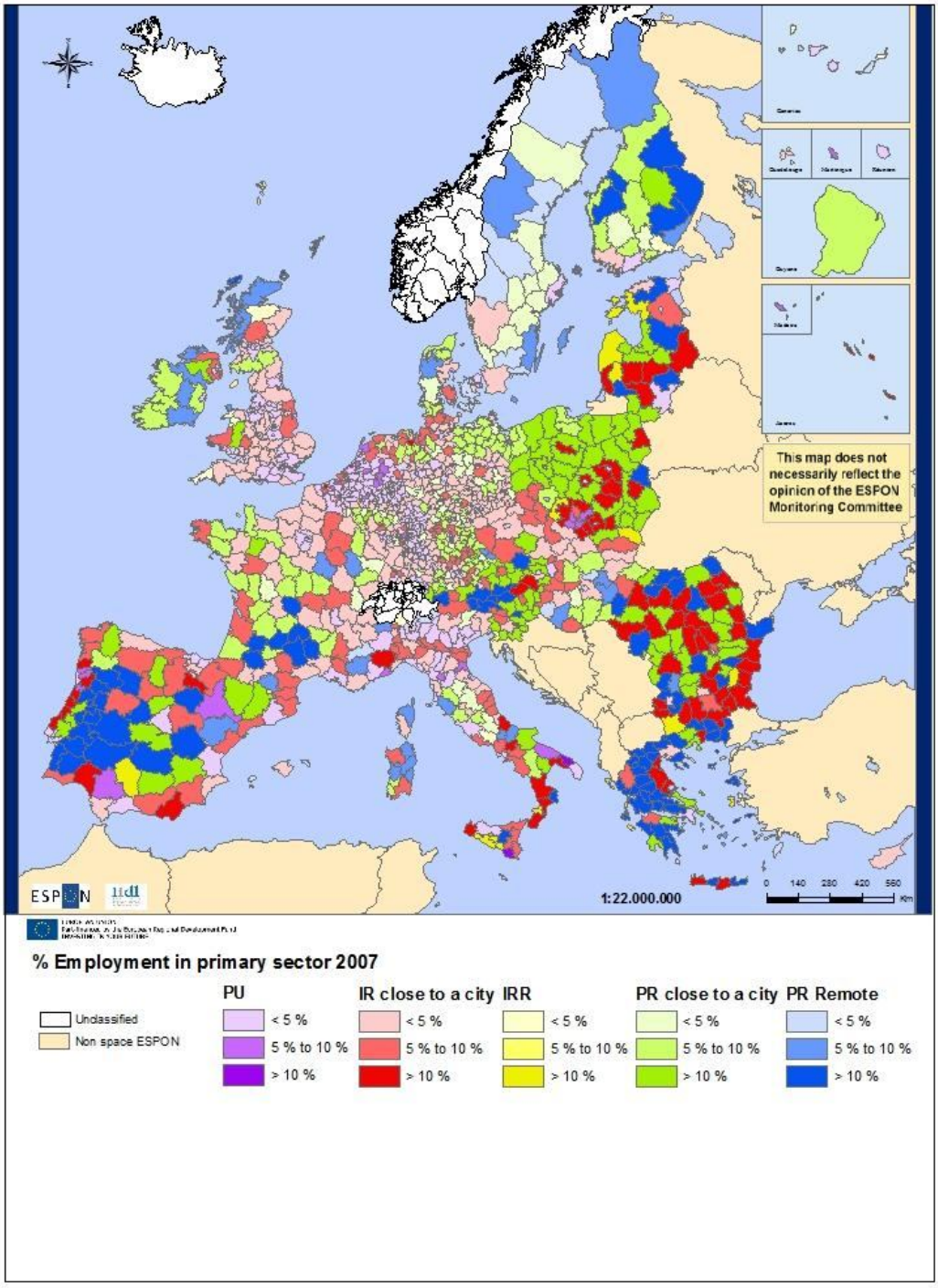
Employment in primary sector is preponderantly distributed in East Europe and some Southern European regions. In Eastern Europe high rates (>10%) of employment in primary sector correspond in order to IRC, PRC and PRR areas, as in the case of Portuguese regions.

Urban areas (PU) as well as IRR are not mainly represented in this map; so at the NUT3 level, those areas do not offer eligible percentage of employment in primary sector.

The majority of Central Europe and Anglo-Saxon zones, as well as Italy, possess extensive IRC areas with low rates (<5%) of employment in primary sector (opposite results than in map 4.3 about tertiary sector). To a lesser extent, there are PRC areas with moderate rate (5-10%)

In contrast, Scandinavian regions are dominated by PRR areas with low rates of employment in primary sector, although there are some regions (in the same group of PRR areas) with moderate rates and others with high rates (case of some South Finnish regions). PRC areas with low rates for this indicator covered part of the territory as well, and moderate rates, according to these typology areas, can be found in South Finnish regions. These results are influenced by the limitation of climate conditions and resources in the North part of those regions.

Map 4.1 Employment in the primary sector, 2007



Source: own elaboration with data from the EDORA Database

Typically industrialised areas embody this economic sector. Among the EU 27 countries, **secondary sector** manufactories are peculiarly found in Eastern regions, some Southern ones (like some regions of Italy, North and East of Spain) and Ireland. The last one has high rates of

employment in secondary sector in PRC and PRR areas over the South territory and part of the North one.

Eastern regions, mainly in South-East, are characterised by high rates (>30%) of employment in secondary sector in IRC areas. High rates for this indicator are found, as well, in PRC and PRR in lesser proportion than in IRC. North-East regions possess overall moderate rates in PRC areas and in few IRC areas.

Southern regions (excepting ex-socialist countries from the East), basically the North and East of Spain and Italy, denote high rates for this indicator in IRC areas and PU areas. Punctually, in the centre of Spain, there are some high rates in PRR and PRC. The rest zones have moderate rates in each rural typology.

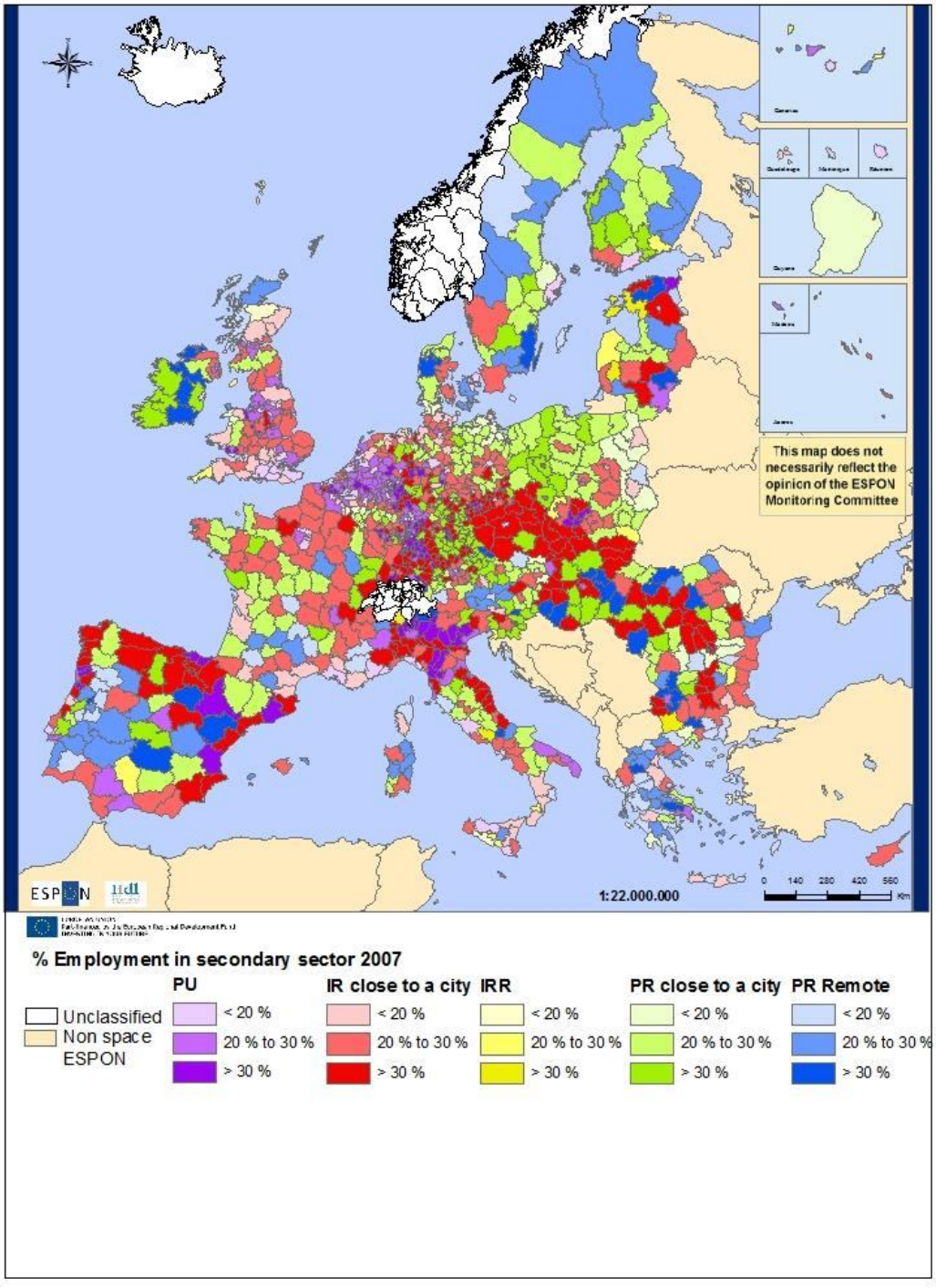
Employment rates in secondary sector in Central Europe and United Kingdom are diversely distributed over IRC, PRC and PU areas with moderate (20-30%) results. There are some IRC and PU areas with high rates, but those region areas are relatively small.

In general, moderate rates for this indicator cover the Scandinavian territory, distinguished by PRC and PRR big extensive areas, except in some PRR small areas from the South part of Finland and Sweden where there is a high rate of employment in secondary sector.

The particular case of the group of the Northern ex-socialist countries of Latvia, Lithuania and Estonia is characterised by high rates for this indicator in IRC, PRR and IRR areas and in a lesser extent to a PU small area. The rest regions of this group possess moderate rates.

There is one fact to point out referring to the distribution of results, and it is that IRR areas are not very represented in this map, so employment in secondary sector in this kind of rural areas is negligible, except in the case of Northern ex-socialist countries.

Map 4.2 Employment in the secondary sector, 2007



Source: own elaboration with data from the EDORA Database

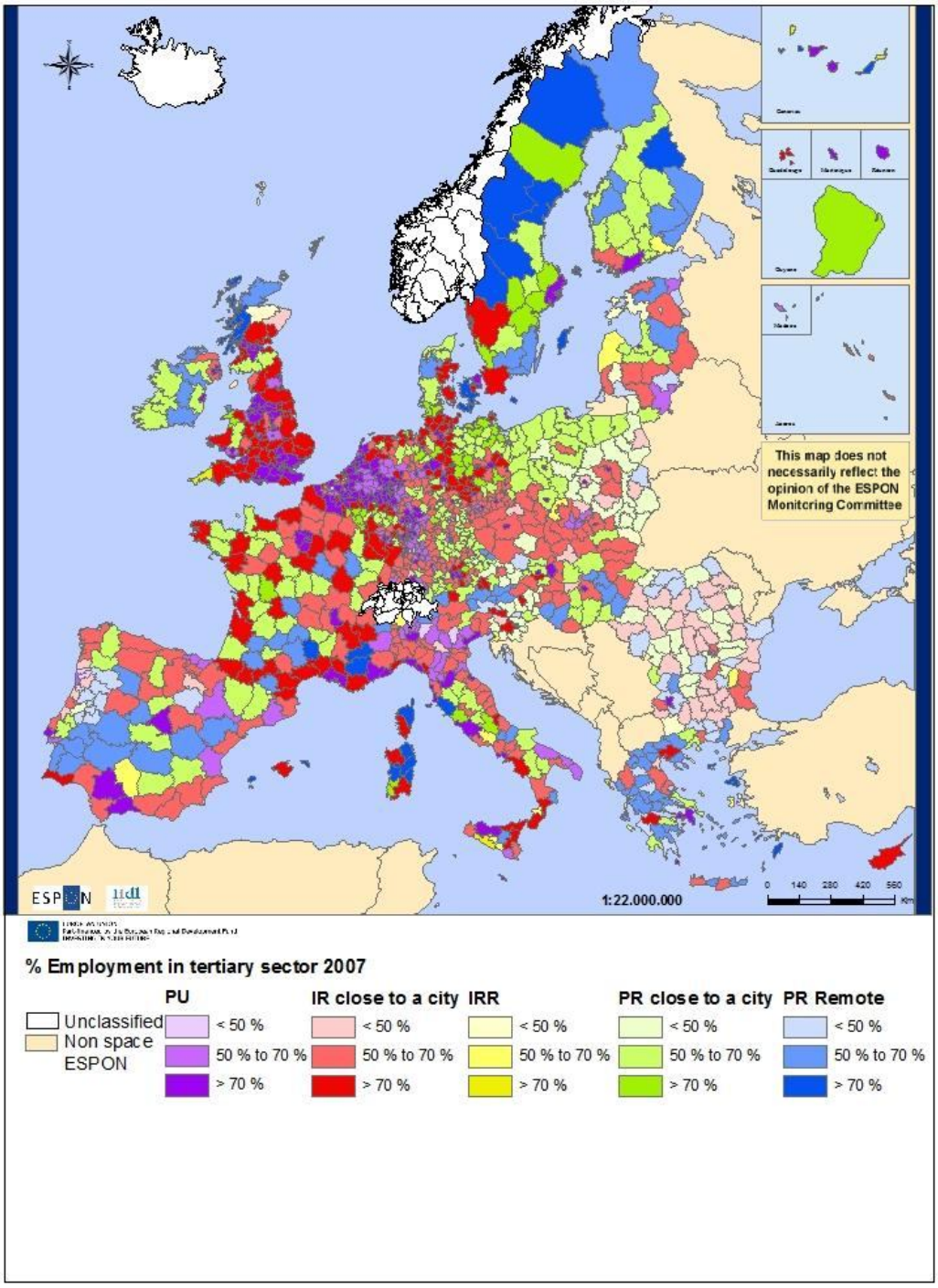
As it has been said, **tertiary sector** prevails in metropolitan areas, but analysing the map one can observe that there are few PU areas in the EU territory (they are mainly found in Central Europe) but the ones that exist possess high (>70%) and moderate (50-70%) rates of employment in tertiary sector.

IRC and PRC areas with moderate rate of this indicator are largely scattered among the EU territory, except in the South-East region since this region present low rates for the indicator. IRC areas with high rates of employment are mainly distributed in Central Europe and United Kingdom. There are not so many PRC areas with high rates, excepting in some regions of Sweden and the island of the French Guyana.

PRR areas are dispersed in the EU territory as well, but in minor proportion, although they predominate in Sweden and Finland, occupying large extensions and high rates of employment in tertiary sector. These areas, which have moderate rates for the indicator, are distributed in South Europe. IRR areas are negligible respect to this indicator because they are not representative in the map.

In sum, in the European territory the principal NUTs with moderate rates of employment in tertiary sector are IRC and PRC areas, and in less proportion PRR (mainly in South Europe). Urban areas are fewer represented in the map but they concentrate high and moderate rates of employment in tertiary sector.

Map 4.3 Employment in the tertiary sector, 2007



Source: own elaboration with data from the EDORA Database

4.4.2 Evolution of unemployment 2002-2005

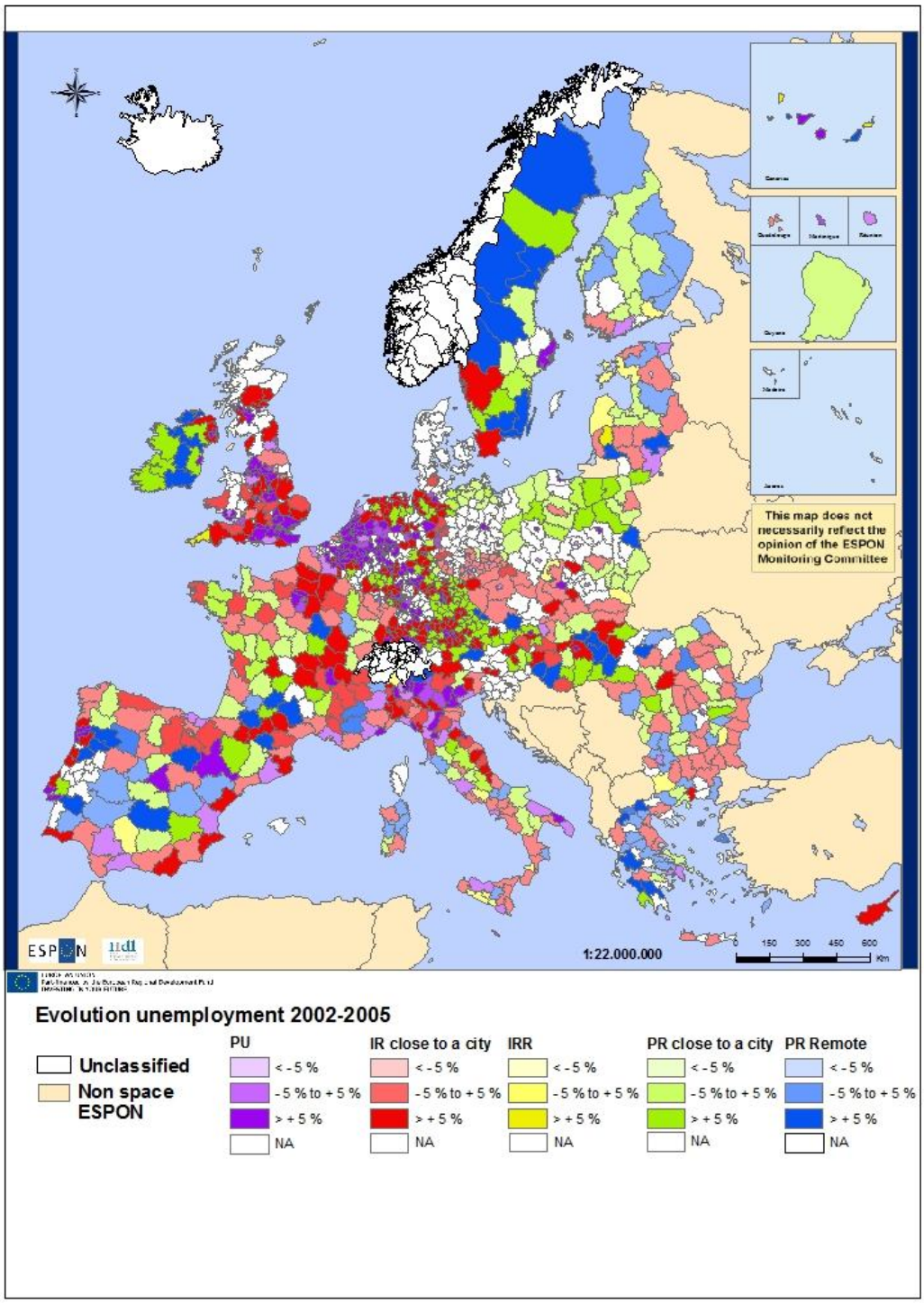
As shown on the map, Central Europe and Anglo-Saxon regions were the regions with more increase on the unemployment rate from 2002 to 2005, mainly in IRC and PU areas (except in Ireland where those high rates can be found in PRC and PRR areas due to its spatial planning and geographical characteristics). Changes in macroeconomics, labour system as well as political and social factors influence in the employment and/or unemployment rates and their evolution.

Among Scandinavian regions, Sweden has changed more than 5% according to the evolution of the unemployment rate, largely in PRR and PRC areas. Finland, in opposition, has evolved moderately in the same areas.

Referring to Eastern Europe, it must be considered in the analysis that there is not data about most of the regions. Meanwhile, the available data show moderate rates (from -5 to 5%) for the evolution unemployment in PRC and IRC. In some regions there are IRC and PRR areas with high rates for this indicator but are very located.

Southern Europe has moderate and low rates which mean a decrease of the unemployment in 2005 respect to 2002, normally in IRC and PRR areas. These kinds of areas, together with PU areas, possess high rates for the indicator in some regions, indicating an increase of unemployment. There are several factors to take into account to lead to this result, as for instance partial and precarious job, seasonal job (mainly because of tourism activities), non registered work, etc.

Map 4.4 Evolution of unemployment, 2002-2005



Source: own elaboration with data from the EDORA Database

CHAPTER 5.
SERVICES OF GENERAL INTEREST

Services of general interest (SIG) can be defined as manifestations of public goods as available resources to use and consume by everyone. Broadly, SIG can be classified in different sector services as: technical infrastructure, telecommunication, transport, justice, health and social.

According to the rights approach, 'Every citizen should have the right to have access to services of general interest, to transparent and affordable prices, continuous service etc.' (Noguera J. et al, 2009, *Review of Current Situation and Trends: Access to services of general interest*, p.11-20, EDORA Applied Research Project 2013/1/2).

Services of general interest make an important contribution to the overall competitiveness of European industry and to economic, social and territorial cohesion. (Official Journal of the European Communities, 2001, *Communication from the Commission-Services of general interest in Europe*, p.3)[12].

In addition, SIG play a crucial role for local development in general and for the development of rural areas in particular, fighting the rural decline among other problems. (Noguera J. et al, 2009, *Review of Current Situation and Trends: Access to services of general interest*, p.33, EDORA Applied Research Project 2013/1/2).

[12] http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/c_017/c_01720010119en00040023.pdf

5.1 Comparative analysis of relevant data and indicators by country with reference to the EU27 average

5.1.1 The provision of services of general interest

Referring to technical infrastructures, social and health system, the indicators analysed in this report represent and give information about the quality and accessibility of those services. The analysis has been done for a countries' spatial scope (NUTS 0).

In this analysis there is one relevant fact to take into account and it has relation with the EU average calculation. There are no data of the Northern European countries (except Finland) the Anglo-Saxon countries (Ireland, United Kingdom), some countries from Central Europe (Germany, Switzerland and Liechtenstein) and some Southern European countries (Slovenia, Turkey, Malta, Croatia and Y.R. Macedonia). Therefore, EU 27 average is mainly calculated on just 17 countries data plus non data of the rest countries and divided among all the 27 countries, so this average do not represent an accurate result for the whole Europe. Nevertheless, the EU average result is 171.35 **doctors per inhabitant**. This moderate result is a consequence of the non countries data added to the average calculations (overall it is influenced by overcrowded countries as Germany and United Kingdom) as well as the low rate of Finland.

Below EU 27 average there is only Finland with a 67.02 outcome of doctors per inhabitants. In spite of its vast territory area, spatial planning in Finland is much dispersed and so it is service planning, correlated as well with the population demand. Hence, it does not mean that there is not good quality of health services but a difficult accessibility due to the particular situation of this country.

The rest 16 countries have results above EU average. Moderate rates from, approximately, 183 doctors/inhabitant (Romania) to 308 doctors/inhabitant (Spain) correspond to a heterogenic group of seven countries (Southern countries -as Romania, Portugal, Cyprus and Spain-, and Central ones –as Poland, Luxembourg and Austria -)

High rates (from 311 to 602 doctors per inhabitant) are presented for nine countries in total, some from Central Europe (Nederland, France, Belgium), some ex-socialist countries (Hungary, Bulgaria, Slovakia and Czech Republic) and two countries from the South of Europe, Greece and Italy. This last country has the highest rate, by far, among all the European countries, with a rate three times higher than the group of countries with high rates (which average is around 334 doctors per inhabitant)

Table 5.1 Doctors per inhabitant, 2007, by country

	Doctors per inhabitant, 2007
ITALY	602.49
CZECH REPUBLIC	372.91
GREECE	345.07
BELGIUM	338.84
SLOVAKIA	336.08
BULGARIA	326.28
FRANCE	320.41
HUNGARY	318.68
NEDERLAND	310.79
SPAIN	308.32
AUSTRIA	296.41
CYPRUS	264.20
LUXEMBOURG	238.90
PORTUGAL	236.63
POLAND	220.03
ROMANIA	182.71
EU 27	**171.35**
FINLAND	67.02
Y.R. MACEDONIA	NA
CROATIA	NA
NORWAY	NA
ICELAND	NA
LIECHTENSTEIN	NA
SWITZERLAND	NA
TURKEY	NA
GERMANY	NA
SWEDEN	NA
SLOVENIA	NA
UNITED KINGDOM	NA
IRELAND	NA
MALTA	NA
DENMARK	NA
ESTONIA	NA
LITHUANIA	NA
LATVIA	NA

Source: own elaboration with data from EDORA Database

This followed indicator is classified into health care resources. It indicates the quality and availability of health services, concretely beds per 1,000 persons, in a hospital. Total hospital beds are all hospital beds which are regularly maintained and staffed and immediately available for the care of admitted patients. (OECD Health Data 2009, Health care resources. Total hospital beds[13] , OECD- Organisation for Economic, Co-operation and Development-). This definition is similar vis-à-vis **hospital beds per head** definition; with the difference than the last one does not refer to the total hospital beds but the available beds per person.

[13] http://www.ecosante.fr/index2.php?base=OCDE&langs=ENG&langh=ENG&valeur=&source=1

The submitted results point out the heterogeneity of countries with similar scores referring to health services in Europe. There is a low quality trend of social service and health service systems among EU 15 countries, overall and interestingly in urban areas over rural areas. Conversely, NMS possess better quality on social and health services. (Noguera J. et al, 2009, *Review of Current Situation and Trends: Access to services of general interest*, p. 20-26, EDORA Applied Research Project 2013/1/2)

In this case, the EU 27 average presents the same problem as in the previous analysis because of the lack of information. This lacking of information is due to the non data availability of the next ten countries: Cyprus, United Kingdom, Turkey, two rich Central countries (Switzerland, Liechtenstein), some Northern countries (Latvia, Lithuania, Estonia, Iceland, Norway) and some ex-socialist countries (Croatia, Y.R. Macedonia, Czech Republic) Nonetheless, the final result for EU 27 average indicates that there are around 5 beds per head as an average for the European Union.

Below EU 27 average and with low rates there are six countries: Ireland (1.35 hospital beds/head, the lowest outcome), Sweden, Portugal, Luxembourg, Nederland and Spain (3.34 hospital beds/head). The cases of Sweden, Luxembourg and Nederland are remarkable as they are rich and developed economies with a concerned image about social rights and disparities.

Continuing with countries placed below the EU 27 average, moderate and moderate-high rates correspond to Bulgaria (with a rate of 3.67 hospital beds/head), Malta, Slovenia, Poland, Denmark, Finland, Belgium Greece, Italy, Romania and Austria (closed to EU average with a rate of 4.94 hospital beds/head) Most of them are ex-socialist countries where social and health services have better quality than in the EU 15. Malta is characterised by having high scores on social and health services (Noguera et al, 2009, p.23)

There are just few countries, concretely four, with rates above the EU average: France, Slovakia, Hungary and Germany, with the highest rate of 6.23. These countries have from 5 to 6 hospital beds per head. So as conclusion, in this analysis these countries are the best in one indicator (hospital beds/head) of the health care resources and in general, ex-socialist countries have better rates than EU 15 countries.

Table 5.2 Hospital beds per 1,000 inhabitants, 2007, by country

	Hospital beds per 1,000 inhab.
GERMANY	6.23
HUNGARY	6.15
SLOVAKIA	5.62
FRANCE	5.06
EU 27	**4.98**
AUSTRIA	4.94
ROMANIA	4.82
ITALY	4.72
GREECE	4.26
BELGIUM	4.23
FINLAND	4.20
DENMARK	4.08
POLAND	4.05
SLOVENIA	3.94
MALTA	3.87
BULGARIA	3.67
SPAIN	3.34
NEDERLAND	3.13
LUXEMBOURG	2.68
PORTUGAL	2.58
SWEDEN	2.55
IRELAND	1.35
CZECH REPUBLIC	NA
Y.R. MACEDONIA	NA
CROATIA	NA
NORWAY	NA
ICELAND	NA
LIECHTENSTEIN	NA
SWITZERLAND	NA
TURKEY	NA
UNITED KINGDOM	NA
ESTONIA	NA
LITHUANIA	NA
LATVIA	NA
CYPRUS	NA

Source: own elaboration with data from EDORA Database

The **density of hospitals** is the number of hospitals per unit of area usually per square kilometre or mile. It depends on the territory extension and the density of population of a region. So, it is a measure that indicates the quality and access of health services of an area.

The European Union is a small continent but it is overcrowded of people. Therefore, SGI require to be compactly distributed from a local perspective, aiming to provide the best quality and access of SGI to citizens. Considering this fact and focusing on the current indicator, the

result for the EU 27average (5.44 hospitals/ Km^2 or mile) indicates an excellent sanitary infrastructure distribution among the EU territory.

The analysis does not provide data of the followed countries: Turkey, some Central countries (Switzerland, Liechtenstein, and United Kingdom), some Northern countries (Iceland, Norway, Estonia, Latvia and Lithuania) and some ex-Yugoslavian countries (Croatia, Y.R. Macedonia and Czech Republic)

The classification of the indicator's rates of each country is divided into three groups (low, moderate, high rates) according to quantitative parameters, but the classification per se does not reflect the real quality of the sanitary infrastructure of a country. For this reason, a briefly understandable interpretation will be further developed.

Low rates (less than 2 hospitals per square kilometre or mile) are the score for: Sweden (0.16), Finland, Slovenia, Ireland, Bulgaria, Cyprus, Greece, Denmark, Luxembourg, Slovakia and Spain (1.70). The rurality of almost all these countries and partly their remote placement, difficult the construction and/or access of sanitary infrastructures due to several factors as: lack of enough demand, local/regional budget, other synergic infrastructures, etc. Except Sweden and Finland, the rest countries have a small or middle area size and some of them are densely populated. Furthermore most of them are touristic sites and thus, suffer important territorial disparities (as concentration of people on the coastal regions, at the same time as concentration of SGI) In contrast, Finland and Sweden have big area size and are dispersedly populated, concentrating the population and services on the South part of their countries.

Moderate rates (from 2-4 hospitals per square kilometre or mile) encounter place in Portugal (2.30), Austria, Romania and Hungary (3.31). The small size of these countries is the cause of this result. It does not mean there are more hospitals, or they are better distributed, but the space is limited and services are concentrated (usually in metropolitan areas)

High rates (more than 4 hospitals per square kilometre or mile) are the result of Nederland (4.15), Italy, France, Belgium, Malta, Germany and Poland (14.41). These three last countries have rates above the EU average. The majority of all this group of countries is situated in the Centre of Europe. The common factor of all of them is that they are overcrowded countries according to their space limitation. Thus, the demand of services is not only high but concentrated in a reduced space, mainly attracted by the huge characterised urban areas of those advanced knowledge-based countries (with better infrastructure, local budget, high-education level labour force, etc.)

Table 5.3 Density of hospitals, 2007, by country

	Density of hospitals
POLAND	14.41
GERMANY	8.44
MALTA	8.13
EU 27	**5.44**
BELGIUM	4.98
FRANCE	4.48
ITALY	4.39
NEDERLAND	4.15
HUNGARY	3.31
ROMANIA	3.19
AUSTRIA	2.56
PORTUGAL	2.30
SPAIN	1.70
SLOVAKIA	1.64
LUXEMBOURG	1.16
DENMARK	1.15
GREECE	1.01
CYPRUS	0.87
BULGARIA	0.86
IRELAND	0.86
SLOVENIA	0.81
FINLAND	0.18
SWEDEN	0.16
LITHUANIA	NA
LATVIA	NA
ESTONIA	NA
UNITED KINGDOM	NA
CZECH REPUBLIC	NA
Y.R. MACEDONIA	NA
CROATIA	NA
NORWAY	NA
ICELAND	NA
LIECHTENSTEIN	NA
SWITZERLAND	NA
TURKEY	NA

Source: own elaboration with data from EDORA Database

The **density of motorways** indicates the road infrastructure availability. It is important to understand the SGI situation framework, the strengths and weaknesses of SGI, and overall it has a closed relation with accessibility to other services, as it has been commented repeatedly.

This indicator is well documented since there is data of almost all the EU countries, except eight (Turkey, Switzerland, Liechtenstein, Iceland, Norway, Croatia, Y.R. Macedonia and Malta). The indicator is expressed by a range from 0.00 to 0.08. So, the quantitative classification of ranges is as followed: low rates (0.00-0.01), moderate (0.02-0.03) and high (more than 0.04).

The EU 27 average for this indicator is 0.04 motorways per square kilometre or mile. It is a good average for Europe, as it means European Union is well connected thanks to an adequate road network (on average). The influence of Central-West countries scores on the EU average is remarkable. But road network disparities between this EU area and the South and East EU areas must not disguise the result and has to be addressed towards a better and real good European road network.

Table 5.4 Density of motorways, 2007, by country

	Density of motorways
NEDERLAND	0.08
BELGIUM	0.07
GERMANY	0.06
LATVIA	0.04
EU 27	**0.04**
UNITED KINGDOM	0.04
FRANCE	0.03
AUSTRIA	0.03
ITALY	0.03
LUXEMBOURG	0.03
CZECH REPUBLIC	0.02
SLOVENIA	0.02
DENMARK	0.02
PORTUGAL	0.02
BULGARIA	0.01
CYPRUS	0.01
FINLAND	0.01
LITHUANIA	0.01
SWEDEN	0.01
POLAND	0.01
SLOVAKIA	0.01
IRELAND	0.01
SPAIN	0.01
ROMANIA	0.01
GREECE	0.01
HUNGARY	0.01
ESTONIA	0.00
MALTA	NA
Y.R. MACEDONIA	NA
CROATIA	NA
NORWAY	NA
ICELAND	NA
LIECHTENSTEIN	NA
SWITZERLAND	NA
TURKEY	NA

Source: own elaboration with data from EDORA Database

The most numerous group is the related to low rates, formed by: Estonia, Hungary, Greece, Romania, Spain, Ireland, Slovakia, Poland, Sweden, Lithuania, Finland, Cyprus and Bulgaria. The majority of them spend long or moderate time to access to services. Most of these countries

have a small size, with a concentrated spatial planning but without enough or good connexions with rural areas. The broad dimension (big distances) of Sweden and Finland, as well as the inhospitable zones and non-urbanized regions, influence on the motorways density and infrastructure.

Moderate rates pertain to Portugal, Denmark, Slovenia, Czech Republic, Luxembourg, Italy, Austria and France. Except Portugal, Italy and France the rest of countries are small in size so motorways tend to be concentrated over the territory. Portugal, Italy and France should implement a broadly road network and better infrastructure policies due to their size and population density (which induces to highest demand of services).

The countries with high rates of density of motorways (above the EU 27 average, except the United Kingdom) are: United Kingdom, Latvia, Germany, Belgium and Nederland. They are principally Central European ones, except the striking case of Latvia (maybe this score is due to its strategic placement between the borders of Russia, Belarus and Lithuania). The others are very developed countries, as well as not so big in size but highly concentrated on people. This result could be the explanation for the shorter access time indicators to services.

The indicator called **'% households with broadband access'** is related to telecommunication services. This kind of services is typical for knowledge-based economies, used as basic tools (in opposition to industrialised economies, where traditional services are more commonly used). Therefore, these services are more accessible in EU 15 countries than in NWS 12, as far as in urban areas in contrast with rural areas. (See Noguera et al, 2009, *Review of Current Situation and Trends: Access to services of general interest*, p.21-22, EDORA Applied Research Project 2013/1/2) Thus, telecommunication services are indicators of developed societies, in parallel with first economies systems.

Due to the difficult measurement of this indicator, over the total 27 European countries there are no data of the followed 24 countries: Turkey, most of the ex-Yugoslavian countries (Y.R. Macedonia, Romania, Croatia and Slovenia), most of the Northern countries (Iceland, Lithuania, Latvia, Estonia, Sweden and Denmark), some Central countries (Switzerland, Liechtenstein, Ireland, Luxembourg, Germany, France and Belgium), few Southern countries (Greece, Malta and Cyprus) and some ex-socialist countries (Poland, Bulgaria and Hungary)

Hence, EU 27 average provides a biased result that does not reflect the reality households' access to broadband among the EU. Nonetheless, the table data indicates that there is a 48% of households with broadband access, i.e. that almost the half of households enjoy this service.

There are only data for 10 heterogenic countries: Italy, Portugal, Czech Republic, Slovakia, Spain, Austria, United Kingdom, Finland, Norway and Nederland.

The majority of them are Central-West countries (with higher GDP and included on the knowledge-based economies group). Their scores are above the EU 27 average, being Nederland the country with the higher rate (more than 73% of households have broadband

access). Some of them, as Scandinavian countries (with rates higher than 60% of households with broadband access) are exporters of high-tech tools and infrastructures over the world.

Southern European countries have rates below the EU 27 average, reaching less than 42% of households with broadband access. The lowest one pertains to Italy, with around 30% of households with broadband access, leaving 70% of households without access to broadband.

Table 5.5 % of households with broadband access, 2007, by country

	%households with broadband access
NEDERLAND	73.60
NORWAY	72.58
FINLAND	65.42
UNITED KINGDOM	62.18
AUSTRIA	52.91
EU 27	**48.01**
SPAIN	41.47
SLOVAKIA	35.50
CZECH REPUBLIC	35.14
PORTUGAL	35.13
ITALY	29.53
BELGIUM	NA
DENMARK	NA
FRANCE	NA
GERMANY	NA
LUXEMBOURG	NA
SWEDEN	NA
IRELAND	NA
ESTONIA	NA
CYPRUS	NA
HUNGARY	NA
BULGARIA	NA
MALTA	NA
LATVIA	NA
POLAND	NA
LITHUANIA	NA
SLOVENIA	NA
GREECE	NA
CROATIA	NA
LIECHTENSTEIN	NA
ICELAND	NA
SWITZERLAND	NA
TURKEY	NA
Y.R. MACEDONIA	NA
ROMANIA	NA

Source: own elaboration with data from EDORA Database

5.1.2 The accessibility to services of general interest

The indicator '**time to nearest hospital**' is linked with the accessibility of health services. It depends on different SGI (as road infrastructures, transport facilities, etc.) as well as spatial planning in different scales: national, regional and local.

In this indicator analysis, twelve from the twenty seven countries of the European Union can not be studied because there are no data of them. The referred countries are: Turkey, three Central European countries (Switzerland, Liechtenstein and United Kingdom) most of the Northern countries (Iceland, Norway, Estonia, Latvia and Lithuania) and most of the ex-Yugoslavian countries (Croatia, Y.R. Macedonia and Czech Republic)

In the EU 27, users spend approximately 23 minutes to arrive to the nearest hospital. This result suggests than hospital placements are accessible to users, maybe because of their well spatial distribution, affordable transport facilities and other important and related SGI, number of hospitals, etc.

According to the table data, countries with low rates (less than 20 minutes) are: Malta, Slovakia, Nederland, Germany, Luxembourg, Belgium, Cyprus, Italy, Hungary and France. The socio-economic and political situation of these countries is different from country to country but in the majority of them, users spend short time to arrive to the nearest university, i.e. these countries match up in the accessibility temporal scale of two services of general interest (health and education). Perhaps it is due to the moderate or small size of some of them (in some cases), or maybe the quality of other related services is adequate (as transport, road infrastructures, etc.)

The results show that there are other countries with moderate rates (from 20 to 40 minutes) as: Poland, Romania, Bulgaria, Slovenia, Denmark, Austria and Spain. The longest the time to access to the nearest hospital the hardest the repercussion on the users' health, deteriorating it and leading to convert a mild illness into a seriously one. These countries also had adverse time rates to access to the nearest university. Hence, the problem of these countries could be addressed as bad accessibility to SGI and/or bad quality of services (mainly transport and road infrastructures)

The worse results pertain to Portugal, Finland, Ireland, Greece and Sweden, where there are high rates for this indicator, i.e. users spend more than 40 minutes to access to the nearest hospital. The case of Finland and Sweden has been broadly commented in several indicator analyses: dispersed population vs. dispersed SGI (paradoxically 'concentrated' in the South part of their territory) due to their dimensions and climate conditions. The rest listed countries are characterised by a stronger rurality composition and the remote location of their regions, which surely influence on the accessibility to SGI.

Table 5.6 Time to nearest hospital, 2007, by country

	Time to nearest hospital (minutes)
SWEDEN	89.42
GREECE	64.95
IRELAND	49.15
FINLAND	48.91
PORTUGAL	41.38
SPAIN	39.74
AUSTRIA	33.82
DENMARK	31.84
SLOVENIA	27.56
BULGARIA	25.94
ROMANIA	25.25
EU 27	**22.83**
POLAND	22.72
FRANCE	18.76
HUNGARY	17.63
ITALY	17.17
CYPRUS	17.15
BELGIUM	16.91
LUXEMBOURG	14.21
GERMANY	12.58
NEDERLAND	9.89
SLOVAKIA	7.58
MALTA	3.36
LITHUANIA	NA
LATVIA	NA
ESTONIA	NA
UNITED KINGDOM	NA
CZECH REPUBLIC	NA
Y.R. MACEDONIA	NA
CROATIA	NA
NORWAY	NA
ICELAND	NA
LIECHTENSTEIN	NA
SWITZERLAND	NA
TURKEY	NA

Source: own elaboration with data from EDORA Database

The indicator '**time to nearest university**' is linked with the accessibility of education services. Time is the accessibility measurement unit since it measures the users' effort needed to benefit from the use of particular service. (Noguera et al, 2009, p.15) There are other factors that influence the accessibility of SGI, as spatial planning, territorial geography, transport facilities, etc.

This analysis provides more data for the current indicator, excepting for the followed countries: Turkey, Switzerland, Liechtenstein, Iceland, Norway, Croatia and Y.R. Macedonia. Thus, EU 27 average calculation is more accurate. As a result, in the EU 27 a user spends 45.10

minutes to arrive to the nearest university on average, i.e. a poor access to the university education centres.

Some EU countries accomplish short time outcomes to the nearest university below EU average. This is translated into very good and good accessibility to education services. The countries which possess these characteristics are: Malta (17.15 min), Cyprus, Luxembourg, Belgium, Czech Republic, Slovakia, Nederland, Germany and United Kingdom (33.98 min). Most of them pertain to Central part of Europe, traditionally well-developed and with high scores on education services. The both first countries, Malta and Cyprus, are island with small dimensions and, normally, have high scores in education services, among others SGI.

Furthermore, there are other countries with rates below EU average but where users spend longer time to access to the nearest university. Those countries are Denmark (around 35 min), Estonia and Slovenia (around 44 min). Probably transport facilities are not very suitable in the last both countries and it makes difficult the access to universities.

Following with the cascade of results, countries with rates above the EU average and high-moderate scores are: France (49.42 min), Italy, Portugal, Poland, Austria, Spain and Hungary (57.16 min). The scores for this group of countries tend to be undesirable because they state that user expends long time travelling to access to the nearest university, in detriment of her/his welfare.

If the time to the nearest university exceed one hour, the indicator outcome expresses a negative result for the accessibility to education services. Countries with the longest time are: Romania (62.10 min), Ireland, Latvia, Lithuania, Bulgaria, Finland, Greece and Sweden (114.42 min). Finland and Sweden are striking since they are sorted by high education level and good education services. The interpretation for these countries is their long distances in km. because of their dispersed spatial planning structure and their predominantly rural typology, i.e. no concentration of knowledge centres in one single area.

As conclusion, there is a lot of heterogeneity on the results for each country of the EU, but the result of the EU as a whole should be enhanced to accomplish a better accessible education services.

Table 5.7 Time to nearest university, 2007, by country

	Time to nearest university (minutes)
SWEDEN	114.42
GREECE	83.45
FINLAND	79.03
BULGARIA	65.99
LITHUANIA	65.35
LATVIA	63.69
IRELAND	63.67
ROMANIA	62.10
HUNGARY	57.16
SPAIN	56.45
AUSTRIA	54.95
POLAND	50.77
PORTUGAL	50.59
ITALY	49.60
FRANCE	49.42
EU 27	**45.10**
SLOVENIA	44.12
ESTONIA	41.40
DENMARK	34.67
UNITED KINGDOM	33.98
GERMANY	33.30
NEDERLAND	31.54
SLOVAKIA	29.89
CZECH REPUBLIC	28.71
BELGIUM	26.31
LUXEMBOURG	17.43
CYPRUS	17.15
MALTA	NA
Y.R. MACEDONIA	NA
CROATIA	NA
NORWAY	NA
ICELAND	NA
LIECHTENSTEIN	NA
SWITZERLAND	NA
TURKEY	NA

Source: own elaboration with data from EDORA Database

The indicator '**time to nearest airport**' is linked with the accessibility to transport infrastructures, concretely, to an airport. It gives information about airports distribution, estimation of number of airports, other transport infrastructures (private vs. public transport), road infrastructure, etc.

The analysis does not provide data of seven countries: Turkey, Switzerland, Liechtenstein, Iceland, Norway, Croatia and Y.R. Macedonia. The quantitative classification of ranges for the

indicator (in minutes) is divided into: low rates (0-70), moderate (70-120) and high (more than 120).

On average, the EU 27 users spend 83.44 minutes to arrive to the nearest airport, i.e. more than one hour travelling to arrive to the airport. This result suggests that nearest airports infrastructures are placed in no centred regions, e.g. in peripheral areas with bad access to users (traditionally only private transport is able to access to airports)

The majority of countries that have low rates are from Central Europe, and the others, which are not from there, are small size countries with short distances between sites. This list of countries is constituted by eleven EU countries: Malta, Luxembourg, Belgium, Denmark, Cyprus, United Kingdom, Germany, Nederland, Ireland, Italy and Estonia. The scores assessment can have different variables; on one hand, those countries have better road infrastructure (see above table data) so they provide good connexions between sites and favour the private transport; on the other hand, those countries have a strong deployment of public transport (train, tram, tube, buses, etc.). Also, short-time travel could suggest more airport availability, i.e. more number of airports (which is related to the users demand)

According to the table data, there are eight countries where users spend, on average, from 70 to 120 minutes to arrive to the nearest hospital. Those countries are: Slovenia, France, Portugal, Latvia, Lithuania, Austria, Spain and Czech Republic. This result matches up with the result of the above table about density of motorways. Hence, road infrastructure could determine the access to the airport (considering, overall, the private transport as the main used transport type). There is no specific information about public transport facilities, but maybe they are in less importance than the private transport. The number of airports and their distribution in the space is also determining.

The long-time travels occur in eight EU countries: Greece, Slovakia, Hungary, Finland, Sweden, Poland, Bulgaria and Romania. Lack of good services, and/or their concentration in metropolitan areas, has been observed for these countries (except in Finland and Sweden) in other indicators' tables. Probably, the number of airports will be limited, or airports will have inadequate space distribution. Also, and referring to ex-socialist countries, due to the absence of public infrastructure investment, private transport prevails over public transport.

Table 5.8 Time to nearest airport, 2007, by country

	Time to nearest airport (minutes)
ROMANIA	256.06
BULGARIA	193.73
POLAND	158.40
SWEDEN	146.22
FINLAND	132.33
HUNGARY	127.82
SLOVAKIA	124.17
GREECE	122.14
CZECH REPUBLIC	115.28
SPAIN	104.28
AUSTRIA	100.26
LITHUANIA	97.69
LATVIA	92.10
PORTUGAL	87.75
FRANCE	87.41
SLOVENIA	85.17
EU 27	**83.44**
ESTONIA	66.10
ITALY	65.26
IRELAND	63.14
NEDERLAND	60.89
GERMANY	56.58
UNITED KINGDOM	51.69
CYPRUS	45.64
DENMARK	35.46
BELGIUM	33.90
LUXEMBOURG	21.14
MALTA	3.36
Y.R. MACEDONIA	NA
CROATIA	NA
NORWAY	NA
ICELAND	NA
LIECHTENSTEIN	NA
SWITZERLAND	NA
TURKEY	NA

Source: own elaboration with data from EDORA Database

5.2 Comparative analysis of relevant data and indicators by non-exclusive groups of countries

5.2.1 The provision of Services of General Interest

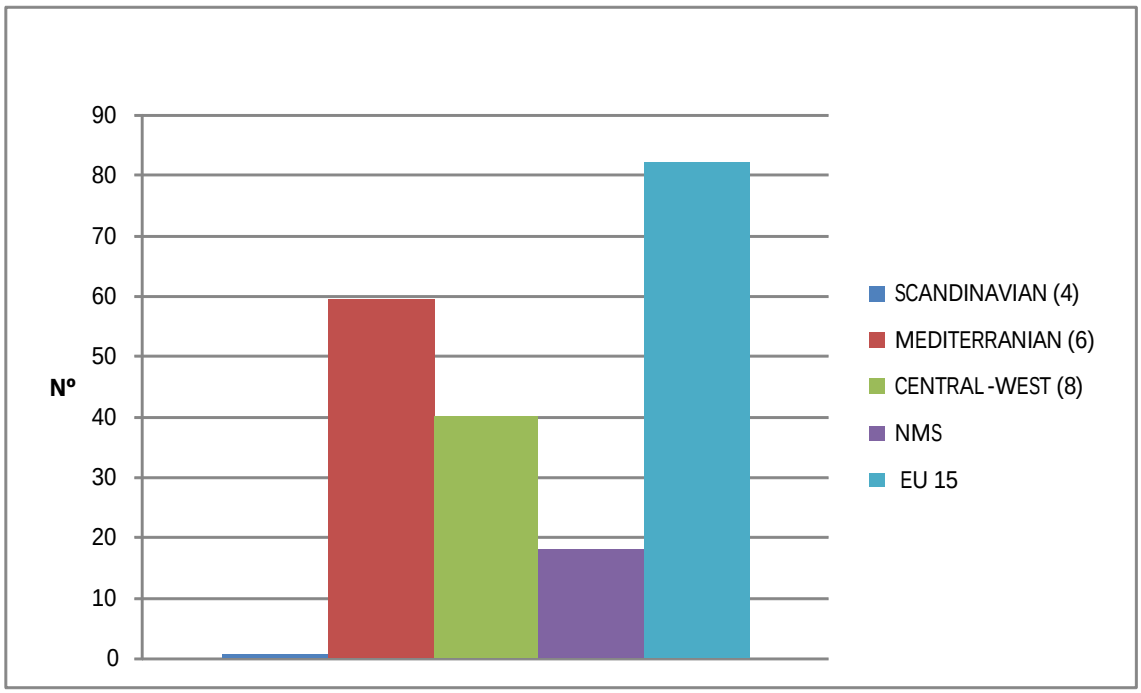
The graphic representation of the distribution of doctors per inhabitant per EU countries' groups is clearly expressed in this figure.

The supremacy of EU 15 (81% of doctors per inhabitant) facing NMS (around 18% of doctors per inhabitant) suggests better quality and accessibility on health services in the Old European Members States. Nonetheless, lacking of data of the NMS could explain the disparity on the results. Further research should be examined to throw light upon the real situation to complete the analysis.

The above commented is valid for the extremely low percentage of doctors per inhabitant in the Scandinavian countries, i.e. among all of them there is only data for Finland (which rate is below the EU average, see table 5.1) so the result does not express the real situation of Scandinavian countries.

Mediterranean countries possess a high rate of 60% doctors per inhabitant while Central-West countries have a 20% less of doctors per inhabitant. There are more data of the first group of countries than the second one. Furthermore, the default data of such a broad country as Germany influences on the results for Central-West countries.

Figure 5.1 Doctors per 1,000 inhabitant 2007, by non exclusive groups of countries



Source: own elaboration with data from EDORA Database

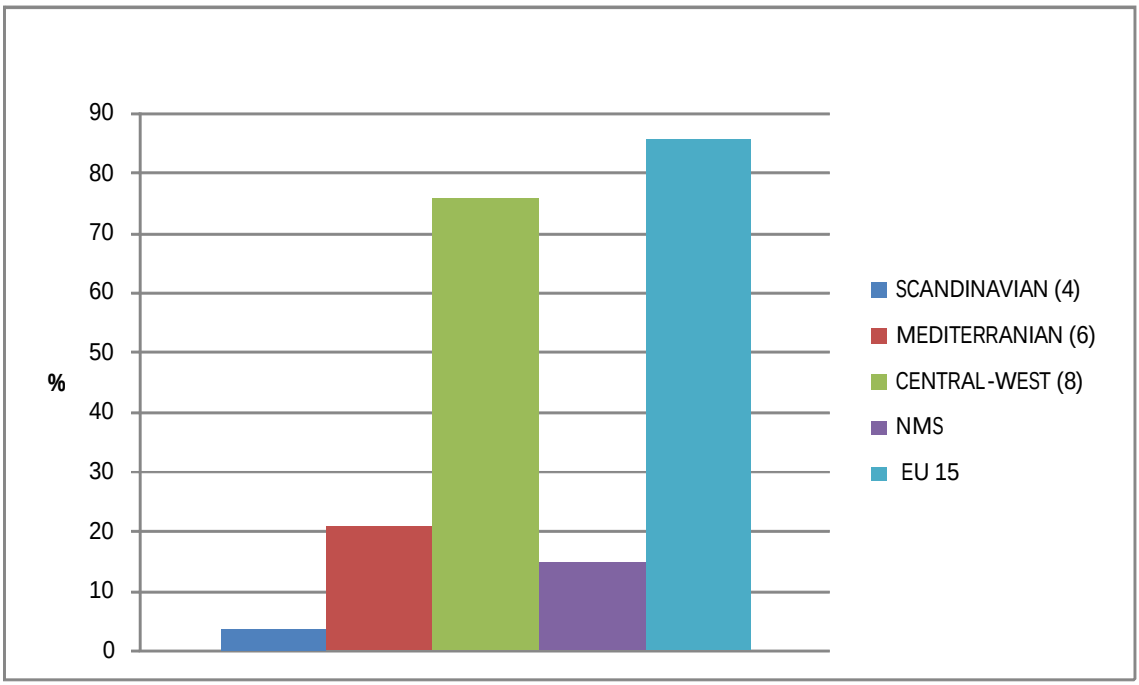
Once again, the prevalence of EU 15 as opposed to NMS is evident, 85% of hospital beds per head in EU 15 front 15% of hospital beds per head in the NMS. The high percentage for the EU 15 is primarily influenced by Central-West countries' scores. Conversely, in the table data related to this indicator it was shown the absence of data of more ex-socialist and NMS countries than the group of countries from the EU 15, so the possible interpretation observing just the graphic result could be slanted.

The lowest percentage of hospital beds per head (around 4%) is observed for Scandinavian countries. This is due basically to two main factors: lack of data of one of these countries and low rates in the rest of countries, below the EU average. It is related to geographical dimensions and a dispersed territorial model.

Similar circumstances suffer the Mediterranean countries with low rates below the EU average, having a 20% of hospital beds per head over the total. Comparing last graphic and this one, it can be suggested that quality of services (human capital) is good but quantity of services (e.g. number of medical infrastructures) is insufficient.

In contrast, Central-West countries possess around 75% of hospital beds per head. High rates for the indicator of France and Germany arise the total percentage of this group of countries. Generally, Central-West countries have high quality and better infrastructures of SGI.

Figura 5.2 hospital beds per 1,000 inhab., 2007, by non exclusive groups of countries



Source: own elaboration with data from EDORA Database

5.2.2 The accessibility to Services of General Interest

The indicator related to *'accessibility time to the nearest hospital'* is important to value the health services of a nation. Indirectly, this indicator gives information about other SGI, which can be contrasted with plus data to create a realistic framework of a territory's situation.

The scale of percentage for the indicator 'time to nearest hospital' must be read the other way around, i.e. when marked a 90% of time, this time is 'saved' while the rest (10% of time) is spent, which means a fast way to the nearest hospital.

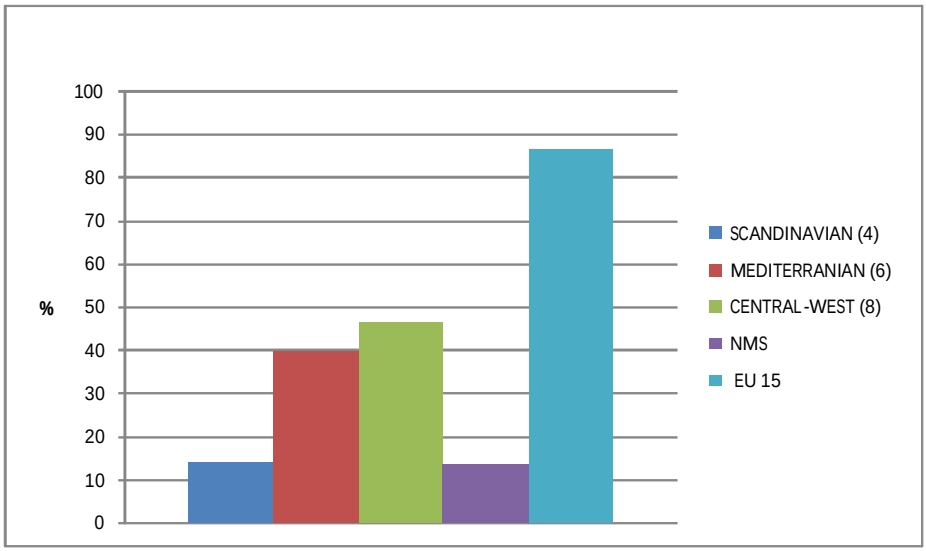
As seen on the graphic, EU 15 countries save more than 85% of time on arriving to the nearest hospital, while NMS countries only save less than 15%. The possible interpretation is that EU 15 countries have developed better or more efficient tools to access to health services (as better road infrastructures, transport facilities, etc.)

The influence of Central-West countries on the EU 15 results is evident, as in the graphic as in the table data of this indicator. They save more than 45% of time to arrive to the nearest hospital, which mean they operate efficiently and fast on access to the service.

Below this score, Mediterranean countries save a 40% of time, a slightly result difference with Central-West countries as a cause of the lowest results of Spain, Portugal and Greece.

Among the Scandinavian countries, there were only data about Finland and Sweden. That is one of the reasons for the low percentage of time (the same as in the NMS), besides the long time access results of Finland and Sweden and their idiosyncrasy characteristics.

Figura 5.3 Time to nearest hospital, 2007, by non exclusive groups of countries



Source: own elaboration with data from EDORA Database

In general, universities use to be placed in big extensions of urban or peripheral areas, so transport facilities and road infrastructures are key elements to achieve good access to universities. The promotion of public transport services incentives mobility (at a reasonable

cost) among customers. Countries with strong public transport policies should save time to users to arrive to universities and other SGI.

The scale of percentage for the indicator *'time to nearest university'* must be read following the instructions of figure 5.3.

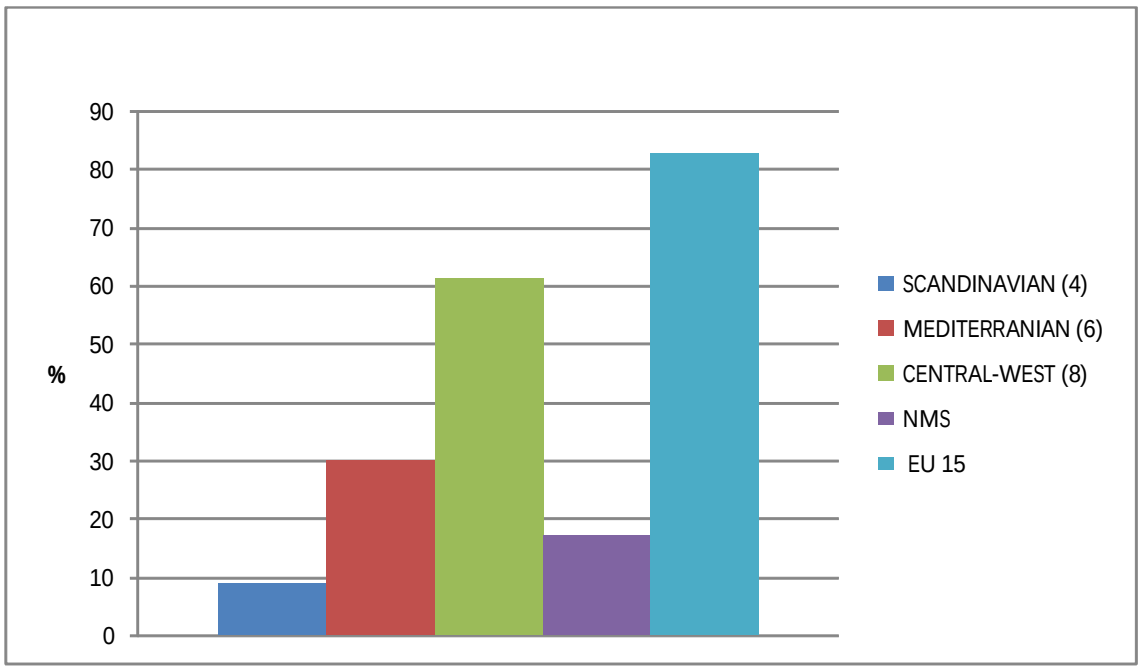
Hence, EU 15 countries have better scores than NMS in the access to the nearest university because users from the EU 15 save around 83% of time over their total time to arrive to the nearest university. Meanwhile, NMS only save around 18% of time over the total, so they spend around 80% of time to travel to the nearest university.

Central-West countries influence on the results of the EU 15 since they are the thriftiest group among the EU 15 group of countries. Users save the 60% of their time and use the rest to go to the nearest university. So access to university is affordable and time-pleased.

It is not the case of Mediterranean countries, generally spendthrift of time, wasting 70% of time to access to university, which is translated into long-time travels and uncomfortable for students. The rurality of some of these regions, bad infrastructures, liberalisation of public transport sector, etc. leads to this unpleasant situation.

Taking into consideration that the Scandinavian region is constituted by four countries and there are two of them without data, it is comprehensive that the rate has dropped. Furthermore, the other two countries with data have very low rates, i.e. the time to nearest university is long (users spend 90% of time over the total). Evidently, this is due to the vast extension of these territories (which imply long distances), the hard weather conditions and the predominant remote rural areas that exist there.

Figura 5.4 Time to nearest university, 2007, by non exclusive groups of countries



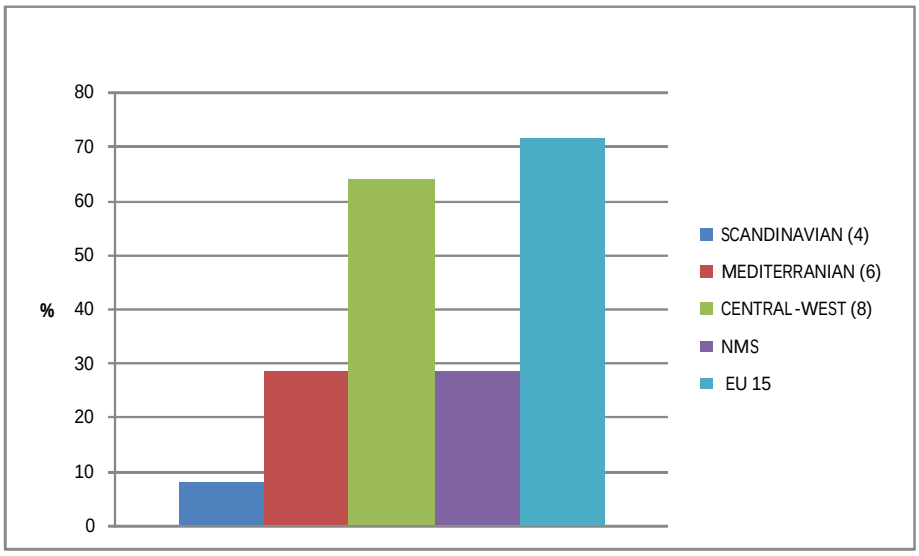
Source: own elaboration with data from EDORA Database

The indicator *'time to nearest airport'* gives information about the transport infrastructure (access and quality). As airports need big extensions to be constructed, normally they are placed in peripheral areas (with more free space) closed to urban areas. The number of airports depends on the demand of users, according to site attractions.

The scale of percentage for the indicator *'time to nearest airport'* must be read following the instructions of figure 5.3.

The gap on time travel between EU 15 and NWS 12 is considerable; there is a difference of 40% of spent time to access to the nearest airport. In EU 15 there is a saving of 70% of time (i.e. users spend 30% of time to arrive to the nearest airport). Meanwhile, the situation in NWS 12 is the opposite, the saving is less than 30% (i.e. users spend 70% of time to arrive to the nearest airport).

Figura 5.5 Time to nearest airport, 2007, by non exclusive groups of countries



Source: own elaboration with data from EDORA Database

Central-West countries influence positively on the EU 15 result as they enjoy good access infrastructures, represented by a more than 60% time saving in accessing to the nearest airport. A drop of 30% on the time saving percentage is scored for Mediterranean countries, being placed on the same level of spent time to access to the nearest airport as NWS 12 countries. Both areas must develop better transport infrastructures.

Among the Scandinavian countries, there were only data about Finland and Sweden. This is the reason of the low total percentage (expend of around 90% of time travelling), plus the long time access results of Finland and Sweden. The particular territorial idiosyncrasy of these countries must be taken into account in the interpretation of results. They have good transport infrastructures, but distances and climate conditions influence negatively on the indicator results.

5.3 Comparative analysis of relevant data and indicators by categories in the Dijkstra-Poelman rural-urban typology

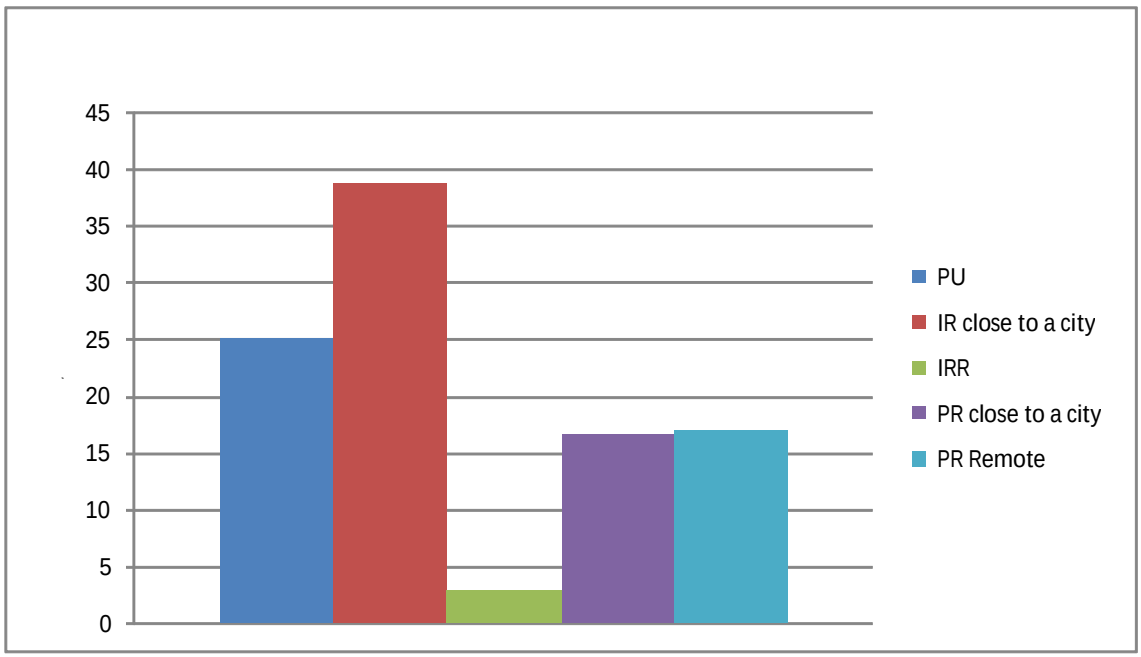
5.3.1 The provision of Services of General Interest

This graphic shows the distribution of doctors per inhabitant in each rural typology. Normally, health and social services have better access and quality in urban areas than rural ones, but this graphic evidences the opposite, concretely there are more doctors per inhabitant in rural areas closed to the city (see Noguera et al., 2009, EDORA project)

The graphic expresses the highest score (closed to 40% of doctors per inhabitant) in IRC, followed by the existence of 25% of doctors per inhabitant in PU. Lower scores are presented for PRC and PRR, with similar rates around 17% (slightly higher in PRR) and the lowest one is done in IRR with a 2.5% of doctors per inhabitant. Perhaps in IRR there is a rotation of doctors among the region - without a fixed doctor consultancy on the area- and hence, dependent of the accessibility of other SGI (transport facilities, road infrastructures, etc.)

The indicator percentage is approximately the double for rural areas respect to urban areas. Two processes take place in this discussion. On one hand, urban areas have more concentration of population and larger areas, so demands over SGI increase and the distribution of doctors per 1000 inhabitants is more disperse, i.e. there are less doctors per patient due to more population density. In rural areas occurs the opposite, and so, the healthcare services might be more personalized.

Figure 5.6 Doctors per 1,000 inhabitants, 2007, by categories in Dijkstra-Poelman rural-urban typology



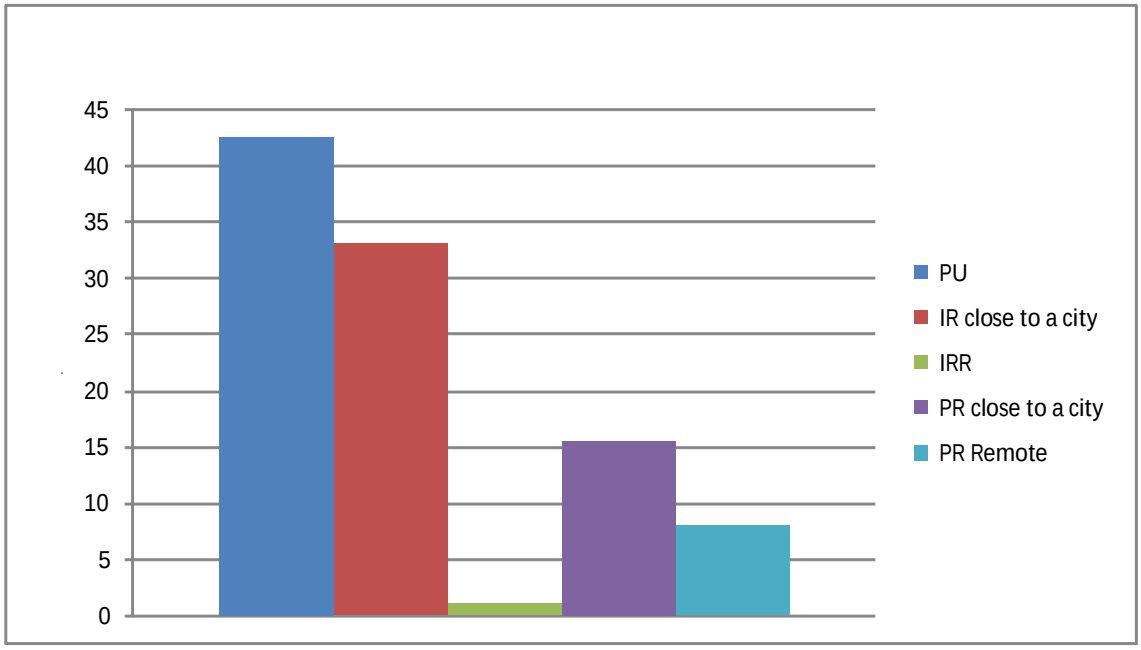
Source: own elaboration with data from EDORA Database

In this graphic the situation is opposed to the above commented. Urban areas prevail upon rural areas, with around 42% of *hospital beds per head* respect to 33% in IRC. So, in urban areas there are more utilities but in IRC there are more quality of human resources.

Predominantly rural areas have low rates. PRC present a 15% of hospital beds per head and PRR present around 7%. Usually, this kind of rural areas has difficulties on enclosing good and/or enough SGI. There are several spiral factors that influence this situation as: depopulation processes, lack of qualified labour force, high unemployment, bad infrastructures, lack of specific sanitary/hospital materials, etc.

Finally, IRR areas have around 1% of hospital beds per head, i.e. extremely minimum quality of health service. The difficult access to remote areas, as well of the high expenses in transport and the above commented factors, could influence on the low score for this utility.

Figure 5.7 Hospital beds per 1,000 inhabitants, 2007, by categories in Dijkstra-Poelman rural-urban typology



Source: own elaboration with data from EDORA Database

5.3.2 The accessibility of Services of General Interest

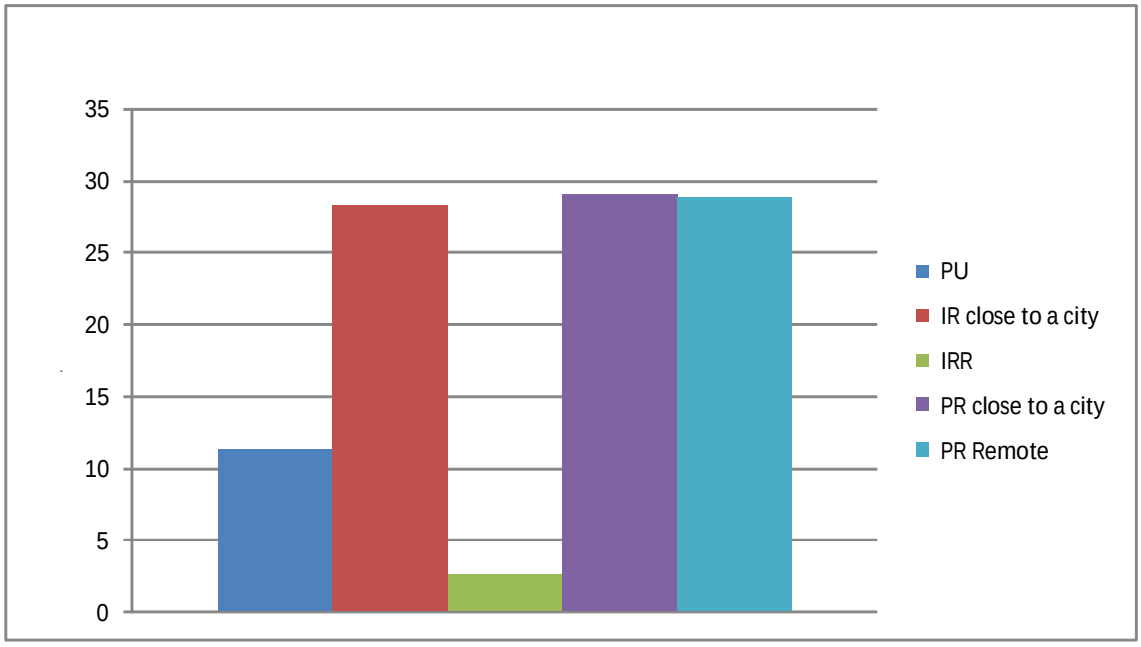
This figure offers an unclear picture of the rural typologies that spend long or short time to access to the nearest hospital.

The short time that users spend in IRR areas, which does not reach a 5% of time over the total time, is a partial result. Contrasting with the other health indicator graphics, one can guess the absence of health services in this kind of areas, or the absence of the areas in themselves. Thus, this result does not indicate the real time spent to access to the nearest hospital, but it can be explained by the above commented phenomenon.

The result in PU areas is reasonable. Users spend on average around 11% of their time to go to the nearest hospital. The metropolitan areas normally provides better access to services due to the concentration of population and services, better infrastructures and transport facilities.

In the rest of areas users spend similar time to arrive to the nearest hospital, with rates higher than 25%, distinguishing IRC areas front to PRR and PRC areas. As repeatedly commented, several factors influence on accessibility: distance, transport facilities, regional policies and road infrastructure conditions.

Figure 5.8 Time to nearest hospital, 2007, by categories in Dijkstra-Poelman rural-urban typology



Source: own elaboration with data from EDORA Database

This figure has a simpler interpretation than figure 5.7 since the represented percentage expresses the time in percentage spent to arrive to the nearest university.

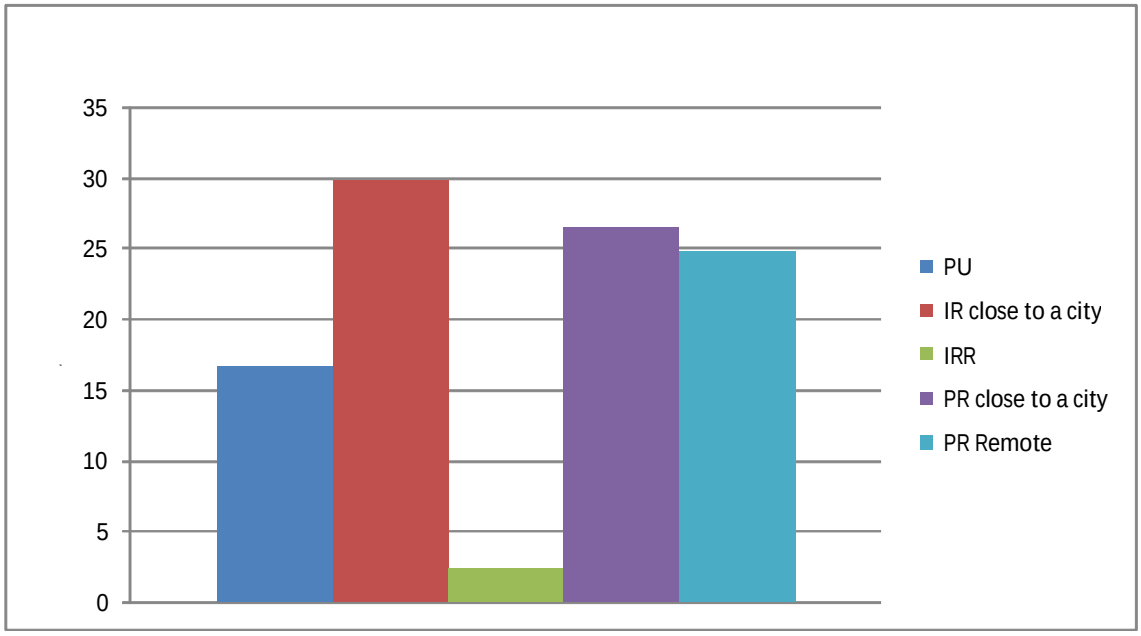
As illustrated, the shorter time percentage to arrive to the nearest university (around a 2.5% of time spent over the total) is indicated for IRR areas. This is a tricky result as it does not respond

to the timing but the absence of universities since there are not university students (see figure 3.12) Similar circumstances happen in PRC and PRR areas, which time spent is around 26-27% and 25% respectively.

Pursuing with the scores, urban areas users spend around 16-17% of time to arrive to the nearest university, very short time, mainly due to the big amount of transport facilities of an urban areas and the concentration of university campus.

The longest time spent to go to the nearest university (30%) occurs in IRC areas. universities are usually place in urban areas, so users from IRC areas have to displace there. The links within those areas and the city depend on transport facilities and road infrastructures, among other factors, and in some regions they do not work properly. If the universities are placed in the IRC areas, students from PU areas have the same problem turned around.

Figure 5.9 Time to nearest university, 2007, by categories in Dijkstra-Poelman rural-urban typology



Source: own elaboration with data from EDORA Database

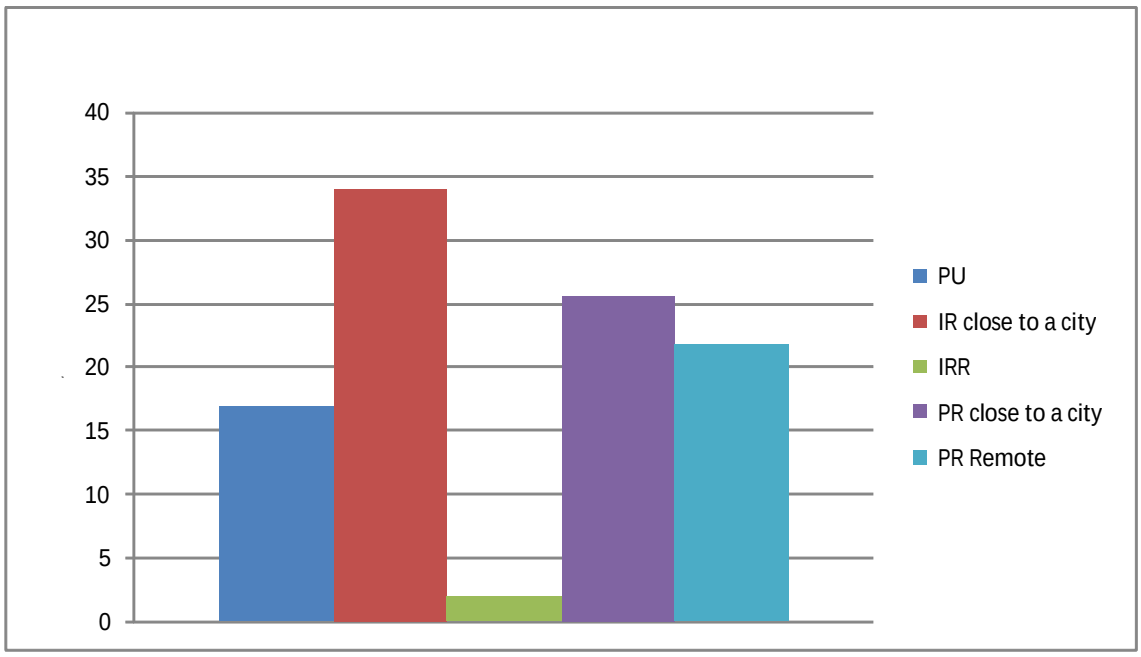
The distribution of the indicator '*time to nearest airport'* among the different rural typologies depends on the territorial capacity (space, service and infrastructures disposal, etc.) and the users demand.

As observed, the longest-time travel (spent of 35% of time) to arrive to the nearest airport occurs in IRC areas. These areas are the usual sites where airports are placed, so the result responds to a higher flow of travels to theses sites, in contrast with the other rural typologies. The same happen, but in less percentage, in PRC areas (with a rate of 25% of spent time travel), either because airports are placed in these areas or because users from these areas travel to IRC (and viceversa) to access to the nearest airport.

The result for IRR areas has the opposite interpretation; there are no so many IRR with airports so the travel flows to these areas are reduced. In the quantitative data it is indicated as short-time travel but this result is far from the real situation.

Following with the graphic scores, in PRR there is a spent time travel closed to 22%, while in PU areas the score is closed to 17%. PU areas with this score could be associated with Central European countries (with high density of PU regions) and short, moderate access times (due to their adequate transport and road infrastructures, among other factors). In the case of PRR score, these areas could be associated primarily with Scandinavian countries (due to their major representation) but this score disguises long-time travels from PRR, due to their remoteness characteristics.

Figure 5.10 Time to nearest airport, 2007, by categories in Dijkstra-Poelman rural-urban typology



Source: own elaboration with data from EDORA Database

5.4 Comparative analysis of relevant data and indicators at region level (NUT 3) for the countries covered, expressed in maps

5.4.1 Provision of Services of General Interest

The present indicator, *doctors per 1,000 inhabitants*, respond to the quality of health services. As observed in the map, there are a lot of regions with no availability of data.

Making a snapshot of the map, it can be stated that Southern Europe enjoys more doctors per inhabitant than all the rest of European regions, especially Northern regions (less than 150 doctors per inhabitant)

Among Northern regions with fewer doctors, Scandinavian countries and Ireland have them distributed overall in PRR and PRC areas. Northern ex-socialist countries have them in predominantly IRC and PRR areas.

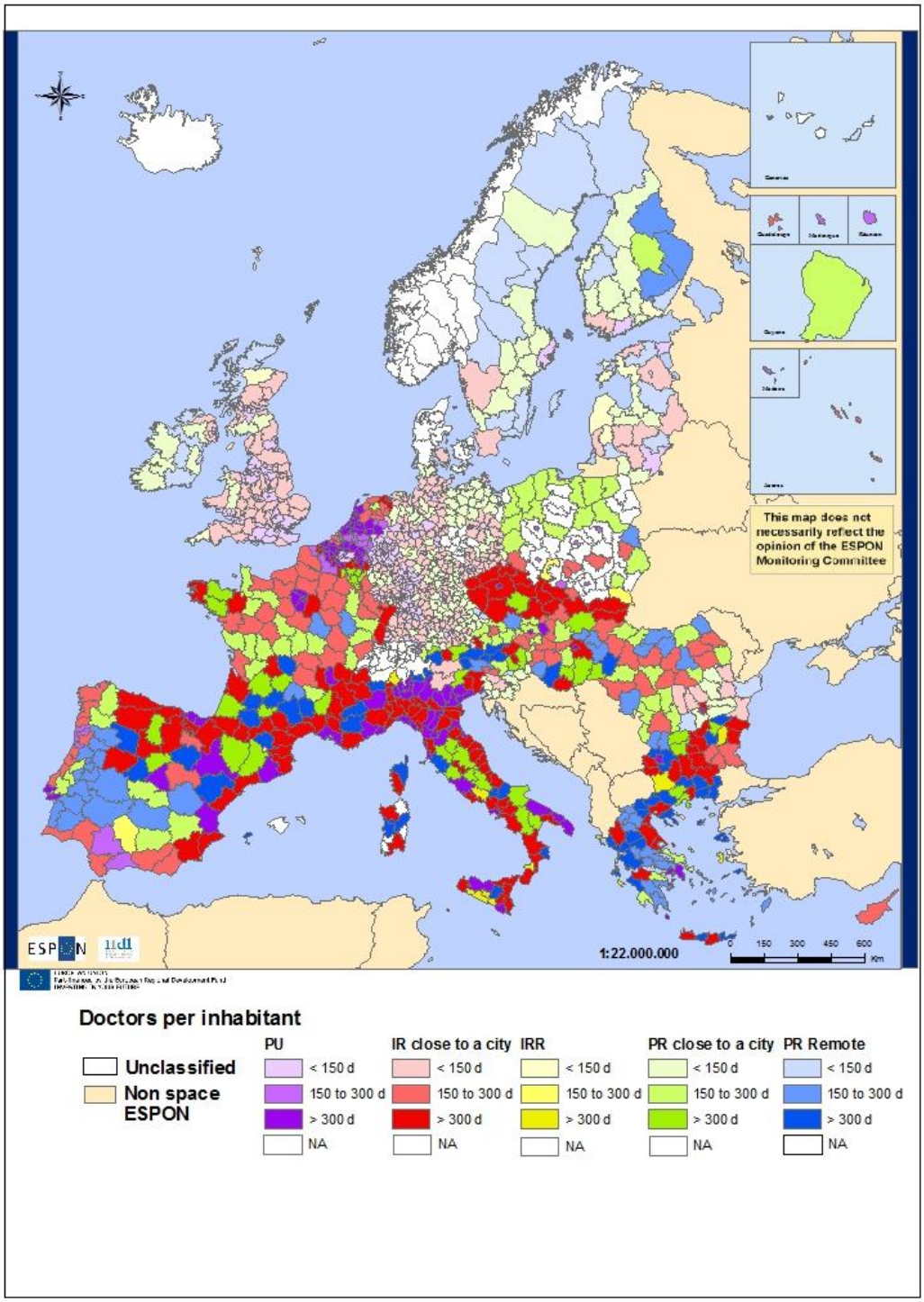
The regions of United Kingdom, Germany and Austria embody principally IRC and PRC areas with fewer doctors. The rest of Central European countries have moderate rates in IRC and PRC zones, except in Belgium and Nederland which predominant typology is the PU and there are some regions with more than 300 doctors per inhabitant.

Eastern regions have moderate rates (150-300 doctors per inhabitant) predominantly in PRC and IRC, as well in some little PRR spots. The exceptions are some IRC regions, with more than 300 d/i, which correspond to Czech Republic and Slovakia.

Southern regions, as above commented, are the regions with more doctors per inhabitant (overall in the IRR and PU areas of coastal regions) PRR areas with a high rate are common as well in inland regions and Greece. Portugal is an exception in this group because, except in the Algarve region (touristic site with a concentration of SGI and people), it has principally IRC areas with moderate rates.

Hence, the most remarkable areas with more doctors per inhabitant are the IRC and PU areas, overall in Southern coastal regions, since they concentrate more SGI because of the tourism activity and the concentration of population.

Map 5.1 Doctors per 1,000 inhabitants, 2007, by categories in Dijkstra-Poelman rural-urban typology



Source: own elaboration with data from the EDORA Database

At first glance, there is a big amount of unable data for the indicator *Hospital beds per 1,000 inhabitants* to a large extent in the European Union. Southern regions data are more completed as well as some from Central Europe and from two Scandinavian countries (Sweden and Finland). Eastern Europe is almost empty of content. So the analysis is going to be a bit geographically concrete to make it understandable.

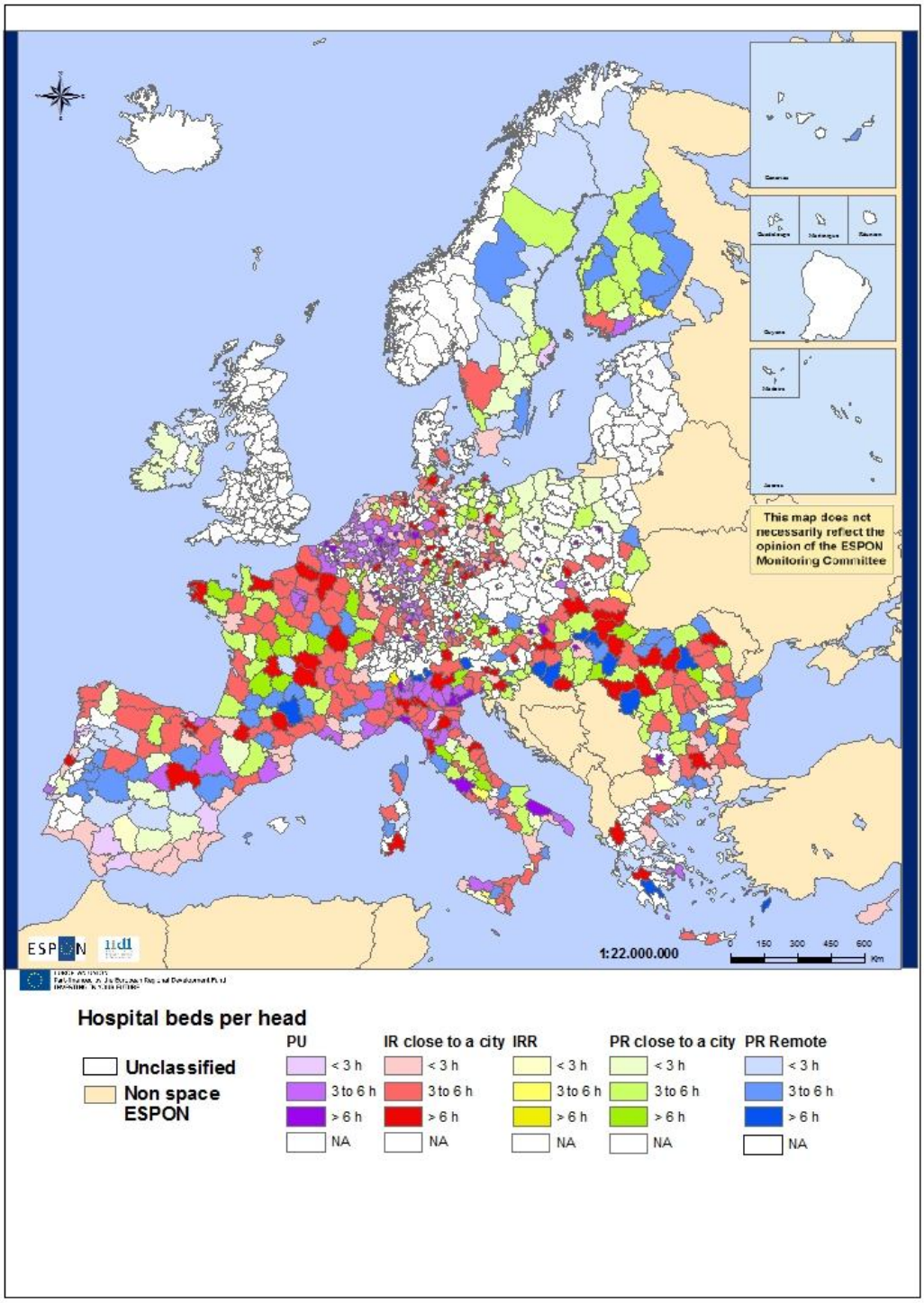
Referring to countries up North, there is only information about Finland and Sweden. The first one has higher rates (3-6 hospital beds per head) in more part of its territory than the second one (most of its territory is represented by low rates (less than 3 hospital beds per head). But both of them have high rate in the same kind of rural typologies, mainly in PRC and PRR areas.

Central Europe as a whole can not be analysed. Some regions of Germany and surrounding areas possess rates of more than 6 h.b/head in IRC and PRC areas. The regions of Belgium, Nederland, Luxembourg and Switzerland are predominantly urban, with moderate and high rates. France has been well documented and has predominantly IRC areas with moderate rates, and some scattered PRC and IRC areas with more than 6 hospital beds per head.

Southern Europe (except Greece, Portugal and the South of Spain with low rates) presents moderate rates, mainly in PRC, IRC and some PRR areas. Besides, South-East regions have the highest rates among Southern Europe, overall in IRC areas and some PRR ones. These results benefit the Southern ex-Yugoslavian countries in favour of a better quality of health services, maybe due to their last political system.

In sum, there are more hospital beds per head in IRC areas. Due to the lack of data, a final assessment of the health indicator distribution among the EU can not be done, but the inferred hypothesis from this map is that the regions with the best quality health resources are the South-East regions of Europe.

Map 5.2 Hospital beds per 1,000 inhabitants, 2007, by categories in Dijkstra-Poelman rural-urban typology



Source: own elaboration with data from the EDORA Database

5.4.2 Accessibility to Services of General Interest

This map represents the *accessibility to hospitals* among the EU regions, although there is an important lack of data for numerous regions.

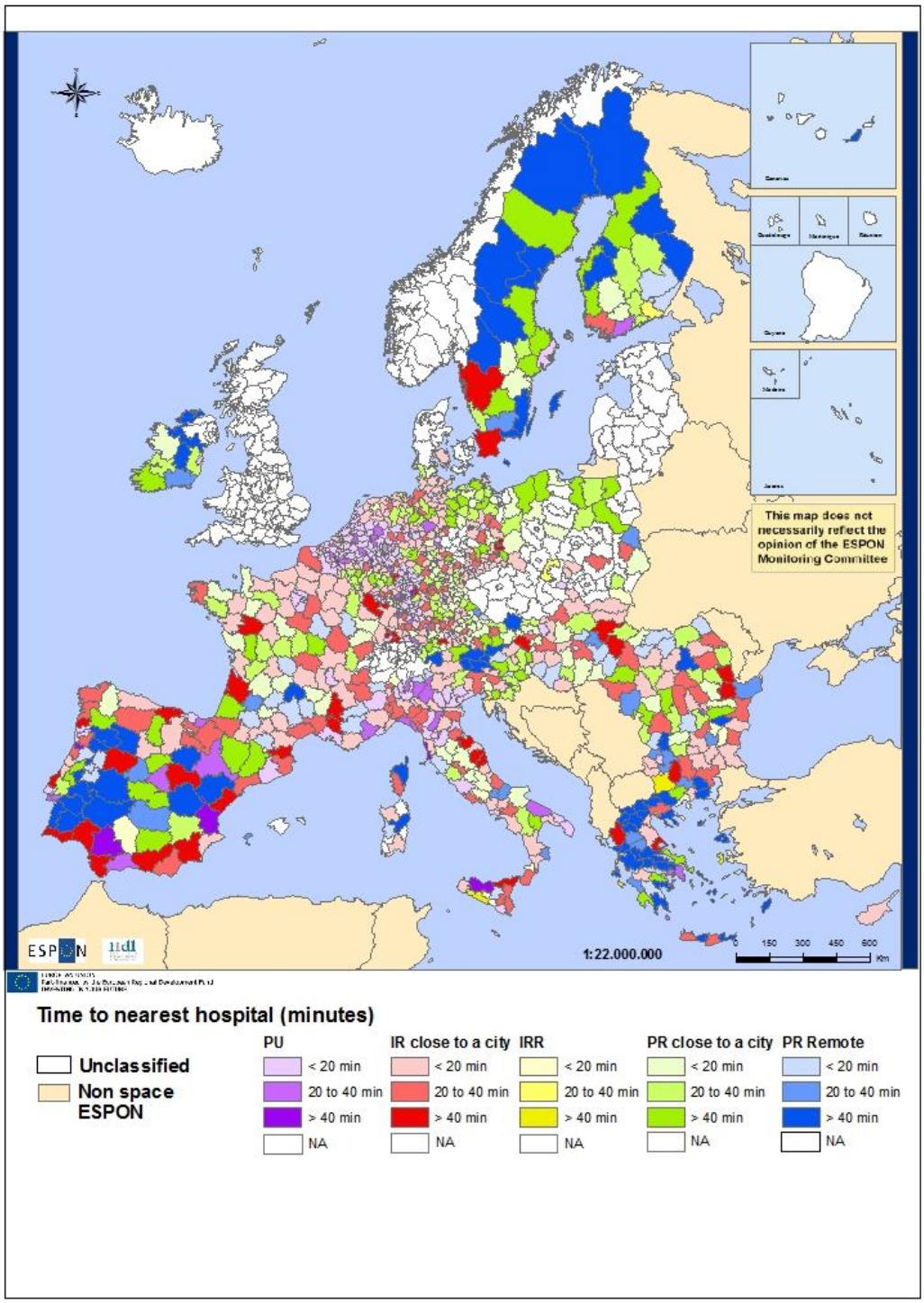
The picture represented on this map offers a snapshot of the European situation. Except ex-socialist regions, Spain, Greece, Ireland, Sweden and Finland regions, the rest European countries have low and moderate rates, mainly distributed in IRC, PRC and PU areas. There are some dispersed spots (scattered in IRC and PRC) where users spend more than 40 minutes to arrive to the nearest hospital.

The other countries, marked as exceptions, are classified as countries with high rates, i.e. users who live in most of the regions of those countries spend more than 40 min. to access to the nearest hospital. So, in some cases, the accessibility to hospitals in those regions is inadequate.

As continuously said, in Sweden and Finland there is a problem of population and service dispersion, so distances are the handicap to access to services. Their predominantly rural typology per se does not affect on the accessibility since those countries have very good quality of public services in all their region types.

Among the other group of countries with high rates (characterised principally by IRC, PRC and PRR areas), only Spain has a PU representation with moderate and high rates. In this group of countries, distances per se are not the key factor because they have smaller size. But services and infrastructure availability and maintenance are the key elements, as well as their demand per user (which increase seasonally due to tourism). In addition, regions' remoteness is important here and plays an important role since historically, those places have been characterised by neglected actions and inefficient rural development policies (e.g. see Greece case)

Map 5.3 Time to nearest hospital, 2007, by categories in Dijkstra-Poelman rural-urban typology



Source: own elaboration with data from the EDORA Database

In this map is shown in detail the distribution of the indicator *Time to nearest University* over the different rural typologies in the EU. The measurement scale is different from the table data of the same indicator, so results could be different as well and it has to be taken into account in a deeper analysis.

Excepting Scandinavian countries, Greece, United Kingdom, France, some regions of Spain and some other spots, the rest of the European territory spend long time (>65 min) to access to the nearest university.

Scandinavian countries, up North, spend moderate time (from 55 to 65 min) to arrive to the nearest university, mainly due to the PRR terrain (characteristic of those areas because of the long distances and dispersed population centres) Denmark and Finland are exceptions. In the first one, principally constituted by IRR areas, users spend short time (<55min) to arrive to the nearest university (because of its small and concentrated territory). In the second one, principally constituted by PRC and PRR areas, users spend long time (<65min) to arrive to the nearest university since, as well as Sweden, Finland occupies a large and dispersed territory.

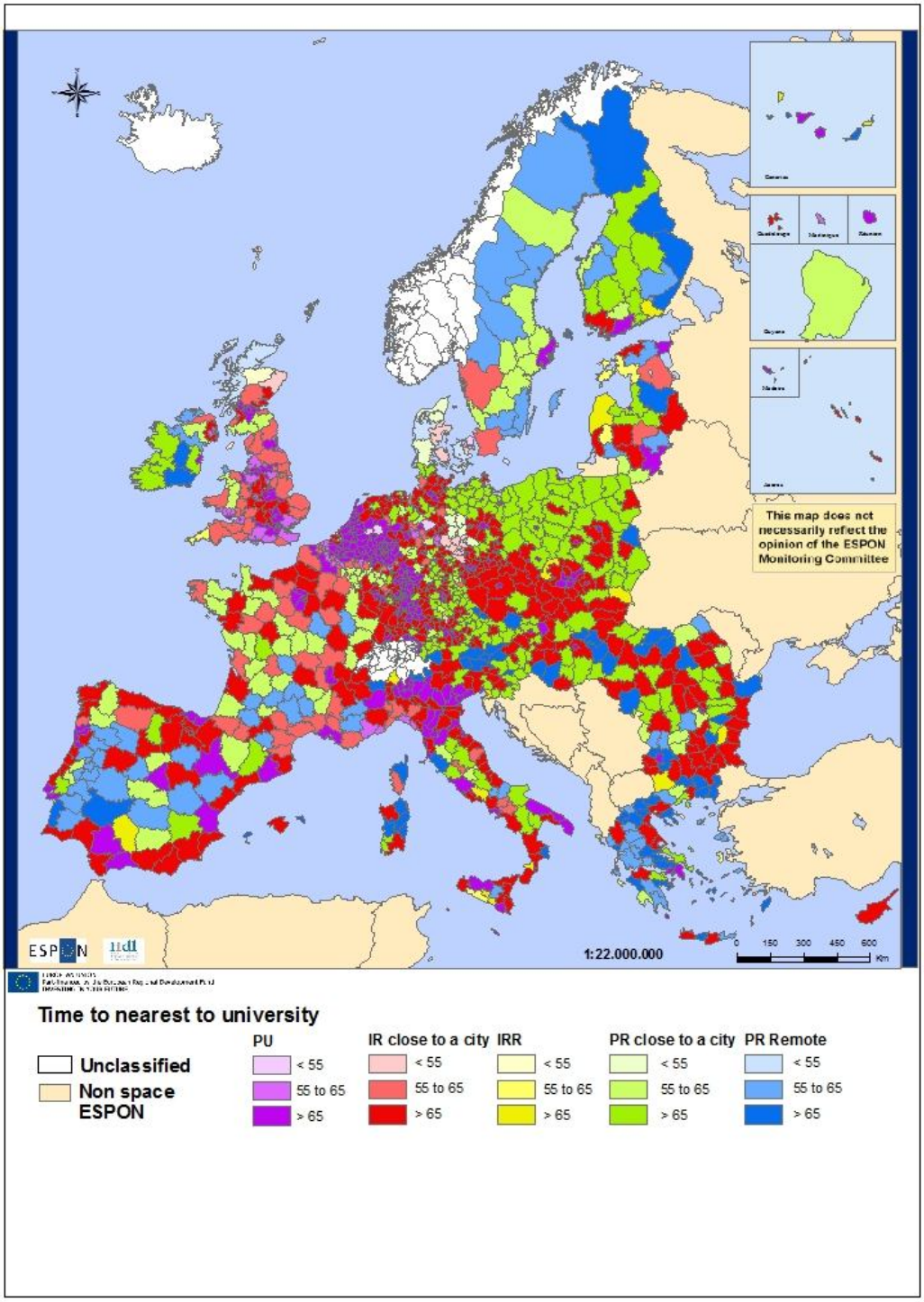
Eastern Europe (excepting North-East region) is characterised by PRC and IRC areas where, in general, users spend the maximum time (>65 min) to arrive to the nearest university. There are some dispersed and small PRR and PU areas with these characteristics. All the different rural typologies are distributed over the North-East region, with the predominance of IRC areas, and different rates of time but normally long timing.

Central Europe, except France and United Kingdom with moderate time spent, is disaggregated into IRC, PRC and PU with long time spent to access to the nearest university. Perhaps, a continuous flow of students travelled from urban areas to peripheral areas (and viceversa) is the cause of this result. France is disaggregated into IRC, PRC and PRR areas, where only in some IRC spots there is an expense of long time travel. In UK the predominant area is IRC and the timing rate is moderate, while in Ireland PRC and PRR are predominant and there is a high timing rate.

Southern Europe is heterogenic. In the coastal regions, mainly represented by IRC and PU areas, users spend long time to access to the nearest university. The rest of the inland territory is constituted mainly by PRR and PRC with moderate timing rates.

To summarise, the map results argue on the table and graphic results of the same indicator, pointed out that IRC and PU areas are characterised by long timing rates (the opposite than the other representations). As commented about, maybe this is due to the different measurement scale of the time.

Map 5.4 Time to nearest University, 2007, by categories in Dijkstra-Poelman rural-urban typology



Source: own elaboration with data from the EDORA Database

At first glance, this map could be divided in two different branches according to long and short *time travel to access to the nearest airport*. Eastern, Northern and some Southern countries

pertain to the group of long-time travel, and Anglo-Saxon, Central and other Southern countries (Italy, Corsica, Sardinia, Malta and Cyprus) pertain to the short-time travel group.

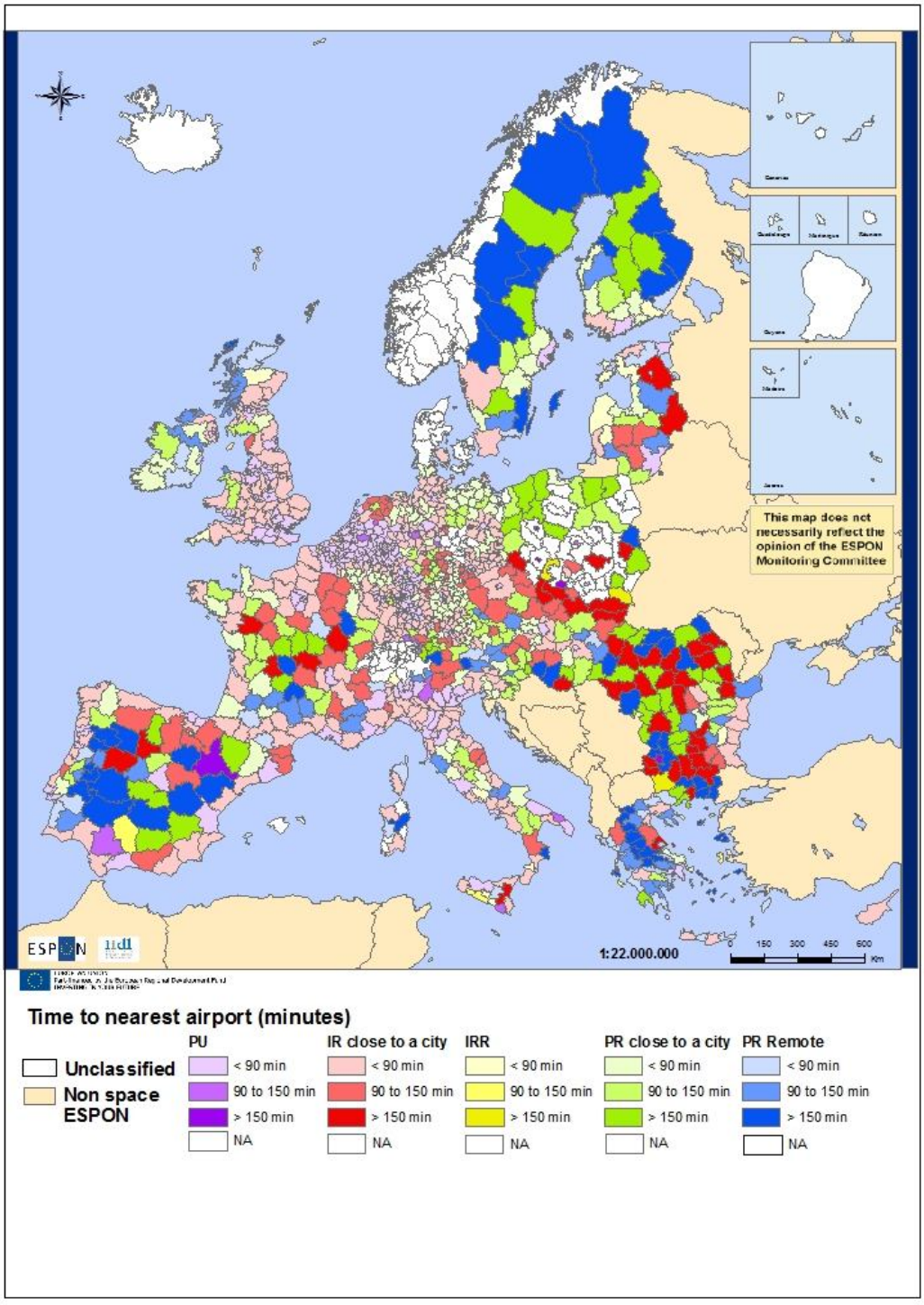
Referring to the long-time travel group of regions, it is mainly distributed over PRR areas (at big scale in the case of Finland, Sweden, inland of Spain and Greece), IRC areas (overall in Eastern European regions, and some in ex-socialist regions from the North of Europe, as well in some small spots of France) and PRC areas (greatly in Finland, Sweden, Eastern European regions) These regions need a strengthen of transport facilities and better road networks (in the case of Finland and Sweden there are other particularities and this interpretation can not be applied for them)

On the other hand, short-time travel group of regions is mainly distributed mostly over IRC and PU, afterwards in PRC areas and some little PRR spots (mainly in Ireland and France). A deductive hypothesis, extracted from the results, is that transport facilities, road networks and accessibility appear as satisfactory in this group of regions.

Intermediate remote areas are not extensively represented in the map, its representation is negligible. It suggests the distribution of airports near these areas is poor.

In conclusion, IRC areas (with different rates for the indicator) are the principal distributed areas among the European Union, partly due to the placement of airports in the periphery regions, closed to urban focus.

Map 5.5 Time to nearest airport, 2007, by categories in Dijkstra-Poelman rural-urban typology



Source: own elaboration with data from the EDORA Database

CHAPTER 6
FARM STRUCTURAL CHANGE

6.1 Comparative analysis of relevant data and indicators by country with reference to the EU27 average

6.1.1 The profile of farmers

The indicator defined as '**% holders working full time'** gives information about the intensification or reduction of the farming activity related to the economic framework of a country. Normally, in small sized farms and subsistence agriculture holders do not work full time, while in larger size farms holders usually do work full time to reach certain good sales and obtain more benefits. Farming activity is linked with rural development support, which somewhat is depending on rural projects and funds.

As the table shows, in the EU 27 there is, on average, a 36% of holders who work full time. The influence of intensive farming practices and large rural development support in Central-West countries help to enclose this EU 27 score. There are no data for six countries: Y.R. Macedonia, Turkey, Switzerland, Iceland, Liechtenstein and Croatia.

Rates below EU average and where there are less than 20% holders working full time are located in: Romania (1.38%), Lithuania, Hungary, Slovakia, Malta, Cyprus, Greece, Estonia, Poland, Latvia and Slovenia (18%). The majority of those countries have small size farms structure and subsistence agriculture. National rural development policies and funds are not strong enough because these countries have suffered a hard socio-economic transition towards EU reconversion patterns.

In the next group of countries, there is a percentage of holders between 20-40% who work full time. This group is constituted by: Sweden (24%), Portugal, Italy, Bulgaria, Norway, Spain, United Kingdom, Austria, Denmark and Czech Republic (39.39%). These last both countries have rates above EU average. Referring to last indicator results, there is a heterogenic disparity of farm size structures among this group of countries.

As well as in the last indicator result, rates with more than 40% of holders who work full-time in agriculture correspond to Central-West countries (Finland, Germany, France, Ireland, Luxembourg, Nederland and Belgium). Pluriactivity of farmers and agriculture diversification are promoted in Central Europe, overall in Northern countries; it incentives holders to work full time and to maintain their jobs since agricultural goods, via primary sector, are used for other production purposes. (See Copus et al, 2009, *Farm Structural Change and the Role of Agriculture in the Rural Economy*, p.19, EDORA project)

Table 6.1 % of holders working full time (2005), by country

	% Holders working full time 2005
BELGIUM	67.84
NEDERLAND	67.56
LUXEMBOURG	57.26
IRELAND	52.65
FRANCE	52.64
GERMANY	43.27
FINLAND	41.00
CZECH REPUBLIC	39.39
DENMARK	36.89
EU 27	**35.50**
AUSTRIA	34.44
UNITED KINGDOM	30.94
SPAIN	30.72
NORWAY	30.22
BULGARIA	30.14
ITALY	25.50
PORTUGAL	24.94
SWEDEN	23.74
SLOVENIA	18.03
LATVIA	17.92
POLAND	17.51
ESTONIA	15.98
GREECE	11.69
CYPRUS	8.29
MALTA	7.89
SLOVAKIA	6.05
HUNGARY	5.66
LITHUANIA	3.02
ROMANIA	1.38
CROATIA	NA
LIECHTENSTEIN	NA
ICELAND	NA
SWITZERLAND	NA
TURKEY	NA
Y.R MACEDONIA	NA

Source: own elaboration with data from the EDORA Database

The current indicator is defined as the **percentage of holders older than 55 years old**, and it is based on the data of 2007. Normally, the proportion of holders working full-time tends to decrease as age increases. A concatenation of factors is related with the holders' age. In intensive/big farms elderly holders do not usually work, in contrast to subsistence/small farms.

On average, among the total holders from the EU 27 Member States, there are more than half of holders older than 55 years old. In rich economies there is a trend to hire young immigrants or young national holders (hired in less proportion) to work full-time on farming. Furthermore, social labour conditions of elderly workers (retirement age and economic compensation) are

largely developed in historically democratic countries. The followed eleven countries do not register data: Y.R. Macedonia, Turkey, Switzerland, Iceland, Liechtenstein, Croatia, Greece, Bulgaria, Spain, United Kingdom and Germany.

Table 6.2 % of holders more than 55 years old (2007), by country

	% holders > 55 years (2007)
PORTUGAL	74.10
ROMANIA	67.42
ITALY	67.34
SLOVAKIA	60.34
SLOVENIA	58.59
LITHUANIA	58.58
CYPRUS	58.19
MALTA	57.56
ESTONIA	57.29
HUNGARY	55.59
SWEDEN	51.08
EU 27	**50.62**
LATVIA	49.93
IRELAND	49.75
CZECH REPUBLIC	45.90
DENMARK	45.84
NEDERLAND	45.45
BELGIUM	42.64
FRANCE	41.30
LUXEMBOURG	39.38
NORWAY	36.79
FINLAND	36.44
POLAND	35.68
AUSTRIA	29.84
GERMANY	NA
UNITED KINGDOM	NA
SPAIN	NA
BULGARIA	NA
GREECE	NA
CROATIA	NA
LIECHTENSTEIN	NA
ICELAND	NA
SWITZERLAND	NA
TURKEY	NA
Y.R. MACEDONIA	NA

Source: own elaboration with data from the EDORA Database

Rates below 45% of holders older than 55 years old, and indeed below EU average, pertain to the followed Central-West countries: Austria (30%), Poland, Finland, Norway, Luxembourg, France and Belgium (43%). Basically these results respond to none primarily agriculture economic activity (on the other way around, these countries are characterised by being

Knowledge based economies focused on tertiary sector). The existing agriculture activity is intensive and based on pluriactivity and diversification. Holders who work on this system spend full-time in farms, and so age requirements decrease.

There are just a few countries with rates between 45 to 55%. They are Nederland (45.45%), Denmark, Czech Republic, Ireland, Latvia and Sweden (51%). In the majority of them (except Latvia and Sweden), holders work full-time, mainly in big farm structures. In Latvia, farms use to be small and there are holders who do not work full-time. In those conditions, old holders can manage their holdings and can still work on them. Sweden is mainly a tertiary sector economy and social system is over-developed, so old workers enjoy good retirement conditions.

Older holders' representation is more than 55% in countries such a: Hungary (55.59%), Estonia, Malta, Cyprus, Lithuania, Slovenia, Slovakia, Italy, Romania and Portugal (reaching 74%). As it can be observed, the majority of them are ex-socialist, ex-Yugoslavian and countries from the South of Europe. In most of them, characterised by small farm structures and subsistence agricultural system, holders do not work full-time. It is supposed that they harvest crops to benefit themselves, and in less proportion, market users (due to the limitation of goods production)

6.1.2 Farm structures

The first indicator analysed in this section is **% Holdings >100 ESU** referred to data of 2005. It indicates the percentage of farm size structures bigger than 100 ESU (1300 ha). ESU (European Size Unit) is a measure of the economic size of a farm business based on the gross margin imputed from standard coefficients for each commodity on the farm. 1 ESU is roughly corresponds to: 1.3 hectares of cereals, 1 dairy cow or 25 ewes (English Department for Environment, Food and Rural Affairs, 2004, *Economics and Statistics. Farm Business Survey. Measure of farm size*, https://statistics.defra.gov.uk/esg/asd/fbs/sub/europe_size.htm)

In 2005, the EU 27 average was represented by 8.38% holdings bigger than 100 ESU, which means a prevalence of medium size farms among EU territory, on average. In this calculation there is no representation of some countries (Y.R. Macedonia, Turkey, Switzerland, Iceland, Liechtenstein and Croatia) due to non data availability.

The majority of ex-socialist, ex-Yugoslavian, Southern countries and Scandinavian countries possess rates below 5%, i.e. in these countries there is a prevalence of small farms (and possibly a subsistence agriculture system). Concretely, the list of countries by size is the followed one: Romania (0.5%), Greece, Slovenia, Lithuania, Poland, Latvia, Malta, Bulgaria, Hungary, Cyprus, Estonia, Portugal, Austria, Slovakia (1.71%), Ireland, Italy, Finland, Spain, Sweden and Norway (4.86%). Except Scandinavian countries and Austria (pertaining to this group of countries because of its small territory size), the other countries comprise more employment proportion in primary sector than in tertiary sector and all the indicators point out their rurality character, focused on traditional customs.

Medium size farms (from 5% to 15% holdings bigger than 100 ESU) are located in Czech Republic (below EU average with a result of 6.17%), UK, Luxembourg, Germany and France (15%). Except Czech Republic, the rest countries are Central European and their economic system is based primarily on the tertiary sector. Their agriculture system is more modernised and involved in the industrialised market, and normally responds to intensive farming practices.

Large size farms (with more than 15% holdings bigger than 100 ESU) are sited in Denmark, Belgium and Nederland (reaching the highest percentage of holdings with a result of 33.42%). These countries possess the same similarities as the right above commented, but due to their small territory size the indicator places them on the top rank of the table data.

Table 6.3 % of holdings of more than 100 ESU (2005), by country

	% Holdings >100 ESU (2005)
NEDERLAND	33.42
BELGIUM	22.25
DENMARK	17.98
FRANCE	14.88
GERMANY	13.06
LUXEMBOURG	11.02
UNITED KINGDOM	9.60
EU 27	**8.38**
CZECH REPUBLIC	6.17
NORWAY	4.86
SWEDEN	3.48
SPAIN	3.11
FINLAND	2.75
ITALY	2.74
IRELAND	2.18
SLOVAKIA	1.71
AUSTRIA	1.36
PORTUGAL	1.05
ESTONIA	0.94
CYPRUS	0.78
HUNGARY	0.29
BULGARIA	0.28
MALTA	0.27
LATVIA	0.23
POLAND	0.23
LITHUANIA	0.17
SLOVENIA	0.13
GREECE	0.12
ROMANIA	0.05
CROATIA	NA
LIECHTENSTEIN	NA
ICELAND	NA
SWITZERLAND	NA
TURKEY	NA
Y.R. MACEDONIA	NA

Source: own elaboration with data from the EDORA Database

Firstly, the farm size structure has been studied in the farm structural change section according to large size of holdings. Now, it is going to be studied according to small size of holdings, meant by the indicator **% Holdings < 2 ESU** (i.e. less than 2.6 ha). As before commented, small size farms usually indicate an agriculture type based on subsistence or small production scale (local market). This kind of agriculture does not largely contribute to the economic budget at national scale.

Making a snapshot of the table data and comparing these results with the % holdings>100 ESU, it can be asserted that small size farms prevail over large ones among the EU territory. Pointed out, in EU 27 there was an 8.38% of holdings>100 ESU on average while, as described in this table, there is a 34% of holdings<2 ESU on average over the total of holdings. The percentage interval in the current table (from 2% till 92% of holdings smaller than 2 ESU) is major than in the other table (from 0.05% till 33% of holdings bigger than 100 ESU)

It has to be taken into account that there are no data for: Nederland, Y.R. Macedonia, Turkey, Switzerland, Iceland, Liechtenstein and Croatia.

On one hand, countries with rates less than 25% and below EU 27 average correspond majorly to Central-West countries (excepting Spain): Norway (2%), Denmark, Finland, Belgium, Luxembourg, Ireland, France, Germany and Spain (22.15%). These countries are not characterised by having small size farms, actually it is the other way around (as observed in the first table data of the present section). The agriculture type in those countries is linked to good production at big scale, contributing to a country's GDP through primary goods sales.

There is heterogeneity of countries (mainly ex-Yugoslavian and Southern ones) with rates from 25% to 60% of holdings smaller than 2 ESU, such as: Sweden (28%) and Austria (with rates below EU 27 average) and Italy (35%), Greece, UK, Slovenia, Malta, Czech Republic, Cyprus and Portugal (56%), all with rates above the EU 27 average. The case of Austria and Sweden is different respect the others since they are mainly tertiary sector and high-developed societies. Thus, they do not reach high proportions of either smaller farms or bigger ones.

Rates over 60% of holdings smaller than 2 ESU correspond exclusively to ex-socialist countries: Poland (68%), Estonia, Lithuania, Latvia, Hungary, Slovakia, Romania and Bulgaria (92%) It has been argued that subsistence agriculture type in these countries -mainly rural and industrialised at the same time- prevails over intensive and diversified agriculture. It is linked with primary and secondary sector and those countries are becoming the major European exporters of primary goods, but the production process is still being developed and it needs more funds and better rural development strategies.

Table 6.4 % of holdings of less than 2 ESU (2005), by country

	% Holdings < 2 ESU (2005)
BULGARIA	91.90
ROMANIA	90.35
SLOVAKIA	90.23
HUNGARY	87.57
LATVIA	83.61
LITHUANIA	78.76
ESTONIA	75.20
POLAND	68.29
PORTUGAL	56.13
CYPRUS	54.30
CZECH REPUBLIC	51.28
MALTA	49.46
SLOVENIA	47.86
UNITED KINGDOM	45.93
GREECE	35.95
ITALY	35.06
EU 27	**33.89**
AUSTRIA	29.20
SWEDEN	27.98
SPAIN	22.15
GERMANY	14.05
FRANCE	13.09
IRELAND	11.20
LUXEMBOURG	8.57
BELGIUM	7.29
FINLAND	6.73
DENMARK	2.17
NORWAY	1.99
CROATIA	NA
LIECHTENSTEIN	NA
ICELAND	NA
SWITZERLAND	NA
TURKEY	NA
Y.R. MACEDONIA	NA
NEDERLAND	NA

Source: own elaboration with data from the EDORA Database

6.2 Comparative analysis of relevant data and indicators by non-exclusive groups of countries

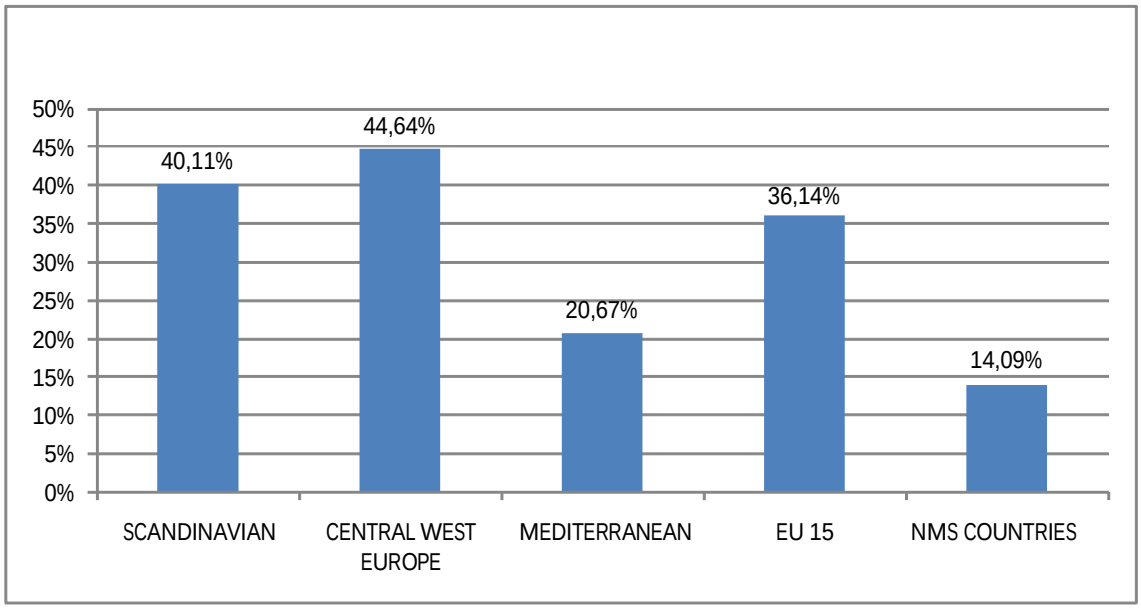
6.2.1 The profile of farmers

In 2005, there were more than 36% of holders working full time in EU 15 while in NMS they reach the 14% of full-time job. The EU 15 rates is influenced and helped by the rural development policies of Central-West countries, among the rest EU 15 members. Furthermore, agriculture system from EU 15 and NMS differs. In EU 15 there is a modernised and supported agriculture (where usually migrants work seasonally), and in NMS regions subsistence agriculture, characterised by firmly deeply rooted practices, is the main agriculture system which generates fewer good sales in the market economy.

Harvesting types and periods must be taken into account in the analysis because they are different depending of the land productivity, resources availability and climate conditions. Thus, some crops need more attention and work effort and others do not need such a continuous control.

In Central-West countries, due to larger size farms and solid holders' labour conditions (thanks to European and national funds and modernisation of the agriculture sector), there were a 45% of holders working full time.

Figure 6.1 % of holders working full time (2005)



Source: own elaboration with data from the EDORA Database

Conversely, Mediterranean countries do not enjoy the same opportunities and it is reflected on their score, which does not reach 21% of holders working full-time, the half than Central-West and Scandinavian countries.

In Scandinavian countries the situation is no as political and economical but climatically limited. The productivity of primary goods in these countries is low and tertiary sector activity produces great incomes, positioning as the major economic sector.

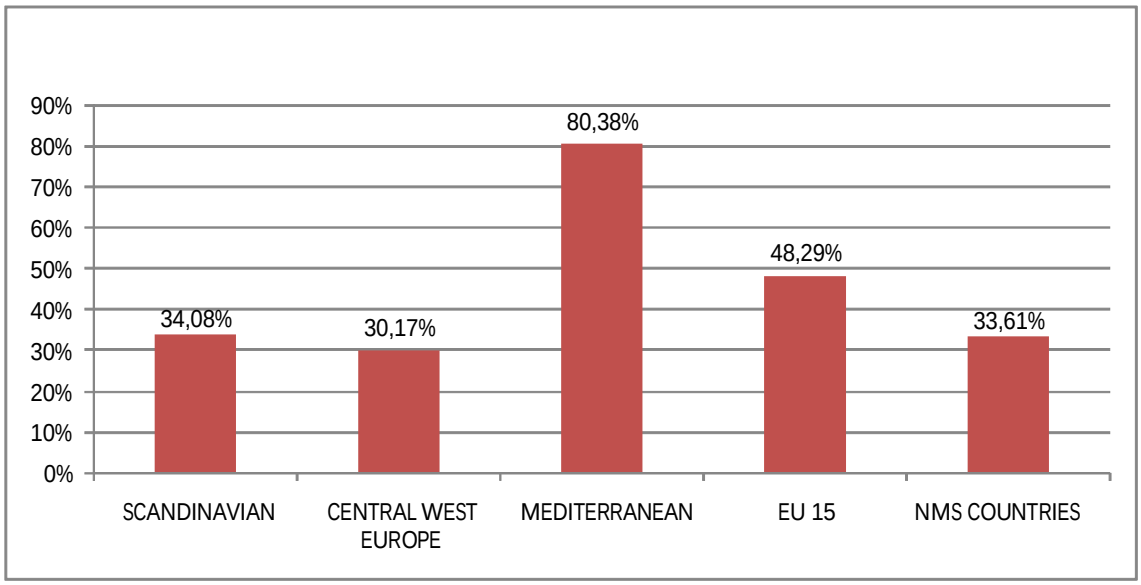
The percentage of *holders older than 55 years old* is higher in the EU 15 (there are 49% holders older than 55 years old) than in NMS (closed to 34% of holders older than 55 years old), with a difference of 15%. Not only there are more holders working full-time in EU 15 but elderly population too (at the same time, less young workers want to work in agriculture, except immigrants).

The highest percentage of holders older than 55 years old reaches 80% in Mediterranean countries. Small-medium farms, more holders working part-time (surely in non pluriactive agriculture), elderly population and migration patterns produce than in Mediterranean countries the percentage is higher than in NMS.

In contrast, Scandinavian countries possess less than the half percentage of holders older than 55 years old (there are around 34% holders over 55 years old) due to their principal tertiary sector activity, their good retirement conditions and the hard conditions of the climate.

Meanwhile, in Central-West countries, knowledge-based economies, there are closed to 30% of holders over 55 years old even though it is the area with more holders working full-time. It induces to suggest that agriculture represents little proportion on the economic activity but it follows a concentration model of production (large farms, full-time work, successful good sales, immigration labour force, etc.)

Figure 6.2 % of holders over 55 years old (2005)



Source: own elaboration with data from the EDORA Database

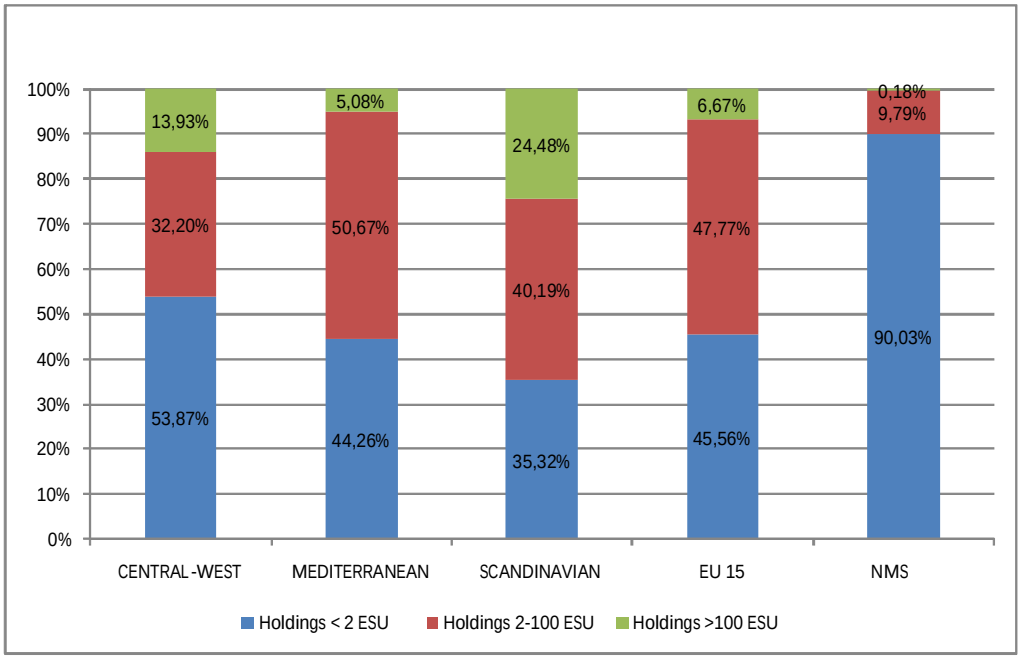
6.2.2 The profile of farmers

At first glance, the predominance of NMS member states over EU 15 is clear referring to small farm size structure. In numbers, there are 90% of holdings smaller than 2 ESU in NMS while in EU 15 there are 46%. The influence of Central-West countries' high percentage (with an existence of 54% holdings smaller than 2 ESU) and Mediterranean countries (44%) help the EU 15 percentage to rise, in spite of the poor score for Scandinavian countries (around 35%) produce the opposite effect on the EU 15 score.

Medium farm sizes dominate on the EU 15 panorama, with a rate closed to 48% (2 points above the small size farms result in EU 15). In this case, the most influential group is the Mediterranean countries (where medium farm size represents closed to 51% over all the different farm sizes). As well, Scandinavian countries posses higher representation of medium farm size than small ones, with a rate of 40%, and Central-West countries reduce it to a 32% (predominating small size farms structure on these countries). Meanwhile, the score for NMS countries is practically negligible, not reaching 10% of medium farm size.

According to big farm size, the percentage of holdings bigger than 100 ESU is very low in all the different group of countries. In EU 15, it does not reach the 10% but in NMS, it represents less than 0,20%, so big farms are rare in the territory. The assertion of the different agriculture systems between both areas is patent: more industrialised and intensive/extensive farming from to traditional and subsistence farming. The first one needs medium size farms and the second does not require big farm infrastructure.

Figure 6.3 Structure of holdings according to economic size ESU (2005)



Source: own elaboration with data from the EDORA Database

Scandinavian countries possess the same rates as in the table data, i.e. agriculture is not the main economic activity (indeed it is rare) and current farms enjoy medium size (perhaps due to the non productivity of the land in those latitudes) but large size occupies the highest representation over all the different group of countries, reaching almost the 25%.

The result for Mediterranean countries (5% holdings bigger than 100 ESU) shows that farm structure is primarily based on extensive and/or subsistence agriculture. In Central-West countries there are around 14% holdings bigger than 100 ESU, the second highest score after Scandinavian countries.

In sum, in the European territory there is a prevalence on small/ medium farm size (especially in NMS where subsistence and traditional agriculture is the main economic activity on the primary sector)

6.3 Comparative analysis of relevant data and indicators by categories in the Dijkstra-Poelman rural-urban typology

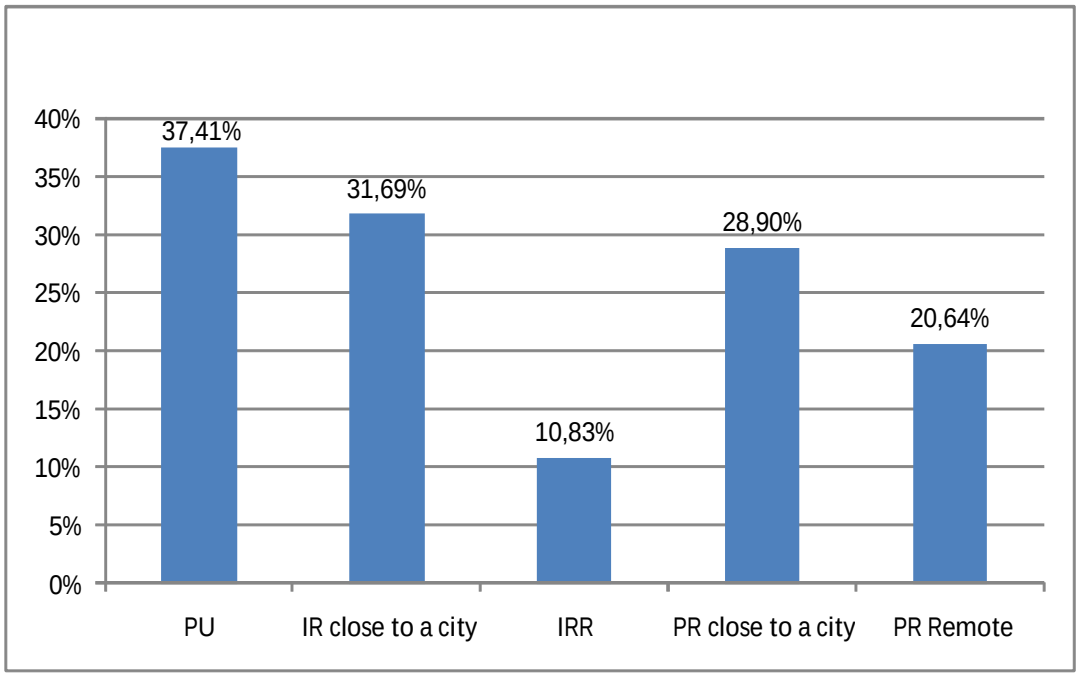
6.3.1 The profile of farmers

In this graphic, the percentage of holders who work full-time has relation with the percentage of holdings bigger than 100 ESU. It can be suggested than bigger size farms provides more work and stable labour conditions to holders, due to their production on the market economy. The bigger a farm is, the more diversified can be and the more different market outputs can generate.

Therefore, full-time holders are concentrated mostly on PU areas (there are a bit more of 37% of holders who work full time), and afterwards in IRC (32%) and PRC areas (29%). Urban areas and areas closed to cities imply productivity business circuits, flow of goods merchandising, transport facilities, etc.; hence, agriculture, representing a small piece of the economic sector in urban areas, is characterised by being intensive and economically productive, which implies bigger farms and more amount of farmers working full-time.

PRR areas reach 21% of holders working full time and IRR areas reach 11%. Due to their remoteness, transaction transport costs and farm size structures, holders can not survive economically by their agriculture production, just subsist, which do not incentive them to work full time.

Figure 6.5 % of holders working full time (2005)



Source: own elaboration with data from the EDORA Database

As in the above figures, the distribution of the indicator *% of holders more than 55 years old* among the main rural typologies follows the same pattern. IRR areas, as the main agriculture sustain typology, possesses the highest rate of older holders (around 69%), followed by almost 68% of holders over 55 years old in PRR areas, 46% in IRC, 38% in PRC areas and finally the lowest rate of 36% in PU areas.

This distribution of the indicator responds to holdings availability and importance of agricultural sector in the economic framework. The more predominant they are the more holders are. The bigger farms and more full-time work the young they are (always dependent on demographic structure and features)

Figure 6.6 % of holders more than 55 years old (2005)

Source: own elaboration with data from the EDORA Database

6.3.2 The profile of farmers

In general, as observed the graphic, small size farms dominate in all the rural typologies, except in PU areas where more than the half of farms have medium size.

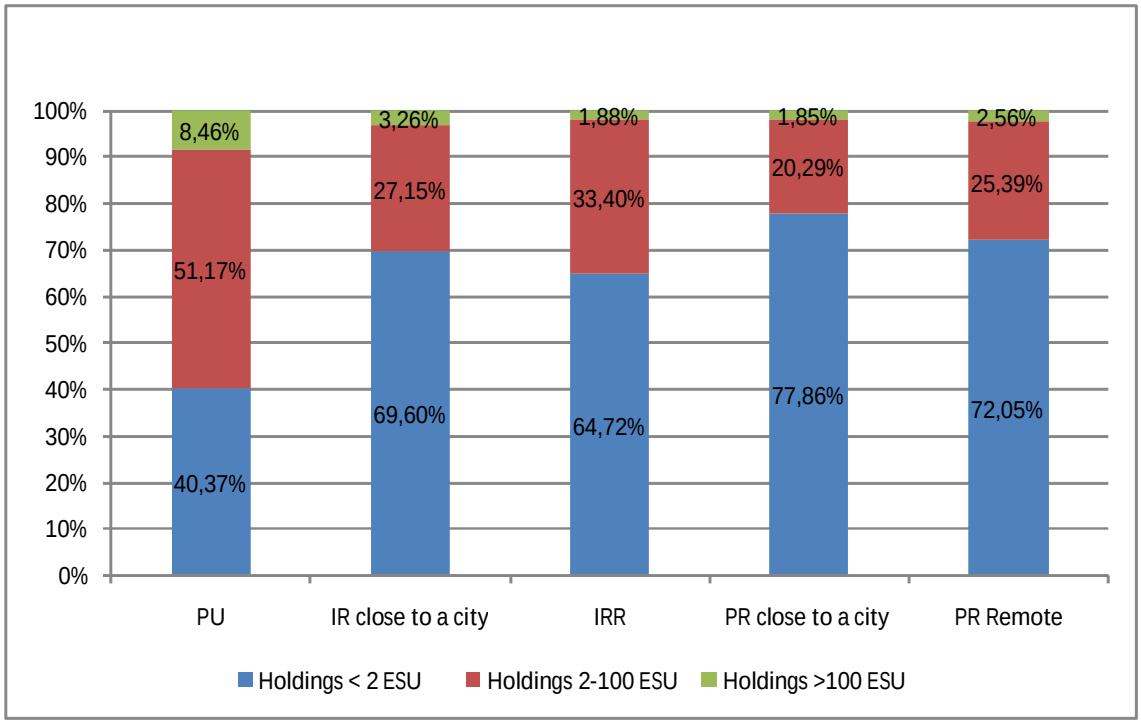
The percentage of holdings bigger than 100 ESU is not largely represented in any of the different rural typologies, comparing to the other farm size structures. Anyway, the highest rate of big farms is for urban areas, where around 9% of holdings are bigger than 100 ESU. Although, these areas have the largest representation of medium size farms over the other rural typologies, with a percentage of 51%, a 11% above the percentage of holdings<2 ESU.

The next rural typology with more big farm size representation is the IRC areas (with a rate of 3.3%), basically because of its proximity to the city (saving transport costs) and primary sector manufactories, which need a big amount of goods to increase their productivity, i.e. farms must have large sizes to achieve the required demand. Therefore, small farms prevail over the others, reaching 70% of holdings<2 ESU.

Surprisingly, in PRR areas there are almost a 3% of holdings bigger than 100 ESU. Long distances (traduced on high transport cost) and low agricultural goods prices, do not benefit farmers who live in remote areas. But if the agri-business is strong enough in those areas, it can lead to support intensive/extensive and industrial agriculture. Anyway, as seen on the graphic, the predominance on this kind of areas is still the subsistence agriculture (with a 72% of holdings<2 ESU) since these areas tend to be more traditional in customs and less modernised.

The lowest percentage (around 2%) pertains to IRR and PRC areas. Basically IRR area types are characterised by old population and a worried 'rural exodus' due to lack of job opportunities. Thus, agriculture is based on the subsistence and small farms are enough to cover the needs of families, as shown on the graphic through the percentage of 65% holdings<2ESU and 33% of holdings 2-100 ESU. PRC areas maybe do not dispose of good agri-business nets to maintain big size farms. Indeed, they have the highest percentage of holdings<2 ESU (78%), marking PRC as more traditional and subsistence farming practices areas, based on familiar business. Medium size holdings represent around 20%, the lowest percentage over the other rural typologies scores.

Figure 6.7 Structure of holdings according to economic size (ESU) (2005)



Source: own elaboration with data from the EDORA Database

CHAPTER 7.
INSTITUTIONAL CAPACITY

7.1 Comparative analysis of relevant data and indicators by country with reference to the EU27 average

The concept of institutional capacity is widely extended. It supports development in its different forms, and foster and monitor collective strategies, through the principles of governance with a multi-level approach, sustained on the base of the importance of organised social structures.

Institutional capacity is the result of a longer history of democracy and stronger traditions of welfare state. Thus, somehow, this mechanism is linked with the socio-economic history and current situation of a country. Hence, the selected indicator to express quantitatively the institutional capacity of a country is the **GDP in euro per inhabitant in percentage of the EU average**, with data of 2005.

GDP (Gross Domestic Product) has become a universal metric variable for economic growth and 'living standards'. It counts all transactions with a market prize without including non-market ones, as family work. GDP does not adequately take into account underground economy, externalities and human and social welfare (Goossens Y. et al, 2007, *Alternative progress indicators to Gross Domestic Product (GDP) as a means towards sustainable development*, p.7, Policy Department Economic and Scientific Policy, European Parliament)[14] GDP in Euro per inhabitant is the same as GDP per capita (in Euros), i.e. the value of all final goods and services produced within a nation in a given year divided by the average (or mid-year) population for the same year.

In this analysis, the EU 27 GDP per capita average is calculated in spite of the data for the followed six countries: Y.R. Macedonia, Turkey, Norway, Switzerland, Iceland and Liechtenstein. The result EU 27 average is 95€ per capita.

Rates below 60€/capita correspond to: Bulgaria, Romania, Latvia, Lithuania, Croatia, Poland, Estonia, Hungary, Slovakia, Czech Republic, Malta, Portugal and Slovenia. The majority of these countries are NWS members, from ex-socialist and ex-Yugoslavian countries. The common factor among them is that they have a recent democratic insertion (in contrast to Old States) and social participation is still weak and/or disorganised. Due to the annex to the EU and the economic efforts to reach EU parameters, the development capacity (knowledge, skills, institutions, etc.) of these countries is less than in other major Welfare States, and so it could be the institutional capacity. Malta and Portugal are exceptions, and institutional capacity is well achieved (despite the GDP result)

The medium rates (60-120€/capita) correspond mainly to Central-West European member states (Belgium, France, Germany Austria, Finland) and four Southern countries. On the last group, there are three countries (Greece, Cyprus and Spain) with scores below the EU 27

[14] http://www.europarl.europa.eu/comparl/envi/pdf/externalexpertise/gdp.pdf

average. Italy has a slightly different rate above the EU 27 average with 101.78€/capita. From there on, only Central-West countries are positioned in the top ranking.

Finally, the top rank (more than 120€/capita) is constituted by United Kingdom, Nederland, Sweden, Ireland, Denmark and Luxembourg (which reaches 288.80 €/capita). They have traditionally democratic systems, well developed institutions, and all kind of social organisations that are able to act following a multi-level approach.

Table 7.1 GDP in euro per inhabitant in percentage of the EU average (2005), by country

	GDP in euro per inhabitant in percentage of the EU average 2005
LUXEMBOURG	288.20
DENMARK	173.94
IRELAND	156.08
SWEDEN	131.09
NEDERLAND	127.81
UNITED KINGDOM	123.35
FINLAND	118.70
AUSTRIA	115.23
GERMANY	113.26
FRANCE	107.95
BELGIUM	104.25
ITALY	101.78
EU 27	**95.48**
SPAIN	88.07
CYPRUS	80.50
GREECE	62.14
SLOVENIA	55.83
PORTUGAL	54.02
MALTA	46.40
CZECH REPUBLIC	41.07
SLOVAKIA	32.91
HUNGARY	32.83
ESTONIA	30.98
POLAND	28.34
CROATIA	26.93
LITHUANIA	23.19
LATVIA	20.75
ROMANIA	14.68
BULGARIA	10.45
LIECHTENSTEIN	NA
ICELAND	NA
SWITZERLAND	NA
NORWAY	NA
TURKEY	NA
Y.R. MACEDONIA	NA

Source: own elaboration with data from the EDORA Database

7.2 Comparative analysis of relevant data and indicators at region level (NUT 3) for the countries covered, expressed in maps.

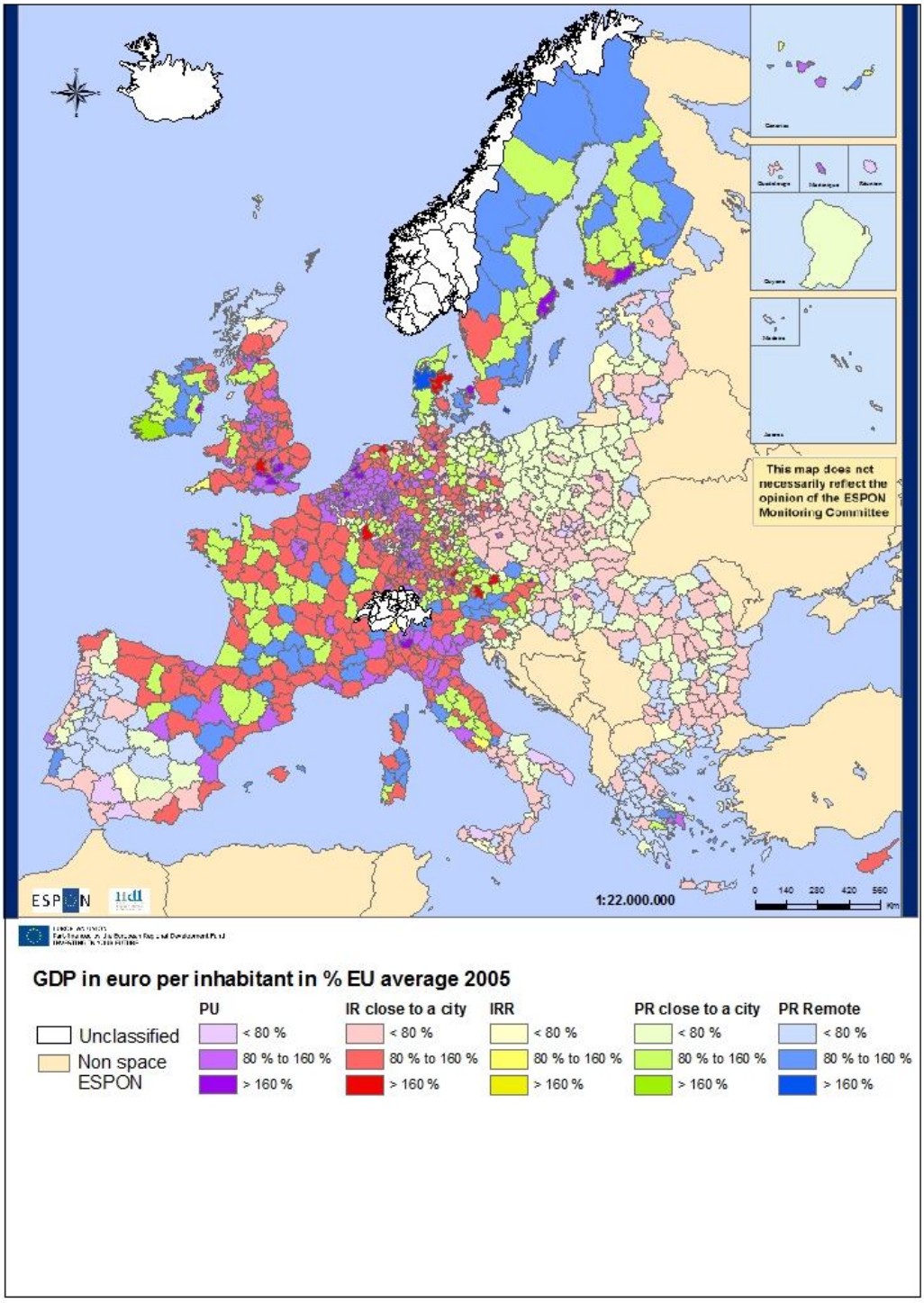
There is a clear difference on GDP ratio between Old Member States and New Member States, i.e. the first ones produce more goods and services per capita than the second ones. Nonetheless, it does not reflect than institutional capacities are better in the first ones (and viceversa) Heterogenic situations among the EU regions make difficult a general description of the institutional capacity of each region type.

East Europe, Portugal, Greece, South-West of Spain and South of Italy have rates below 80€/capita, mainly distributed in IRC, PRC and PRR areas. The rurality issue, unfortunately, is linked with difficult socio-economic cohesion, lack of funds for social development and difficult multi-level governance approach commissioning. (See Kahila P. et al, 2009, *Institutional capacity*, EDORA project, Applied Research Project 2013/1/2)

Central West countries, Scandinavian, North of Spain and Italy, and Anglo-Saxon countries have rates from 80€/capita to 160€/capita; In some little IRC and PU spots of Central West countries, Scandinavian and United Kingdom, GDP rates reach more than 160 €/capita. Except Finland and Sweden (with major distribution in PRR and PRC areas with medium rates), the rest Old Member States' GDP rates are distributed among IRC, PU and PRC areas. The wager for high-tech manufactories in a knowledge based economy context provokes a rise on the GDP ratio per capita as final incomes are high.

As far as rural typologies, economic growth is mainly concentrated in PU and IRC areas since they are neuralgic business centres and concentrate more population (i.e. more labour force) with higher education level. It could be inferred, consequently, that living standards and institutional capacity are better developed as well in these areas, but it is just a supposition that needs more contrast data referred to non-market indicators.

Map 7.1 GDP in euro per inhabitant in % EU average (2005)



Source: own elaboration with data from the EDORA Database

SECTION 3

AN ANALYSIS OF THE DIVERSITY OF EUROPEAN REGIONS BASED ON THE EDORA TYPOLOGIES

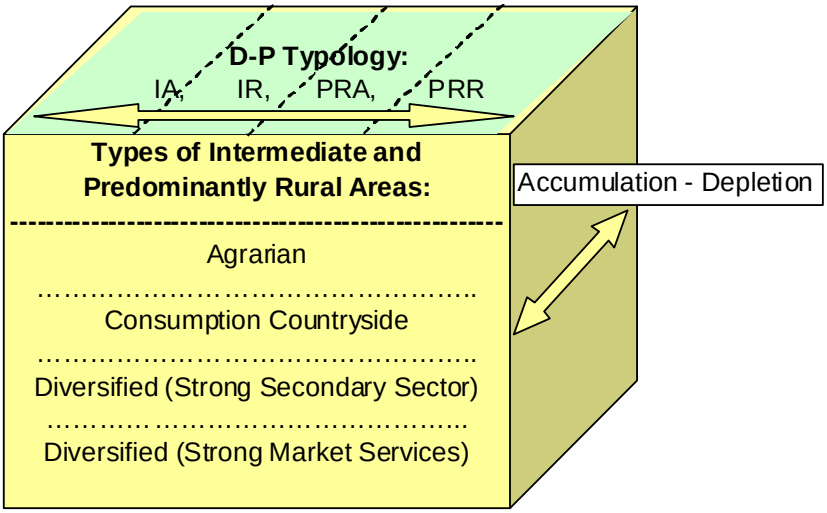
Section 3 of the MS comparative Country Profiles Report focus on the analysis of the three typological components of the EDORA Cube: the rural-urban typology of Dijkstra-Poelman, the Structural typology and the Performance Typology.

The EDORA Cube is composed by three typologies:

- First, the Dijkstra-Poelman typology of rural-urban regions that distinguishes five categories in relation to accessibility and rurality: Predominantly Urban, Intermediate Accessible, Intemediate Remote, Predominantly Rural Accessible and Predominantly Rural Remote.

- Second, the EDORA Structural typology. The second dimension seeks to capture the most important differences in economic structure between the Intermediate and Predominantly Rural regions of the ESPON space. This typology considers four categories in relation to the socioeconomic structure: agrarian economies, consumption countryside, diversified (with important Secondary Sector), diversified (with important Market Services Sector)..

- Third, the EDORA Performance typology. The last "cube" face, the EDORA Performance Typology, is calculated from a regional composite performance indicator from 5 indicators (net migration, per capita GDP, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalised (Z) scores for the five indicators. The four categories have been defined by the average standardised score as follows:
  - *Accumulation regions*: <-0.5 (i.e. more than half a standard deviation below the "non-urban" mean).
  - *Above average regions*: -0.5 to 0 (i.e. less than half a standard deviation below the "non-urban" mean).
  - *Below average regions*: 0 to +0.5 (i.e. less than half a standard deviation above the "non-urban" mean)
  - *Depleting regions*: <-0.5 (i.e. more than half a standard deviation above the "non-urban" mean)



The EDORA Cube – a 3 dimensional framework for analysis

Note: IA = Intermediate Accessible, IR = Intermediate Remote
PRA= Predominantly Rural Accessible PRR = Predominantly Rural Remote

Source: Copus and Noguera, 2010

For each of these, categories, a threefold analysis is carried out:

- **Chapter 8** deals with a comparative analysis of number of NUTs3, total area, population, GDP and GDP per capita for the EU27 countries

- **Chapter 9** develops an analysis of number of NUTs3, total area, population, GDP and GDP per capita in each country of the EU 27

- **Chapter 10** carries out an analysis of the number of NUTs3, total area, population, GDP and GDP per capita by non exclusive groups of countries

CHAPTER 8
COMPARATIVE ANALYSIS OF THE THREE EDORA TYPOLOGIES FOR THE EU27 COUNTRIES

Chapter 8 presents the first of the three analyses of the "EDORA cube" typologies. The EDORA cube is a triangular typology exercise aimed at identifying ruralities in the EU context. Full details on methodology and presentation of results can be found in the EDORA Typology working paper and corresponding sections of the EDORA Final Report.

8.1 Distribution of NUTs 3 regions according to the "EDORA cube" typologies

Table 8.1 analyses the distribution of NUTS3 regions of the EU27 according to categories of the Dijkstra-Poelman typology (hereafter D-P). DP Typology classifies regions according to their accessibility and rurality. Accesibility is measured in % of population which access to a market town under a particular time threshold. Rurality is linked to more extensive (as opposite to intensive) land use and, therefore, the variable is % of population living in rural LAU; that is, those below 150 inhab./km^2. Special attention is given to the categories "Intermediate" and "Predominantly" rural, while reducing attention to category "Predominantly Urban (PU) due to the research focus of EDORA on rural areas.

Only few countries have significant percentages of their NUT3 regions in PU categories. These are smaller countries in which the urban component is dominant either due to its administrative function (Netherlands or Belgium) or touristic (Malta). Relatively large countries also have a significant percentage of urban regions. It is the case of the UK (61.6%) due to the existence of a dense and balanced urban fabric, and Germany (44%) which combines a dense urban fabric with a NUT3 size that allows a more effective identification of urban regions. Most remaining countries are located in values ranging from 31% in Italy to 0% in countries like Cyprus and Slovenia.

Higher percentages of accessible regions (70-80%), according to the definition of D-P, match smaller countries, mainly located in central Europe (Czech Republic, Slovakia, Hungary, Slovenia). Also larger countries have high percentages of accessible regions, either because possess a dense urban fabric (France) or due to their favourable geomorphologic conditions (Poland).

Countries with higher percentages of remote regions (about 40) are clearly within the geographical periphery of the EU and, in some cases, have large territories (Sweden, Finland, Greece, Portugal).

On the other hand, rurality is concentrated in countries that combine a larger area and a peripheral geographical position. Thus, we observe rates of over 70% of predominantly rural regions in Finland, Sweden, Ireland and Greece. Furthermore, Austria is over 70% due to the dominance of mountainous areas.

Table 8.1 Dijkstra-Poelman Typology. Number of regions (in % of MS total)

Regions		D-P Typology				% of MS Total
		PU	IA	IR	PRA	PRR
Austria	AT	5,71	22,86	0,00	48,57	22,86
Belgium	BE	61,36	22,73	0,00	15,91	0,00
Bulgaria	BG	3,57	50,00	7,14	14,29	25,00
Cyprus	CY	0,00	100,00	0,00	0,00	0,00
Czech Republic	CZ	7,14	85,71	0,00	7,14	0,00
Germany	DE	44,06	35,43	0,00	20,05	0,47
Denmark	DK	27,27	27,27	0,00	18,18	27,27
Estonia	EE	20,00	40,00	20,00	0,00	20,00
Spain	ES	20,34	37,29	5,08	15,25	22,03
Finland	FI	5,00	5,00	5,00	45,00	40,00
France	FR	13,00	50,00	0,00	24,00	13,00
Greece	GR	1,96	17,65	7,84	9,80	62,75
Hungary	HU	5,00	40,00	0,00	25,00	30,00
Ireland	IE	12,50	0,00	0,00	50,00	37,50
Italy	IT	31,78	42,06	4,67	11,21	10,28
Lithuania	LT	10,00	40,00	10,00	20,00	20,00
Luxembourg	LU	0,00	100,00	0,00	0,00	0,00
Latvia	LV	16,67	16,67	16,67	33,33	16,67
Malta	MT	100,00	0,00	0,00	0,00	0,00
Netherlands	NL	67,50	30,00	0,00	2,50	0,00
Poland	PL	18,18	27,27	3,03	50,00	1,52
Portugal	PT	23,33	26,67	0,00	10,00	40,00
Romania	RO	2,38	42,86	0,00	35,71	19,05
Sweden	SE	4,76	9,52	0,00	42,86	42,86
Slovenia	SI	0,00	25,00	8,33	58,33	8,33
Slovakia	SK	12,50	62,50	0,00	25,00	0,00
United Kingdom	UK	61,65	28,57	1,50	3,76	4,51

Source: EDORA Typology

Key: **Green**: 20-40% -
Yellow: 40-60%
Red: > 60%

Figure 8.2 shows the percentage of NUT3 regions of the EU27 which is located in each of the categories of the EDORA Structural Typology. The structural typology classifies regions according to their economic settings. According to this typology, regions can have an economic base focused on primary activities, or be focused on the "consumption countryside", or have diversified economies dominated by secondary activities or by private services. The analyses carried out on the EDORA typology and those made elsewhere in this report show that regions with an agricultural economy and to a lesser extent, those focused on "consumtion countryside" concentrate the main problems associated with rural decline. By contrast, rural regions with diversified economies have better economic and demographic indicators.

Rural regions whose economies are primarily agriculture-based match peripheral areas that have kept less modernised agricultural structures and means of production Moreover, social modernization has only been carried out partially and, therefore, there are still few

opportunities for economic diversification in rural areas. Therefore, most countries with the highest percentages of rural areas under the category "Agriculture" (more than 50%) are located in the NMS. We need to keep in mind, in any case that these agriculture-based rural regions includes a variety of types ranging from some areas of subsistence farming in Romania or Bulgaria to industrialised agricultural production complexes in Poland or other countries.

The regions defined as "consumption countryside" are characterised by areas dominated by one or more services together, typically geared to the urban population (access to environmental assets, tourism capacity, and farm diversification). Consequently, there is not only one type of rural areas but many rural profiles that have in common the orientation to urban consumption, usually in forms of tourism. Most countries show significant percentages of their regions in this category. Due to the diversity of sub-categories implicit in the Consumption Countryside we can not speak of uniformity; each region under this category may have a different economic settings with the common denominator of their orientation to urban consumption. Only two conditions seem to be implicit in this type of regions: on the one hand, a relative low importance of agriculture as economic activity and employment provider; on the other hand, a mature urban demand that makes possible consumption of rural goods beyond a critical threshold.

Within these diversified rural economies the EDORA Structural typology differentiates two situations: on the one hand, areas where secondary activity (industry and construction) is the most relevant; on the other hand, areas where private services constitute the main economic activity.

Diversified rural economies with strong secondary sectors may refer to the implementation of diffuse processes of industrialisation in intermediate rural areas (ie. Marshallian districts in Spain or Portugal). It may, on the other hand, be the remnants of industrial specialization associated with the communist era (Hungary, Czech Republic, Slovakia, Poland) to be reinforced in recent years because of relocation of large industrial plants from other less competitive locations in terms of costs. For these areas, industrial know-how accumulated during the twentieth century and the lower costs of land and labour, along with the EU “umbrella” are the main potentials. However, the maintenance of an industrial activity of this sort does not guarantee an easy path to long term, sustainable development unless work is undertaken in a proper embedding of the industrial fabric, usually exogenous, in the local development strategy. It can also mean the case of rural regions where agriculture is not a relevant activity due to land or climate constraints and they have managed to develop or attract industrial activity.

Rural areas with diversified economies that have a powerful private services sector are present in few regional environments. It is the case for non-urban tourist regions in which much of the economy hinges on the services sector without a very specific thematic orientation as with the “consumption countryside”. It should also be included here a set of regions of France, Denmark and the Netherlands. Territorial diversity of these countries, the presence of consolidated urban markets, or counter-urbanisation processes that have brought urban population to rural areas may be explanatory factors

Table 8.2 Structural Typology. Number of regions (in % of MS total)

		Structural Typology			% of MS Total
		Ag	CC	D(Sec)	D(PServe)
Austria	AT	8,57	60,00	17,14	8,57
Belgium	BE	2,27	18,18	4,55	13,64
Bulgaria	BG	78,57	17,86	0,00	0,00
Cyprus	CY	0,00	100,00	0,00	0,00
Czech Republic	CZ	0,00	28,57	57,14	7,14
Germany	DE	0,00	41,96	6,06	7,93
Denmark	DK	0,00	45,45	9,09	18,18
Estonia	EE	20,00	60,00	0,00	0,00
Spain	ES	22,03	40,68	11,86	5,08
Finland	FI	0,00	95,00	0,00	0,00
France	FR	8,00	23,00	1,00	55,00
Greece	GR	80,39	17,65	0,00	0,00
Hungary	HU	50,00	20,00	20,00	5,00
Ireland	IE	0,00	75,00	12,50	0,00
Italy	IT	12,15	40,19	1,87	14,02
Lithuania	LT	50,00	20,00	10,00	10,00
Luxembourg	LU	0,00	100,00	0,00	0,00
Latvia	LV	66,67	16,67	0,00	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	2,50	10,00	20,00
Poland	PL	53,03	7,58	13,64	7,58
Portugal	PT	33,33	40,00	0,00	3,33
Romania	RO	88,10	2,38	4,76	2,38
Sweden	SE	0,00	90,48	0,00	4,76
Slovenia	SI	16,67	83,33	0,00	0,00
Slovakia	SK	0,00	62,50	25,00	0,00
United Kingdom	UK	0,00	26,32	3,01	9,02

Source: EDORA Typology
Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

Table 8.3 shows the percentage of rural regions of the EU27 countries for each category of the EDORA Performance Typology. The EDORA Performance Typology is calculated from a regional composite performance indicator from 5 indicators (net migration, per capita GDP, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalised (Z) scores for the five indicators. The four categories have been defined by the average standardised score as follows:

- *Accumulation regions*: <-0.5 (i.e. more than half a standard deviation below the "non-urban" mean).
- *Above average regions*: -0.5 to 0 (i.e. less than half a standard deviation below the "non-urban" mean).
- *Below average regions*: 0 to +0.5 (i.e. less than half a standard deviation above the "non-urban" mean)

- *Depleting regions*: <-0.5 (i.e. more than half a standard deviation above the "non-urban" mean)

More or less pronounced, NMS concentrate higher percentages of depleting regions. Thus, Romania and Bulgaria are the countries with the highest percentages (over 70%) but closely followed by Latvia (66%), Poland (59%) and Lithuania (50%). These low regional yields are associated with a set of elements that, in this case, refer to population dynamics, wealth and its evolution, and the strength and dynamism of the labor market. The percentage of depleting regions in the EU15 is very low. It is worthy highlighting 14% in Germany, related to the adjustment problems of Eastern Landers, and 12% of Greece for the problems of isolation and rurality of some areas.

Table 8.3 Performance Typology. Number of regions (in % of MS total)

		Performance Typology			% of MS Total
		Deplet.	Below	Above	Accum.
Austria	AT	0,00	25,71	34,29	34,29
Belgium	BE	2,27	22,73	11,36	2,27
Bulgaria	BG	75,00	14,29	7,14	0,00
Cyprus	CY	0,00	0,00	0,00	100,00
Czech Republic	CZ	0,00	71,43	21,43	0,00
Germany	DE	15,15	14,45	21,45	4,90
Denmark	DK	0,00	9,09	45,45	18,18
Estonia	EE	0,00	60,00	0,00	20,00
Spain	ES	0,00	10,17	25,42	44,07
Finland	FI	5,00	25,00	50,00	15,00
France	FR	1,00	25,00	42,00	19,00
Greece	GR	13,73	39,22	35,29	9,80
Hungary	HU	15,00	55,00	20,00	5,00
Ireland	IE	0,00	0,00	0,00	87,50
Italy	IT	3,74	23,36	21,50	19,63
Lithuania	LT	50,00	40,00	0,00	0,00
Luxembourg	LU	0,00	0,00	0,00	100,00
Latvia	LV	50,00	16,67	16,67	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	5,00	20,00	7,50
Poland	PL	56,06	21,21	4,55	0,00
Portugal	PT	0,00	40,00	30,00	6,67
Romania	RO	69,05	26,19	0,00	2,38
Sweden	SE	0,00	33,33	61,90	0,00
Slovenia	SI	0,00	41,67	50,00	8,33
Slovakia	SK	37,50	37,50	12,50	0,00
United Kingdom	UK	0,00	6,77	12,78	18,80

Source: EDORA Typology

Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

The set of rural regions "below average" includes areas facing some weakness in the indicators used (emigration, wealth and employment) that gives them a lower performance than the European average. These are regions that are in a position of weakness, however, is not as pronounced as in the case of depleting regions. At this level are placed high percentages of some of the NMS rural regions (Czech Republic, Slovakia, Estonia, Hungary, Lithuania) and somewhat lower percentages of other NMS whose highest percentages are located in the "Depleting" areas. Besides these cases, unlike the previous category, a number of EU15 countries also have percentages of rural regions in this category that are around 20-30% (Austria, Belgium, Finland, France) and raises above 40% in Portugal and Sweden.

When we accumulate the percentages of the regions below the mean ("depleting" and "below average") we get a truer picture of the situation that reinforces the above arguments. Ten of twelve NMS get percentages above 60% of their rural regions in these categories. The percentages go to more than 80% in Romania, Bulgaria and Lithuania.

As for areas that are placed above the average, most do in the "above average" category and only a relatively small percentage in the category "Accumulating". In any case, it is noteworthy that most of these regions are concentrated in countries with higher GDP per capita (ie. the EU 15). Furthermore, the highest percentages of rural regions in the category "Accumulating" are located in small countries (Cyprus and Luxembourg) and in countries that, at that point in time, were under the influence of an explosive development of the building and associated sectors (Ireland and Spain).

8.2 Total area distribution of NUTs 3 regions according to the “EDORA cube” typologies

This section presents the distribution of the total area of NUT3 in the three EDORA typologies: D-P, Structural and Performance. This is done in two ways: first, as the total percentage of each category in each typology; second, as the differential between the percentage of regions in each category and the percentage of total area representing these regions. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high differential (over 10%) indicates a significant heterogeneity in the size of the regions of a member state.

Tables 8.4, 8.6 and 8.8 present the percentage of total area of NUT3 regions for the EU27 for each EDORA typology. Tables 8.51, 8.7 and 8.9 show differentials between the percentage of NUT3 regions in each category and the percentage of total area representing these regions.

Table 8.4 analyses the total area of NUTS3 regions of the EU27 according to categories of the Dijkstra-Poelman typology (hereafter D-P). D-P Typology classifies regions according to their accessibility and rurality. Accesibility is measured in % of population which access to a market town under a particular time threshold. Rurality is linked to more extensive (as opposite to intensive) land use and, therefore, the variable is % of population living in rural LAU; that is, those below 150 inhab./km^2. Special attention is given to the categories "Intermediate" and "Predominantly" rural, while reducing attention to category "Predominantly Urban (PU) due to the research focus of EDORA on rural areas.

Most of the territory is located in urban or intermediate areas (IA-IR) in small countries (Cyprus), where the geomorphological conditions do not impose significant restrictions on accessibility (Bulgaria, Czech Republic, Slovakia) or where infrastructure networks are dense and well development (Italy, Germany, France, Spain). Some of these countries combine several of these factors (Belgium, Netherlands, Luxembourg).

Rurality in terms of territory is most pronounced in the entire area of Ireland (99%), Finland (93%), Poland (91%) and Sweden (90%). It also shows percentages above 70% in Austria, Denmark, Greece, Portugal and Slovenia.

Table 8.4 Dijkstra-Poelman Typology. Total area (in % of MS total)

		% of MS Total				
		PU	IA	IR	PRA	PRR
Austria	**AT**	1,36	20,20	0,00	47,65	30,79
Belgium	**BE**	54,86	20,64	0,00	24,50	0,00
Bulgaria	**BG**	1,22	53,36	8,86	13,02	23,54
Cyprus	**CY**	0,00	100,00	0,00	0,00	0,00
Czech Republic	**CZ**	0,63	90,75	0,00	8,62	0,00
Germany	**DE**	19,48	44,55	0,00	35,42	0,55
Denmark	**DK**	4,58	23,67	0,00	38,64	33,11
Estonia	**EE**	7,70	46,07	25,48	0,00	20,75
Spain	**ES**	14,06	37,35	2,79	21,01	24,78
Finland	**FI**	2,00	3,22	1,65	36,36	56,76
France	**FR**	4,44	47,23	0,00	36,05	12,28
Greece	**GR**	2,89	21,44	1,75	11,39	62,54
Hungary	**HU**	0,56	41,47	0,00	28,71	29,25
Ireland	**IE**	1,32	0,00	0,00	58,05	40,63
Italy	**IT**	25,40	43,94	3,92	16,15	10,59
Lithuania	**LT**	14,90	45,51	6,66	15,14	17,78
Luxembourg	**LU**	0,00	100,00	0,00	0,00	0,00
Latvia	**LV**	0,47	22,54	21,06	32,32	23,62
Malta	**MT**	100,00	0,00	0,00	0,00	0,00
Netherlands	**NL**	56,12	41,07	0,00	2,81	0,00
Poland	**PL**	3,10	4,83	0,00	86,71	5,35
Portugal	**PT**	8,58	21,70	0,00	9,99	59,73
Romania	**RO**	0,10	44,62	0,00	34,32	20,96
Sweden	**SE**	1,54	8,33	0,00	31,14	59,00
Slovenia	**SI**	0,00	24,45	5,15	65,27	5,13
Slovakia	**SK**	4,19	63,59	0,00	32,22	0,00
United Kingdom	**UK**	22,96	49,76	1,56	11,12	14,61

Source: EDORA Typology

Key: **Green**: 20-40% -
Yellow: 40-60%
Red: > 60%

Differentials between number of regions and total area are shown in Figure 8.5. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high differential (over 10%) indicates a significant heterogeneity in the size of the regions of a member state.

Figure 8.5 shows that the largest positive differential (ie, a percentage of regions greater than the percentage of geographic area) relate mainly to urban and, to a lesser extent, intermediate regions. Thus, urban regions of the United Kingdom, Germany and Denmark show differentials over 20% while urban regions of Latvia, Poland, Portugal, Estonia and Ireland, are above the threshold of 10%. By contrast, rural areas are those that accumulate wider negative differentials, mainly due to their larger size. It is the case in Poland, Denmark, Portugal, Finland and Sweden. The countries where differentials are lower and thus where there is a greater balance in the size of the regions are Bulgaria, Spain, Greece, Hungary, Italy, Romania and Slovenia.

Table 8.5 Dijkstra-Poelman Typology. % Number of Regions - %Total area (in % of MS total)

		D-P Typology				% of MS Total
		PU	IA	IR	PRA	PRR
Austria	**AT**	4,35	2,66	0,00	0,92	-7,93
Belgium	**BE**	6,50	2,09	0,00	-8,59	0,00
Bulgaria	**BG**	2,36	-3,36	-1,72	1,26	1,46
Cyprus	**CY**	0,00	0,00	0,00	0,00	0,00
Czech Republic	**CZ**	6,51	-5,04	0,00	-1,47	0,00
Germany	**DE**	24,57	-9,12	0,00	-15,37	-0,08
Denmark	**DK**	22,70	3,60	0,00	-20,46	-5,84
Estonia	**EE**	12,30	-6,07	-5,48	0,00	-0,75
Spain	**ES**	6,28	-0,06	2,29	-5,76	-2,75
Finland	**FI**	3,00	1,78	3,35	8,64	-16,76
France	**FR**	8,56	2,77	0,00	-12,05	0,72
Greece	**GR**	-0,93	-3,79	6,09	-1,58	0,20
Hungary	**HU**	4,44	-1,47	0,00	-3,71	0,75
Ireland	**IE**	11,18	0,00	0,00	-8,05	-3,13
Italy	**IT**	6,38	-1,88	0,75	-4,93	-0,31
Lithuania	**LT**	-4,90	-5,51	3,34	4,86	2,22
Luxembourg	**LU**	0,00	0,00	0,00	0,00	0,00
Latvia	**LV**	16,20	-5,87	-4,39	1,01	-6,95
Malta	**MT**	0,00	0,00	0,00	0,00	0,00
Netherlands	**NL**	11,38	-11,07	0,00	-0,31	0,00
Poland	**PL**	15,08	22,44	3,03	-36,71	-3,84
Portugal	**PT**	14,75	4,96	0,00	0,01	-19,73
Romania	**RO**	2,28	-1,77	0,00	1,39	-1,91
Sweden	**SE**	3,22	1,20	0,00	11,72	-16,14
Slovenia	**SI**	0,00	0,55	3,18	-6,94	3,20
Slovakia	**SK**	8,31	-1,09	0,00	-7,22	0,00
United Kingdom	**UK**	38,70	-21,19	-0,05	-7,36	-10,10

Source: EDORA Typology

Key: **Dark blue**: >20%
Light blue: 10 to 20%
Yellow: -10 to -20%
Orange: < -20€

Figure 8.6 shows the total area of NUT3 regions of the EU27 which is located in each of the categories of the EDORA Structural Typology. The structural typology classifies regions according to their economic settings. According to this typology, regions can have an economic base focused on primary activities, or be focused on the "consumption countryside", or have diversified economies dominated by secondary activities or by private services. The analyses carried out on the EDORA typology and those made elsewhere in this report show that regions with an agricultural economy and to a lesser extent, those focused on "consumption countryside" concentrate the main problems associated with rural decline. By contrast, rural regions with diversified economies have better economic and demographic indicators.

Rural areas whose economy is centred on agriculture account for most of the countries in which rurality is high or those holding weaker economies. This is the case of Romania (89%),

Latvia (84%), Greece (82%), Bulgaria (79%), Poland (79%). Also relevant percentages are present in Hungary (58%), Portugal (56%) and Lithuania (47%)

The areas of 'consumption countryside' are dominant in most countries. The regions defined as "consumption countryside" are characterised by areas dominated by one or more services together, typically geared to the urban population (access to environmental assets, tourism capacity, and farm diversification). Consequently, there is not only one type of rural areas but many rural profiles that have in common the orientation to urban consumption, usually in forms of tourism. Most countries show significant percentages of their regions in this category. Due to the diversity of sub-categories implicit in the Consumption Countryside we can not speak of uniformity; each region under this category may have a different economic settings with the common denominator of their orientation to urban consumption. Only two conditions seem to be implicit in this type of regions: on the one hand, a relative low importance of agriculture as economic activity and employment provider; on the other hand, a mature urban demand that makes possible consumption of rural goods beyond a critical threshold

Within diversified rural economies the EDORA Structural typology differentiates two situations: on the one hand, areas where secondary activity (industry and construction) is the most relevant; on the other hand, areas where private services constitute the main economic activity.

Diversified rural economies with strong secondary sectors may refer to the implementation of diffuse processes of industrialisation in intermediate rural areas (ie. Marshallian districts in Spain or Portugal). It may, on the other hand, be the remnants of industrial specialization associated with the communist era (Hungary, Czech Republic, Slovakia, Poland) to be reinforced in recent years because of relocation of large industrial plants from other less competitive locations in terms of costs. For these areas, industrial know-how accumulated during the twentieth century and the lower costs of land and labour, along with the EU "umbrella" are the main potentials. However, the maintenance of an industrial activity of this sort does not guarantee an easy path to long term, sustainable development unless work is undertaken in a proper embedding of the industrial fabric, usually exogenous, in the local development strategy. It can also mean the case of rural regions where agriculture is not a relevant activity due to land or climate constraints and they have managed to develop or attract industrial activity. Total area under this category is only relevant in Czech Republic (70%), and Slovakia (21%).

Rural areas with diversified economies that have a powerful private services sector are present in few regional environments. It is the case for non-urban tourist regions in which much of the economy hinges on the services sector without a very specific thematic orientation as with the "consumption countryside". It should also be included here a set of regions of France (68%) and the Netherlands (35%). Territorial diversity of these countries, the presence of consolidated urban markets, or counter-urbanisation processes that have brought urban population to rural areas may be explanatory factors.

Table 8.6 Structural Typology. Total area (in % of MS total)

		Structural Typology			% of MS Total
		Ag	CC	D(Sec)	D(PServe)
Austria	AT	11,55	62,41	19,38	5,30
Belgium	BE	1,19	23,46	3,96	16,53
Bulgaria	BG	79,74	19,04	0,00	0,00
Cyprus	CY	0,00	100,00	0,00	0,00
Czech Republic	CZ	0,00	20,00	70,24	9,12
Germany	DE	0,00	56,89	10,45	13,18
Denmark	DK	0,00	61,80	16,75	16,88
Estonia	EE	20,75	71,55	0,00	0,00
Spain	ES	34,65	30,72	13,86	6,71
Finland	FI	0,00	98,00	0,00	0,00
France	FR	7,20	19,56	0,83	67,97
Greece	GR	82,57	14,54	0,00	0,00
Hungary	HU	58,07	17,79	16,70	6,87
Ireland	IE	0,00	81,19	17,49	0,00
Italy	IT	12,01	47,24	1,36	13,98
Lithuania	LT	47,04	19,00	6,66	12,39
Luxembourg	LU	0,00	100,00	0,00	0,00
Latvia	LV	83,84	15,69	0,00	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	4,95	9,27	29,65
Poland	PL	79,54	14,63	2,73	0,00
Portugal	PT	56,03	32,98	0,00	2,41
Romania	RO	92,04	2,97	4,23	0,66
Sweden	SE	0,00	95,89	0,00	2,58
Slovenia	SI	13,78	86,22	0,00	0,00
Slovakia	SK	0,00	74,42	21,39	0,00
United Kingdom	UK	0,00	57,39	2,73	16,93

Source: EDORA Typology
Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

Differentials between number of regions and total area for the Structural Typology are shown in Figure 8.6. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high differential (over 10%) indicates a significant heterogeneity in the size of the regions of a member state in relation to each type.

The vast majority of relevant differentials (>10%) occur in the negative side (ie. usually rural regions accumulate more land per unit of measure and this is the reason why most negative differentials are in the agriculture and consumption countryside regions). The biggest differentials are:

In the case of rural regions with dominant agricultural economy greatest differentials are in Poland (-27%), Portugal (-23%), Latvia (-17%) and Spain (-13%).

In rural regions dominated by "consumption countryside" greatest differential occur in United Kingdom (-31%), Denmark (-16%), Germany (-15%), Slovakia (-12%) and Estonia (-12%).

Rural regions with diversified economies and dominant secondary sector show differentials in the positive and negative sides. The former refers to Poland (11%) while the latter refers to Czech Republic (-13%).

Rural regions with diversified economies and dominant "private services" sector show significant negative differentials in France (-13%)

Table 8.7 Structural Typology. % Number of Regions - %Total area (in % of MS total)

		% of MS Total			
		Ag	**CC**	**D(Sec)**	**D(PServe)**
Austria	**AT**	-2,98	-2,41	-2,24	3,27
Belgium	**BE**	1,09	-5,28	0,58	-2,90
Bulgaria	**BG**	-1,17	-1,18	0,00	0,00
Cyprus	**CY**	0,00	0,00	0,00	0,00
Czech Republic	**CZ**	0,00	8,57	-13,10	-1,98
Germany	**DE**	0,00	-14,93	-4,39	-5,26
Denmark	**DK**	0,00	-16,35	-7,66	1,31
Estonia	**EE**	-0,75	-11,55	0,00	0,00
Spain	**ES**	-12,62	9,96	-1,99	-1,62
Finland	**FI**	0,00	-3,00	0,00	0,00
France	**FR**	0,80	3,44	0,17	-12,97
Greece	**GR**	-2,18	3,11	0,00	0,00
Hungary	**HU**	-8,07	2,21	3,30	-1,87
Ireland	**IE**	0,00	-6,19	-4,99	0,00
Italy	**IT**	0,14	-7,06	0,51	0,04
Lithuania	**LT**	2,96	1,00	3,34	-2,39
Luxembourg	**LU**	0,00	0,00	0,00	0,00
Latvia	**LV**	-17,17	0,97	0,00	0,00
Malta	**MT**	0,00	0,00	0,00	0,00
Netherlands	**NL**	0,00	-2,45	0,73	-9,65
Poland	**PL**	-26,51	-7,06	10,91	7,58
Portugal	**PT**	-22,69	7,02	0,00	0,92
Romania	**RO**	-3,95	-0,59	0,53	1,72
Sweden	**SE**	0,00	-5,41	0,00	2,19
Slovenia	**SI**	2,89	-2,89	0,00	0,00
Slovakia	**SK**	0,00	-11,92	3,61	0,00
United Kingdom	**UK**	0,00	-31,07	0,28	-7,90

Source: EDORA Typology

Key: **Dark blue**: >20%
Light blue: 10 to 20%
Yellow: -10 to -20%
Orange: < -20€

Table 8.8 shows the percentage of total area of the EU27 countries for each category of the EDORA Performance Typology. The EDORA Performance Typology is calculated from a regional composite performance indicator from 5 indicators (net migration, per capita GDP, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalised (Z) scores for the five indicators. The four categories have been defined by the average standardised score as follows:

- *Accumulation regions*: <-0.5 (i.e. more than half a standard deviation below the "non-urban" mean).
- *Above average regions*: -0.5 to 0 (i.e. less than half a standard deviation below the "non-urban" mean).
- *Below average regions*: 0 to +0.5 (i.e. less than half a standard deviation above the "non-urban" mean)
- *Depleting regions*: <-0.5 (i.e. more than half a standard deviation above the "non-urban"

The total area under the "depleting" category involves more than 50% of the total in 5 of the new member states: Poland (63%), Latvia (63%), Bulgaria (66%), Romania (70%), Slovakia (51%). Close to these values is Lithuania (45%). It is relevant to point out that 1/4th of German territory is classified under this category, matching the eastern *Lander*. These are the areas suffering more problems of emigration, unemployment and lower income level.

The regions "below average" are relevant in a number of countries, especially the new member states. As in the analysis of the distribution of NUT3, "below the average" and "depleting" areas are located in the less modernised economies of Europe. By contrast, the "above average" and "accumulation" areas are mainly located in countries with stronger economies and higher income levels.

Table 8.8 Performance Typology. Total area (in % of MS total)

		Performance Typology			% of MS Total
		Deplet.	Below	Above	Accum.
Austria	AT	0,00	27,04	39,50	32,09
Belgium	BE	3,06	26,96	14,22	0,90
Bulgaria	BG	66,62	22,36	9,80	0,00
Cyprus	CY	0,00	0,00	0,00	100,00
Czech Republic	CZ	0,00	63,07	36,31	0,00
Germany	DE	24,01	20,18	29,62	6,71
Denmark	DK	0,00	1,37	78,48	15,58
Estonia	EE	0,00	82,39	0,00	9,92
Spain	ES	0,00	18,00	30,41	37,53
Finland	FI	7,23	49,33	35,87	5,58
France	FR	0,27	35,61	40,55	19,12
Greece	GR	11,04	42,30	33,25	10,52
Hungary	HU	16,58	60,27	15,71	6,87
Ireland	IE	0,00	0,00	0,00	98,68
Italy	IT	2,74	28,94	17,78	25,14
Lithuania	LT	44,99	40,10	0,00	0,00
Luxembourg	LU	0,00	0,00	0,00	100,00
Latvia	LV	62,78	21,06	15,69	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	3,06	28,14	12,68
Poland	PL	63,26	33,64	0,00	0,00
Portugal	PT	0,00	50,31	33,79	7,32
Romania	RO	70,00	29,23	0,00	0,66
Sweden	SE	0,00	53,74	44,72	0,00
Slovenia	SI	0,00	29,16	58,24	12,60
Slovakia	SK	51,35	35,28	9,18	0,00
United Kingdom	UK	0,00	10,17	33,47	33,41

Source: EDORA Typology
Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

Differentials between number of regions and total area for the Performance Typology are shown in Figure 8.9. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high differential (over 10%) indicates a significant heterogeneity in the size of the regions of a member state.

Differentials resulting from the comparison between number of regions and total area, in the case of the Performance Typology are, as in the case of the Structural Typology, mostly negative. Again, the cause is the exclusion from the analysis of Urban regions and the empirical evidence that Rural regions are more extensive.

Important differentials are not recorded in the case of "depleting" regions. Just highlight the cases of Latvia (-17%) and Slovakia (-14%).

Differentials in "below average" regions are more significant. Here stand Finland (-24%), Estonia (-22%) Sweden (-20%) and France (-10%). On the positive side, Slovenia shows a differential of 12%.

In the case of regions "above average" differentials are shown both in positive and negative. In the first case includes Sweden (17%) and Finland (14%). In the case of negative differentials includes Denmark (-25%), United Kingdom (-20%) and the Czech Republic (-15%).

As in case of "depleting regions", the areas of differential accumulation are not elevated. Just highlights the UK (-15%) and Ireland (-11%) for negative differentials, whilst Estonia (10%) stands for its positive differential.

Table 8.9 Performance Typology. % Number of Regions - %Total area (in % of MS total)

		Performance Typology			% of MS Total
		Deplet.	Below	Above	Accum.
Austria	AT	0,00	-1,33	-5,22	2,19
Belgium	BE	-0,79	-4,23	-2,86	1,37
Bulgaria	BG	8,38	-8,08	-2,66	0,00
Cyprus	CY	0,00	0,00	0,00	0,00
Czech Republic	CZ	0,00	8,36	-14,88	0,00
Germany	DE	-8,86	-5,72	-8,17	-1,82
Denmark	DK	0,00	7,73	-33,02	2,60
Estonia	EE	0,00	-22,39	0,00	10,08
Spain	ES	0,00	-7,83	-4,99	6,54
Finland	FI	-2,23	-24,33	14,13	9,42
France	FR	0,73	-10,61	1,45	-0,12
Greece	GR	2,68	-3,09	2,05	-0,72
Hungary	HU	-1,58	-5,27	4,29	-1,87
Ireland	IE	0,00	0,00	0,00	-11,18
Italy	IT	1,00	-5,57	3,71	-5,51
Lithuania	LT	5,01	-0,10	0,00	0,00
Luxembourg	LU	0,00	0,00	0,00	0,00
Latvia	LV	-12,78	-4,39	0,97	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	1,94	-8,14	-5,18
Poland	PL	-7,20	-12,43	4,55	0,00
Portugal	PT	0,00	-10,31	-3,79	-0,65
Romania	RO	-0,95	-3,04	0,00	1,72
Sweden	SE	0,00	-20,41	17,19	0,00
Slovenia	SI	0,00	12,51	-8,24	-4,27
Slovakia	SK	-13,85	2,22	3,32	0,00
United Kingdom	UK	0,00	-3,40	-20,68	-14,62

Source: EDORA Typology

Key: **Dark blue**: >20%
Light blue: 10 to 20%
Yellow: -10 to -20%
Orange: < -20€

8.3 Population distribution of NUTs 3 regions according to the "EDORA cube" typologies

This section presents the distribution of the population of NUT3 in the three EDORA typologies: D-P, Structural and Performance. This is done in two ways: first, as the total percentage of each category in each typology; second, as the differential between the percentage of total area in each category and the percentage of the population representing these regions. The differential results in a percentage that goes to 0% to the extent that the total area and the population match. A high differential (over 10%) indicates a significant concentration of the population in one or more typology categories.

Tables 8.10, 8.12 and 8.14 present the percentage of population of NUT3 regions for the EU27 for each EDORA typology. Tables 8.11, 8.13 and 8.15 show differentials between the percentage of total area in each category and the percentage of the population representing these regions.

Table 8.10 analyses the population of NUTS3 regions of the EU27 according to categories of the Dijkstra-Poelman typology (hereafter D-P). D-P Typology classifies regions according to their accessibility and rurality. Accesibility is measured in % of population which access to a market town under a particular time threshold. Rurality is linked to more extensive (as opposite to intensive) land use and, therefore, the variable is % of population living in rural LAU; that is, those below 150 inhab./km^2. Special attention is given to the categories "Intermediate" and "Predominantly" rural, while reducing attention to category "Predominantly Urban (PU) due to the research focus of EDORA on rural areas.

The analysis of population distribution among the categories of the D-P typology allows isolating the percentage of each country's population that resides in PU regions. Predominantly urban regions account for a significant portion of the population of small countries without complicated terrain like Malta (100%), Belgium (85%) and the Netherlands (83%). Stands also the case of the United Kingdom (70%) associated with the existence of a dense urban system which connects the country, aided by a "friendly" physical environment without major accidents. At a second level there are some of the largest countries (territorial and demographically), in which PU regions also accounts for a significant percentage of the population thanks to the existence of dense and well organised urban systems. This is the case for Germany (58%), Italy (54%) and Spain (48%). Surprisingly, however, the low percentage of population in urban areas of France (30%) as a result of the network of intermediate cities only headed by Paris and a handful of metropolitan area (Lyon, Marseille, Lille, Toulouse and Bordeaux).

Accessibility is one of the main parameters to measure population settlement. If we add up the population living in accessible areas (IA-PRA), without the PU population, results indicate that there is a clear concentration of population in accessible areas to the detriment of remote areas. If we, then, add to this figure the population of PU regions, almost all countries show over 80% of the population in the resulting sum. Consequently, few countries maintain significant portions of the population in remote areas: Greece (32%), Ireland (28%), Denmark (26%), Latvia (24%) and Finland (22%). The reasons are diverse but are related to their

geography: the complicated terrain of Greece, the strong peripherality of northern Scandinavia (Finland) or Ireland's urban macrocephaly.

The above analysis does not imply that predominantly rural regions have been emptied demographically. The relationship between rurality and population operates under different parameters than those explaining accessibility. In the case of D-P categories, the population in predominantly rural regions (PRA-PRR) is still significant in a number of countries. More than half of the population live in predominantly rural regions in 6 countries of the EU27: Ireland (72%), Estonia (65%), Finland (62%), Slovenia (57%), Sweden (51%) and Denmark (50%). It is evident that those are not economically weaker countries but territories with geographic peculiarities that have a significant percentage of its land in categories of rurality which implies a high percentage of rural population.

Table 8.10 Dijkstra-Poelman Typology. Population (in % of MS total)

		D-P Typology				% of MS Total
		PU	IA	IR	PRA	PRR
Austria	**AT**	23,42	30,87	0,00	35,19	10,52
Belgium	**BE**	84,71	11,06	0,00	4,22	0,00
Bulgaria	**BG**	16,18	52,37	6,88	9,23	15,35
Cyprus	**CY**	0,00	100,00	0,00	0,00	0,00
Czech Republic	**CZ**	11,61	83,43	0,00	4,96	0,00
Germany	**DE**	57,77	29,27	0,00	12,77	0,20
Denmark	**DK**	29,26	20,83	0,00	23,60	26,31
Estonia	**EE**	12,76	64,75	12,02	0,00	10,47
Spain	**ES**	48,50	35,81	2,23	7,37	6,08
Finland	**FI**	26,12	8,67	3,48	42,43	19,31
France	**FR**	29,56	53,66	0,00	12,97	3,81
Greece	**GR**	36,16	25,31	2,16	6,77	29,61
Hungary	**HU**	16,90	42,02	0,00	21,89	19,19
Ireland	**IE**	27,96	0,00	0,00	44,09	27,95
Italy	**IT**	54,14	34,02	2,61	6,31	2,92
Lithuania	**LT**	25,12	50,13	5,15	10,66	8,94
Luxembourg	**LU**	0,00	100,00	0,00	0,00	0,00
Latvia	**LV**	31,63	15,44	13,39	29,04	10,50
Malta	**MT**	100,00	0,00	0,00	0,00	0,00
Netherlands	**NL**	82,85	15,88	0,00	1,26	0,00
Poland	**PL**	21,56	29,78	2,34	45,49	0,81
Portugal	**PT**	52,31	26,76	0,00	5,83	15,10
Romania	**RO**	9,01	50,29	0,00	27,49	13,20
Sweden	**SE**	21,14	29,89	0,00	29,35	19,61
Slovenia	**SI**	0,00	37,27	5,30	53,78	3,65
Slovakia	**SK**	11,28	63,48	0,00	25,24	0,00
United Kingdom	**UK**	69,56	27,24	1,17	1,48	0,54

Source: EDORA Typology

Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

Finally, it is worth noting the behaviour of the variable "population" when combined low accessibility and high rurality. This applies to the category "predominantly rural remote" (PRR). In this case it is clear that both variables (accessibility and rurality) and operating effectively to reduce the intensity of human occupation. In 15 of the 27 EU countries PRR regions do not reach 10% of the population in their respective states. Comparatively, only 10 countries of the 27 member states have less than 10% of its territory in this category. Interestingly, remote rural residence is not located primarily in the NMS but in countries with specific geographical constraints that limit the accessibility to parts of their territories, mainly by island or by geography.

Differentials between % of total area of regions and % of population are shown in Figure 8.11. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high differential (over 10%) indicates a significant heterogeneity in the size of the regions of a member state.

Differentials between total area and population show, first, that urban areas concentrate a lot more population than the geographical area they represent. This general trend is more pronounced in the UK (-47%), Portugal (-44%), Germany -(38%), Spain (-34%), Greece (-33%) and Latvia (-31%). This means that the population is more concentrated in PU areas in relation to the surface they occupy. Interestingly, both countries recorded negative differentials in PU regions. This is Slovakia (-7%) and Estonia (-5%). These differentials mean that the territorial dimension of the predominantly urban regions is greater than its population size. This contradicts the own definition of urban as an area of higher density and human occupation.

Apart from the PU areas, only the Intermediate regions close to cities (IA) show a tendency to negative differentials, although much less pronounced than in the previous case. These are regions whose accessibility and relatively low rurality allow for dense urban networks and major population settlements. There are several countries that show negative differential in IA regions confirming this hypothesis, Poland (-25%), Sweden (-22%), Estonia (-19%) and Slovenia (13%), among other. However, there are three countries where the trend is the opposite: less demographic than geographic weight in IA regions. This is Netherlands (25%), United Kingdom (23%) and Germany (15%).

The other three categories of the D-P typology (IR, ARP and RRP) show positive differential; ie. the geographic "weight" is greater than the demographic "weight". While differentials are scarce in IR regions, they are much more important in predominantly rural regions (both accessible and remote). Only Finland shows a negative differential (greater geographic than demographic weight) for the case of predominantly rural accessible regions.

Table 8.11 Dijkstra-Poelman Typology. % Total Area - %Population (in % of MS total)

		D-P Typology				% of MS Total
		PU	IA	IR	PRA	PRR
Austria	AT	-22,06	-10,67	0,00	12,46	20,27
Belgium	BE	-29,85	9,58	0,00	20,27	0,00
Bulgaria	BG	-14,96	1,00	1,99	3,79	8,19
Cyprus	CY	0,00	0,00	0,00	0,00	0,00
Czech Republic	CZ	-10,98	7,33	0,00	3,66	0,00
Germany	DE	-38,29	15,28	0,00	22,65	0,35
Denmark	DK	-24,69	2,84	0,00	15,05	6,80
Estonia	EE	-5,06	-18,68	13,46	0,00	10,28
Spain	ES	-34,44	1,54	0,56	13,64	18,70
Finland	FI	-24,12	-5,45	-1,82	-6,06	37,45
France	FR	-25,11	-6,43	0,00	23,08	8,46
Greece	GR	-33,27	-3,87	-0,41	4,62	32,93
Hungary	HU	-16,33	-0,55	0,00	6,82	10,06
Ireland	IE	-26,64	0,00	0,00	13,96	12,68
Italy	IT	-28,74	9,92	1,31	9,84	7,68
Lithuania	LT	-10,22	-4,62	1,51	4,48	8,85
Luxembourg	LU	0,00	0,00	0,00	0,00	0,00
Latvia	LV	-31,16	7,10	7,67	3,28	13,11
Malta	MT	0,00	0,00	0,00	0,00	0,00
Netherlands	NL	-26,73	25,19	0,00	1,54	0,00
Poland	PL	-18,46	-24,95	-2,34	41,22	4,54
Portugal	PT	-43,73	-5,06	0,00	4,16	44,63
Romania	RO	-8,91	-5,67	0,00	6,84	7,75
Sweden	SE	-19,60	-21,57	0,00	1,78	39,38
Slovenia	SI	0,00	-12,82	-0,15	11,49	1,48
Slovakia	SK	-7,09	0,11	0,00	6,98	0,00
United Kingdom	UK	-46,61	22,52	0,39	9,63	14,06

Source: EDORA Typology

Key: **Dark blue**: >20%
Light blue: 10 to 20%
Yellow: -10 to -20%
Orange: < -20€

Figure 8.12 shows the total population of NUT3 regions of the EU27 which is located in each of the categories of the EDORA Structural Typology. The structural typology classifies regions according to their economic settings. According to this typology, regions can have an economic base focused on primary activities, or be focused on the "consumption countryside", or have diversified economies dominated by secondary activities or by private services. The analyses carried out on the EDORA typology and those made elsewhere in this report show that regions with an agricultural economy and to a lesser extent, those focused on "consumption countryside" concentrate the main problems associated with rural decline. By contrast, rural regions with diversified economies have better economic and demographic indicators.

Regions dominated by an agrarian economy (category "Agriculture") host more than 50% of the population only in the case of 3 countries: Romania (78%), Bulgaria (64%) and Latvia (52%). Not far from these percentages are four other countries: Poland (49%), Greece (44%), Hungary

(40%) and Lithuania (33%). Three other countries exceed 10%: Portugal (13%), Estonia (10.5%) and Spain (10.3%). Based on these data, we can argue that the population stays in rural areas dominated by an agrarian economy in the case of societies where agriculture is not yet completely modernised, either because of the general state of the economy, or because the geographical constraints that limit accessibility and difficult or make it impossible to implement this process of modernisation.

Table 8.12 Structural Typology. Population (in % of MS total)

		Structural Typology			% of MS Total
		Ag	CC	D(Sec)	D(PServe)
Austria	AT	6,61	39,10	21,20	9,67
Belgium	BE	0,46	4,71	1,98	8,14
Bulgaria	BG	64,14	19,68	0,00	0,00
Cyprus	CY	0,00	100,00	0,00	0,00
Czech Republic	CZ	0,00	20,86	56,53	11,00
Germany	DE	0,00	29,43	6,37	6,43
Denmark	DK	0,00	40,96	14,81	14,97
Estonia	EE	10,47	76,77	0,00	0,00
Spain	ES	11,24	30,58	5,78	3,90
Finland	FI	0,00	73,88	0,00	0,00
France	FR	2,37	15,41	0,45	52,22
Greece	GR	44,71	19,13	0,00	0,00
Hungary	HU	40,92	15,95	14,45	11,79
Ireland	IE	0,00	57,39	14,65	0,00
Italy	IT	7,35	25,70	1,27	11,53
Lithuania	LT	33,34	16,38	5,15	20,01
Luxembourg	LU	0,00	100,00	0,00	0,00
Latvia	LV	51,82	16,55	0,00	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	1,67	4,27	11,21
Poland	PL	48,68	7,61	13,53	8,62
Portugal	PT	13,33	30,96	0,00	3,40
Romania	RO	79,72	3,33	6,57	1,37
Sweden	SE	0,00	65,83	0,00	13,03
Slovenia	SI	8,61	91,39	0,00	0,00
Slovakia	SK	0,00	65,32	23,40	0,00
United Kingdom	UK	0,00	21,04	2,45	6,94

Source: EDORA Typology
Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

Population in 'consumption countryside' regions is relevant in virtually all countries to account for rural territories that benefit from demands of urban markets. The regions defined as "consumption countryside" are characterised by areas dominated by one or more services together, typically geared to the urban population (access to environmental assets, tourism capacity, and farm diversification). Consequently, there is not only one type of rural areas but many rural profiles that have in common the orientation to urban consumption, usually in

forms of tourism. Most countries show significant percentages of their rural population in this category. Due to the diversity of sub-categories implicit in the Consumption Countryside we can not speak of uniformity; each region under this category may have a different economic settings with the common denominator of their orientation to urban consumption. Only two conditions seem to be implicit in this type of regions: on the one hand, a relative low importance of agriculture as economic activity and employment provider; on the other hand, a mature urban demand that makes possible consumption of rural goods beyond a critical threshold

Within diversified rural economies the EDORA Structural typology differentiates two situations: on the one hand, areas where secondary activity (industry and construction) is the most relevant; on the other hand, areas where private services constitute the main economic activity.

Diversified rural economies with strong secondary sectors may refer to the implementation of diffuse processes of industrialisation in intermediate rural areas (ie. Marshallian districts in Spain or Portugal). It may, on the other hand, be the remnants of industrial specialization associated with the communist era (Hungary, Czech Republic, Slovakia, Poland) to be reinforced in recent years because of relocation of large industrial plants from other less competitive locations in terms of costs. For these areas, industrial know-how accumulated during the twentieth century and the lower costs of land and labour, along with the EU "umbrella" are the main potentials. However, the maintenance of an industrial activity of this sort does not guarantee an easy path to long term, sustainable development unless work is undertaken in a proper embedding of the industrial fabric, usually exogenous, in the local development strategy. It can also mean the case of rural regions where agriculture is not a relevant activity due to land or climate constraints and they have managed to develop or attract industrial activity. Diversified rural regions with a strong secondary sector contain significant contingents of people in some countries. Higher percentages of population for this type of region are in: Czech Republic (57%), Slovakia (23%), and Austria (21%). Percentages in the remaining countries are much lower, mostly below 10%.

Rural population in regions with diversified economies that have a powerful private services sector, is relevant only in few regional environments of France (52%) and Lithuania (20%).

Differentials between % of total area of regions and % of population for the case of the Structural Typology are shown in Figure 8.13. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high differential (over 10%) indicates a significant heterogeneity in the size of the regions of a member state.

The vast majority of differentials shown between the percentage of total area and the percentage of population in each category of the Structural Typology are positive. This means that, in most cases, rural areas have less demographic than territorial weight. This results in many implications for territorial planning and management of public resources in systems where allocation of funding is done according to population size.

Depending on the distribution of rural areas in different categories, and the characteristics of rural settlement in each country, the differences are more or less relevant for each country and rural type. For example, in the case of agricultural areas, differentials are always positive (more territory than population) are more important in countries such as Portugal (43%), Greece (37%). Latvia (32%), Poland (31%), Hungary (17%) among others. In the case of Portugal and Greece it could be the case for remote rural areas (mountain environments) in which there has not been a sufficient degree of diversification of the agricultural economy. These are regions that have been losing population for decades. In the case of NMS regions these are the less modernised agricultural areas that, while not suffering so much the problems of inaccessibility, are the source of an important part of immigration to Western Europe.

Table 8.13 Structural Typology. % Total Area - %Population (in % of MS total)

		Structural Typology			% of MS Total
		Ag	CC	D(Sec)	D(PServe)
Austria	**AT**	4,94	23,31	-1,81	-4,37
Belgium	**BE**	0,73	18,75	1,98	8,39
Bulgaria	**BG**	15,60	-0,64	0,00	0,00
Cyprus	**CY**	0,00	0,00	0,00	0,00
Czech Republic	**CZ**	0,00	-0,86	13,72	-1,87
Germany	**DE**	0,00	27,46	4,08	6,75
Denmark	**DK**	0,00	20,84	1,94	1,90
Estonia	**EE**	10,28	-5,22	0,00	0,00
Spain	**ES**	23,41	0,14	8,08	2,81
Finland	**FI**	0,00	24,12	0,00	0,00
France	**FR**	4,83	4,15	0,38	15,76
Greece	**GR**	37,86	-4,59	0,00	0,00
Hungary	**HU**	17,15	1,85	2,26	-4,92
Ireland	**IE**	0,00	23,80	2,84	0,00
Italy	**IT**	4,66	21,54	0,09	2,45
Lithuania	**LT**	13,71	2,63	1,51	-7,62
Luxembourg	**LU**	0,00	0,00	0,00	0,00
Latvia	**LV**	32,02	-0,86	0,00	0,00
Malta	**MT**	0,00	0,00	0,00	0,00
Netherlands	**NL**	0,00	3,29	5,01	18,44
Poland	**PL**	30,86	7,03	-10,81	-8,62
Portugal	**PT**	42,70	2,02	0,00	-0,99
Romania	**RO**	12,33	-0,37	-2,34	-0,70
Sweden	**SE**	0,00	30,05	0,00	-10,45
Slovenia	**SI**	5,17	-5,17	0,00	0,00
Slovakia	**SK**	0,00	9,10	-2,01	0,00
United Kingdom	**UK**	0,00	36,35	0,28	9,98

Source: EDORA Typology

Key: **Dark blue**: >20%
Light blue: 10 to 20%
Yellow: -10 to -20%
Orange: < -20€

Differentials are wider in the case of the Consumption Countryside areas. Most of them are over 20% and do not correspond, in any case, to the same countries where differentials were important in the Agrarian type. Here are included countries like the United Kingdom (36%), Sweden (30%), Germany (27%), Finland (24%), Ireland (24%), Austria (23%), Italy (21%) and Denmark (21%). All countries with high per capita incomes where the urban demand for rural goods and services is more consolidated. The larger urban development and characteristics of the regional division are the factors explaining these differentials.

In the case of rural areas with diversified economic structures the balance between area and population is more equilibrated. The vast majority of countries show differential close to zero and, when higher differentials are present, there is some balance between positive and negative values corresponding to characteristics of the spatial structure of each country.

Table 8.14 shows the percentage of total population of the EU27 countries for each category of the EDORA Performance Typology. The EDORA Performance Typology is calculated from a regional composite performance indicator from 5 indicators (net migration, per capita GDP, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalised (Z) scores for the five indicators. The four categories have been defined by the average standardised score as follows:

- *Accumulation regions*: <-0.5 (i.e. more than half a standard deviation below the “non-urban” mean).
- *Above average regions*: -0.5 to 0 (i.e. less than half a standard deviation below the “non-urban” mean).
- *Below average regions*: 0 to +0.5 (i.e. less than half a standard deviation above the “non-urban” mean)
- *Depleting regions*: <-0.5 (i.e. more than half a standard deviation above the “non-urban” mean)

The total population under the "depleting" category involves more than 50% of the total in 5 of the new member states: Poland (63%), Latvia (63%), Bulgaria (66%), Romania (70%), Slovakia (51%). Close to these values is Lithuania (45%). It is relevant to point out that 1/4th of German rural population is classified under this category, matching the eastern *Lander*. These are the areas suffering more problems of emigration, unemployment and lower income level.

Population concentrated in regions "below average" are relevant in a number of countries, especially the New Member States. As in the analysis of the distribution of NUT3, “below the average” and "depleting" areas are located in the less modernised economies of Europe. By contrast, the “above average” and "accumulation" areas are mainly located in countries with stronger economies and higher income levels.

The rural population distribution according to categories of the Performance Typology reinforces the arguments presented so far. The rural population is concentrated in categories below the European average ("depleting" and "below average") mainly in the NMS and the

countries that formerly constituted the European periphery. Thus, the rural population in "depleting regions" is more than half of total in Romania (61%), Poland (53%), Bulgaria (52%), and also show relevant percentages in Slovakia (41%), Latvia (38%) and Lithuania (28%). The category "below average" is relevant in most of these same countries and in other NMS and Greece.

By contrast, the rural population is concentrated in regions above the European average ("above average" and "Accumulation") in countries with higher levels of economic development.

Table 8.14 Performance Typology. Population (in % of MS total)

		Performance Typology			% of MS Total
		Deplet.	Below	Above	Accum.
Austria	AT	0,00	11,52	26,33	38,73
Belgium	BE	1,39	7,99	5,35	0,56
Bulgaria	BG	51,58	22,90	9,34	0,00
Cyprus	CY	0,00	0,00	0,00	100,00
Czech Republic	CZ	0,00	65,38	23,01	0,00
Germany	DE	9,31	10,08	18,48	4,35
Denmark	DK	0,00	0,79	57,94	12,01
Estonia	EE	0,00	48,27	0,00	38,96
Spain	ES	0,00	8,31	16,89	26,29
Finland	FI	1,59	16,92	44,11	11,26
France	FR	0,69	19,38	32,35	18,03
Greece	GR	5,04	22,45	31,91	4,44
Hungary	HU	12,98	43,62	14,71	11,79
Ireland	IE	0,00	0,00	0,00	72,04
Italy	IT	1,52	18,18	11,17	14,99
Lithuania	LT	28,06	46,82	0,00	0,00
Luxembourg	LU	0,00	0,00	0,00	100,00
Latvia	LV	38,43	13,39	16,55	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	1,24	10,09	5,82
Poland	PL	52,67	21,26	4,51	0,00
Portugal	PT	0,00	19,56	21,62	6,51
Romania	RO	60,57	29,04	0,00	1,37
Sweden	SE	0,00	18,01	60,85	0,00
Slovenia	SI	0,00	28,29	46,62	25,09
Slovakia	SK	41,32	36,29	11,11	0,00
United Kingdom	UK	0,00	2,01	8,19	20,23

Source: EDORA Typology
Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

Differentials between % of total area of regions and % of population for the case of the Performance Typology are shown in Figure 8.15. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high

differential (over 10%) indicates a significant heterogeneity in the size of the regions of a Member State.

The vast majority of differentials shown between the percentage of total area and the percentage of population in each category of the performance Typology are positive. This means that, in most cases, rural areas have less demographic than territorial weight. This results in many implications for territorial planning and management of public resources in systems where allocation of funding is done according to population size.

Table 8.15 Performance Typology. % Total Area - %Population (in % of MS total)

		Performance Typology			% of MS Total
		Deplet.	Below	Above	Accum.
Austria	AT	0,00	15,52	13,18	-6,64
Belgium	BE	1,67	18,97	8,87	0,34
Bulgaria	BG	15,04	-0,54	0,46	0,00
Cyprus	CY	0,00	0,00	0,00	0,00
Czech Republic	CZ	0,00	-2,31	13,29	0,00
Germany	DE	14,70	10,09	11,14	2,36
Denmark	DK	0,00	0,58	20,54	3,57
Estonia	EE	0,00	34,11	0,00	-29,05
Spain	ES	0,00	9,69	13,52	11,23
Finland	FI	5,64	32,41	-8,24	-5,69
France	FR	-0,42	16,23	8,21	1,09
Greece	GR	6,00	19,85	1,34	6,08
Hungary	HU	3,60	16,66	1,00	-4,92
Ireland	IE	0,00	0,00	0,00	26,64
Italy	IT	1,23	10,76	6,61	10,15
Lithuania	LT	16,93	-6,72	0,00	0,00
Luxembourg	LU	0,00	0,00	0,00	0,00
Latvia	LV	24,35	7,67	-0,86	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	1,82	18,05	6,86
Poland	PL	10,59	12,39	-4,51	0,00
Portugal	PT	0,00	30,75	12,17	0,81
Romania	RO	9,43	0,19	0,00	-0,70
Sweden	SE	0,00	35,73	-16,13	0,00
Slovenia	SI	0,00	0,87	11,62	-12,48
Slovakia	SK	10,04	-1,01	-1,93	0,00
United Kingdom	UK	0,00	8,16	25,27	13,18

Source: EDORA Typology

Key: **Dark blue**: >20%
Light blue: 10 to 20%
Yellow: -10 to -20%
Orange: < -20€

Depending on the distribution of rural areas in different categories, and the characteristics of rural settlement in each country, the differences are more or less relevant for each country and rural type. For example, in the case of depleting and “below average” areas, differentials

are always positive (more territory than population) and more important in countries such as Latvia (24%) for Depleting regions, and Sweden (36%). Estonia (34%), Finland (32%) or Portugal (31%) for “below average” regions.

In the case of regions "above average" differentials are mainly positive (UK 25%, Denmark 21%, Netherlands 18%, etc.) but there is a high negative differential in Sweden (-16%) that reflects an overconcentration of population in “above average” rural areas in relation to their geographical size. Accumulation regions are quite equilibrated when comparing population and territory. Most countries show values close to zero. Main positive differentials are in Ireland (27%) and UK (13%), and negative differentials are in Estonia (-29%) and Slovenia (12%).

8.4 GDP distribution of NUTs 3 regions according to the "EDORA cube" typologies

This section presents the distribution of the GDP of NUT3 in the three EDORA typologies: D-P, Structural and Performance. This is done in two ways: first, as the total percentage of each category in each typology; second, as the differential between the percentage of total area in each category and the percentage of the population representing these regions. The differential results in a percentage that goes to 0% to the extent that the total area and the population match. A high differential (over 10%) indicates a significant concentration of the population in one or more typology categories.

Tables 8.16, 8.18 and 8.20 present the percentage of population of NUT3 regions for the EU27 for each EDORA typology. Tables 8.17, 8.10 and 8.21 show differentials between the percentage of total area in each category and the percentage of the population representing these regions.

Table 8.16 analyses the GDP of NUTS3 regions of the EU27 according to categories of the Dijkstra-Poelman typology (hereafter D-P). D-P Typology classifies regions according to their accessibility and rurality. Accesibility is measured in % of population which access to a market town under a particular time threshold. Rurality is linked to more extensive (as opposite to intensive) land use and, therefore, the variable is % of population living in rural LAU; that is, those below 150 inhab./km^2. Special attention is given to the categories "Intermediate" and "Predominantly" rural, while reducing attention to category "Predominantly Urban (PU) due to the research focus of EDORA on rural areas.

The analysis of GDP distribution among the categories of the D-P typology allows isolating the percentage of each country's GDP located in PU regions. The most important finding is the concentration of GDP of the countries in PU and AI regions. In fact, the sum of the values of these two categories gives very high percentages of the GDP of most countries. These are, of course, the areas of greatest concentration of population and economic activity although it seems that the concentration is even greater in the case of GDP than it was in the case of population.

Table 8.16 Dijkstra-Poelman Typology. GDP (in % of MS total)

GDP		D-P Typology				% of MS Total
		PU	IA	IR	PRA	PRR
Austria	AT	30,10	34,64	0,00	26,97	8,29
Belgium	BE	90,01	7,37	0,00	2,62	0,00
Bulgaria	BG	33,31	43,44	4,74	6,24	12,27
Cyprus	CY	0,00	100,00	0,00	0,00	0,00
Czech Republic	CZ	24,19	71,60	0,00	4,21	0,00
Germany	DE	67,00	23,16	0,00	9,70	0,15
Denmark	DK	37,34	24,12	0,00	22,21	16,32
Estonia	EE	7,23	78,16	8,21	0,00	6,40
Spain	ES	53,65	33,66	1,64	6,16	4,89
Finland	FI	35,43	8,38	3,55	37,08	15,56
France	FR	39,40	47,47	0,00	10,18	2,95
Greece	GR	49,42	21,07	1,66	5,35	22,51
Hungary	HU	37,29	34,86	0,00	15,44	12,41
Ireland	IE	40,80	0,00	0,00	39,91	19,29
Italy	IT	59,68	30,90	1,84	5,19	2,38
Lithuania	LT	38,38	44,64	4,24	6,84	5,90
Luxembourg	LU	0,00	100,00	0,00	0,00	0,00
Latvia	LV	55,12	7,51	10,32	20,44	6,61
Malta	MT	100,00	0,00	0,00	0,00	0,00
Netherlands	NL	84,00	15,03	0,00	0,97	0,00
Poland	PL	37,95	25,48	1,48	34,62	0,47
Portugal	PT	60,40	22,88	0,00	4,67	12,04
Romania	RO	19,99	50,13	0,00	20,46	9,42
Sweden	SE	28,63	28,39	0,00	25,35	17,63
Slovenia	SI	0,00	45,95	5,39	45,84	2,82
Slovakia	SK	26,27	53,51	0,00	20,22	0,00
United Kingdom	UK	74,70	23,10	0,80	1,03	0,37

Source: EDORA Typology
Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

Differentials between % of total population of regions and % of GDP for the case of the D-P Typology are shown in Figure 8.17. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high differential (over 10%) indicates a significant heterogeneity in the size of the regions of a member state.

Differentials between % of total population of regions and % of GDP show, first, that urban areas concentrate a lot more share of GDP than the % of population area they represent. This general trend is more pronounced in Latvia (-23 %), Hungary (-20%), Bulgaria (-17%), Poland (-16%).

The other four categories of the D-P typology (IA, IR, ARP and RRP) show very little differentials and most values close to zero; ie. the demographic "weight" very similar to the “economic” "weight".

Table 8.17 Dijkstra-Poelman Typology. % Population - %GDP (in % of MS total)

		D-P Typology				% of MS Total
		PU	IA	IR	PRA	PRR
Austria	AT	-6,68	-3,77	0,00	8,22	2,23
Belgium	BE	-5,29	3,69	0,00	1,61	0,00
Bulgaria	BG	-17,14	8,93	2,14	2,99	3,08
Cyprus	CY	0,00	0,00	0,00	0,00	0,00
Czech Republic	CZ	-12,58	11,83	0,00	0,75	0,00
Germany	DE	-9,23	6,11	0,00	3,07	0,05
Denmark	DK	-8,08	-3,30	0,00	1,39	9,99
Estonia	EE	5,53	-13,41	3,81	0,00	4,07
Spain	ES	-5,14	2,16	0,59	1,21	1,19
Finland	FI	-9,31	0,29	-0,07	5,35	3,75
France	FR	-9,84	6,19	0,00	2,78	0,86
Greece	GR	-13,26	4,23	0,50	1,42	7,11
Hungary	HU	-20,40	7,17	0,00	6,45	6,78
Ireland	IE	-12,84	0,00	0,00	4,18	8,66
Italy	IT	-5,54	3,11	0,77	1,12	0,54
Lithuania	LT	-13,26	5,49	0,92	3,82	3,04
Luxembourg	LU	0,00	0,00	0,00	0,00	0,00
Latvia	LV	-23,50	7,93	3,07	8,60	3,90
Malta	MT	0,00	0,00	0,00	0,00	0,00
Netherlands	NL	-1,14	0,85	0,00	0,29	0,00
Poland	PL	-16,38	4,31	0,86	10,87	0,34
Portugal	PT	-8,09	3,88	0,00	1,15	3,05
Romania	RO	-10,97	0,17	0,00	7,02	3,78
Sweden	SE	-7,49	1,50	0,00	4,00	1,98
Slovenia	SI	0,00	-8,69	-0,09	7,94	0,84
Slovakia	SK	-14,99	9,97	0,00	5,02	0,00
United Kingdom	UK	-5,14	4,14	0,36	0,46	0,18

Source: EDORA Typology

Key: **Dark blue**: >20%
Light blue: 10 to 20%
Yellow: -10 to -20%
Orange: < -20€

Figure 8.18 shows the GDP of NUT3 regions of the EU27 which is located in each of the categories of the EDORA Structural Typology. The structural typology classifies regions according to their economic settings. According to this typology, regions can have an economic base focused on primary activities, or be focused on the "consumption countryside", or have diversified economies dominated by secondary activities or by private services. The analyses carried out on the EDORA typology and those made elsewhere in this report show that regions with an agricultural economy and to a lesser extent, those focused on "consumption countryside" concentrate the main problems associated with rural decline. By contrast, rural regions with diversified economies have better economic and demographic indicators.

Regions dominated by an agrarian economy (category "Agriculture") host more than 50% of the national GDP only in the case of Romania (66%). Not far from these percentages is Bulgaria

(47%). Five other countries exceed 20%: Poland (35%), Greece (33%), Latvia (32%) Hungary (27%) and Lithuania (22%). Based on these data, we can argue that GDP stays in rural areas dominated by an agrarian economy in the case of societies where agriculture is not yet completely modernised, either because of the general state of the economy, or because the geographical constraints that limit accessibility and difficult or make it impossible to implement this process of modernisation.

GDP in 'consumption countryside' regions is relevant in virtually all countries to account for rural territories that benefit from demands of urban markets. The regions defined as "consumption countryside" are characterised by areas dominated by one or more services together, typically geared to the urban population (access to environmental assets, tourism capacity, and farm diversification). Consequently, there is not only one type of rural areas but many rural profiles that have in common the orientation to urban consumption, usually in forms of tourism. Most countries show significant percentages of their rural population in this category. Due to the diversity of sub-categories implicit in the Consumption Countryside we can not speak of uniformity; each region under this category may have a different economic settings with the common denominator of their orientation to urban consumption. Only two conditions seem to be implicit in this type of regions: on the one hand, a relative low importance of agriculture as economic activity and employment provider; on the other hand, a mature urban demand that makes possible consumption of rural goods beyond a critical threshold

Diversified rural economies with strong secondary sectors may refer to the implementation of diffuse processes of industrialisation in intermediate rural areas (ie. Marshallian districts in Spain or Portugal). It may, on the other hand, be the remnants of industrial specialization associated with the communist era (Hungary, Czech Republic, Slovakia, Poland) to be reinforced in recent years because of relocation of large industrial plants from other less competitive locations in terms of costs. For these areas, industrial know-how accumulated during the twentieth century and the lower costs of land and labour, along with the EU “umbrella” are the main potentials. However, the maintenance of an industrial activity of this sort does not guarantee an easy path to long term, sustainable development unless work is undertaken in a proper embedding of the industrial fabric, usually exogenous, in the local development strategy. It can also mean the case of rural regions where agriculture is not a relevant activity due to land or climate constraints and they have managed to develop or attract industrial activity. Diversified rural regions with a strong secondary sector contain significant percentages of GDP in few countries. Higher percentages for this type of region are in: Czech Republic (49%), Slovakia (24%), and Austria (20%). Percentages in the remaining countries are much lower, mostly below 10%.

Rural population in regions with diversified economies that have a powerful private services sector, is relevant only in few regional environments of France (46%) and Lithuania (19%).

Table 8.18 Structural Typology. GDP (in % of MS total)

		Structural Typology			% of MS Total
		Ag	CC	D(Sec)	D(PServe)
Austria	AT	3,90	35,02	19,57	11,40
Belgium	BE	0,31	3,23	1,40	5,04
Bulgaria	BG	47,27	19,42	0,00	0,00
Cyprus	CY	0,00	100,00	0,00	0,00
Czech Republic	CZ	0,00	16,77	48,93	10,10
Germany	DE	0,00	23,26	5,34	4,40
Denmark	DK	0,00	43,58	7,72	11,36
Estonia	EE	6,40	86,37	0,00	0,00
Spain	ES	8,67	28,19	6,18	3,31
Finland	FI	0,00	64,57	0,00	0,00
France	FR	1,84	12,79	0,33	45,64
Greece	GR	33,22	17,37	0,00	0,00
Hungary	HU	27,23	11,63	13,95	9,90
Ireland	IE	0,00	41,97	17,23	0,00
Italy	IT	4,60	23,25	1,47	11,00
Lithuania	LT	22,46	15,73	4,24	19,18
Luxembourg	LU	0,00	100,00	0,00	0,00
Latvia	LV	31,72	13,15	0,00	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	1,30	5,66	9,03
Poland	PL	35,17	7,14	12,13	7,62
Portugal	PT	11,31	25,28	0,00	3,01
Romania	RO	65,99	4,24	7,26	2,52
Sweden	SE	0,00	59,74	0,00	11,63
Slovenia	SI	5,93	94,07	0,00	0,00
Slovakia	SK	0,00	49,99	23,74	0,00
United Kingdom	UK	0,00	17,05	1,90	6,35

Source: EDORA Typology
Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

Differentials between % of total population of regions and % of GDP for the case of the Structural Typology are shown in Figure 8.19. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high differential (over 10%) indicates a significant heterogeneity in the size of the regions of a member state.

All differentials shown between the percentage of total population and the percentage of GDP in each category of the Structural Typology are positive. This means that, in most cases, rural areas have less economic than demographic weight (ie. the share of GDP is lower than the share of population for most rural areas). This trend is exacerbated in the less favoured rural areas (ie. agrarian). One would expect that diversified rural economies would do better in retaining GDP according to their demographic size. Although this is, to some extent truth, the positive sign in most countries reflects an extension of the same trend (ie. there are gaps also

in diversified rural areas between their bigger demographic size and a relatively smaller economic size)

Table 8.19 Structural Typology. % Population - %GDP (in % of MS total)

		Structural Typology			% of MS Total
		Ag	CC	D(Sec)	D(PServe)
Austria	AT	2,70	4,09	1,62	-1,74
Belgium	BE	0,15	1,48	0,58	3,10
Bulgaria	BG	16,88	0,26	0,00	0,00
Cyprus	CY	0,00	0,00	0,00	0,00
Czech Republic	CZ	0,00	4,09	7,59	0,89
Germany	DE	0,00	6,16	1,03	2,04
Denmark	DK	0,00	-2,62	7,09	3,61
Estonia	EE	4,07	-9,60	0,00	0,00
Spain	ES	2,57	2,39	-0,40	0,59
Finland	FI	0,00	9,31	0,00	0,00
France	FR	0,53	2,62	0,12	6,58
Greece	GR	11,50	1,76	0,00	0,00
Hungary	HU	13,69	4,32	0,50	1,89
Ireland	IE	0,00	15,42	-2,58	0,00
Italy	IT	2,75	2,46	-0,20	0,53
Lithuania	LT	10,88	0,64	0,92	0,83
Luxembourg	LU	0,00	0,00	0,00	0,00
Latvia	LV	20,09	3,40	0,00	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	0,36	-1,40	2,18
Poland	PL	13,51	0,46	1,41	1,01
Portugal	PT	2,02	5,68	0,00	0,39
Romania	RO	13,73	-0,91	-0,69	-1,15
Sweden	SE	0,00	6,09	0,00	1,40
Slovenia	SI	2,67	-2,67	0,00	0,00
Slovakia	SK	0,00	15,32	-0,34	0,00
United Kingdom	UK	0,00	3,99	0,55	0,60

Source: EDORA Typology

Key: **Dark blue**: >20%
Light blue: 10 to 20%
Yellow: -10 to -20%
Orange: < -20€

Table 8.20 shows the percentage of GDP of the EU27 countries for each category of the EDORA Performance Typology. The EDORA Performance Typology is calculated from a regional composite performance indicator from 5 indicators (net migration, per capita GDP, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalised (Z) scores for the five indicators. The four categories have been defined by the average standardised score as follows:

- *Accumulation regions*: <-0.5 (i.e. more than half a standard deviation below the "non-urban" mean).
- *Above average regions*: -0.5 to 0 (i.e. less than half a standard deviation below the "non-urban" mean).
- *Below average regions*: 0 to +0.5 (i.e. less than half a standard deviation above the "non-urban" mean)
- *Depleting regions*: <-0.5 (i.e. more than half a standard deviation above the "non-urban" mean)

The % of total GDP under the "depleting" category involves more than 50% of the total only in the case of Romania (52%) (it was 5 countries in the cased of the variable "population"). Close to these values are Poland (39%) and Bulgaria (38%). The 25% of the German population living in "depleting" regions only gather 6% of the national GDP.

Table 8.20 Performance Typology. GDP (in % of MS total)

		Performance Typology			% of MS Total
		Deplet.	Below	Above	Accum.
Austria	AT	0,00	7,95	21,04	40,90
Belgium	BE	0,58	4,73	4,18	0,50
Bulgaria	BG	37,76	18,51	10,42	0,00
Cyprus	CY	0,00	0,00	0,00	100,00
Czech Republic	CZ	0,00	54,53	21,28	0,00
Germany	DE	5,88	7,36	15,27	4,48
Denmark	DK	0,00	0,58	45,30	16,78
Estonia	EE	0,00	31,70	0,00	61,07
Spain	ES	0,00	5,78	14,30	26,28
Finland	FI	1,11	13,61	38,71	11,14
France	FR	0,43	15,44	27,92	16,81
Greece	GR	3,97	15,94	27,33	3,35
Hungary	HU	7,99	30,11	14,71	9,90
Ireland	IE	0,00	0,00	0,00	59,20
Italy	IT	0,85	12,48	10,22	16,77
Lithuania	LT	19,02	42,60	0,00	0,00
Luxembourg	LU	0,00	0,00	0,00	100,00
Latvia	LV	21,41	10,32	13,15	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	0,87	8,64	6,49
Poland	PL	39,06	17,19	5,80	0,00
Portugal	PT	0,00	14,39	18,48	6,73
Romania	RO	51,67	25,82	0,00	2,52
Sweden	SE	0,00	15,85	55,53	0,00
Slovenia	SI	0,00	22,66	41,27	36,07
Slovakia	SK	29,16	34,17	10,40	0,00
United Kingdom	UK	0,00	1,47	6,00	17,83

Source: EDORA Typology

Key: **Green**: 20-40%
Yellow: 40-60%
Red: > 60%

Share of GDP concentrated in regions "below average" is relevant in a number of countries, especially the New Member States. As in the analysis of the distribution of NUT3, “below the average” and "depleting" areas are located in the less modernised economies of Europe. By contrast, rural GDP is concentrated in the “above average” and "accumulation" areas in countries with stronger economies and higher income levels.

Differentials between % of total population of regions and % of GDP for the case of the Performance Typology are shown in Figure 8.21. The differential results in a percentage that goes to 0% to the extent that the number of regions and the total area match. A high differential (over 10%) indicates a significant heterogeneity in the size of the regions of a member state.

Table 8.21 Performance Typology. % Population - %GDP (in % of MS total)

		Performance Typology			% of MS Total
		Deplet.	Below	Above	Accum.
Austria	AT	0,00	3,57	5,28	-2,17
Belgium	BE	0,81	3,26	1,17	0,05
Bulgaria	BG	13,82	4,39	-1,08	0,00
Cyprus	CY	0,00	0,00	0,00	0,00
Czech Republic	CZ	0,00	10,85	1,73	0,00
Germany	DE	3,43	2,72	3,21	-0,13
Denmark	DK	0,00	0,21	12,64	-4,77
Estonia	EE	0,00	16,57	0,00	-22,10
Spain	ES	0,00	2,53	2,60	0,02
Finland	FI	0,48	3,31	5,40	0,12
France	FR	0,26	3,93	4,43	1,22
Greece	GR	1,07	6,51	4,58	1,10
Hungary	HU	4,99	13,50	0,00	1,89
Ireland	IE	0,00	0,00	0,00	12,84
Italy	IT	0,67	5,70	0,95	-1,78
Lithuania	LT	9,04	4,22	0,00	0,00
Luxembourg	LU	0,00	0,00	0,00	0,00
Latvia	LV	17,02	3,07	3,40	0,00
Malta	MT	0,00	0,00	0,00	0,00
Netherlands	NL	0,00	0,37	1,45	-0,68
Poland	PL	13,61	4,07	-1,29	0,00
Portugal	PT	0,00	5,17	3,14	-0,22
Romania	RO	8,90	3,22	0,00	-1,15
Sweden	SE	0,00	2,17	5,32	0,00
Slovenia	SI	0,00	5,63	5,36	-10,98
Slovakia	SK	12,15	2,12	0,71	0,00
United Kingdom	UK	0,00	0,54	2,19	2,41

Source: EDORA Typology

Key: **Dark blue**: >20%
Light blue: 10 to 20%
Yellow: -10 to -20%
Orange: < -20€

The vast majority of differentials shown between the percentage of population and the percentage of GDP in each category of the performance Typology are positive. This means that, in most cases, rural areas have less economic than demographic weight. This exacerbates the implications for territorial planning and management of public resources in systems where allocation of funding is done according to population size, because in most countries, there is a further gap between population and economic capacity.

Depending on the distribution of rural areas in different categories, and the characteristics of rural settlement in each country, the differences are more or less relevant for each country and rural type. For example, in the case of depleting, “below average” and “above average” areas, differentials are always positive (more population than economic relevance) and more important in NMS.

In the case of “accumulation” regions differentials are more equilibrated with positive and negative values. Negative results (Estonia -22%; Slovenia -11%) indicate rural areas where the share of GDP is larger than it should according to their population.

CHAPTER 9
ANALYSIS OF THE THREE EDORA TYPOLOGIES IN EACH OF THE EU27 COUNTRIES

Chapter 9 presents the second of the three analyses of the "EDORA cube" typologies. The EDORA cube is a triangular typology exercise aimed at identifying ruralities in the EU context. Full details on methodology and presentation of results can be found in the EDORA Typology working paper and corresponding sections of the EDORA Final Report[15].

[15] Keys to the interpretation of categories in each typology

Dijkstra-Poelman Typology:

- *PU*: Urban Regions
- *IA*: Intermediate Accessible Regions
- *IR*: Intermediate Remote Regions
- *PRA*: Predominantly Rural Accessible Regions
- *PRR*: Predominantly Rural Remote Regions

Structural Typology

- AG: Regions with primary sector activities predominance (agriculture, forest logging, etc.)
- CC: Consuming countryside, characterised by areas dominated by one or more services together, typically geared to the urban population (access to environmental assets, tourism capacity, and farm diversification). Consequently, there is not only one type of rural areas but many rural profiles that have in common the orientation to urban consumption, usually in forms of tourism.
- D/Sec: Diversified rural economies with strong secondary sectors may refer to the implementation of diffuse processes of industrialisation in intermediate rural areas (i.e. Marshallian districts in Italy, Spain or Portugal). It may, on the other hand, be the remnants of industrial specialization associated with the communist era (Hungary, Czech Republic, Slovakia) to be reinforced in recent years because of relocation of large industrial plants from other less competitive locations in terms of costs.
- D(PServe): Rural areas with diversified economies that have powerful private service sectors are present in many regional environments. It is the case for non-urban tourist regions in which much of the economy hinges on the services sector (Cyprus) without a very specific thematic orientation as with the 'consumption countryside'. It should also be included here a set of regions of France, Denmark, Germany, Spain, Italy or the UK. Territorial diversity of these countries, the presence of consolidated urban markets, or counter-urbanization processes that have brought urban population to rural areas may be explanatory factors.

Performace Typology:

The EDORA Performance Typology is calculated from a regional composite performance indicator from 5 indicators (net migration, GDP per capita, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalized (Z) scores for the five indicators. It measures the regions performance in socioeconomic parameters (capacity to attract/ detain population, evolution of GDP and employment). The four categories have been defined by the average standardized score as follows:

- Accumulation regions: <-0.5 (i.e. more than half a standard deviation below the "non-urban" mean).
- Above average regions: -0.5 to 0 (i.e. less than half a standard deviation below the "non-urban" mean).
- Below average regions: 0 to +0.5 (i.e. less than half a standard deviation above the "non-urban" mean)
- Depleting regions: <+0.5 (i.e. more than half a standard deviation above the "non-urban" mean)

9.1 Austria

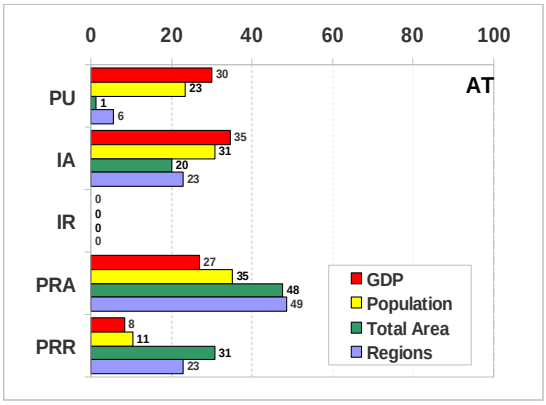
According to the *Dijkstra-Poelman typology* in Austria, the most extended area is represented by the PRA regions, indeed they gather the major concentration of regions and population. Nevertheless, the GDP score is higher in IA and PU regions (concentrated areas referring to population but smaller in size and with less diversified regions, i.e. densely populated regions with concentration of services and business clusters). PRR regions are the second biggest areas and compile more diversified regions (after PRA). However, they have the lowest GDP and population scores from the total of rural typologies -excepting IR regions, which are not representative in the graphic- which means that productivity is low due to lack of/urban concentrated job opportunities and population settlements. The rurality of Austria owes to the vast mountainous topography of the Alpine Range, as well as the remote regions from the North of Austria with difficult access to SGI.

The *Structural typology* in Austria can give more information about the socioeconomic picture of this country. Based on this typology, the CC (Consuming Countryside) is the most extended category due to their predominance over all the four indicators' scores. The implication of this is linked to activities focused on urban consuming (e.g. winter and mountain tourism). As it can be observed, the D/Sec category (i.e. diversified rural economies with strong secondary sector) is in second place of importance for all the different indicators, having the $^{1}/3$ size and number of regions of the CC regions, and GDP and population scores less than 10% respect the respectively CC scores. The poorest represented category is the Ag (predominantly rural), representing the double area than D(PServe) but having lowest scores in the rest indicators (overall GDP and population), implies a non dependency or economic benefit from the primary sector activities, as well as a depleted rural region.

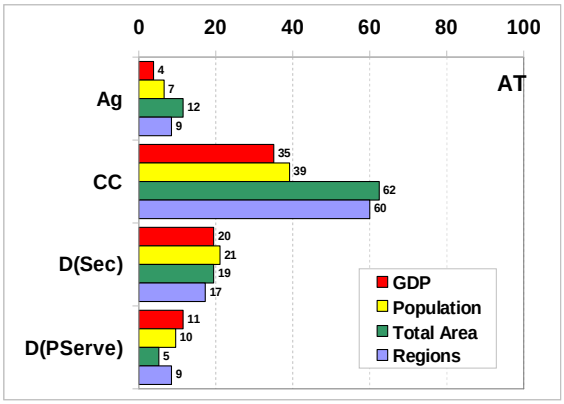
Referring to the *Performance typology,* regions above the average (values from -0.5 to 0, i.e. less than half a standard deviation below the "non-urban" mean) are the most representative in size (8 points above accumulation regions) but they have the same number of regions than in accumulation regions, being GDP (the double) and population (13 % more) scores highest for in this last region. Areas below the average (from 0 to +0.5, i.e. less than half a standard deviation above the "non-urban" mean) are slightly smaller and with a less number of regions than accumulation regions, but with GDP and population scores very low: GDP reach 8% and population the 12%. Taking into account there are no depletion areas, regions below the average will concentrate the primary economic activities, enjoy less SGI and detain population to remain on them.

Figure 9.1 Distribution of NUT3 regions in Austria. Dijkstra-Poelman, Structural and Performance Typologies

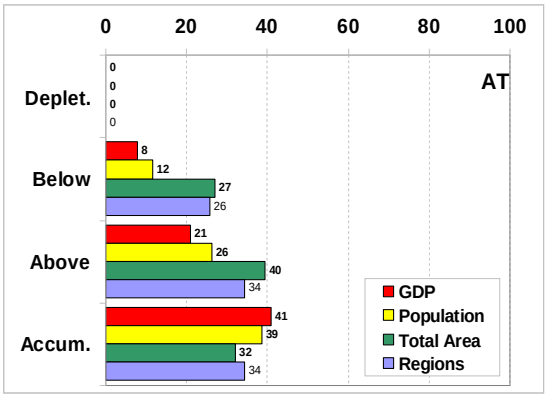
Dijkstra-Poelman



Structural EDORA



Performance EDORA



Source: EDORA Typology

9.2 Belgium

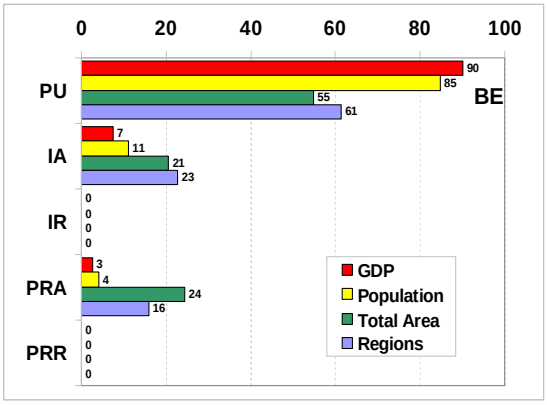
The urbanity of Belgium due to the concentration of population in a small territory is well known, and the results of the *Dijkstra-Poelman typology* show it clearly. Urban regions are the biggest in size and number of regions; furthermore the economic and human capitals are mainly concentrated there, being an unbalanced output for the rest typologies. Thus the city/town models are the lively epicenter of the country. PRA regions are the second bigger in size, less than $^{1}/3$ than urban regions, but IA (smaller than PRA in area but with more number of regions) provides better scores of GDP and population since they are relatively closed to main urban centers, enjoying a dual relation between them and urban centers (PU)

Referring to the *Structural typology*, Belgium is catalogued mostly as a CC region (Consuming Countryside) in parallel with D(PServe) regions (rural areas with diversified economies) where in spite of their lesser area, the scores of GDP and population are higher than in CC regions. Counter-urbanization processes as well as consolidated urban markets and communication nets could be an explanation for this categorization. D(Sec) regions represent less than the half of size than D(PServe) regions, and GDP and population scores represent a little percentage over the total. Ag regions cover a small part of the territory but they are not productive socioeconomically.

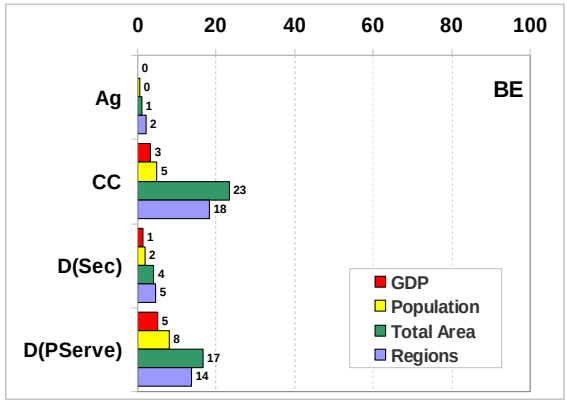
The next typology, the so called *Performance typology,* point out the preponderance of regions below the average (from 0 to +0.5, i.e. less than half a standard deviation above the "non-urban" mean). Regions above the average are the half of size and number of regions than the first commented but they have slightly lowest scores for GDP and population than them, which mean more concentration of capitals and population density in semi or urban centers. Depletion regions are bigger and have better results for the rest of indicators than accumulation regions. It can be suggested that aggressive urbanization models do not take place in Belgium. Hence, counter-urbanization processes, a widespread of SGI and good communication nets and links between cities and villages occur in Belgium, principally due to its reduced space and strong ecological awareness.

Figure 9.2 Distribution of NUT3 regions in Belgium. Dijkstra-Poelman, Structural and Performance Typologies

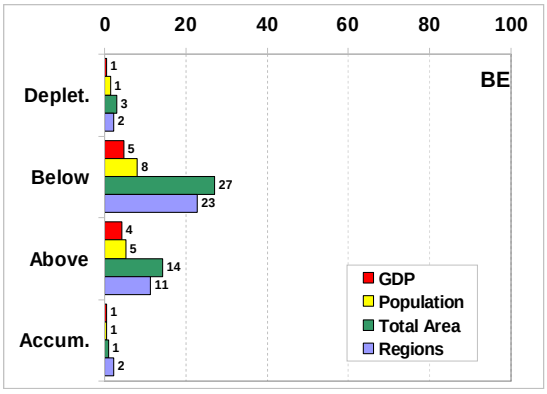
Dijkstra-Poelman



Structural EDORA



Performance EDORA



Source: EDORA Typology

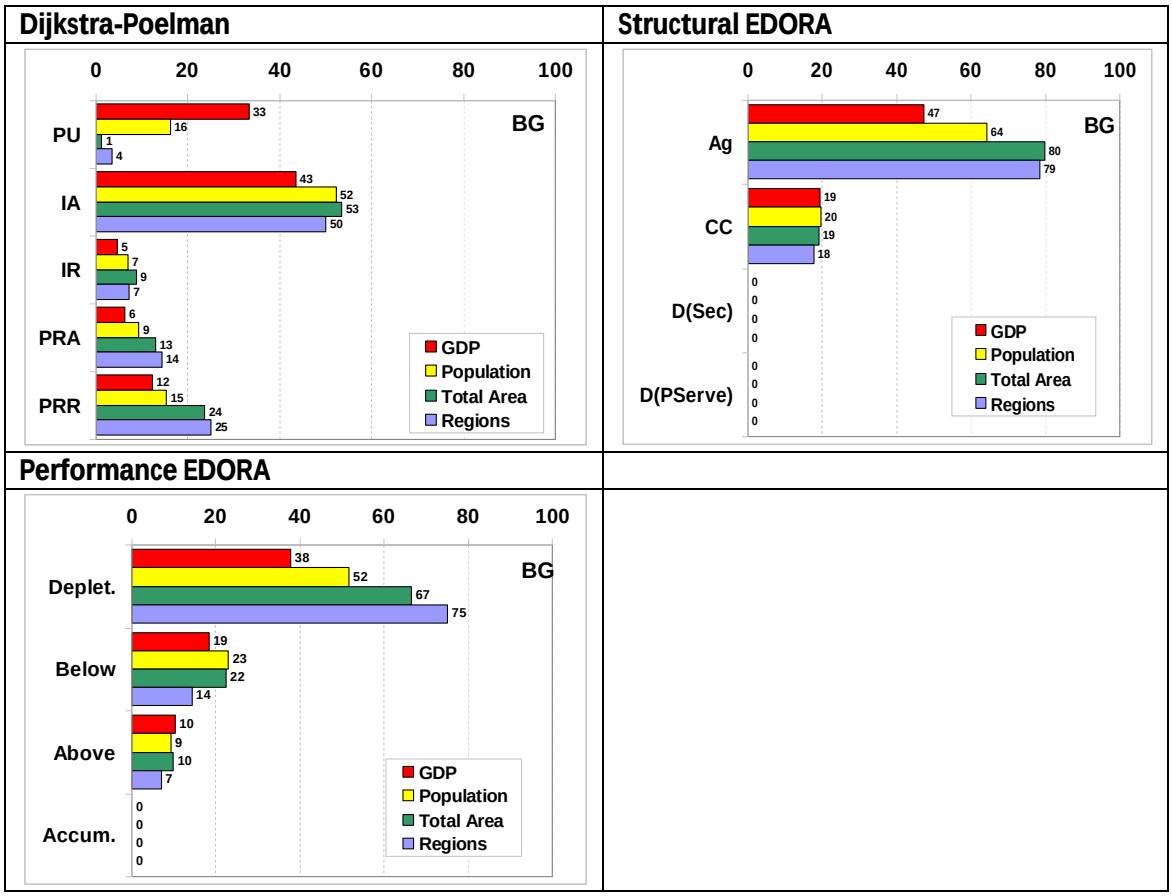
9.3 Bulgaria

Bulgaria has a surface of 110.912 km² (similar to Cuba). Hence, different regions are closed to each other, and SGI and population should be more concentrated on the territorial space. Beginning with these premises and according to the *Dijkstra-Poelman typology,* the half of the Bulgarian territory is classified as IA regions, concentrating the half of the population and the best GDP scores (coming mainly from agriculture and the iron and steel sector). By size and number of regions, PRR regions are the second in importance (representing 24% and 25% respectively) but having the third place in highest scores for GDP and population. The second place for these scores is for the PU regions even they are the smallest respect the other rest categorizations. It must be remarked the high GDP outcomes in PU, only 10 points below the IA regions, but with less of $^{1}/3$ of the population, i.e. creation of capital without strictly labour force but financing and capital inversions. PU regions, overall Sofia (the capital of Bulgaria) are basically business centers as well as touristic attractions. PRA and IR regions represent around 10% in size but they are the less overcrowded and productive places.

The rurality and the agro-society model of Bulgaria are illustrated in the *Structural typology* through the predominance of Ag regions (regions with primary sector activities predominance) as in size, social and economically. $^{2}/3$ of the land in the country is dedicated to agriculture, so it is the main economic activity of the country. Although the secondary sector got obsolete after some technological European reforms, the iron and steel sector, mining exploitation and thermal power stations are other of the main economic activities in Bulgaria. CC regions are the second category with data (not as D(Sec) and D(Pserve)), their outcome is one third less than the ones of Ag regions. Secondary sector activities could be placed in this type of regions.

One more time, the graphic about the categories from the *Performance typology* shows the predominance of rural areas, being the depletion regions (the most rural ones) the dominant over the territory on more than 60% in size and more than 80% in number of regions. Furthermore, these regions comprise more than the half of the Bulgarian population and contribute to almost a 40% of GDP. On the contrary there are no data for accumulation regions. Followed the cascade of results, regions below the average are the second in importance, representing 22% of size over the total territory area and where 23% of population live there. The contribution to GDP is the half than for depletion areas and almost the double than for regions above the area (smaller 2 times in size and with few regions and population than the regions below the average)

Figure 9.3 Distribution of NUT3 regions in Bulgaria. Dijkstra-Poelman, Structural and Performance Typologies

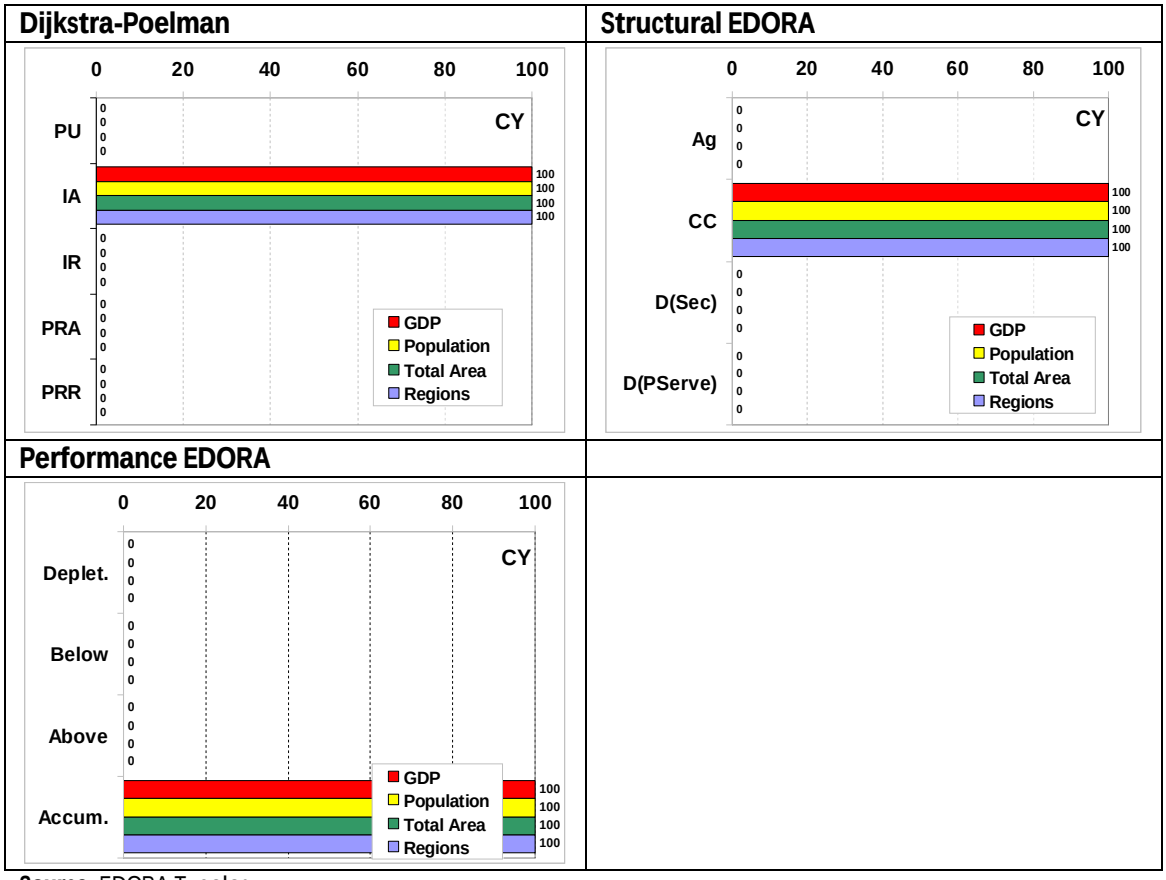


Source: EDORA Typology

9.4 Cyprus

Cyprus is a small island but it is divided in two parts: the Greek part and the Turkish part. Its mountainous topography makes some zones remote from each other, but the short distances between places convert the regions in IA (Intermediate accessible). The country is a CC region since it survives mainly thanks to agriculture and industrial exportations, but the main income is provide by the tourism. Due to the small size of the island and concentration of SGI, population and because of other non analyzed factors in these typologies, Cyprus regions can be classified as accumulation ones; it does not mean urbanization is spread over the island, but a process of social and economical life concentration exist in the island territory.

Figure 9.4 Distribution of NUT3 regions in Cyprus. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

9.5 Czech Republic

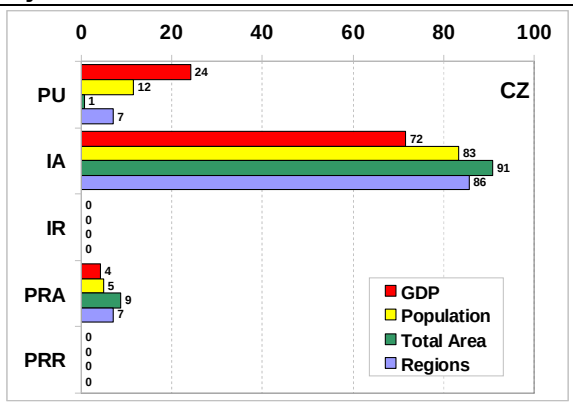
As explained in the Country Profile Draft Report of the Czech Republic and as it is shown in the *Dijkstra-Poelman typology,* the Czech territory is classified in more than 90% by IA regions (composed with a 86% of different regions). Thus, it is logical than the majority of population live there (83%) and the GDP is highest here too (72% from the total). PRA areas are the second biggest (with same diversity of regions as PU regions) but they have a poor population and GDP scores, contrary to PU regions, very small in size but with more population and a contribution of more than 20% to the total of the Czech GDP. PR and PRR regions are not represented in the graphic.

The predominant category for the country according to the *Structural typology* is the *D/Sec** (Diversified rural economies with strong secondary sectors). The communist industrial specialization system of the country was transformed and adapted after the inclusion of the Czech Republic into the European Union, but still its reminiscence is strong and there is a high employment demand on industries. Thus, settlements around industrial areas are common and not only population life there but other business grow in the surroundings and contribute as well to the increase of the GDP of D(Sec) regions. CC regions, the second in importance for all the indicators' types, can have a synergic relation with D(Sec) and D(PServe) regions (business clusters) creating communication links between them (e.g. goods transport, national park sites, leisure activities, etc.)

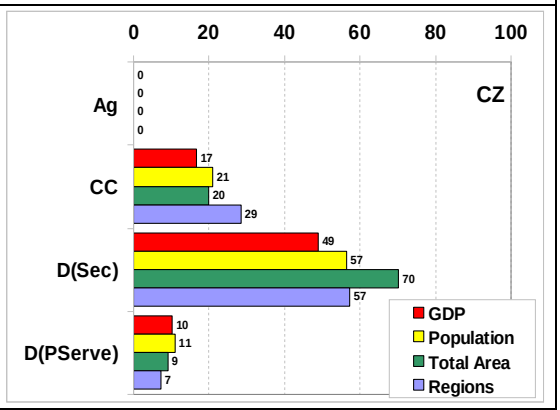
The Performance typology classifies the Czech Republic as a compilation of regions below the average, i.e. far from urban patterns. They cover more than 60% of the territorial size and there are more than 70% regions included in this category, being inhabited by more than 60% of the Czech population, where the economy finds its growth cluster (more than 50% GDP is located) Regions above the average have the half size of the before commented but less regions can be considered in this category. Population and GDP scores represent the half or less than the half than the last scores for regions below the average. As depletion as accumulation areas are not illustrated in the graphic.

Figure 9.5 Distribution of NUT3 regions in Czech Republic. Dijkstra-Poelman, Structural and Performance Typologies

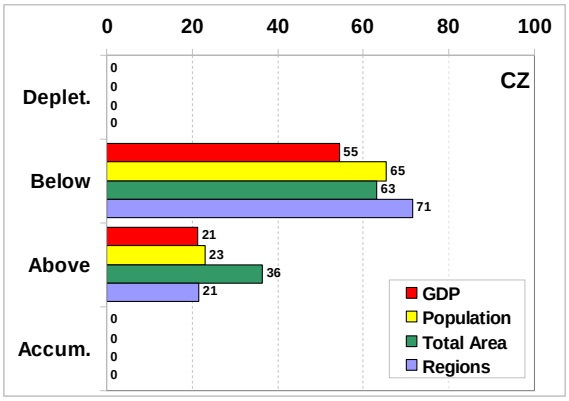
Dijkstra-Poelman



Structural EDORA



Performance EDORA



Source: EDORA Typology

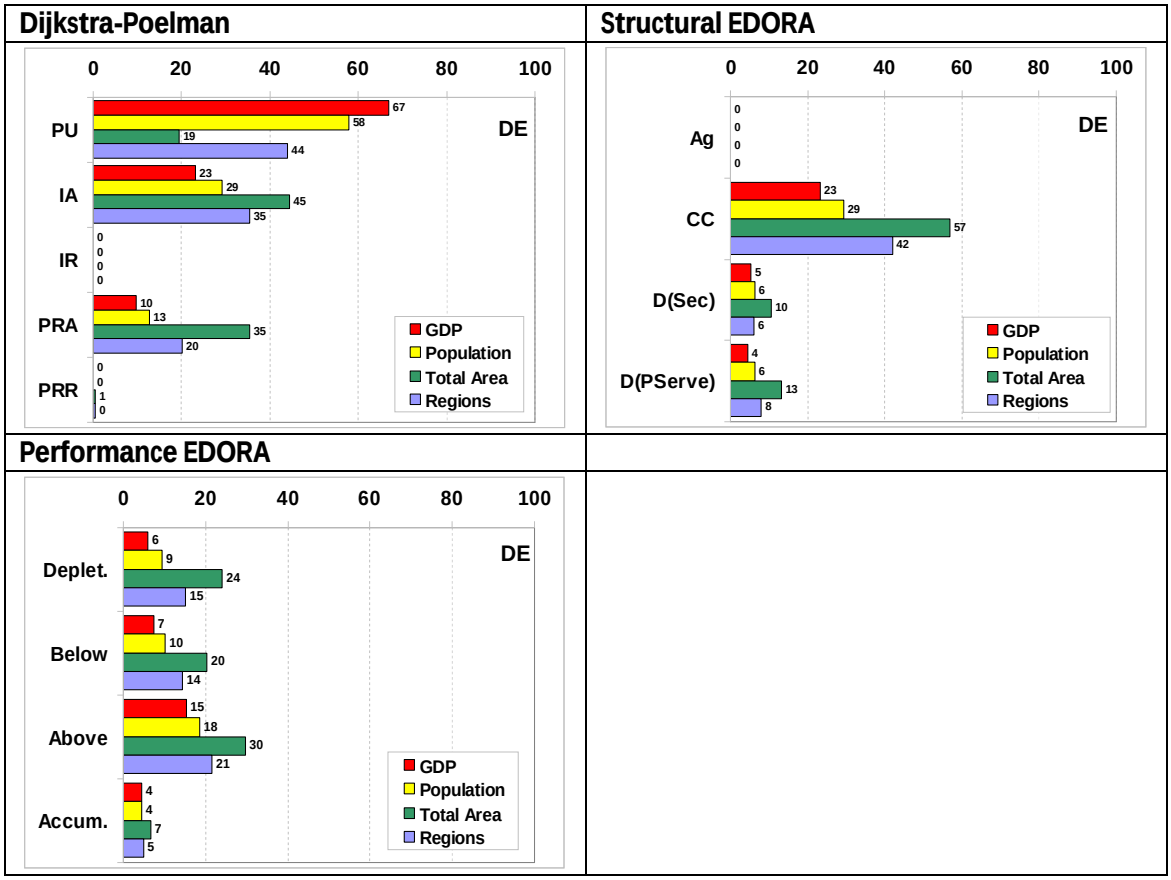
9.6 Germany

Germany is an overpopulated country, with clearly socio-economic and territorial divergences between the West and East. The West fits in the PU classification, while the East fits with IA classification. The compendium, as shown on the *Dijkstra-Poelman typology*, suggest that IA regions are bigger than the rest but there are more number of regions with PU characteristics. Population is concentrated in PU regions (almost 60% of inhabitants live there) as well as GDP (67% from the total). IA regions do not reach even the half of these outcomes. PRA regions are bigger than PU, but they have even less number of regions, population and GDP. IRR and PRR do not offer data for the indicators.

The country is categorized spatially, socially and economically in CC regions, occupying almost the 60% of the territory. The economic sectors diversity of Germany is vast (e.g. tourism, vineyards, agriculture, industries, increase of high-tech business, etc.) Consuming countryside model is traduced in the category of D(PServe), with s slightly bigger area than D(Sec) but similar scores for the rest of indicators as in D(Sec)

Regions above the average are bigger in size and highest for the rest indicators than the rest categories from the *Performance Typology*. They are followed by depletion areas, mainly rural (overall in East Germany) where agriculture and primary and rural landscape is present. Smaller but almost the same indicators' scores as in the depletion regions are the regions below the average. Accumulation regions present the lowest results, as Germany is a widespread resources country, with good infrastructures and a welfare society and strong economy.

Figure 9.6 Distribution of NUT3 regions in Germany. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

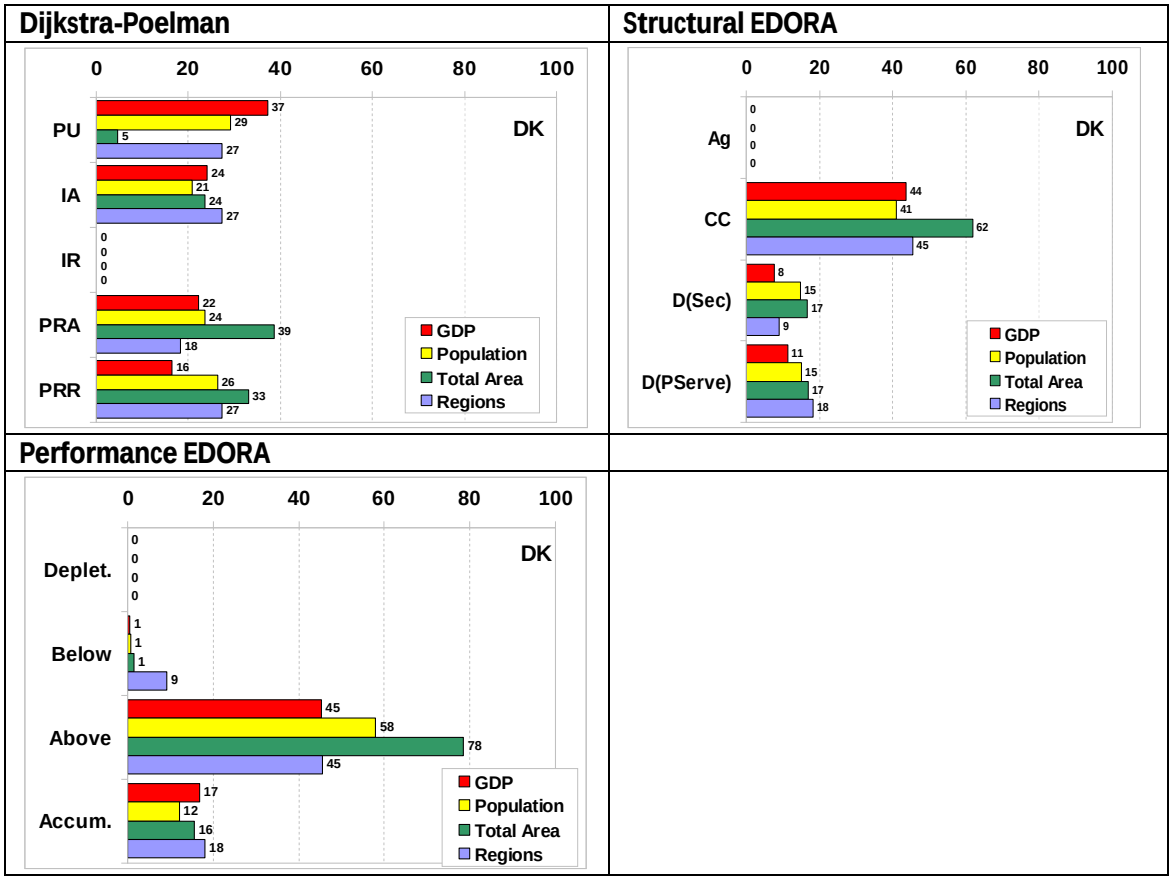
9.7 Denmark

Denmark is a very small country, surrounded by the North and the Baltic Sea. As illustrated on the graphic about the *Dijkstra-Poelman typology*, the biggest regions are PRA (almost 40%) and PRR regions, followed by IA regions (26%). Nevertheless, PRA is the less diversified in number of regions and population, contrary to PU regions (the smallest in area but with equal number of regions as IA and PRR, and with the highest population percentage -29%-). Population is well distributed over the territory due to limitation of space and good widespread of SGI and infrastructures; all the different categories (except IR regions which do not offer data) have population rates above 20%. GDP is higher in PU regions, reaching 37%, but it is indeed considerable in IA (27%) and PRA (22%). In PRR regions GDP reaches the lowest rate of 16%, which is a good value for this kind of regions. Quality of life and welfare can be considered well achieved and balanced, possibly as a consequence of a sustainable management between rural and urban spatial planning.

Denmark is considered one of the best countries to live based on the high living standards and the prosperity of economy. According to the *Structural typology*, it is classified in CC regions in more than 60% of its territory where 41% of population lives there and where more than 40% GDP from the total amount is generated. Urban consumption orientation is focused mostly on a highly diversified technological agriculture, ecotourism, etc. Other important activities in the country are exports of food and energy, as well as industrialization. The first activity occurs in D(PServe) regions, in strictly and closed relation with Consuming Countryside regions, and with indicators' rates $^{1}/_{3}$ less than in CC regions. The second activity is located in D(Sec) regions (same area (17%) and population (15%) as D(PServe) but less GDP and number of regions), which is in closed relation with CC regions too, orientated to urban consuming but characterized by secondary sector features.

As pointed out in the first paragraph and thanks to the *Performance typology*, one can guess the widespread of SGI, goods, and the general welfare vs. high living standards of Danish population since regions above the average cover almost 80% of the territory in more than 40% of different regions, living there almost a 60% over the total population, and reaching the highest scores of GDP (45%, almost the half from the total country's GDP). Accumulation regions are the second in importance, with scores $^{1}/_{4}$ less than the previous category. On the other hand, there are no depletion regions and regions below the average represent a little part from the total categories that can be considered insignificant.

Figure 9.7 Distribution of NUT3 regions in Denmark. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

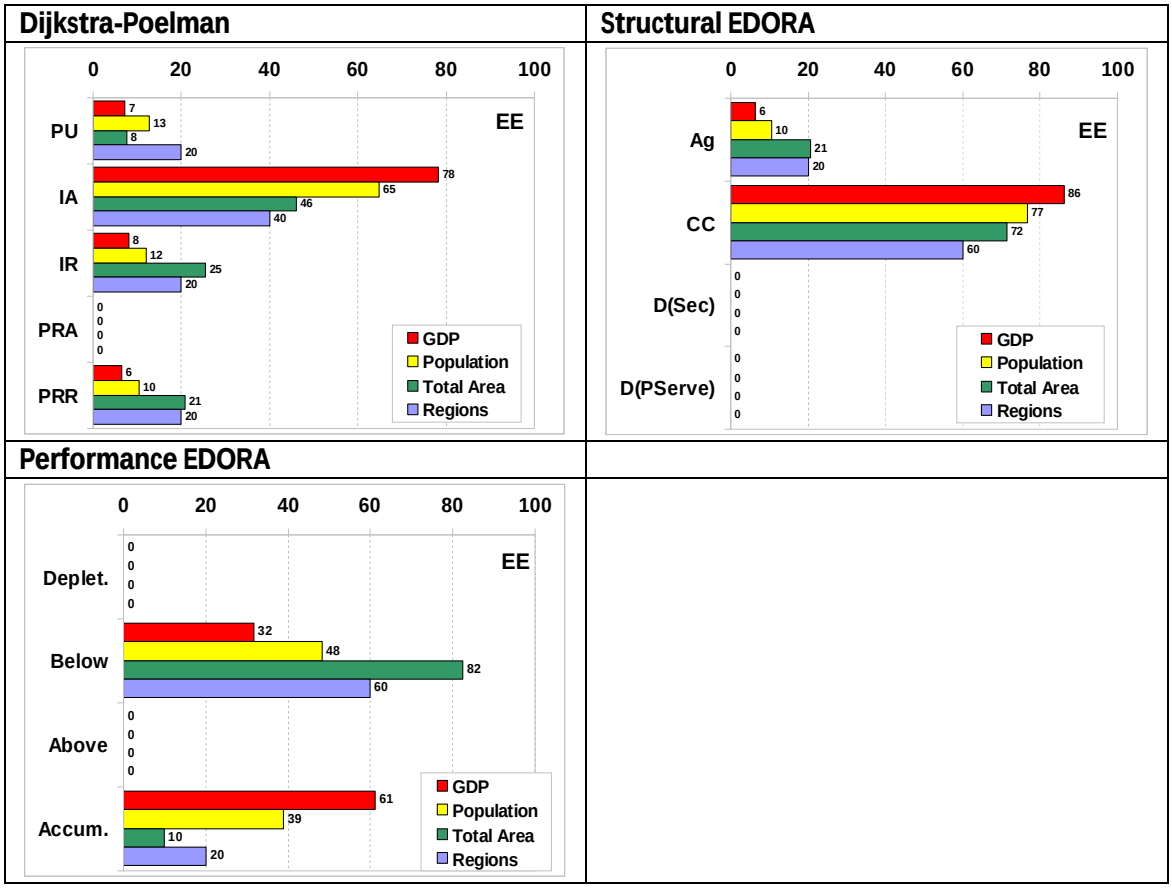
9.8 Estonia

Based on the *Dijkstra-Poelman typology*, Estonia is largely composed by IA regions in almost a 50% of its territory and in 40% of different regions of the country. The majority of population (65%) is concentrated in this type of regions and so it is the GDP, comprising a 78% over the total country's GDP. IR and PRR regions possess $^{1}/3$ smaller area. Results for IR regions are slightly higher than in PRR. Although being smaller, PU regions (principally concentrated in the North-East, where the capital Tallinn is located) have the same number of regions and more population and GDP scores than IR regions.

Estonia is orientated towards urban consumption since it is largely composed by CC regions (consuming countryside) in more than 70%, reaching a GDP higher than 80% due to productive and human capitals are concentrated there. It is a touristic placement for Scandinavian tourism (overall Finnish) and ex-socialist neighbor countries. Logging is an important activity and Estonian wood is exported over the world. Agriculture is becoming less important in the country's economy but still it is, and Ag regions comprise 21% of the total Estonian surface, generating low GDP (6%) due to the mentioned loss of importance, rural exodus, farmers' ageing, non technological agriculture practices, etc.

In the *Performance typology,* it is shown that more than 80% of the Estonian regions are considered regions below the average (there are 60% of different regions classified inside this category). Almost the half of population is concentrated in these regions, where the GDP is the half than in accumulation regions (which only represent 10% of the total country's surface but have a high population density –basically in Tallinn and surroundings-)

Figure 9.8 Distribution of NUT3 regions in Estonia. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

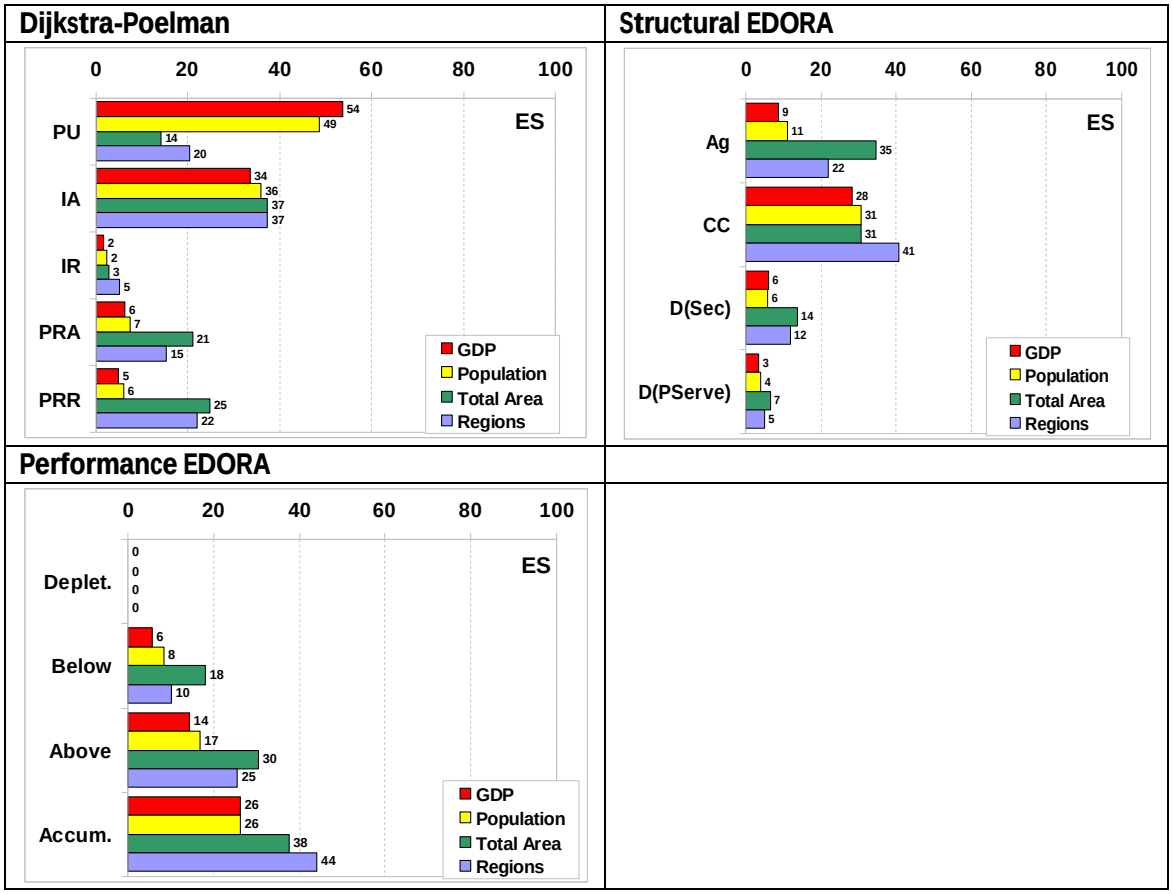
9.9 Spain

There is a fair distribution referring to the area size for each category from the *Dijkstra-Poelman typology*, except for PU and IR regions. The biggest area which compiles more number of regions is represented by IA regions. Peripheral sites surrounding cities are an increasing phenomenon in spatial planning, concentrating more and more population because of lowest prices of housing, etc. In this case 36% of population lives in these regions and the generation of GDP arises 34%. PU regions are the only category that surpasses the scores of population and GDP: the half of population lives in PU (taking into account that these regions only cover 14% of the territory, it can be asset that there is a high population density on PU regions) and more than half of Spanish GDP is generated there, becoming the most economically developed region. PRR are the second biggest areas but the social and economic indicators are lower than in PRA, the third biggest category. IRR regions are represented but the scores are very low for all the indicators (below 5%)

According to the *Structural typology*, Spain is composed by CC regions (not in size but in number of regions, overall in the East coast due to its touristic attractive). This type of regions is the most overcrowded (31% of population lives there) and the richest over the rest categories (28% GDP). The largest areas (35%) are the Ag regions, with less regions, population and GDP than the CC because of the rural exodus, lack of employment, farming discredit, etc. D(Sec) regions are placed in third place of importance relating to the indicators' scores but they have less population and GDP than Ag regions. The same happen with D(PServe) regions. Counter-urbanization processes, urban markets widespread, etc. are some of the processes that occur in this type of regions.

Accumulation regions are the biggest ones, covering a 38% of the Spanish territory, mostly in the Coast regions where the tourism and economic benefits are higher and SGI are concentrated, in opposition to rural areas. Thus, these are the reasons for the highest population and GDP scores, both having a percentage of 26%. Regions above the average are slightly smaller than accumulation regions but population and GDP scores are 10 points lower. Regions below the average do not reach even 20% of space and population and GDP scores are approximately the half than the regions above the average. Normally these regions are dedicated to farming and primary sector activities and do not offer attractive to youth population to settle down and start business enterprises.

Figure 9.9 Distribution of NUT3 regions in Spain. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

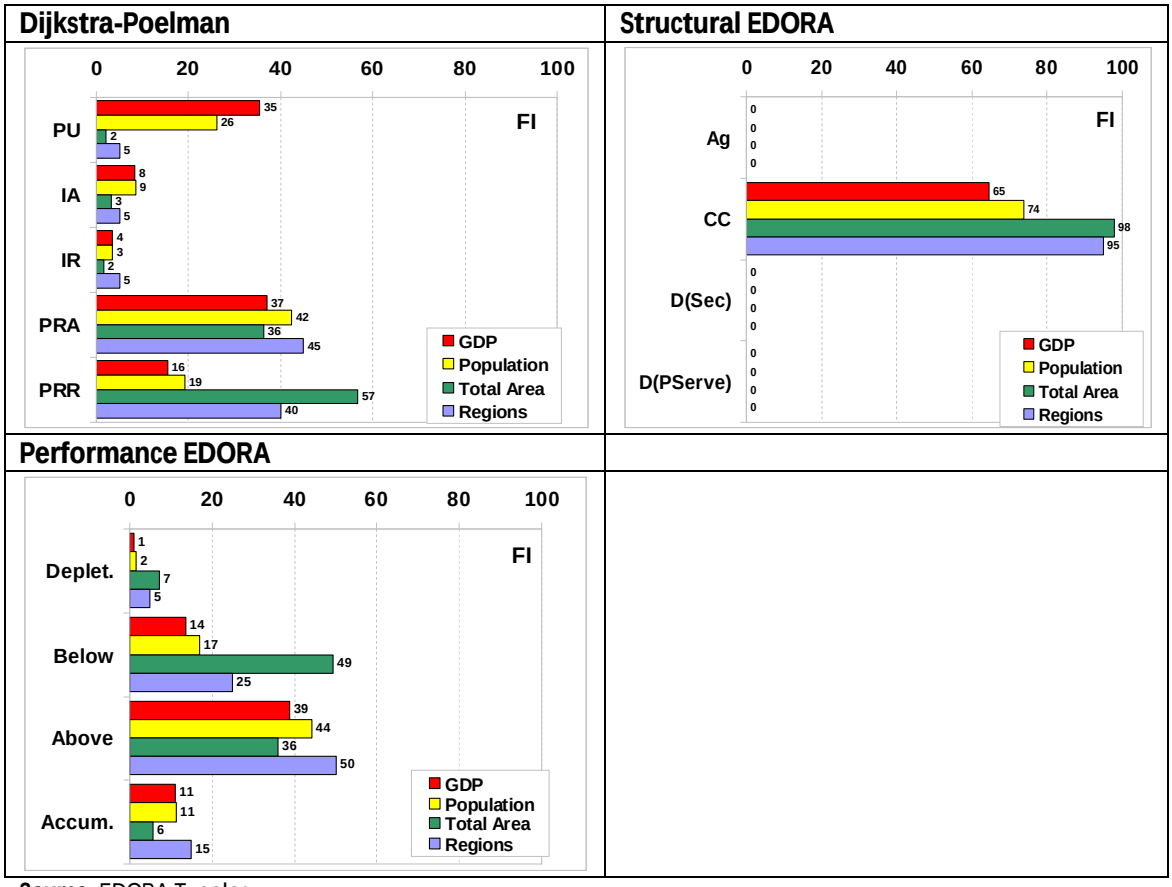
9.10 Finland

Finland occupies a big territory but the North part (Lapland) is almost depopulated due to the tough living conditions because of the cold weather of the Arctic Pole. The spatial planning follows a disperse population and SGI model. Rural areas predominate over urban ones, as it can be inferred from the Dijkstra-Poelman graphic. PRR regions occupy a 57% of the total area of Finland, 40% regions are included as PRR; nevertheless, they have low population and GDP scores. The majority of PRR regions include Northern regions of the country and, as commented before, depopulation processes occur and low productivity and economic activities are characteristics there (except winter tourism and ecotourism). A 36% of the Finish territory is classified as PRA regions, category with more number of regions than the before commented, and with the highest population (42%) and GDP (37%) rates over the rest categories. PU regions represent only the 2% of the total area of Finland (as IA and IR regions) because only the capital of Helsinki, its closed surroundings and some more cities (Tampere, Turku, etc.) fit in this categorization. PU regions are educational, cultural and economical sites, what it is the reason because, although their small size, GDP rate is similar to the one in PRA regions (bigger in size and number of regions) and there is more density of population comparing to PRA regions (with the double of population but almost four times bigger)

As a consequence of the special climate and spatial conditions of Finland, its territory can be classified as a total CC region. Rural areas, in all their diversity, produce goods and generate incomes of different types (tourism, high-tech industries, logging, educational demand from abroad due to their education system quality, etc.) towards an urban and rural consumption.

There are not so many depletion regions due to the disperse spatial planning model of Finland, but neither there are so many accumulation regions since urban centers or concentration of population, capitals and SGI are not supported by the geography and climatology of the country. The biggest regions are the regions below the average, which do not have such an influx of population and flow of capitals as the regions above the average (smaller in size but covering more regions).

Figure 9.10 Distribution of NUT3 regions in Finland. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

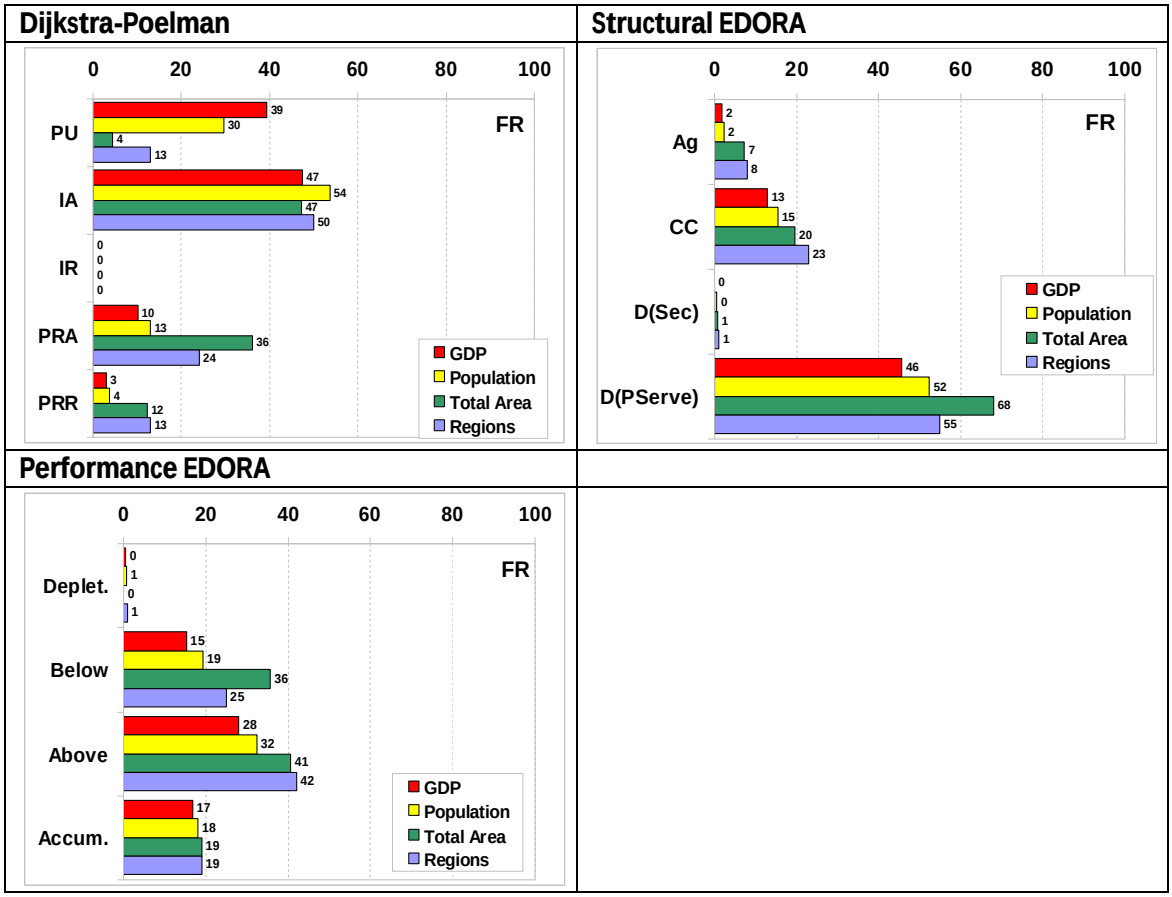
9.11 France

Following the NUTS3 distribution, France is majorly composed by IA regions, concretely they represent the 47% of the total area of the country where the half of regions are classified in this category. This type of region is inhabited by 54% of the total population in France and contributes to the 47% of the total GDP of the country. PRA regions are 10% smaller in size than IA and have the half of number of regions. Furthermore, population and GDP scores are $^{1}/3$ lower than in IA, only exceeding PRR respectively scores (PRR regions are in fact smaller than PRA in size and number of regions). PU regions represent the smallest size and same number of regions than PRR regions, but the GDP rate is closed to IA (just a bit less than 10% from it) and the population percentage is the second highest after IA regions, representing 30% of the total population in France.

The Structural typology classifies France as a D(PServe) region due to its tertiary economy with a solid urban market. Paris, the capital, is a huge metropolis that operates as the business center of France; service sector, cheap labour force (immigrants), precarious job contracts, social disparities, population and capitals concentration, etc. are characteristics a first economy, as France is. CC regions represent less than 20% of the total area and have 1/3 lower population and GDP scores than D(PServe) regions; the economic activities of this categorization are focused on urban consumption (tourism, leisure, industries, etc.) Ag regions are more important in Southern regions of France where vineyards and agriculture are one of the main activities. Anyway, these regions are quite depopulated and do not contribute largely to the French economy.

In relation to the *Performance typology*, regions above the average are the largest represented (41%) and they group as well the biggest amount of regions. A 32% of population lives there and generates 28% of the total GDP. The second bigger area correspond to regions below the average, with more regions number and population than accumulation regions (half the size than regions below the average) but with lower GDP percentage. In depletion regions only 1% lives but non area size is represented, so it can be considered a negligible category.

Figure 9.11 Distribution of NUT3 regions in France. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

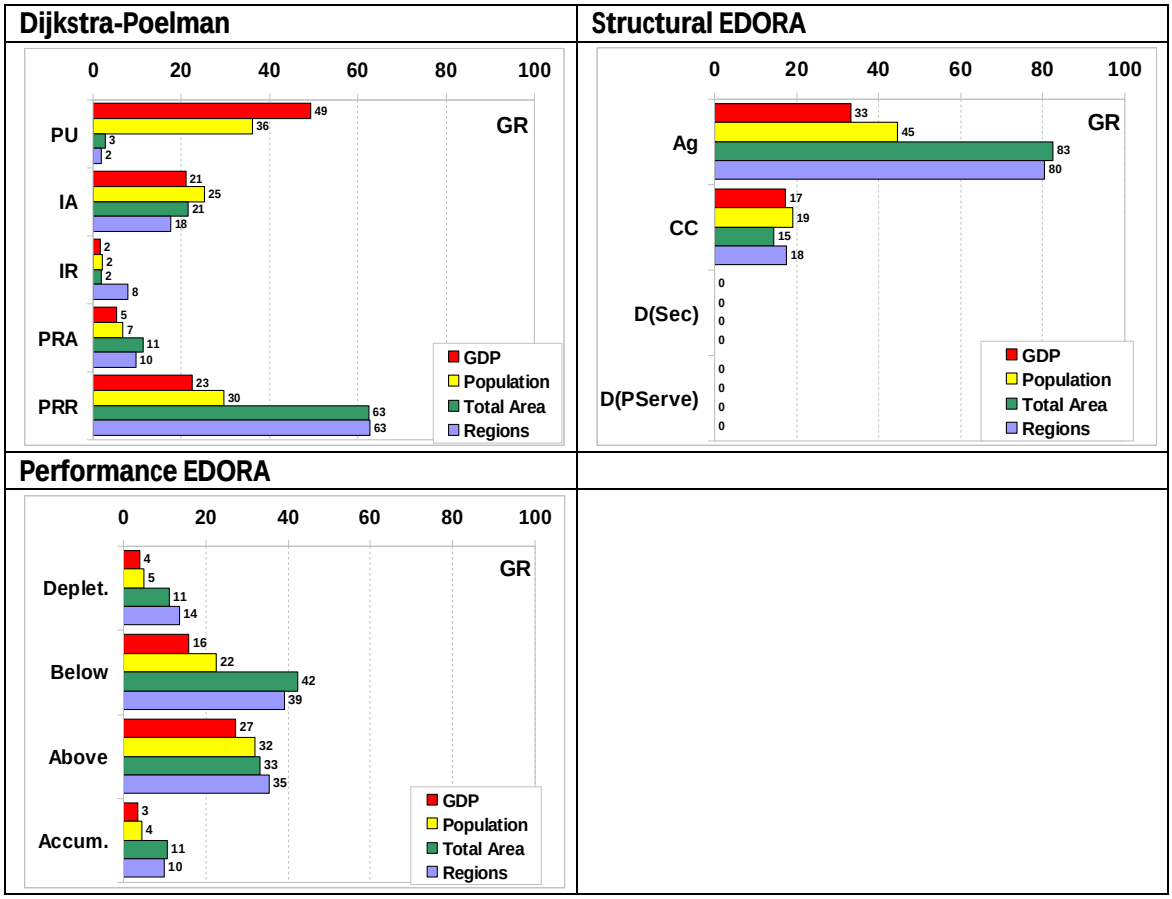
9.12 Greece

Greece is typically a rural country which bases its economy in agriculture and tourism. It is manifested in the graphics. According to the first typology, PRR areas are the biggest one, representing 63% of the total area of the country, even though population and GDP percentages are smaller than those in PU regions. PU regions are the smallest after IR regions (very depopulated and with low GDP) but they posses the highest rates of population (36%) and GDP (49%, almost the half from the total GDP of the country –mainly due to tourism-) IA regions have a balance between space (21%) and inhabitants (25%), as well as GDP generated (21%) PRA regions are bigger than PU regions but smaller than IA, representing only 11% of the total Greek area. Their remoteness make these areas non attractive to live and invest on local businesses, so population and GDP are low due to these and more complex reasons.

The rurality of Greece is clear enough when observed the graphic of the *Structural typology*: Ag regions represent more than 80% of the total Greek area and there are 80% of regions with Ag features. Almost the half of population (45%) settles down in this type of regions, which create a total GDP contribution of 33%. CC regions represent the rest 15% of the total area, and have lower scores than Ag regions. Tourism is the main activity in these areas.

Referring to the *Performance typology*, regions below the average are the largest represented (42% of the total are of Greece distributed in 39% of regions) but with around 10% less population and GDP than regions above the average (10% smaller but equally distributed among regions) Depletion regions, (typically rural) represent 11% of the total area, as accumulation regions, but they are distributed in more number of regions and they have 1% more population and GDP than accumulation regions. Traditional Greek society model, linked to the land, is still strong and profitable for the economy of the country.

Figure 9.12 Distribution of NUT3 regions in Greece. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

9.13 Hungary

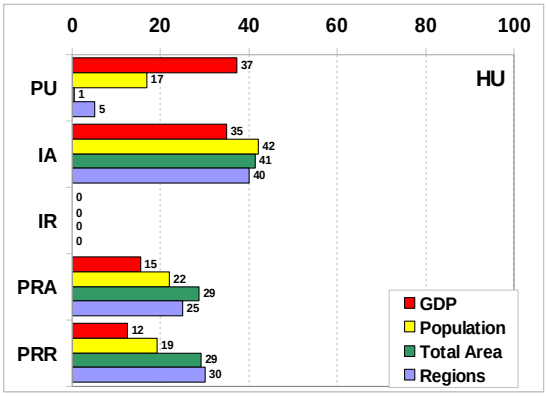
In the following illustrations, it is observed that Hungary is, to a big extent, represented by IA regions (occupying 41% of the territory and being the classification of 40% of the total regions of the country). These regions are the most populated ones (42%) and GDP presents the second better result, only 2% less than in PU regions. So IA regions are lively and economically healthy regions. Both PRR and PRA regions occupy the same area (29%) but PRR category responds to more regions' features than PRA, with a difference of 5%. Nonetheless, PRA regions posses a little higher population and GDP scores than PRR. Exceptionally, PU regions only cover 1% of the total are of Hungary (i.e. Budapest) but the GDP rate is the highest (37%) among the rest although population rate is not as high as in the other categories.

Hungary, after a lot of transition periods from primary economy and industrialization to tertiary economy, has still remnants of the past. Hence, Ag regions almost reach 60% of the territory and the half of Hungarian regions are considered farming regions based on primary sector activities. GDP and population indicators have the highest percentage in this category (27% and 41% respectively) CC regions are three times smaller, two times less populated and 10% less rich than Ag regions, but similar to D(Sec) rates. Both of them are focused on tourism and secondary sector activities (overall from the industrial past era) D(PServe) regions only cover 7% of the total area of the country but have similar population rates as D(Sec) and similar GDP rates as CC. in these regions tertiary activities take place, overall in urban sites, as Budapest.

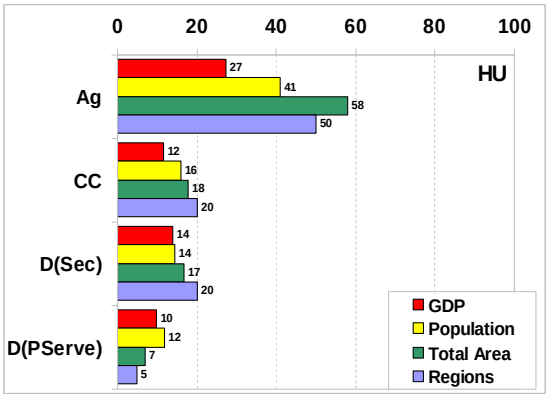
Remarkably, regions below the average (e.g. intermediate accessible rural areas) are distributed over the 60% of the total area of Hungary in 55% different regions where 44% of population lives and a 33% of GDP is generated. Regions above the average are 30% smaller than the previous ones and have only 15% of population and GDP, more than depletion areas (1% bigger than regions above the average, but less than 5% distributed among regions). The smallest are is for accumulation regions, with almost the same population as depletion areas but 2% richer referring to the GDP indicator.

Figure 9.13 Distribution of NUT3 regions in Hungary. Dijkstra-Poelman, Structural and Performance Typologies

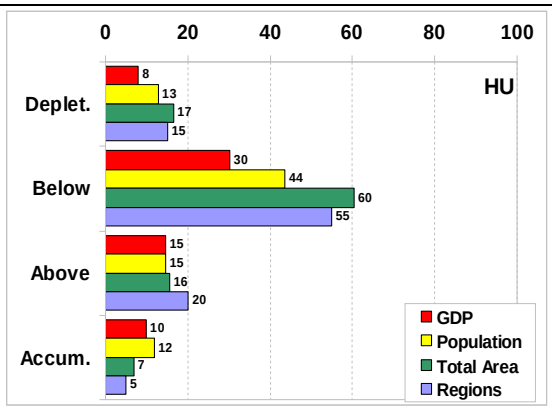
Dijkstra-Poelman



Structural EDORA



Performance EDORA



Source: EDORA Typology

9.14 Ireland

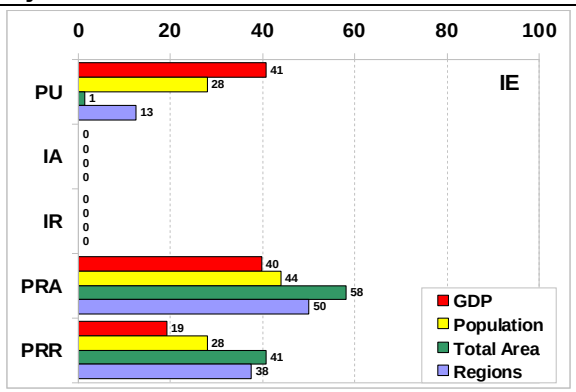
The territory of Ireland is covered, according to the *Dijkstra-Poelman typology*, in almost a 60% by PRA regions, distributed in 50% of the country's regions. These regions group the biggest number of population (44%) and the second highest GDP score (40%). GDP from PRA is only 1% less than in PU regions, the smallest in area (only 1% of the total area) and number of regions (13%) –without taking into account IA and IR which are not represented in the graphic-, and with approximately half of the population than in PRA regions and the same population percentage (28%) as PRR regions. As for PRR regions, the area is bigger (41%) as well as their distribution among regions (38%) but they generate the lowest GDP (19%). Normally these regions are rural ones, and their primary activity, agriculture, has been placed into the background of the Irish economy.

Specialization on high-tech, software, industrialization and other tertiary activities are the targets of the Irish market, focused on urban consumption and exportations. Thus, CC and D(Sec) regions are the most relevant in the Irish socio-economic system. It can be suggested that CC regions, with an extension of 80% of the total Irish area and grouping 75% of regions into their category, are the financing and social centers of Ireland, living there almost the 60% of the population and generating the 42% of the total GDP. D(Sec) regions have ¼ values regard to the CC scores for all the indicators, except for GDP scores which difference is around $^{1}/3$.

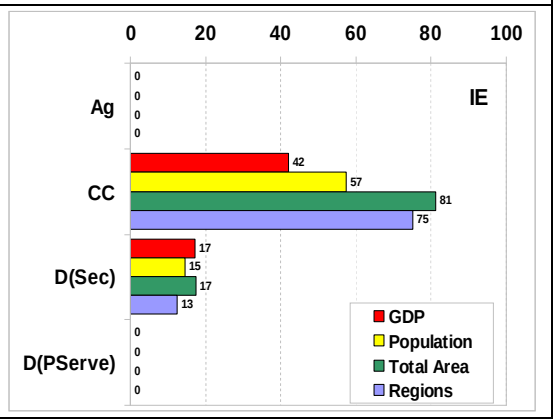
The *Performance typology* shows that the whole Ireland is considered an accumulation region.

Figure 9.14 Distribution of NUT3 regions in Ireland. Dijkstra-Poelman, Structural and Performance Typologies

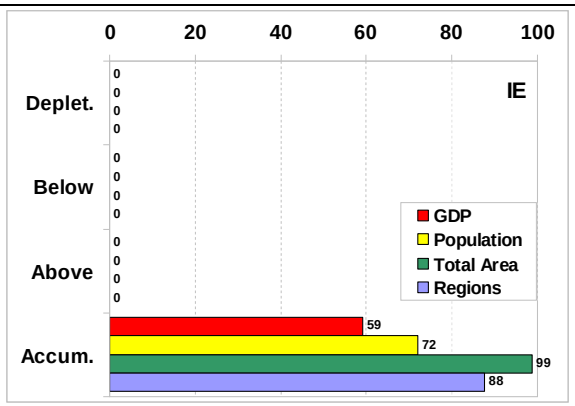
Dijkstra-Poelman



Structural EDORA



Performance EDORA



Source: EDORA Typology

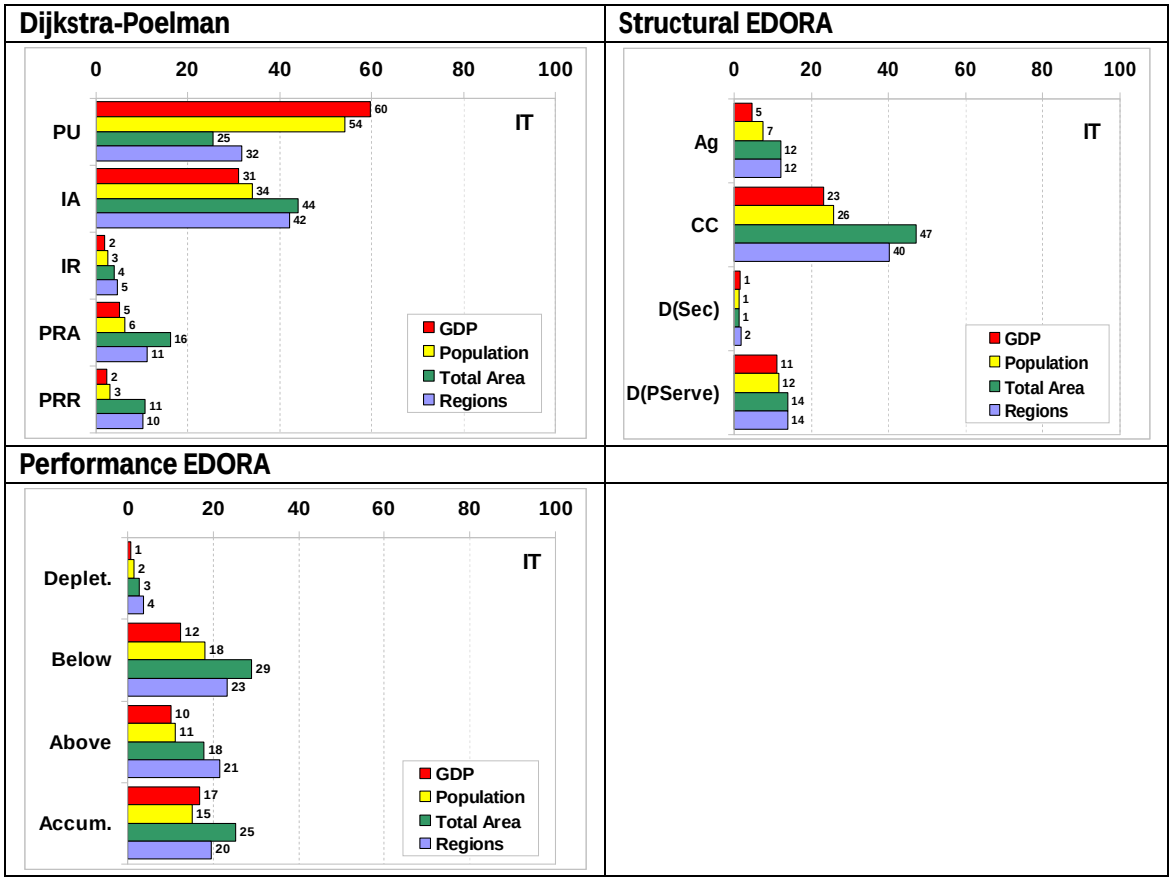
9.15 Italy

The simplified spatial perspective of Italy leads to divide the country in two parts: the North (richer and more urbanized) and the South (poorer and more rural). The first typology illustrates the predominance in size (44%) and number of regions (42%) of IA regions over the rest categories, preceded by PU regions –although their $^{1}/2$ size and number of regions- regard to population and GDP scores, which are the double than in IA regions (54% and 60% respectively vs. 34% and 31%) and the highest respect to the other categories. The rest categories have low population and GDP scores, as well as they do not represent large extensions of territory in Italy.

The half of the Italian territory is classified into the CC category, from where 40% of the total regions are grouped in. D(PServe) regions are the second bigger and with better scores for the rest of indicators. Tertiary sector and tourism are the main economic activities in Italy. Agriculture has a lukewarm role on the economy (just contribute to the 6% of the total GDP) but it must be considered as well.

The rurality of Italy is evident when analyzing the *Performance typology* data. Regions below the average represent the largest area in the country (29%) as well as the most numerous in regions (23%) and population (18%). Depletion regions are the less represented and have the lowest indicators' rates. The second bigger areas are the accumulation regions (25%); they group the second most populated category (15%) and they are the richest category among the rest (contributing to the 17% of the total GDP). Regions above the average have moderate rates for all the indicators comparing to the other categories.

Figure 9.15 Distribution of NUT3 regions in Italy. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

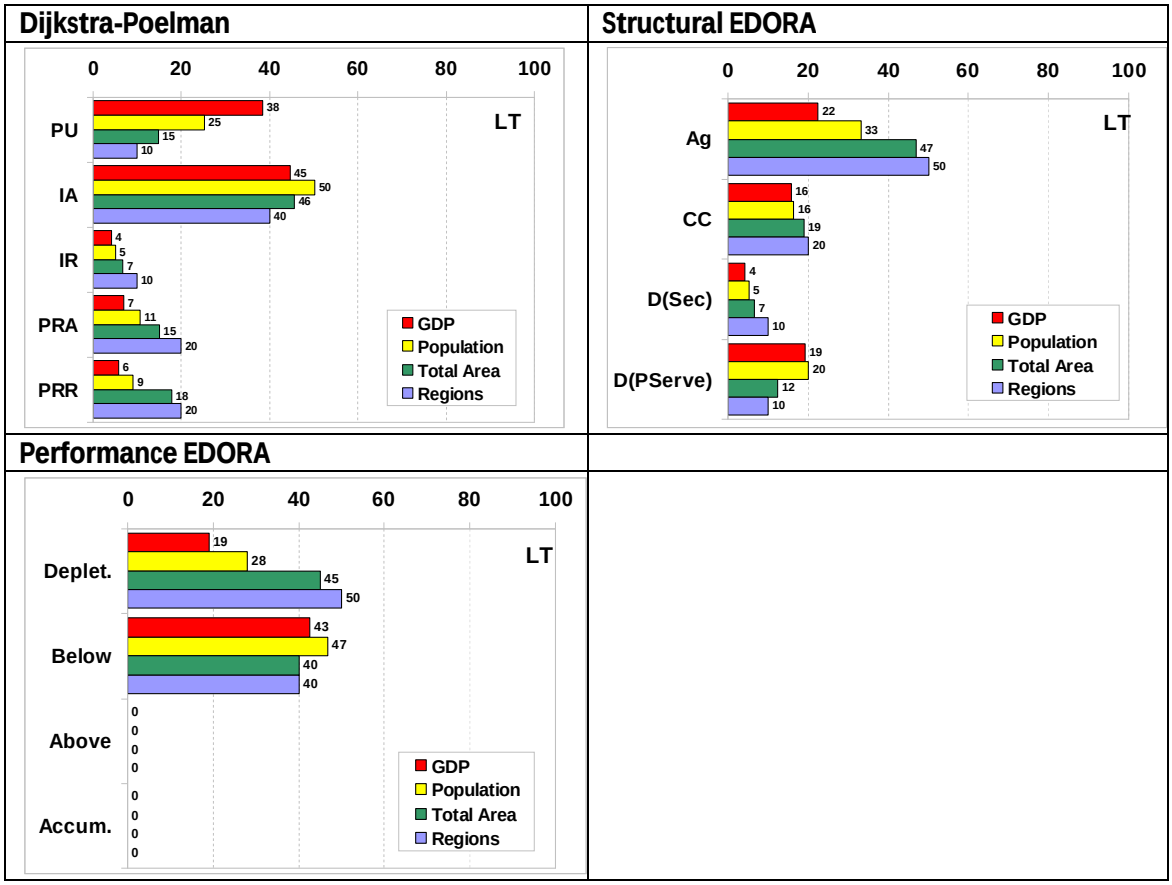
9.16 Lithuania

As an ex-socialist country, the transformation of Lithuania into a tertiary economy is being a long process. One of its particularities is the still rurality that exists over the country, with a predominance of the primary sector in the market and the economic sphere. As a consequence, urbanization is still growing but predominant IA regions dictate the spatial configuration of the territory, with repercussion on the socio-economic scores: the half of the population is concentrated in these areas, as well as the GDP (45%). PRR, PRA and IR have in common that they represent less than the half size than IA regions, and have the lowest population and GDP scores. In spite of its small-medium size (15%), PU regions (mainly the capital and closed surroundings) are place in second place for population (25%) and GDP scores (38%)

According to the *Structural typology*, a 47% of the total area of Lithuania and 50% of regions are grouped in the category Ag. Population and GDP best scores are presented in this type of regions too, 33% and 22% respectively. As commented before, primary sectors, overall agriculture, are the main economic forces that impulse the Lithuanian economy. CC regions follow Ag as the second biggest and more diverse regions, even though their population and GDP scores are below the ones in D(PServe) regions. These last regions enjoy these scores mainly because of the growing phenomenon of migration from rural to urban areas. The lowest results for all the indicators are observed in D(Sec) regions, the smallest, since secondary sector is not as important as primary sector in Lithuania.

The characteristic of being a primary economy where agriculture has an important role on society and economy configures the terrain in favor to rural areas. Thus, depletion areas are the biggest (45%) and the most diverse in number of regions, but regions below the average have more potential to attract population and business opportunities since they enjoy of more SGI and better infrastructures in general. The rest categories' data are not illustrated in the graphic of the *Performance typology*.

Figure 9.16 Distribution of NUT3 regions in Lithuania. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

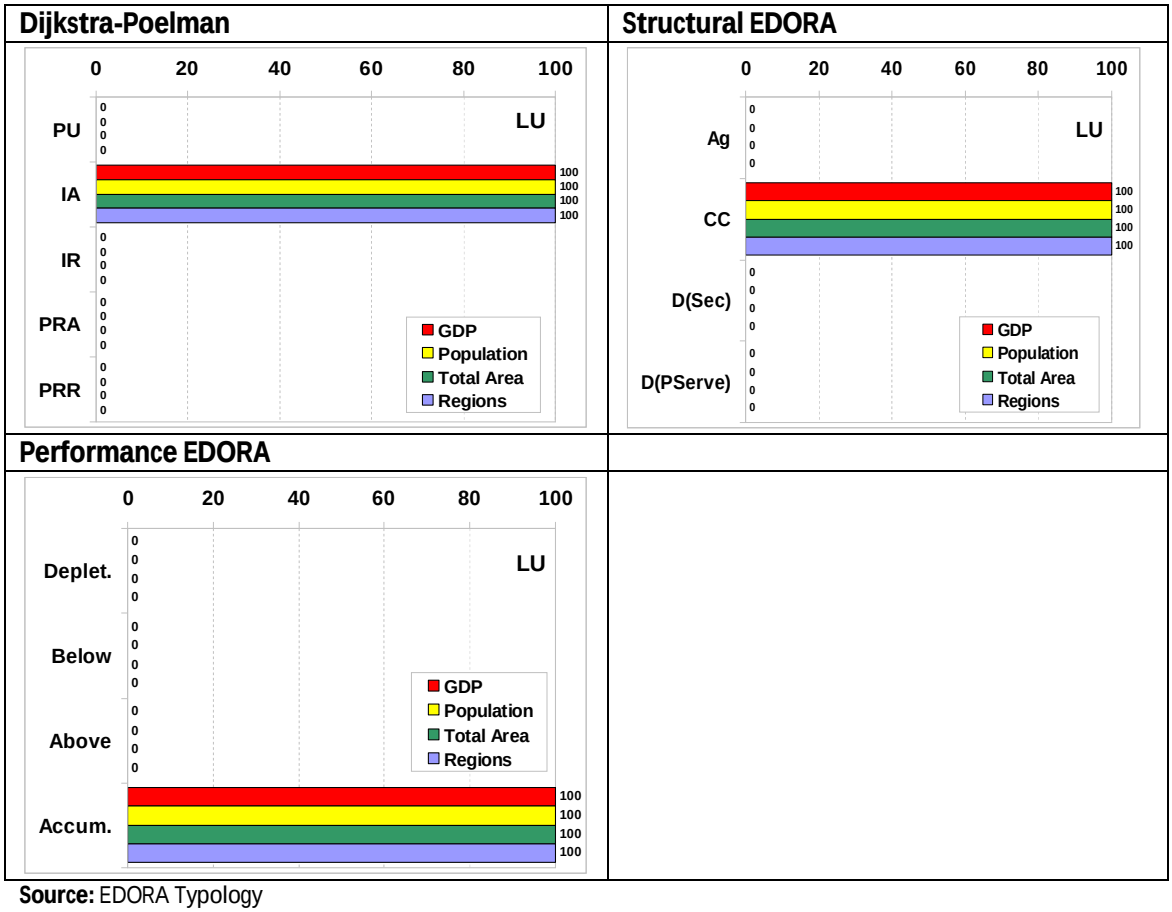
9.17 Luxembourg

Due to the small size of the country, the second smallest in the EU, the NUTS3 distribution classifies the regions as IA regions, but at a detail scale, urbanization and urban areas compose the reality of the spatial planning of the country.

Similar patterns occur when analyzing the *Structural typology*. According to it, Luxembourg is composed by CC regions. The real picture is that this country is a strong third economy, where labour market is very solid by the exportation of financial services.

According to the *Performance typology*, same explanation can be applied. Taking the whole country as a single region/NUT, the results show concentration of capitals, SGI and social services, without differentiate one region from another.

Figure 9.17 Distribution of NUT3 regions in Luxembourg. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

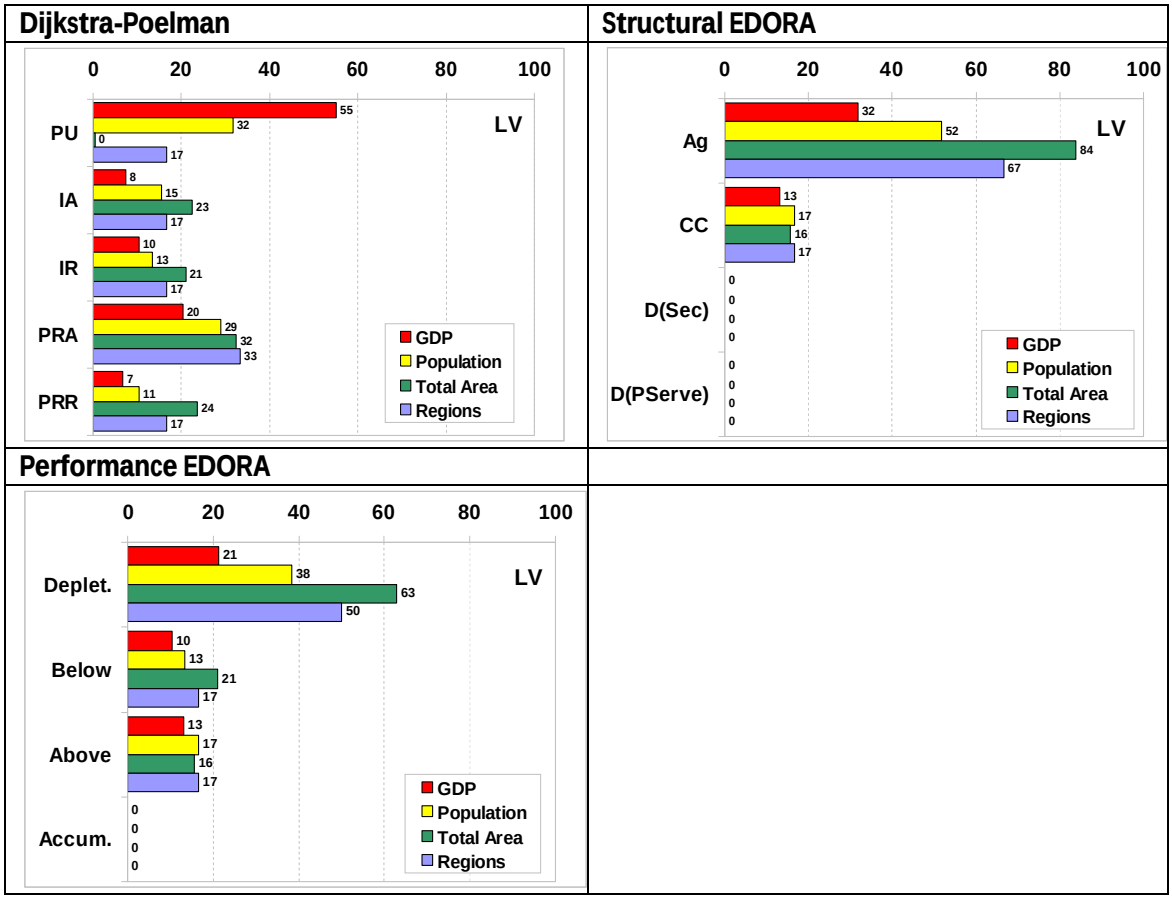
9.18 Latvia

The case of Latvia is similar to Lithuania, as in the history, geography and socio-economic patterns, but the case of Latvia is more noticeable. Analyzing the *Dijkstra-Poelman typology*, it can be observed than GDP (56%) and population (32%) are concentrated in PU regions (mainly in Riga, the capital) but PRA,PRR and IA regions are more important as in size as in number of regions. From there, only PRA regions possess sustainable and balance scores of population (29%) and GDP (20%). The rest categories posses GDP rates of 10% (IR regions) or less (IA and PRR), and population rates of 15% (IA regions) or less (IR and PRR)

The power of primary sector in the Latvian economy (overall agriculture and logging) is manifested in the predominance of Ag regions, representing more than 80% of the area of Latvia and covering the 67% of regions. These regions are populated by the 52% of inhabitants, and the contribution of GDP is about 32% of the total. CC regions have a small representation of 16% in size and similar values for the rest of indicators. Ecotourism, farm diversification and general tourism are some of the recent economic activities to attract people and capitals. The tertiary sector is still being developed.

More than 60% of the total area of Latvia is composed by depletion regions, concretely the 50% of regions are classified into this category. Population (38%) and GDP (21%) rates in this category are the highest from the other categories of the *Performance typology*. Regions below the average are bigger and agglutinate the same number of regions than regions above the average, but these last ones have slightly better population and GDP scores.

Figure 9.18 Distribution of NUT3 regions in Latvia. Dijkstra-Poelman, Structural and Performance Typologies

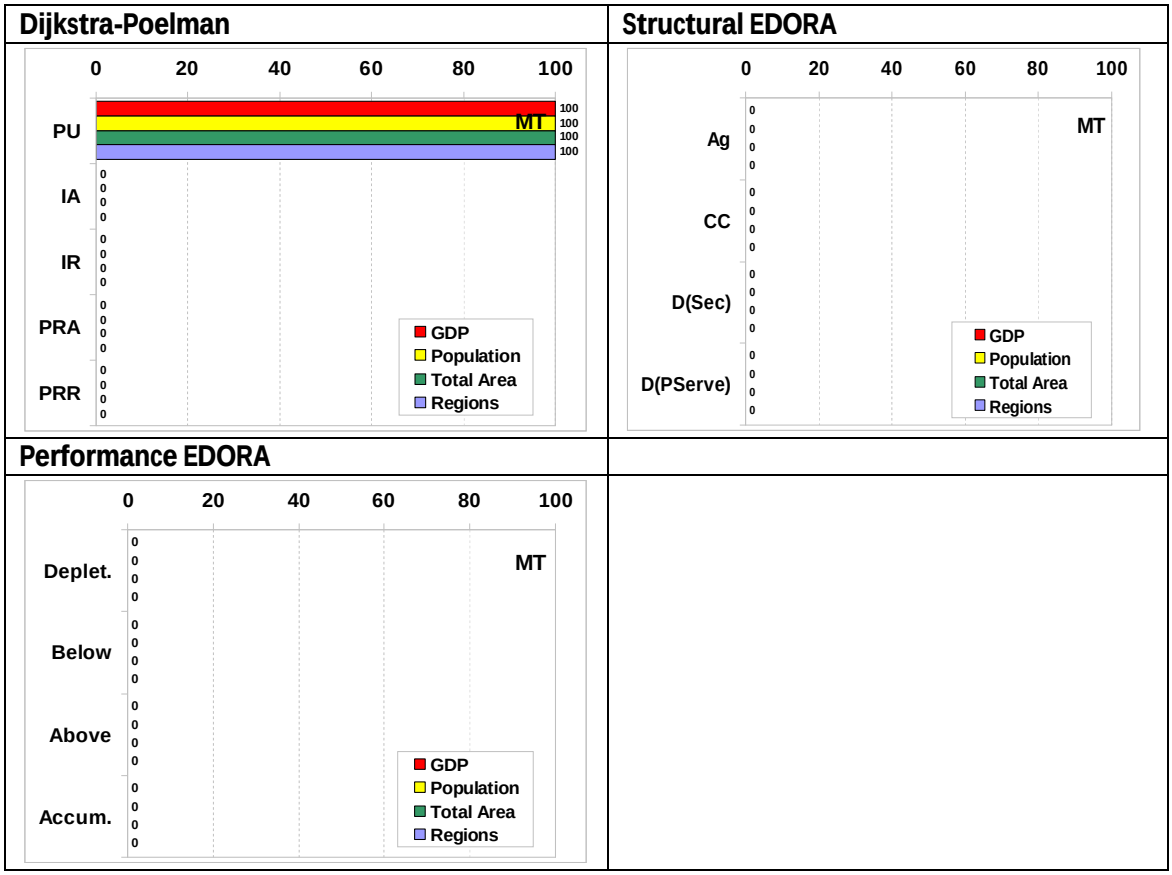


Source: EDORA Typology

9.19 Malta

Malta does not offer too much information about some indicators or parameters; furthermore, it is s very small Island and the NUTS3 division is not a good system of regions' differentiation. These are the reasons why the Structural and the Performance typologies do not offer any data, and why the Dijkstra-Poelman typology considers Malta as a single region, concretely a PU region as a whole due to the high urbanization and tourism. The data is far from the reality since Malta is divided in small rural regions, overall in the inland of the island.

Figure 9.19 Distribution of NUT3 regions in Malta. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

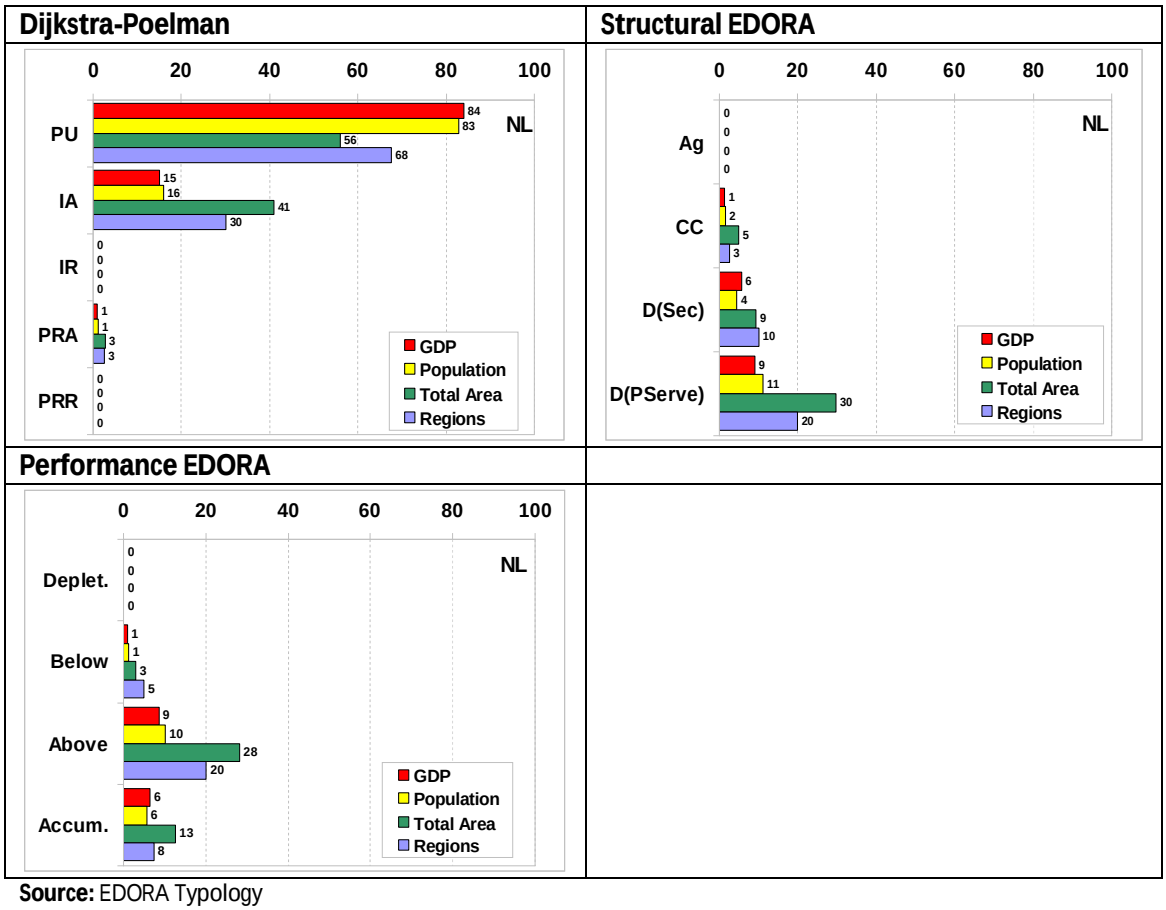
9.20 Netherlands

The Netherlands are, as well, small territories densely populated, and characterized by being a third economy country very developed in technological and farm diversification processes. These features are the cause of the classification of the country as a composition of PU regions in the 56% of its area for a total of 68% of regions, with a concentration of population of 83%, in parallel to a concentration of 84% of the total GDP of the country. IA regions represent the 40% of the region but population and GDP scores are very little comparing to the ones in PU regions. PRA regions have a small representation over the total indicators' scores.

As a dominant third economy and absolutely urban, the highest scores for all the indicators take place in D(PServe) regions, urban clusters per excellence. D(Sec) regions take the second place in the ranking, followed by CC regions (with slightly representation on the graphic)

The concentration of services, population and capitals in the reduced space of the Netherlands convert the country in a quite compact territory. This is the reason for the predominance of regions above the average respect to the rest categories, followed by accumulation regions and regions below the average (this last category is surely linked with the PRA regions)

Figure 9.20 Distribution of NUT3 regions in Netherlands. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

9.21 Poland

Historically, Poland has suffered a lot transition periods that have impacted the society, the environment and the economy of the country: from the II World War, the exodus or death of Jew population, to the communist system, etc.

The graphics show data from the common EDORA database but in the Country Profile Draft Report of Poland some of these data are rejected, e.g. considering such a big extension for PRA regions and Ag regions.

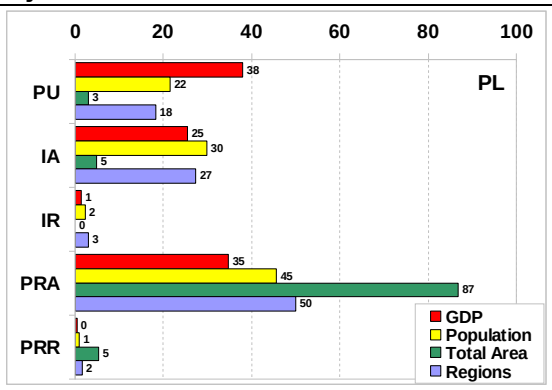
Taking into account strictly the data from these graphics and having in mind the considerations before commented, the analysis is as followed: there is an 87% of the Polish territory considered as PRA, widespread in the 50% of the Polish regions and having a 45% of population, with rates of GDP quite high (35%, just 3% below the PU regions ones). Urban areas (PU) are scarcely represented in the territory but they group into their category a percentage of 18% of regions; the population score of PU regions is the third most populated, with a rate of 22%, below PRA and IA scores. On the other hand, IA regions as well as PRR regions only cover 5% of the total area of Poland, but IA rates for population, GDP and number of regions are higher than in PRR regions.

The Structural typology suggests that an 80% of the total area of Poland is covered by Ag regions; concretely there are 53% of regions that respond to this category. Almost the half of the population live there and the generated GDP has the highest score (35%) over all the others in the rest categories. CC regions are the second biggest regions but D(Sec) have highest scores for population and GDP. As described on the Country Profile Draft Report of Poland, agriculture is on decline and other non-agricultural businesses, such small scale manufacturing, rural tourism, etc., are more common in rural areas.

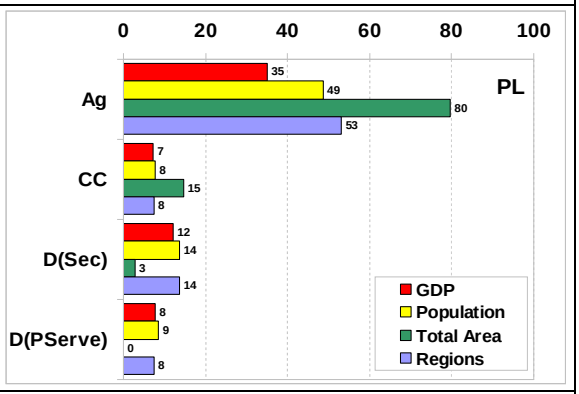
According to the *Performance typology*, there are not accumulation regions, and regions above the average are not very representative. The most representative ones are depletion areas, covering more than 60% of Poland in more than half of the Polish regions, where living standards and economy are the best over all the other categories since more than the half of population lives there and almost a 40% of the total GDP is reached. Regions below the average are important as well, covering 34% of the country's territory and having population and GDP scores above 15%.

Figure 9.21 Distribution of NUT3 regions in Poland. Dijkstra-Poelman, Structural and Performance Typologies

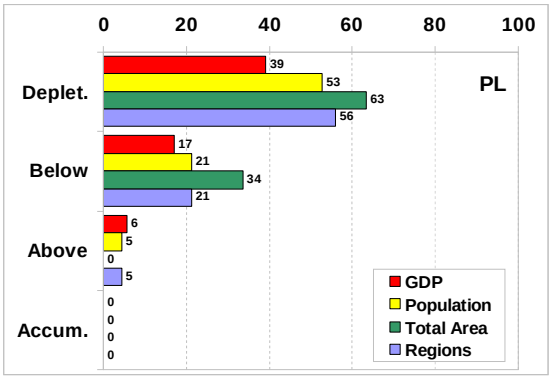
Dijkstra-Poelman



Structural EDORA



Performance EDORA



Source: EDORA Typology

9.22 Portugal

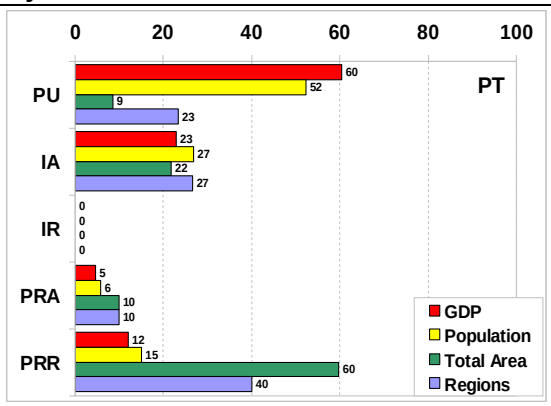
Portugal is a third economy country but primary sector plays an important role nowadays, overall in the East part of the country (characterized by PRR regions). The West part of Portugal is limited by the Atlantic coast; this part is better developed and more urbanized (characterized by PU and IA regions) due to the impact of tourism. As it can be observed in the first graphic, PRR are the biggest regions in size (occupying 60% of the total area of Portugal) and number of regions (40%), but the most populated (more than half inhabitants live there) and richest (60% of the total GDP) are the PU regions. IA regions are the second biggest (3 times smaller than PRR and 1 time bigger than PU) and thanks to their accessibility they have the second best scores in population (27%) and GDP (23%). PRA represent an area bigger than in PU but the have the lowest score of number of regions, population and GDP. Meanwhile, IR regions are not represented at all in the graphic.

According to the *Structural typology*, Ag regions are the biggest in size (occupying 56% of the total Portuguese area and covering 33% of regions) but CC region, although their half size and 10% less regions, have approximately the double or more than the double values for population (31%) and GDP (25%) scores. Agriculture and tourism are the main economic activities for the country to a big extent. Tertiary sector is represented by D(PServe) regions, but as observed, it needs strength and a major impulse.

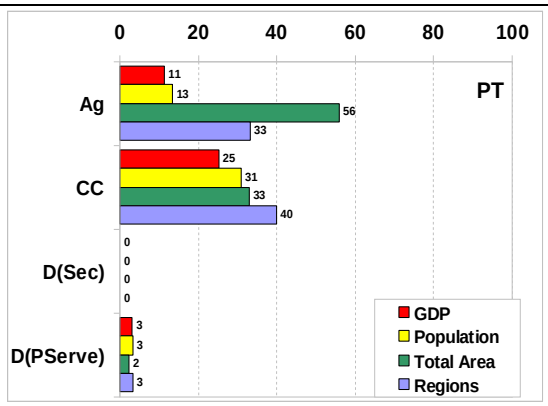
On the one hand, there are no depletion regions and on the other hand, accumulation regions are the worse represented comparing to the other two left categories. The biggest and diverse regions are the ones below the average cover the 40% of region in a surface extension of 50% of the total area. However, regions above the average (smaller in size and with 10% less of regions) have the best scores of population and GDP (2% and 4% higher than in the previous commented regions, respectively)

Figure 9.22 Distribution of NUT3 regions in Portugal. Dijkstra-Poelman, Structural and Performance Typologies

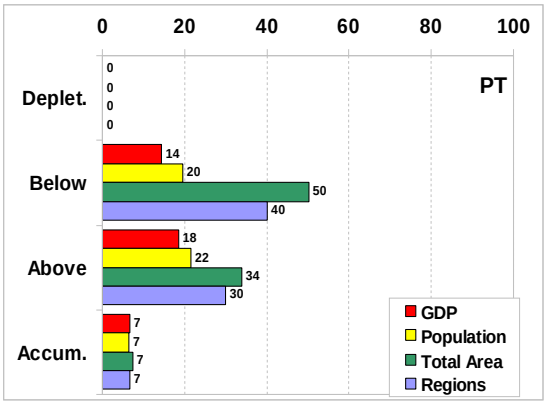
Dijkstra-Poelman



Structural EDORA



Performance EDORA



Source: EDORA Typology

9.23 Romania

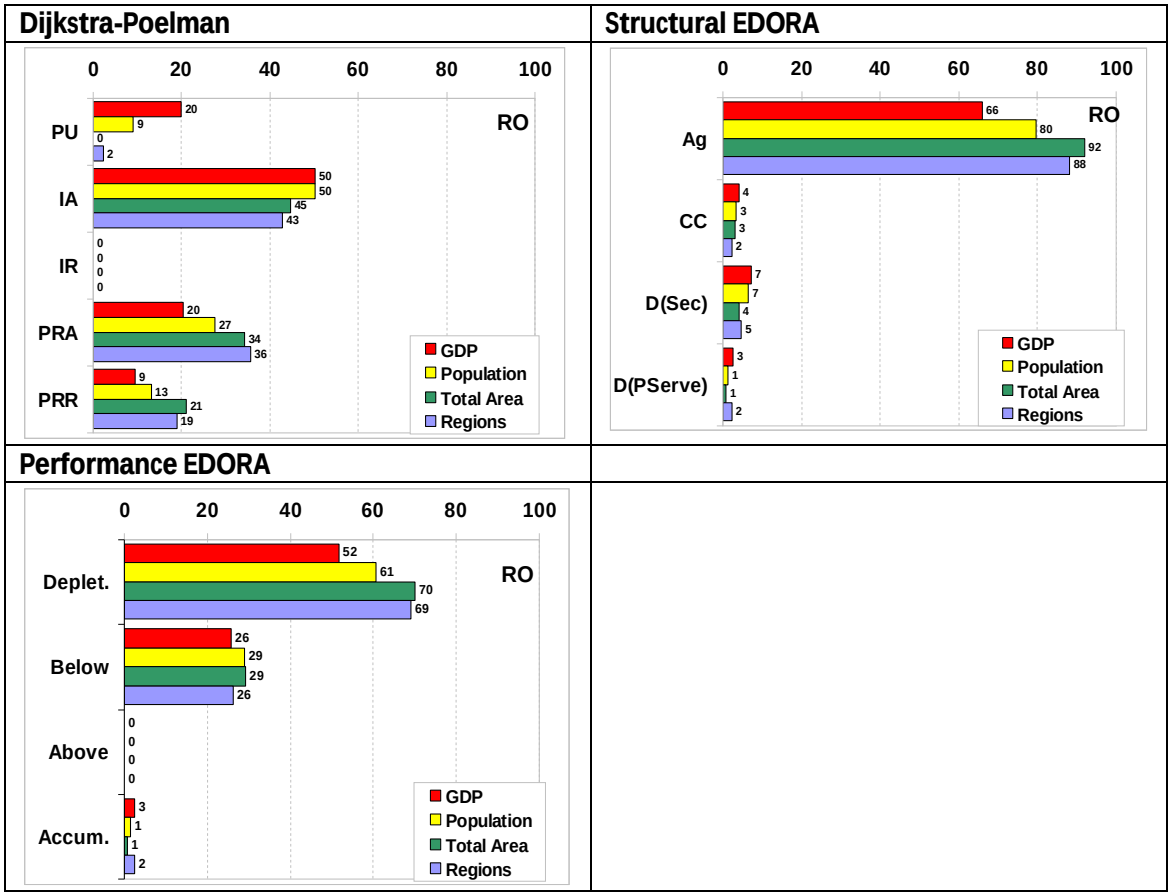
Romania has suffered the transformation from the communist system to the capitalism. It has lead to a deep structural change on economy and society. As a legacy, primary sector activities generate the largest income for the country's economy. Secondary sector is important as well, but due to the technological change, industries have been remained obsolete.

The territory is mainly rural. The only PU region is the capital, Bucharest. Migration towards the city is a trendy phenomenon but the repercussions are still weak and slowly. But still the half of population and GDP are concentrated in IA regions, which occupy the largest space of Romania (45%) in a 43% of different regions. PRA regions are the second niche of population (grouping a total of 27%) and GDP (20%, the same as PU regions); they are the second biggest areas in Romania with a 34% of surface and with 36% of regions responding to these characteristics. Rates of PRR regions have values around 10% less than in PRA regions.

The majority of Romania is composited by Ag regions for an 88% of the total Romanian regions in an extension of 92%. The 80% of population live in these areas, and as the GDP is the highest (66%), it is supposed that the people who live there are farmers or are related to farming activities somehow. D(Sec) regions are the second in importance due to the importance of the secondary sector in times of communist and the present remnant of these times. The rest categories are represented but with very low scores.

Typically rural characteristics surround Romania. Proof of it is the vast extension (70%) and percentage of regions (69%) of depletion areas, where population (61%) and GDP (52%) are concentrated. Regions below the average are the second best represented, with rates approximately 3 times less than in depletion regions.

Figure 9.23 Distribution of NUT3 regions in Romania. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

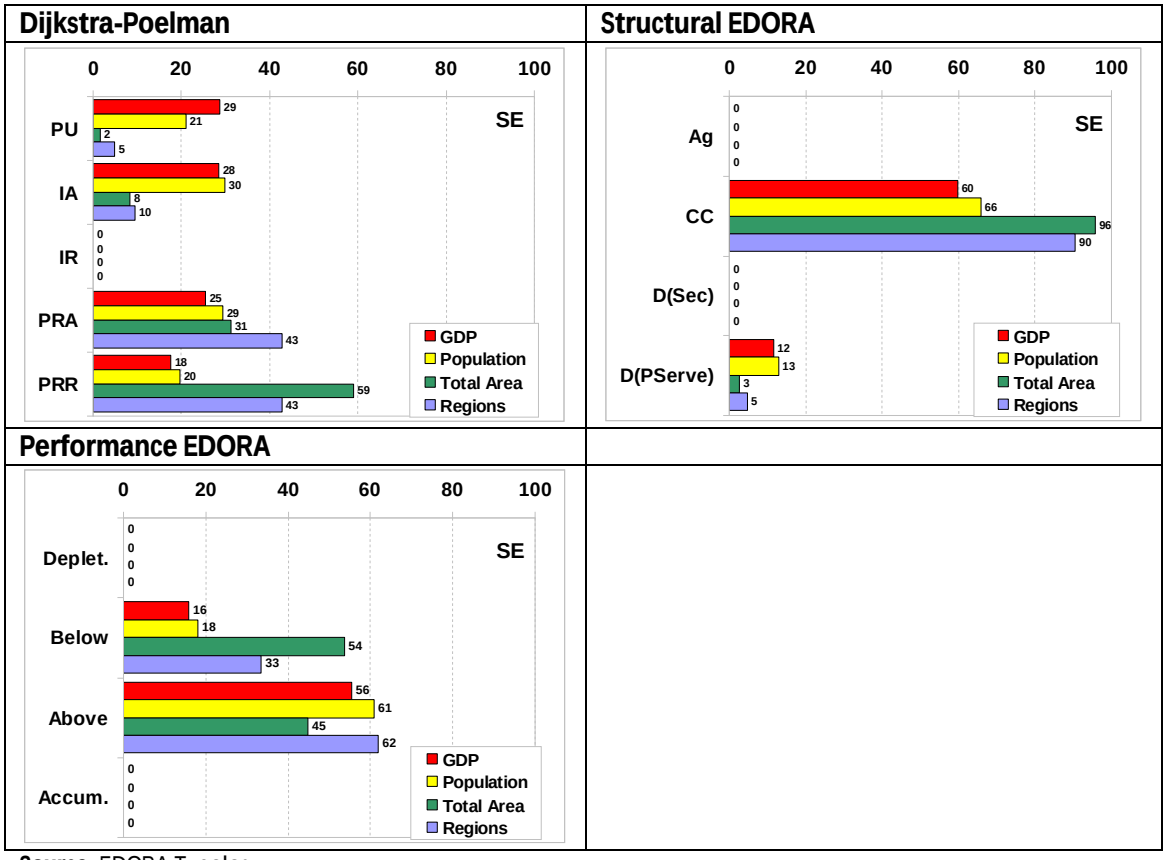
9.24 Sweden

The case of Sweden is similar to the one in Finland: huge territory surface limited by climate conditions up North and characterized by disperse spatial planning model. These are the reasons why PRR regions appear as the biggest, occupying a 60% of Sweden in 43% of regions. The same explanation can be applied for PRA regions, smaller in size but with higher rates of population (29%) and GDP (25%) than in PRR (which have the lowest rates for this indicators, 20% and 18% respectively) due to its accessibility. IR regions are not represented but IA regions are; IA regions only cover 8% of the total Swedish surface but are the most populated regions (30%) and the second richest, with a GDP of 28%, just 1% below the GDP rate in PU regions. PU regions only represent 2% of the total surface but, as a tertiary economy Sweden is, business centers and best educational centers (e.g. universities, polytechnics), some reasons why population (21%) and GDP (29%) are swarmed in PU.

CC regions enjoy the highest rates from the *Structural typology* categories: they cover a 96% of the total area of Sweden in 90% different regions. Because of good infrastructures and the disperse spatial model, population and GDP are engaged to Consuming Countryside regions with rates very high (66% and 60% respectively) being able to focused on urban consumption markets without living strictly in PU regions. Anyway, part of the population inhabitation and generation of GDP occur in D(PServe) regions, small in size and with poor dispersion among regions, but business and educational clusters per excellence.

According to the Performance typology, there are 54% of surface and 33% of regions considered regions below the average, where population and GDP scores represent less than 1/3 the scores they have in regions above the average. Concretely, these areas, smaller than the other in around 10% but with more diversity of regions (62%), enjoy a settlement of 61% of the Swedish population and a contribution to a 56% of the total GDP. Good SGI, communication infrastructures and high living standards are some of the reasons why population lives in such a regions, with less population density and better environmental conditions.

Figure 9.24 Distribution of NUT3 regions in Sweden. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

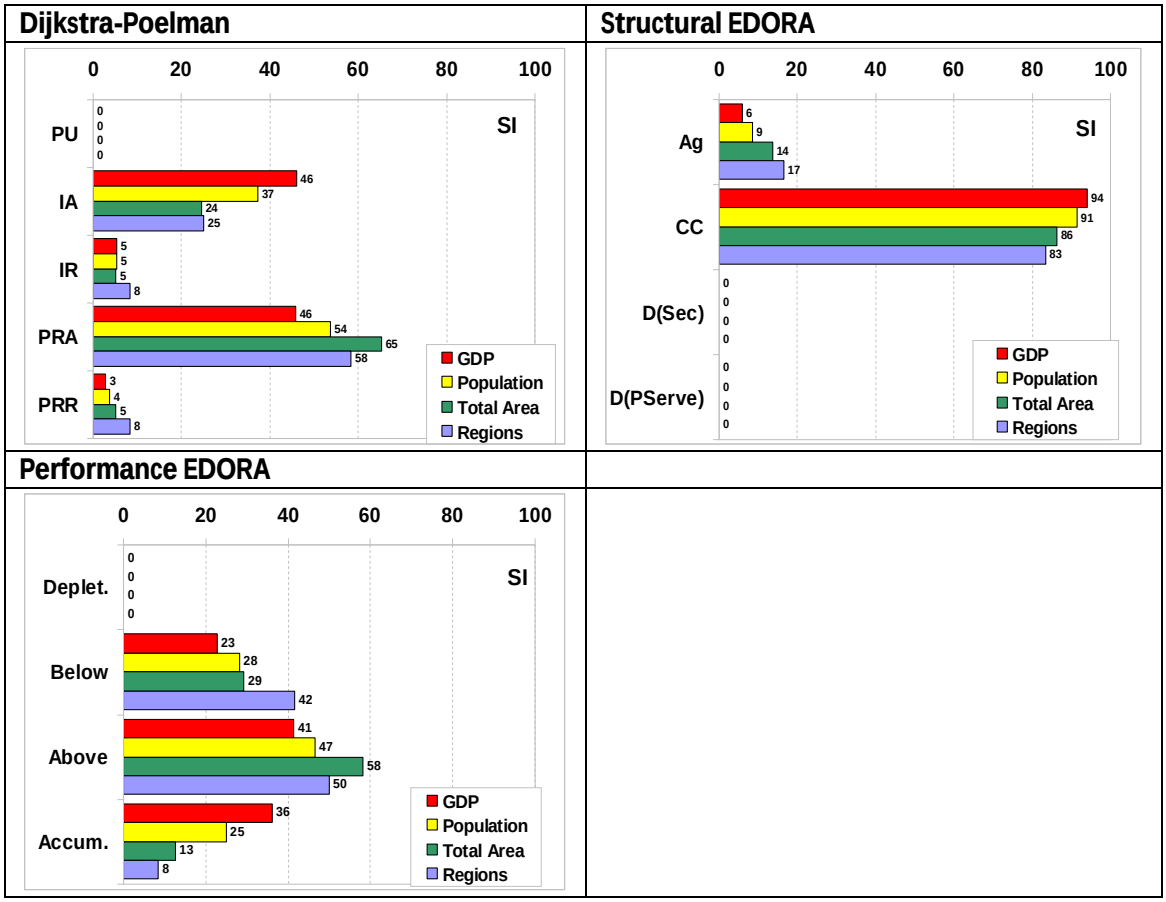
9.25 Slovenia

The socioeconomic situation of Slovenia is marked by its communist past. After the annex to the EU, it has been transformed into a third economy system, quite weak by the way. According to the different typologies, there are no PU regions, D(Sec), D(PServe) and even depletion regions, i.e. rurality characterizes the Slovenian landscape but secondary sector is the economic engine of the country, composed to a large extent by small-medium enterprises. IR and PRR regions do not offer high scores for the indicators. In opposition, PRA and IA regions have noticeable scores. PRA represent 65% of the total area of the Slovenian territory and there are 58% of regions classified according to this category. They are lively centers (more than the half of the Slovenian population lives there) and rich (concretely, there is a contribution of 46% of the total GDP, as well as in IA regions). IA regions occupy the third part of area and number of regions than PRA regions, and have around 20% less population, even as commented before, they contribute to the same GDP as PRA.

Slovenia is mainly composed by CC regions and to a little extent by Ag regions. The indicators' percentages are above 80% in CC regions, i.e. concentration of population and GDP in a big area, divided in 83% of regions. Primary sector is declining while secondary sector prevails on economy.

Based on the *Performance typology*, regions above the average are the biggest in size (58%), grouping a 50% of regions where a 47% of population lives and where the contribution of the total GDP is the highest one (41%) respect the other categories. There are around 42% of regions in a 29% of the total area of Slovenia which are considered regions below the average. On them, the half of population and GDP rates than in regions above the average can be found. Accumulation regions only represent 13% of the total area of the country but have population and GDP scores closed to ones in the other main categories. These 3 categories, overall regions above the average, have the capacity to attract population and capitals.

Figure 9.25 Distribution of NUT3 regions in Slovenia. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

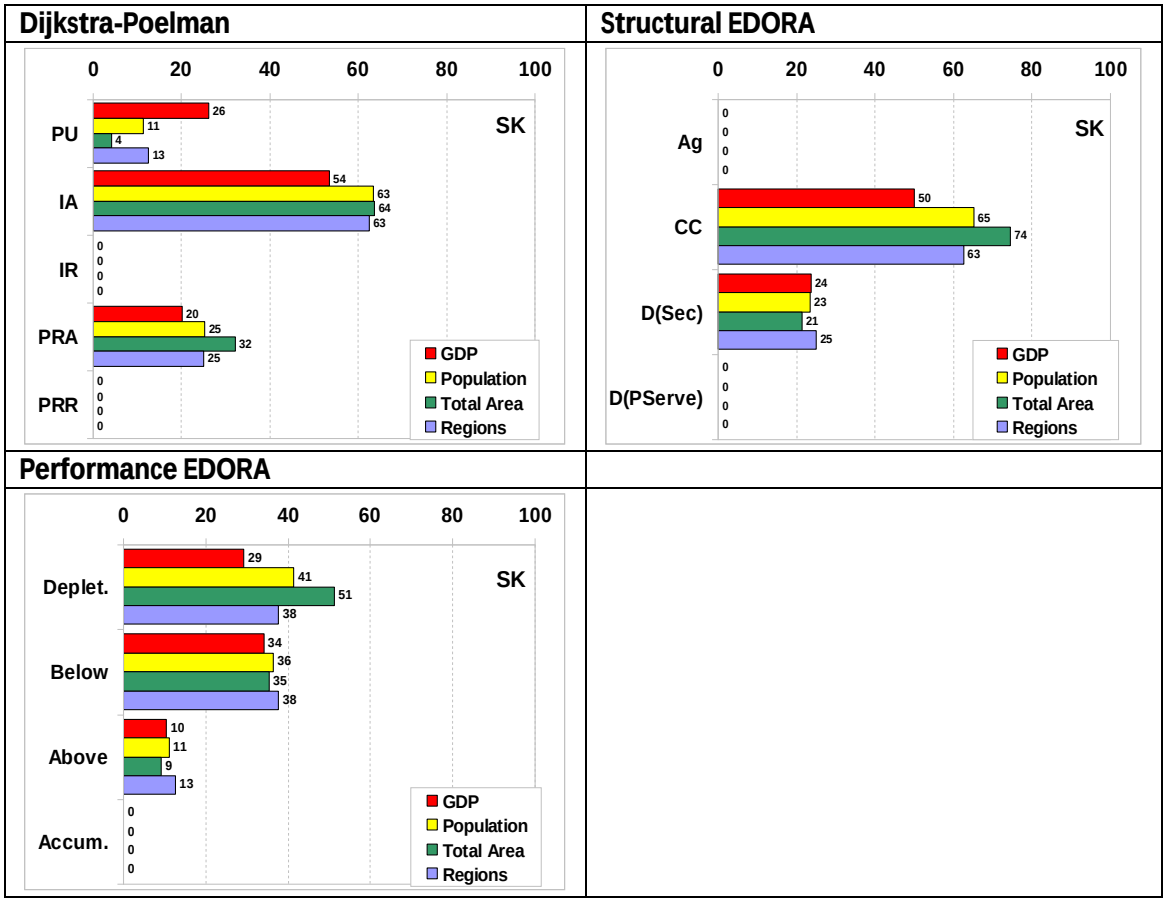
9.26 Slovakia

The socioeconomic background of Slovakia is similar to the one in Hungary or Slovenia. That is the reason about the predominance of CC regions, with an area of 74% respect the total, settlements of 65% of the total population and GDP generation of 50% (Slovakia is becoming attractive to tourists). D(Sec) regions are important as well, small-medium enterprises, foreign investments and a technological revolution comprise the business market structure and national businesses are increasing, overall rural business (as ecotourism)

The 63% of regions in Slovakia are classified as IA since this category occupies large extensions of the territory (concretely the 64%) and the 63% of population lives there. One of the causes, as well as consequences, to be attractive regions to live is the employment and generation of production and income and so IA regions reach (since they generate the 54% of the total GDP of Slovakia) PRA regions are 2 times smaller than IA and so show the rest of indicators. Even their higher population rates (25%) they generate less GDP (20%) than PU regions (which generate 26% in a space of 4%, less populated (11%)

In general, socioeconomic parameters need strength since depletion regions and regions below the average are the majorly distributed categories for Slovakia. Depletion regions cover the half of the country's territory but there the same number of regions as in the category 'regions below the average'. Population is a bit less than 10% more than in 'regions below the average' but the GDP contribution is 5% less than in 'regions below the average'. Regions above the average have low scores comparing to the both last commented categories.

Figure 9.26 Distribution of NUT3 regions in Slovakia. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

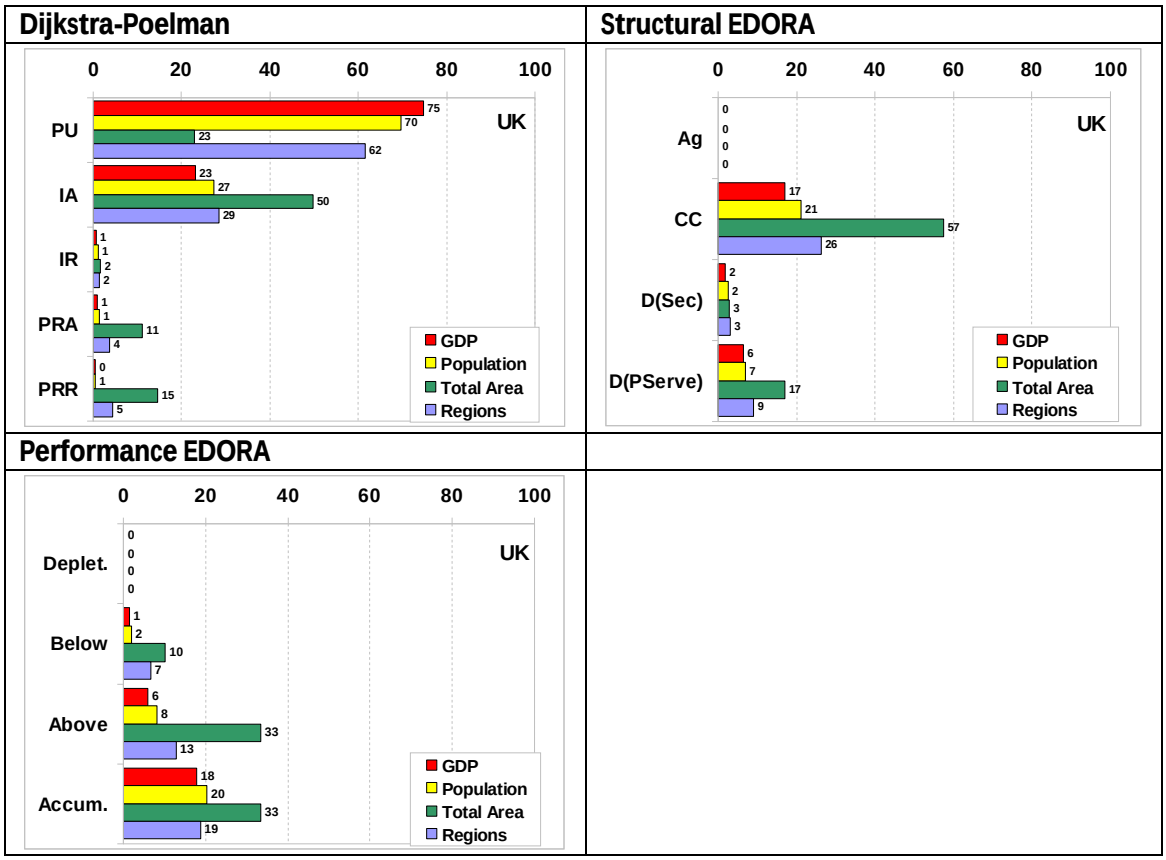
9.27 United Kingdom

United Kingdom can de divided in North (more rural) and South (more urbanized and densely populated, overall London and surroundings). It is mainly a tertiary economy based on the service sector. IA regions occupy the half of the total area of the island, but PU regions comprise the double number of regions (62% front to 29%) and three times higher scores for population (70% vs. 27%) and GDP (75% vs. 23%), basically located in main cities. Migration is very important in this country, overall in London (business center in Europe).

According to the *Structural typology*, United Kingdom is considered to be inside the CC category (more populated and richer since it occupies 57% of the total area of the country) and in second place, in the D(PServe) one (17% of area). Financing, farm diversification, tourism, educational centers' prestige attraction, etc. configure the economy of the country.

In the *Performance typology* is pointed out the urbanity of the United Kingdom. Accumulation regions and regions above the average are the best distributed ones. They occupy the same area (33%) but the first ones have better scores for the other indicators, overall population (20%, 12% higher than in 'regions above the average') and GDP (18%, 11% higher than in 'regions above the average'). Regions below the average present low scores for the indicators and they are only distributed in a 10% of the total surface of the country.

Figure 9.27 Distribution of NUT3 regions in United Kingdom. Dijkstra-Poelman, Structural and Performance Typologies



Source: EDORA Typology

CHAPTER 10
ANALYSIS OF THE THREE EDORA TYPOLOGIES BY NON EXCLUSIVE GROUPS OF COUNTRIES

Chapter 10 of the MS Comparative report presents a systematic analysis of the three typologies that make up the "EDORA Cube" considering non-exclusive group of countries[16]. The analysis refers to the following variables: number of regions, area, population, GDP and GDP per capita.

10.1 Distribution of NUT3 regions

The Dijkstra-Poelman rural-urban typology classifies regions according to their accessibility and rurality. Accesibility is measured in % of population which access to a market town under a particular time threshold. Rurality is linked to more extensive (as opposite to intensive) land use and, therefore, the variable is % of population living in rural LAU; that is, those below 150 inhab./km^2. This typology differentiates 5 types of regions: Predominantly Urban, Intermediate Rural Accessible, Intermediate Rural Remote, Predominantly Rural Accessible and Predominantly Rural Remote[17]. Figure 10.1 analyses the number of NUTS3 regions of the EU27 according to categories of the Dijkstra-Poelman typology (hereafter D-P). The analysis shows a percentage breakdown with the following characteristics:

- Central and Western European countries contain, overall, the highest percentages of regions in Predominantly Urban regions (PU). In this case, 43%. Adding the Intermediate Accessible Regions the percentage of "urban" or "peri-urban" regions amounts to three quarters of the total (77%). Conversely, the Scandinavian countries show the lowest percentages of regions concentrated in these categories. Thus, only 9.6% are Predominantly Urban regions (PU) and the percentage is only 21% if we add the Intermediate Accessible regions. In between are the Mediterranean countries and the NMS. In the first case, about one in four regions are Predominantly Urban. This percentage rises to 56% when we include the Intermediate Accessible regions. The NMS also record a rate of 50% in the sum of PU and IA regions, although in this case the internal distribution of both categories is different because the IA regions account for 40% and PU regions only 10%. Finally, the behaviour of the EU15 is closer to the

[16] Defined groups of countries are: (i) EU 15 (Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden, United Kingdom); (ii) New Member States (Bulgaria, Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovenia, Slovakia); (iii) Mediterranean countries (Greece, Spain, Malta, Italy, Portugal, Chipre); (iv) Central-West European Countries (Belgium, Germany, France, Ireland, Luxembourg, Netherlands, Austria, United Kingdom); (v) Scandinavian Countries (Denmark, Finland, Sweden, Norway). Criterion for the selection of the groups of countries has been the definition of relatively homogeneous supranational areas or, at least, areas sharing common rural and regional dynamics. Furthermore, it is not mutually exclusive groups

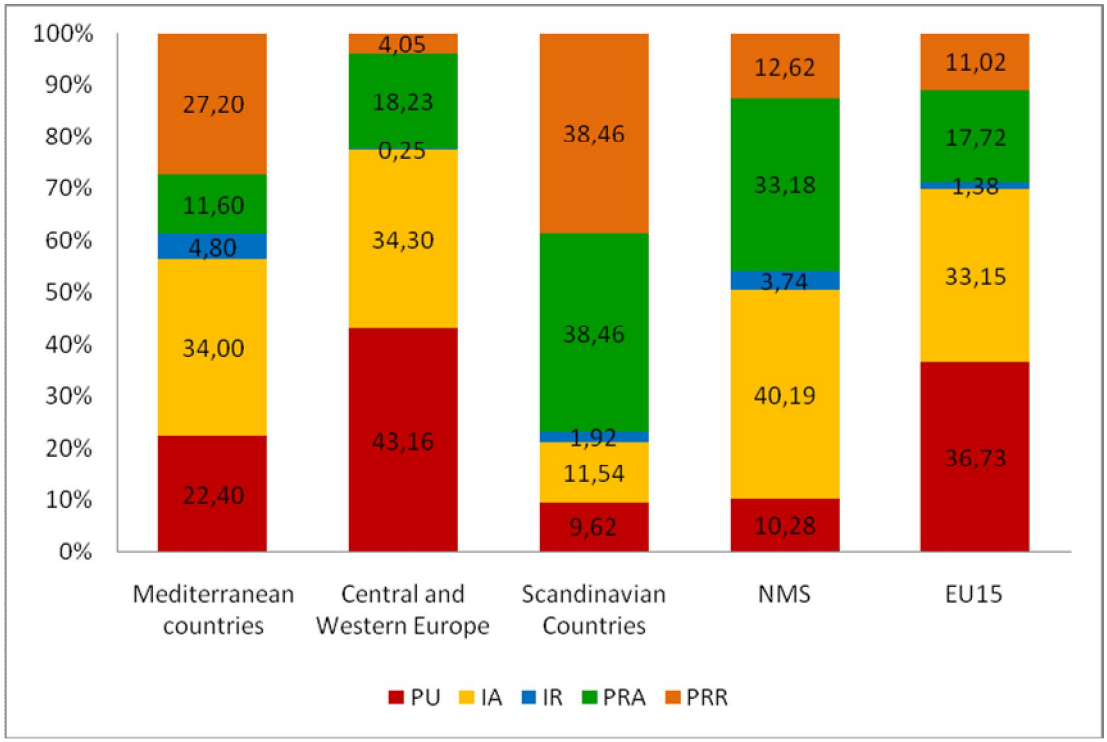
[17] For a complete methodological description of this typology please visit http://ec.europa.eu/regional_policy/sources/docgener/focus/2008_01_rural.pdf

countries of Central and Western Europe, with 70% of urban or “peri-urban” divided in 37% in regions PU and 33% in IA regions.

- On the other hand, the "rural" regions, represented by Predominantly Rural (accessible or remote), show the largest percentages in the Scandinavian countries, in the NMS and in the Mediterranean countries. In Scandinavian countries, the two PR categories' percentages are identical and very high. Thus, 76% of the Scandinavian regions are Predominantly Rural either remote or accessible. In the case of NMS the highest percentage of rural regions is accessible (PRA), while remote regions are considerably less. Finally, in the Mediterranean countries the most significant percentage corresponds to remote rural areas (PRR) (27%). These differences are mainly due to geographical features. Thus, both Scandinavian (due to their size) and Mediterranean countries (due to their orography) show areas where accessibility is low and, therefore, are located in the category of "remote." The opposite happens in the NMS where rurality is high but accessibility is better.

This distribution indicates that there are patterns of territorial occupation clearly differentiated in the EU27. Countries of the EU15 have percentages of urban and "peri-urban" regions significantly greater than those recorded in all the NMS.

Figure 10.1 Dijkstra-Poelman Typology. Percentage of regions in each category, by non-exclusive groups of countries



The structural typology classifies regions according to their economic settings. According to this typology, regions can have an economic base focused on primary activities, or be focused on the "consumption countryside", or have diversified economies dominated by secondary activities or by private services. The analyses carried out on the EDORA typology and those made elsewhere in this report show that regions with an agricultural economy and to a lesser extent, those focused on "consumption countryside" concentrate the main problems associated with rural decline. By contrast, rural regions with diversified economies have better economic and demographic indicators.

Figure 10.2 shows the number of NUT3 regions of the EU27 which is located in each of the categories of the EDORA Structural Typology.

Regions dominated by an agrarian economy (category "Agriculture") are located mainly in the NMS (30%) and in Mediterranean countries (13%), while in the remaining categories are hardly present. It is, as we have said, regions dominated by an agrarian economy in the case of societies where agriculture is not yet completely modernised, either because of the general state of the economy, or because the geographical constraints that limit accessibility and difficult or make it impossible to implement this process of modernisation. This could be the case of agro-productive complexes with high levels of competitiveness (eg, some fruits and vegetables in Mediterranean countries or modernized continental agriculture spaces), but more often involve areas where agriculture dominates by the absence of economic alternatives (Mediterranean remote areas or regions of semi-subsistence farming in some of the NMS).

By contrast, Consumption Countryside regions are present in a relevant way in all country groups except for the case of NMS, to account for rural territories that benefit from demands of urban markets. The precondition for the existence of such regions is the presence of an urban market sufficiently developed and mature, which explains the virtual absence of this category in the NMS and its importance in all other groups of countries. The regions defined as "consumption countryside" are characterised by areas dominated by one or more services together, typically geared to the urban population (access to environmental assets, tourism capacity, and farm diversification). Consequently, there is not only one type of rural areas but many rural profiles that have in common the orientation to urban consumption, usually in forms of tourism. Due to the diversity of sub-categories implicit in the Consumption Countryside we can not speak of uniformity; each region under this category may have a different economic settings with the common denominator of their orientation to urban consumption. Only two conditions seem to be implicit in this type of regions: on the one hand, a relative low importance of agriculture as economic activity and employment provider; on the other hand, a mature urban demand that makes possible consumption of rural goods beyond a critical threshold

Diversified regional economies with a strong secondary sector are located mainly in the NMS (48%) and Scandinavia (42.5%) but significantly present in all other categories of countries. Diversified rural economies with strong secondary sectors may refer to the implementation of diffuse processes of industrialisation in intermediate rural areas (ie. Marshallian districts in

Spain or Portugal). It may, on the other hand, be the remnants of industrial specialization associated with the communist era (Hungary, Czech Republic, Slovakia, Poland) to be reinforced in recent years because of relocation of large industrial plants from other less competitive locations in terms of costs. For these areas, industrial know-how accumulated during the twentieth century and the lower costs of land and labour, along with the EU "umbrella" are the main potentials. However, the maintenance of an industrial activity of this sort does not guarantee an easy path to long term, sustainable development unless work is undertaken in a proper embedding of the industrial fabric, usually exogenous, in the local development strategy. It can also mean the case of rural regions where agriculture is not a relevant activity due to land or climate constraints and they have managed to develop or attract industrial activity.

Diversified regional economies with a strong private service sector are mainly in the countries of Central and Western Europe and the EU 15, while its presence is much smaller in the case of Scandinavia and the NMS.

Figure 10.2 EDORA Structural Typology. Percentage of regions in each category, by non-exclusive groups of countries

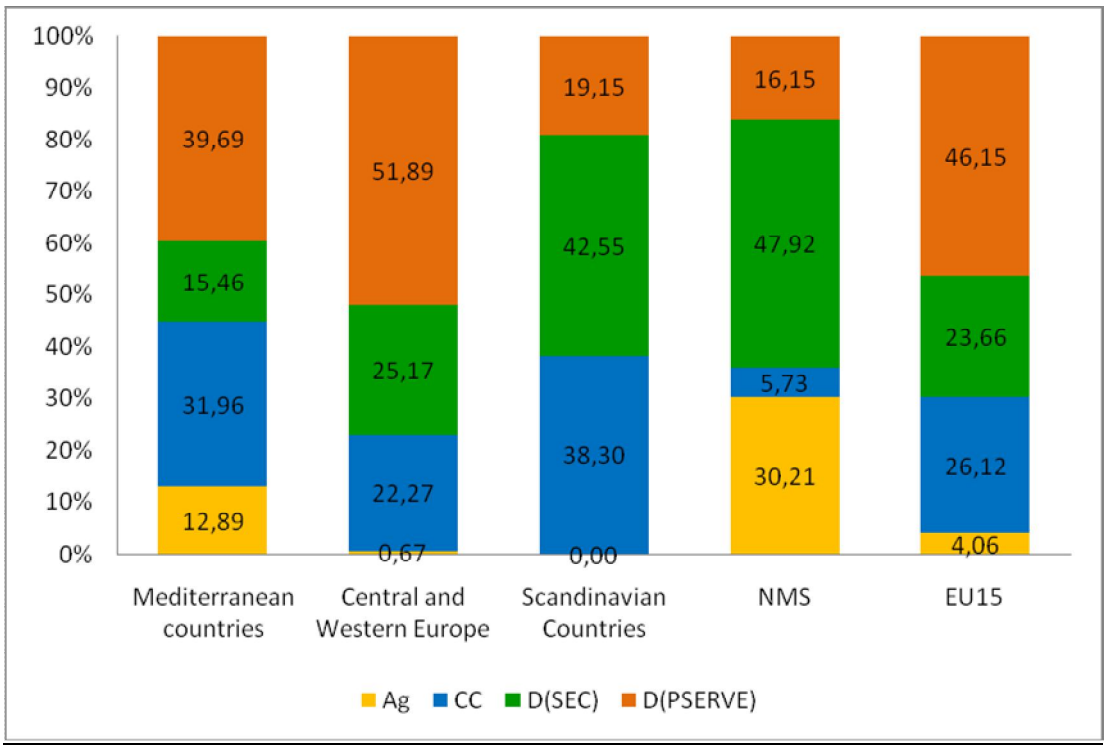


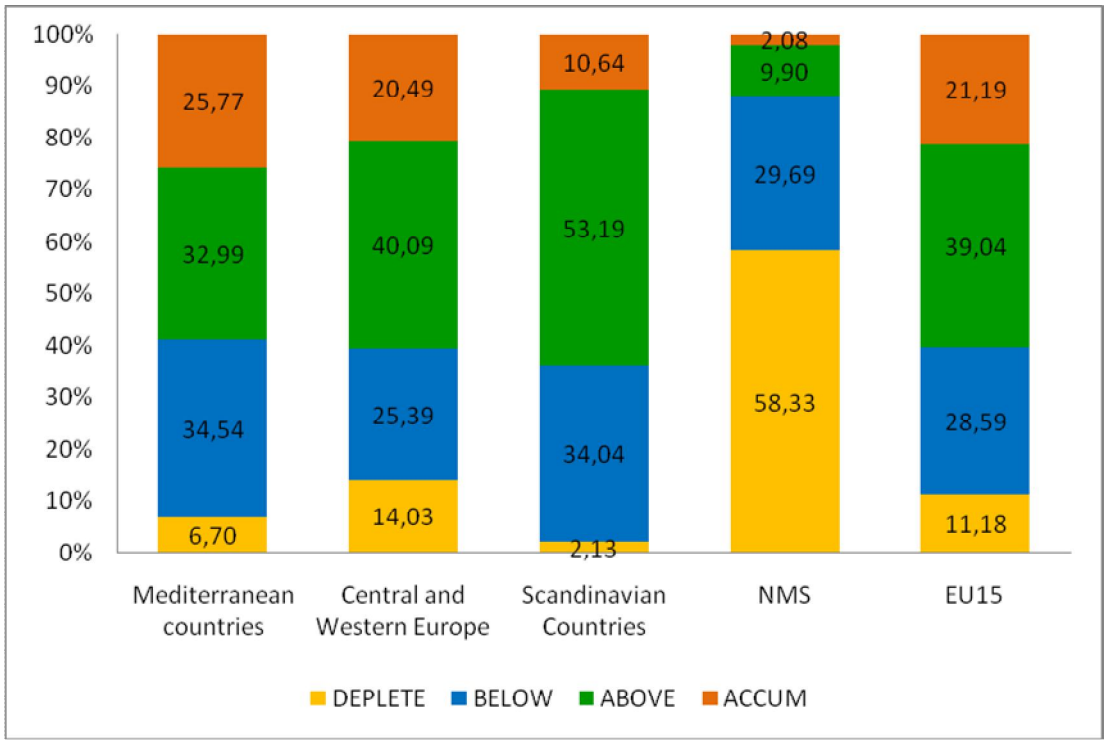
Table 10.3 shows the number of regions (in percentage of total) of the EU27 countries for each category of the EDORA Performance Typology. The EDORA Performance Typology is calculated from a regional composite performance indicator from 5 indicators (net migration, per capita GDP, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalised

(Z) scores for the five indicators. The four categories have been defined by the average standardised score as follows:

- *Accumulation regions*: <-0.5 (i.e. more than half a standard deviation below the "non-urban" mean).
- *Above average regions*: -0.5 to 0 (i.e. less than half a standard deviation below the "non-urban" mean).
- *Below average regions*: 0 to +0.5 (i.e. less than half a standard deviation above the "non-urban" mean)
- *Depleting regions*: <-0.5 (i.e. more than half a standard deviation above the "non-urban" mean)

The depleting regions are located mainly within the NMS, where they represent 58% of the total. This is largely the territories from which there has been a continuous process of migration and loss of economic activity. This type of regions is also present in the other groups of countries considered, although to a much lesser extent. Thus, the rate falls below 15% in all other groups of countries and, contrary to what might be expected, areas of Central and Western Europe contain a greater proportion of depleting regions (14%) than the Mediterranean regions (7%). On the other hand, the percentage of regions "below average" is an almost constant share of between 25% and 35% in all groups of countries.

Figure 10.3 EDORA Performance Typology. Percentage of regions in each category, by non-exclusive groups of countries



The sum of the percentages of regions "depleting" and "below average", ", gives an idea of the prevalence of regions with greatest difficulties. This percentage is much higher in the case of

the NMS groups where the sum of these two categories accounts for 88% of all regions. All other groups of countries have percentages of the sum of these two categories are about 40%.

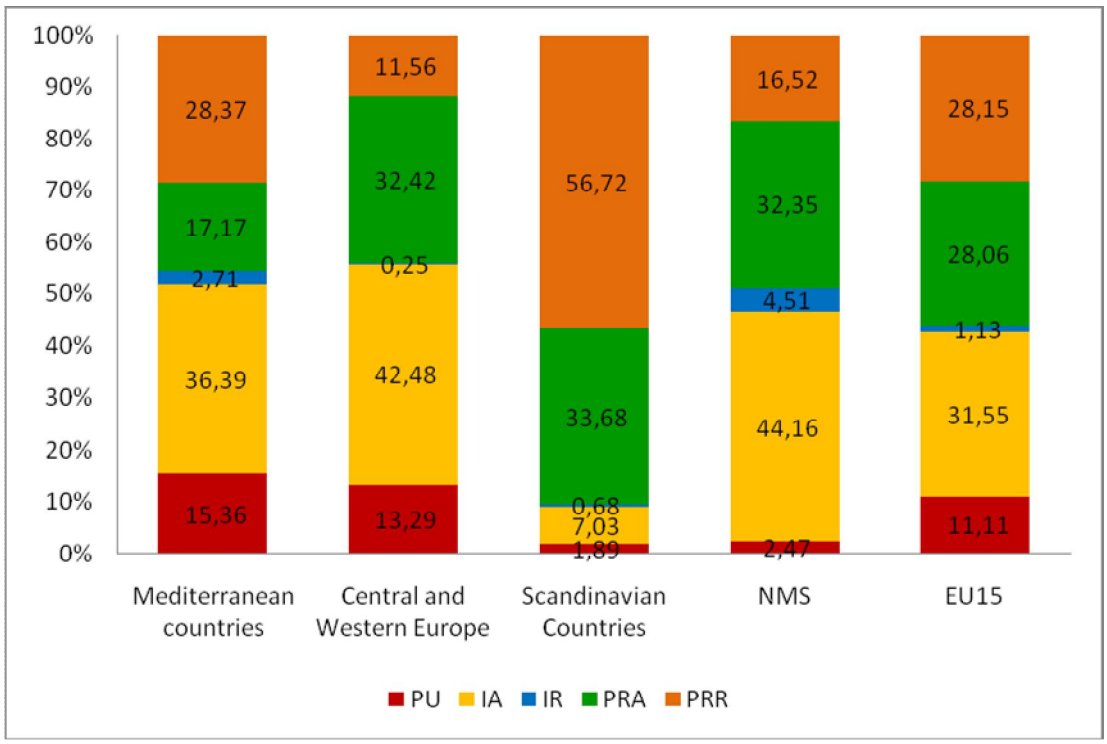
Therefore, the number of "below average" regions is mostly relevant in the New Member States. “Below the average” and "depleting" areas are located in the less modernised economies of Europe. Consequently, the regions "above average" (including "Accumulation") are more than 50% in all categories of countries with the exception of the NMS.

10.5 Total area

The Dijkstra-Poelman rural-urban typology classifies regions according to their accessibility and rurality. Accesibility is measured in % of population which access to a market town under a particular time threshold. Rurality is linked to more extensive (as opposite to intensive) land use and, therefore, the variable is % of population living in rural LAU; that is, those below 150 inhab./km^2. This typology differentiates 5 types of regions: Predominantly Urban, Intermediate Rural Accessible, Intermediate Rural Remote, Predominantly Rural Accessible and Predominantly Rural Remote[18]. Figure 10.4 analyses the total area of NUTS3 regions of the EU27 according to categories of the Dijkstra-Poelman typology (hereafter D-P). The analysis shows a percentage breakdown with the following characteristics:

The highest percentages of total area in Predominantly Urban regions (PU) are in Mediterranean countries (15%), although Central and Western European countries (13%) and EU15 (11%) have similar percentages of total land under PU regions. On the other extreme, Scandinavian countries and NMS show percentages around 2%. Adding the Intermediate Accessible Regions the percentage of "urban" or "peri-urban" regions amounts to 45% to 55% in all groups of countries but Scandinavian.

Figure 10.4 Dijkstra-Poelman Typology. Percentage of total area in each category, by non-exclusive groups of countries



[18] For a complete methodological description of this typology please visit http://ec.europa.eu/regional_policy/sources/docgener/focus/2008_01_rural.pdf

On the other hand, the total land in "rural" regions, represented by Predominantly Rural (accessible or remote), show the largest percentages in the Scandinavian countries (90%), in the EU15 (56%), in the NMS (49%) and in the Mediterranean countries (54%). In Scandinavian countries, the two PR categories' percentages very high. Thus, 90% of the Scandinavian regions are Predominantly Rural either remote or accessible. In the case of the EU15 countries, the two PR categories' percentages are identical 828% each). In the case of NMS the highest percentage of rural regions is accessible (PRA), while remote regions are considerably less. Finally, in the Mediterranean countries the most significant percentage corresponds to remote rural areas (PRR) (28%). These differences are mainly due to geographical features. Thus, both Scandinavian (due to their size) and Mediterranean countries (due to their orography) show areas where accessibility is low and, therefore, are located in the category of "remote." The opposite happens in the NMS where rurality is high but accessibility is better.

The structural typology classifies regions according to their economic settings. According to this typology, regions can have an economic base focused on primary activities, or be focused on the "consumption countryside", or have diversified economies dominated by secondary activities or by private services. The analyses carried out on the EDORA typology and those made elsewhere in this report show that regions with an agricultural economy and to a lesser extent, those focused on "consumption countryside" concentrate the main problems associated with rural decline. By contrast, rural regions with diversified economies have better economic and demographic indicators.

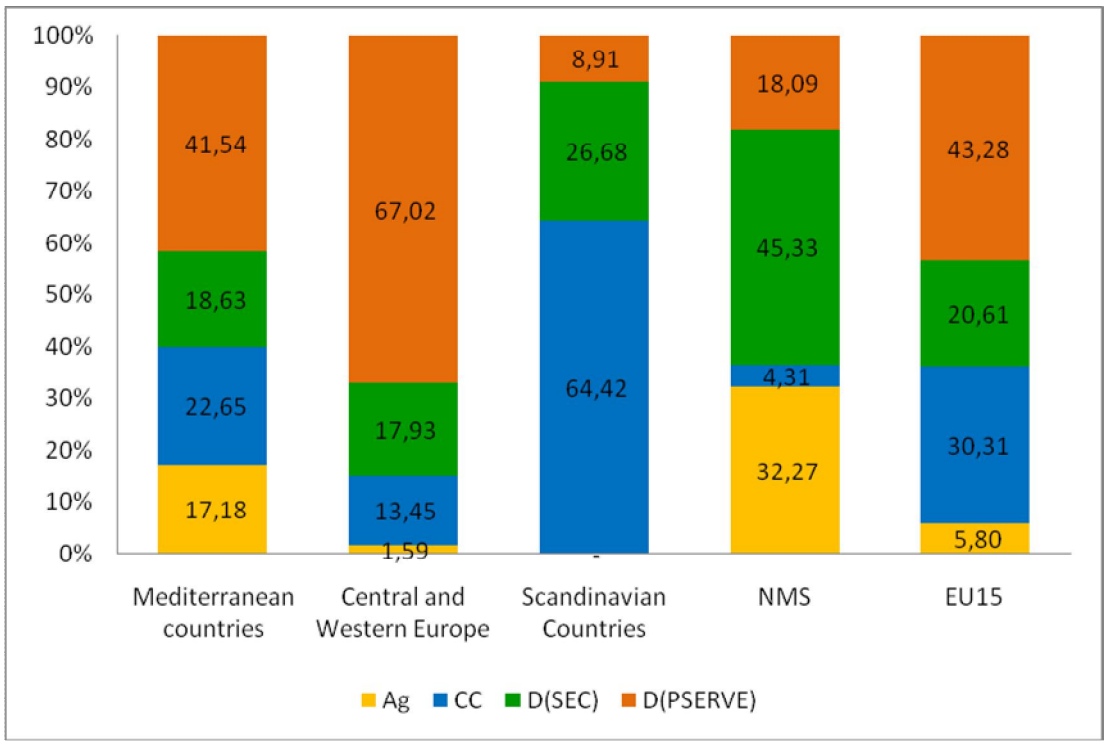
Figure 10.5 shows the percentage of total land of the EU27 which is located in each of the categories of the EDORA Structural Typology.

Percentage of total land of regions dominated by an agrarian economy (category "Agriculture") is higher in the NMS (32%) and in Mediterranean countries (17%), while in the remaining categories are hardly present. It is, as we have said, regions dominated by an agrarian economy in the case of societies where agriculture is not yet completely modernised, either because of the general state of the economy, or because the geographical constraints that limit accessibility and difficult or make it impossible to implement this process of modernisation. This could be the case of agro-productive complexes with high levels of competitiveness (eg, some fruits and vegetables in Mediterranean countries or modernized continental agriculture spaces), but more often involve areas where agriculture dominates by the absence of economic alternatives (Mediterranean remote areas or regions of semi-subsistence farming in some of the NMS).

By contrast, the total land under Consumption Countryside regions is important in all country groups except for the case of NMS, to account for rural territories that benefit from demands of urban markets. The precondition for the existence of such regions is the presence of an urban market sufficiently developed and mature, which explains the virtual absence of this category in the NMS and its importance in all other groups of countries. The regions defined as "consumption countryside" are characterised by areas dominated by one or more services together, typically geared to the urban population (access to environmental assets, tourism

capacity, and farm diversification). Consequently, there is not only one type of rural areas but many rural profiles that have in common the orientation to urban consumption, usually in forms of tourism. Due to the diversity of sub-categories implicit in the Consumption Countryside we can not speak of uniformity; each region under this category may have a different economic settings with the common denominator of their orientation to urban consumption. Only two conditions seem to be implicit in this type of regions: on the one hand, a relative low importance of agriculture as economic activity and employment provider; on the other hand, a mature urban demand that makes possible consumption of rural goods beyond a critical threshold

Figure 10.5 EDORA Structural Typology. Percentage of total area in each category, by non-exclusive groups of countries



Percentage of total land under "diversified regional economies with a strong secondary sector" is located mainly in the NMS (45%) and Scandinavia (27%) but significantly present in all other categories of countries (about 20% in each case). Diversified rural economies with strong secondary sectors may refer to the implementation of diffuse processes of industrialisation in intermediate rural areas (ie. Marshallian districts in Spain or Portugal). It may, on the other hand, be the remnants of industrial specialization associated with the communist era (Hungary, Czech Republic, Slovakia, Poland) to be reinforced in recent years because of relocation of large industrial plants from other less competitive locations in terms of costs. For these areas, industrial know-how accumulated during the twentieth century and the lower costs of land and labour, along with the EU "umbrella" are the main potentials. However, the maintenance of an industrial activity of this sort does not guarantee an easy path to long term, sustainable development unless work is undertaken in a proper embedding of the industrial

fabric, usually exogenous, in the local development strategy. It can also mean the case of rural regions where agriculture is not a relevant activity due to land or climate constraints and they have managed to develop or attract industrial activity.

Diversified regional economies with a strong private service sector are mainly in the countries of Central and Western Europe and the EU 15 (67%), while its presence is much smaller in the case of Scandinavia and the NMS.

Table 10.6 shows the total land (in percentage of total) of the EU27 countries for each category of the EDORA Performance Typology. The EDORA Performance Typology is calculated from a regional composite performance indicator from 5 indicators (net migration, per capita GDP, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalised (Z) scores for the five indicators. The four categories have been defined by the average standardised score as follows:

- *Accumulation regions*: <-0.5 (i.e. more than half a standard deviation below the "non-urban" mean).
- *Above average regions*: -0.5 to 0 (i.e. less than half a standard deviation below the "non-urban" mean).
- *Below average regions*: 0 to +0.5 (i.e. less than half a standard deviation above the "non-urban" mean)
- *Depleting regions*: <-0.5 (i.e. more than half a standard deviation above the "non-urban" mean)

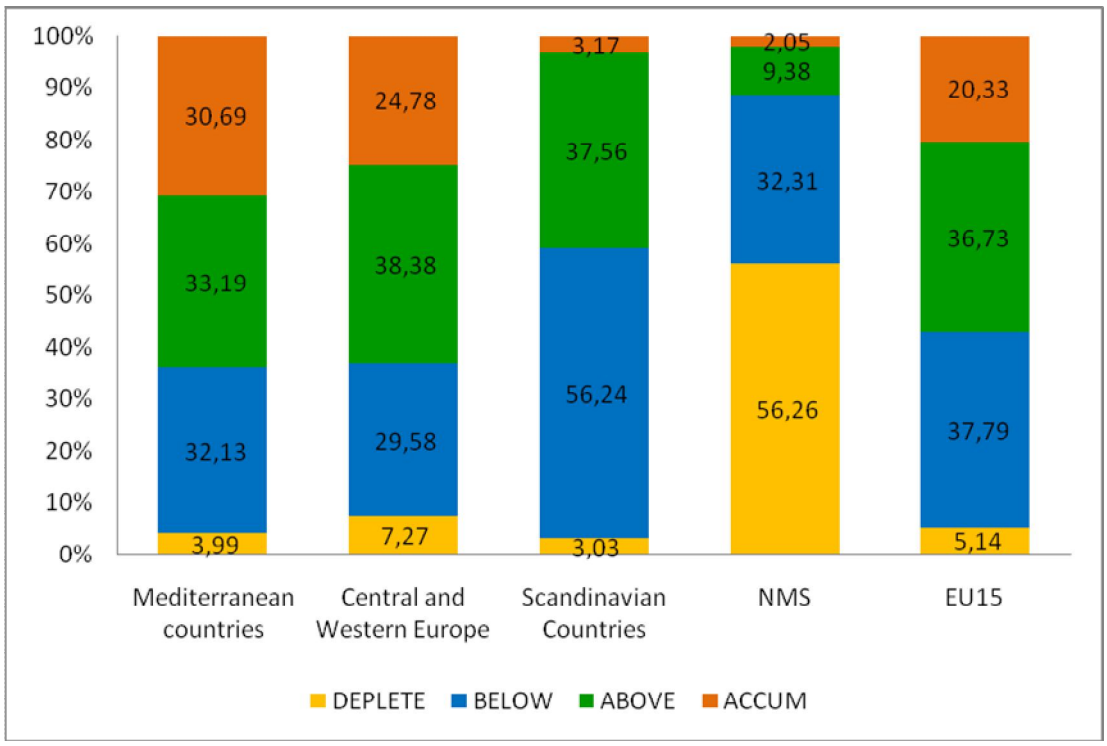
The total area of depleting regions is concentrated mainly within the NMS, where it represents 56% of the total. This is largely the territories from which there has been a continuous process of migration and loss of economic activity. This type of regions is also present in the other groups of countries considered, although to a much lesser extent. Thus, the rate falls below 10% in all other groups of countries and, contrary to what might be expected, areas of Central and Western Europe contain a greater percentage of total area in depleting regions (7%) than the Mediterranean regions (4%). On the other hand, the percentage of total land in regions "below average" is an almost constant share of between 25% and 35% in all groups of countries with the exception of Scandinavian countries where this category amounts 56% of total land.

The sum of the percentages of regions "depleting" and "below average", gives an idea of the prevalence of regions with greatest difficulties. This percentage is much higher in the case of the NMS groups where the sum of these two categories accounts for 88% of all regions. The percentage is also important in the case of Scandinavian countries (59%). All other groups of countries have percentages of the sum of these two categories are about 35%.

Therefore, the percentage of total land in "below average" regions is mostly relevant in the New Member States. "Below the average" and "depleting" areas are located in the less modernised economies of Europe. Consequently, total area in regions "above average"

(including "Accumulation") is more than 50% in all categories of countries with the exception of the NMS and Scandinavian countries.

Figure 10.6 EDORA Performance Typology. Percentage of total area in each category, by non-exclusive groups of countries

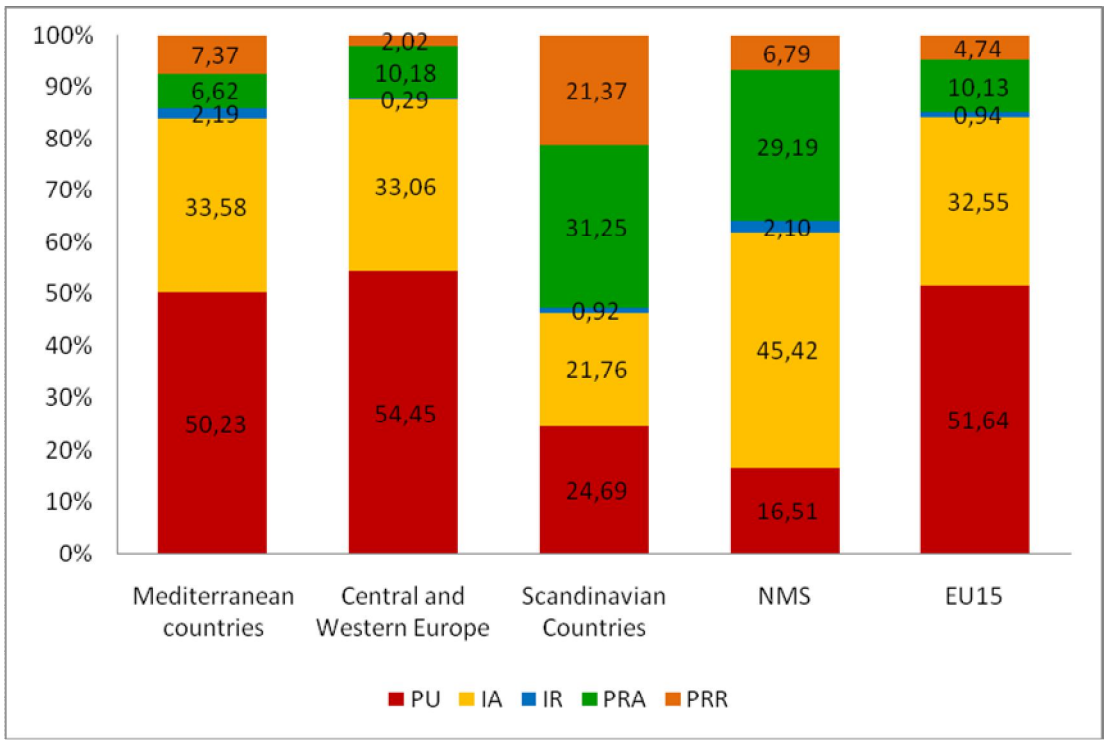


10.6 Population

The Dijkstra-Poelman rural-urban typology classifies regions according to their accessibility and rurality. Accesibility is measured in % of population which access to a market town under a particular time threshold. Rurality is linked to more extensive (as opposite to intensive) land use and, therefore, the variable is % of population living in rural LAU; that is, those below 150 inhab./km^2. This typology differentiates 5 types of regions: Predominantly Urban, Intermediate Rural Accessible, Intermediate Rural Remote, Predominantly Rural Accessible and Predominantly Rural Remote[19]. Figure 10.7 analyses the total population of NUTS3 regions of the EU27 according to categories of the Dijkstra-Poelman typology (hereafter D-P). The analysis shows a percentage breakdown with the following characteristics:

Population concentrates in urban and peri-urban regions to a more extent than total area and number of regions. The highest percentages of population in Predominantly Urban regions (PU) are in Central and Western European countries (54%), the EU15 (52%) and the Mediterranean countries (50%). On the other extreme, Scandinavian countries and NMS show lower percentages (25% and 17% respectively). Adding the Intermediate Accessible Regions, the percentage of "urban" or "peri-urban" regions amounts 85% of total in all groups of countries but Scandinavian and NMS.

Figure 10.7 Dijkstra-Poelman Typology. Percentage of total population in each category, by non-exclusive groups of countries



[19] For a complete methodological description of this typology please visit http://ec.europa.eu/regional_policy/sources/docgener/focus/2008_01_rural.pdf

On the % of population in "rural" regions, represented by Predominantly Rural (accessible or remote), show the largest percentages in the Scandinavian countries (53%) and in the NMS (36%). In all cases, the percentage of population is much lower than the territorial significance of rural regions. These differences are mainly due to geographical features. Thus, both Scandinavian (due to their size) and Mediterranean countries (due to their orography) show areas where accessibility is low and, therefore, are located in the category of "remote." The opposite happens in the NMS where rurality is high but accessibility is better.

The structural typology classifies regions according to their economic settings. According to this typology, regions can have an economic base focused on primary activities, or be focused on the "consumption countryside", or have diversified economies dominated by secondary activities or by private services. The analyses carried out on the EDORA typology and those made elsewhere in this report show that regions with an agricultural economy and to a lesser extent, those focused on "consumption countryside" concentrate the main problems associated with rural decline. By contrast, rural regions with diversified economies have better economic and demographic indicators. Figure 10.8 shows the % of population of the EU27 which is located in each of the categories of the EDORA Structural Typology.

The percentage of population in regions dominated by an agrarian economy (category "Agriculture") is higher in the NMS (22%) and in Mediterranean countries (7%), while in the remaining categories hardly exists. It is, as we have said, regions dominated by an agrarian economy in the case of societies where agriculture is not yet completely modernised, either because of the general state of the economy, or because the geographical constraints that limit accessibility and difficult or make it impossible to implement this process of modernisation. This could be the case of agro-productive complexes with high levels of competitiveness (eg, some fruits and vegetables in Mediterranean countries or modernized continental agriculture spaces), but more often involve areas where agriculture dominates by the absence of economic alternatives (Mediterranean remote areas or regions of semi-subsistence farming in some of the NMS).

By contrast, percentage of population in Consumption Countryside regions is relevant in all country groups except for the case of NMS, to account for rural territories that benefit from demands of urban markets. The precondition for the existence of such regions is the presence of an urban market sufficiently developed and mature, which explains the virtual absence of this category in the NMS and its importance in all other groups of countries. The regions defined as "consumption countryside" are characterised by areas dominated by one or more services together, typically geared to the urban population (access to environmental assets, tourism capacity, and farm diversification). Consequently, there is not only one type of rural areas but many rural profiles that have in common the orientation to urban consumption, usually in forms of tourism. Due to the diversity of sub-categories implicit in the Consumption Countryside we can not speak of uniformity; each region under this category may have a different economic settings with the common denominator of their orientation to urban consumption. Only two conditions seem to be implicit in this type of regions: on the one hand, a relative low importance of agriculture as economic activity and employment provider; on the

other hand, a mature urban demand that makes possible consumption of rural goods beyond a critical threshold

Population in diversified regional economies with a strong secondary sector gets a higher share of total in the NMS (54%) and Scandinavia (35%) but significantly present in all other categories of countries. Diversified rural economies with strong secondary sectors may refer to the implementation of diffuse processes of industrialisation in intermediate rural areas (ie. Marshallian districts in Spain or Portugal). It may, on the other hand, be the remnants of industrial specialization associated with the communist era (Hungary, Czech Republic, Slovakia, Poland) to be reinforced in recent years because of relocation of large industrial plants from other less competitive locations in terms of costs. For these areas, industrial know-how accumulated during the twentieth century and the lower costs of land and labour, along with the EU "umbrella" are the main potentials. However, the maintenance of an industrial activity of this sort does not guarantee an easy path to long term, sustainable development unless work is undertaken in a proper embedding of the industrial fabric, usually exogenous, in the local development strategy. It can also mean the case of rural regions where agriculture is not a relevant activity due to land or climate constraints and they have managed to develop or attract industrial activity.

Population in diversified regional economies with a strong private service sector gets higher shares of total mainly in the countries of Central and Western Europe and the EU 15, while its presence is much smaller in the case of the NMS.

Figure 10.8 EDORA Structural Typology. Percentage of total area in each category, by non-exclusive groups of countries

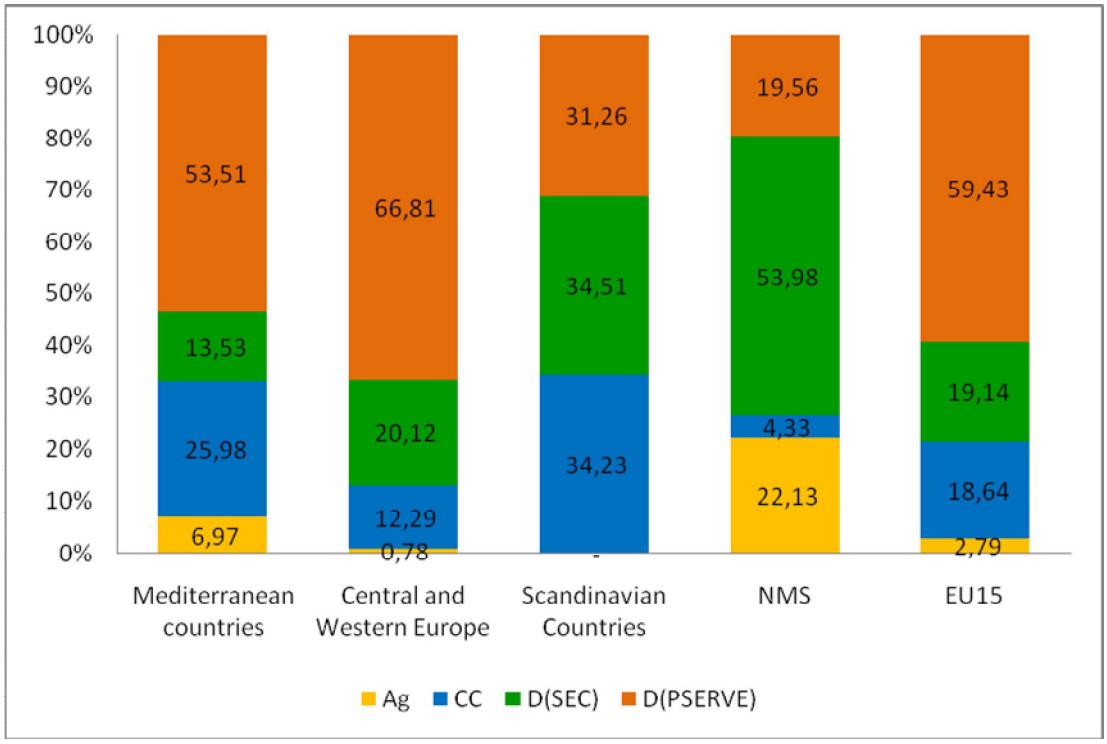
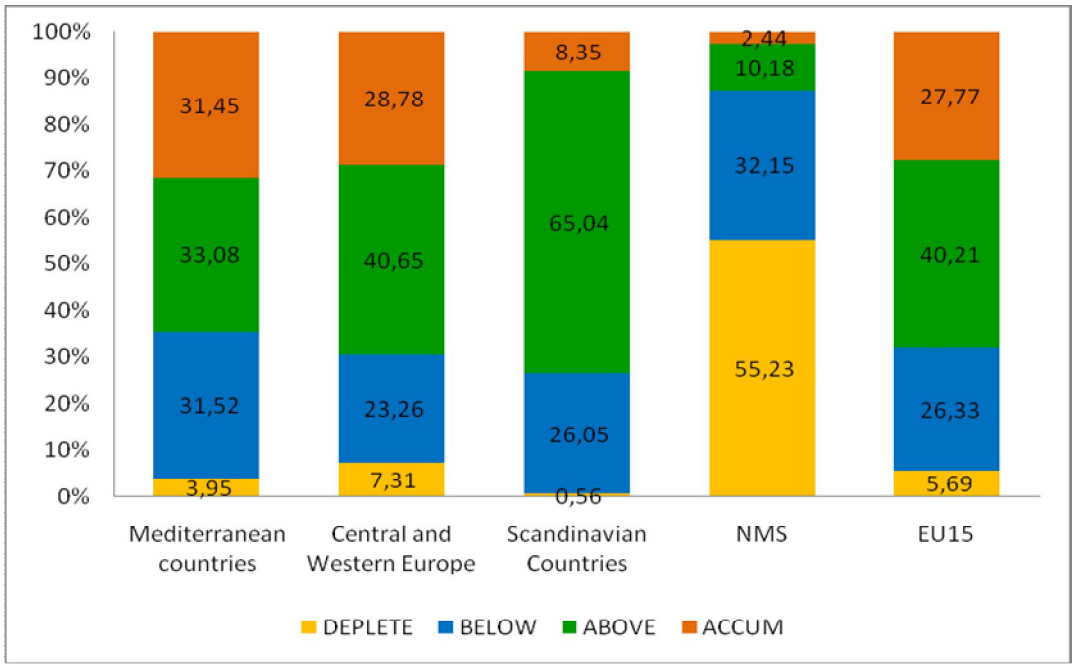


Table 10.9 shows the percentage of total population of the EU27 countries for each category of the EDORA Performance Typology, by non exclusive groups of countries. The EDORA Performance Typology is calculated from a regional composite performance indicator from 5 indicators (net migration, per capita GDP, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalised (Z) scores for the five indicators. The four categories have been defined by the average standardised score as follows:

- *Accumulation regions*: <-0.5 (i.e. more than half a standard deviation below the "non-urban" mean).
- *Above average regions*: -0.5 to 0 (i.e. less than half a standard deviation below the "non-urban" mean).
- *Below average regions*: 0 to +0.5 (i.e. less than half a standard deviation above the "non-urban" mean)
- *Depleting regions*: <-0.5 (i.e. more than half a standard deviation above the "non-urban" mean)

Percentage of total population in depleting regions is larger for the NMS, where it represents 55% of the total. This is largely the territories from which there has been a continuous process of migration and loss of economic activity. Population in depleting regions is also present in the other groups of countries considered, although to a much lesser extent. Thus, the rate falls below 10% in all other groups of countries and, contrary to what might be expected, areas of Central and Western Europe contain a greater proportion of population in depleting regions (7%) than the Mediterranean regions (4%). On the other hand, the percentage of population in regions "below average" is an almost constant share of between 25% and 30% in all groups of countries.

Figure 10.9 EDORA Performance Typology. Percentage of total population in each category, by non-exclusive groups of countries



The sum of the percentages of regions "depleting" and "below average", gives an idea of the prevalence of regions with greatest difficulties. This percentage is much higher in the case of the NMS groups where the sum of these two categories accounts for 87% of the population living in these types of regions. All other groups of countries have percentages of the sum of these two categories about 30%.

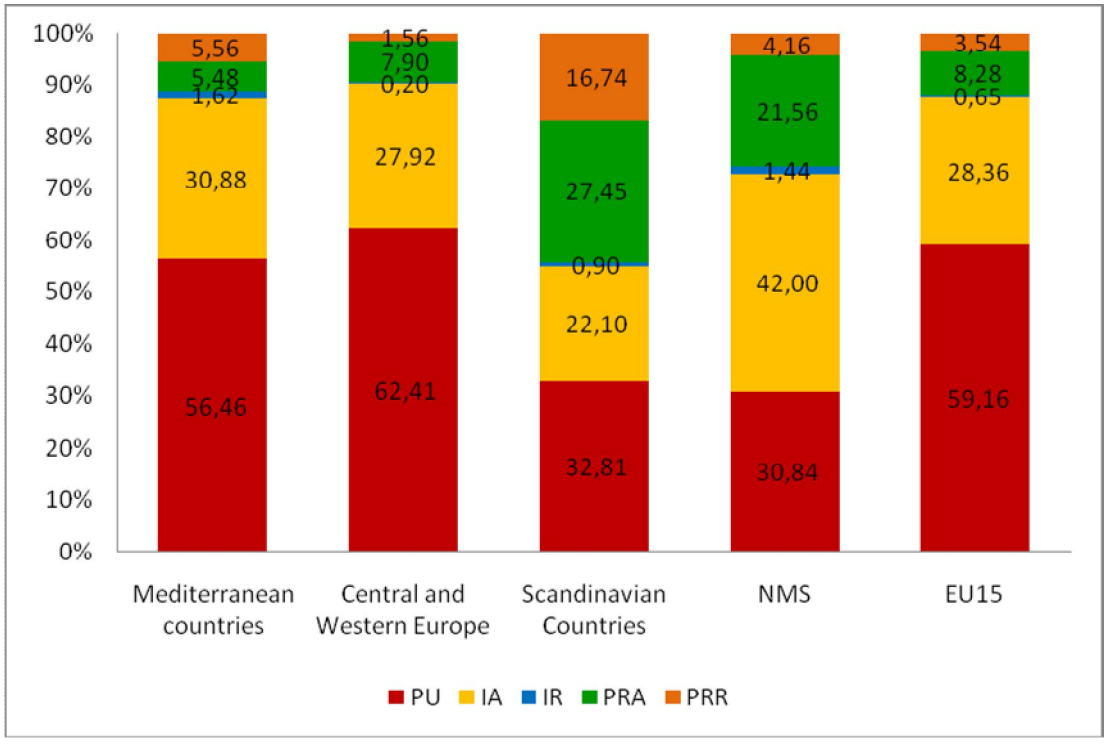
Therefore, the number of "below average" regions is mostly relevant in the New Member States. “Below the average” and "depleting" areas are located in the less modernised economies of Europe. Consequently, the regions "above average" (including "Accumulation") contain between 60% and 70% of the total population in all categories of countries with the exception of the NMS.

10.7 Gross Domestic Product

The Dijkstra-Poelman rural-urban typology classifies regions according to their accessibility and rurality. Accesibility is measured in % of population which access to a market town under a particular time threshold. Rurality is linked to more extensive (as opposite to intensive) land use and, therefore, the variable is % of population living in rural LAU; that is, those below 150 inhab./km^2. This typology differentiates 5 types of regions: Predominantly Urban, Intermediate Rural Accessible, Intermediate Rural Remote, Predominantly Rural Accessible and Predominantly Rural Remote[20]. Figure 10.10 analyses the percentage of GDP of the EU27 according to categories of the Dijkstra-Poelman typology (hereafter D-P). The analysis shows a percentage breakdown with the following characteristics:

GDP concentrates in urban and peri-urban regions even to a more extent than total area, number of regions or population (an almost constant addition of 6-7% to the % of population). The highest percentages of GDP in Predominantly Urban regions (PU) are in Central and Western European countries (62%), the EU15 (59%) and the Mediterranean countries (56%). On the other extreme, Scandinavian countries and NMS show lower percentages (33% and 31% respectively). Adding the Intermediate Accessible Regions, the percentage of "urban" or "peri-urban" regions amounts 85-90% of total in all groups of countries but Scandinavian and NMS.

Figure 10.10 Dijkstra-Poelman Typology. Percentage of GDP in each category, by non-exclusive groups of countries



[20] For a complete methodological description of this typology please visit http://ec.europa.eu/regional_policy/sources/docgener/focus/2008_01_rural.pdf

The % of GDP in "rural" regions, represented by Predominantly Rural (accessible or remote), shows the largest percentages in the Scandinavian countries (45%) and in the NMS (26%). In all cases, the percentage of GDP is much lower than the territorial significance of rural regions, and lower than the percentage of population (about 6-7% less). These differences are mainly due to geographical features. Thus, both Scandinavian (due to their size) and Mediterranean countries (due to their orography) show areas where accessibility is low and, therefore, are located in the category of "remote." The opposite happens in the NMS where rurality is high but accessibility is better.

The structural typology classifies regions according to their economic settings. According to this typology, regions can have an economic base focused on primary activities, or be focused on the "consumption countryside", or have diversified economies dominated by secondary activities or by private services. The analyses carried out on the EDORA typology and those made elsewhere in this report show that regions with an agricultural economy and to a lesser extent, those focused on "consumption countryside" concentrate the main problems associated with rural decline. By contrast, rural regions with diversified economies have better economic and demographic indicators.

Figure 10.11 shows the percentage of GDP of NUT3 regions of the EU27 which is located in each of the categories of the EDORA Structural Typology, by non exclusive groups of countries.

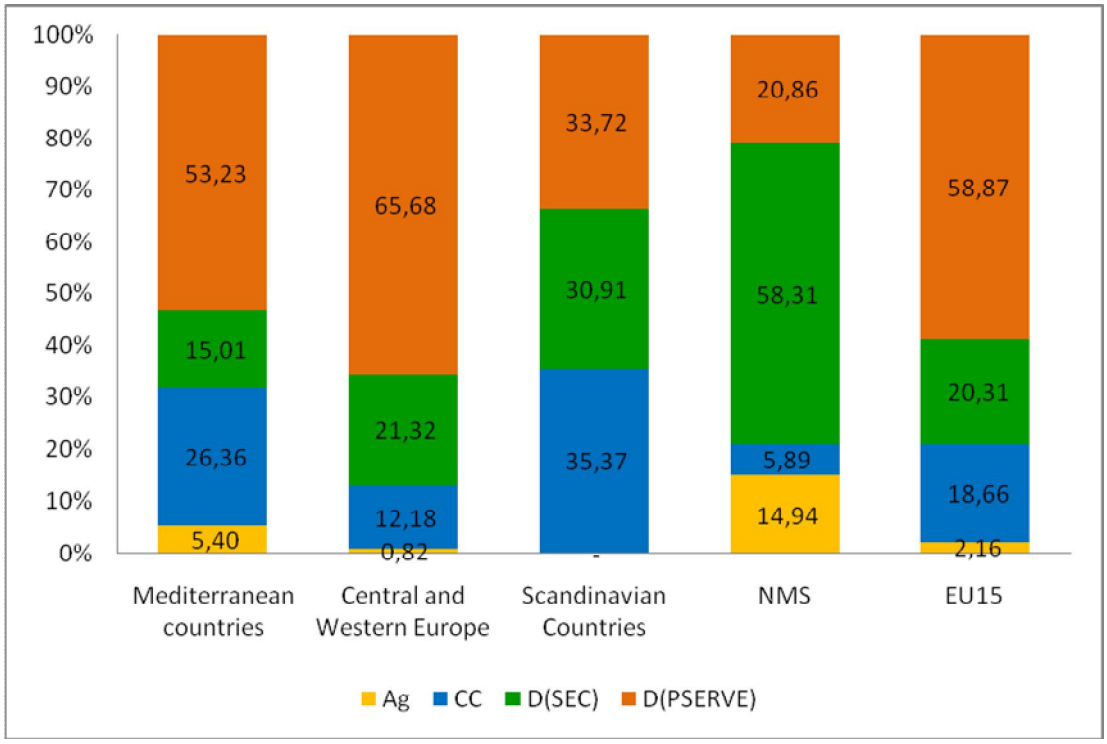
Percentage of GDP in regions dominated by an agrarian economy (category "Agriculture") is located mainly in the NMS (15%) and in Mediterranean countries (5%), while in the remaining categories is hardly present. It is, as we have said, regions dominated by an agrarian economy in the case of societies where agriculture is not yet completely modernised, either because of the general state of the economy, or because the geographical constraints that limit accessibility and difficult or make it impossible to implement this process of modernisation. This could be the case of agro-productive complexes with high levels of competitiveness (eg, some fruits and vegetables in Mediterranean countries or modernized continental agriculture spaces), but more often involve areas where agriculture dominates by the absence of economic alternatives (Mediterranean remote areas or regions of semi-subsistence farming in some of the NMS).

By contrast, GDP in Consumption Countryside regions is relevant in all country groups except for the case of NMS, to account for rural territories that benefit from demands of urban markets. Scandinavian countries account for the biggest share of its total rural GDP (35%) while Mediterranean countries get 26% and EU 15 19%. The precondition for the existence of such regions is the presence of an urban market sufficiently developed and mature, which explains the virtual absence of this category in the NMS and its importance in all other groups of countries. The regions defined as "consumption countryside" are characterised by areas dominated by one or more services together, typically geared to the urban population (access to environmental assets, tourism capacity, and farm diversification). Consequently, there is not only one type of rural areas but many rural profiles that have in common the orientation to urban consumption, usually in forms of tourism. Due to the diversity of sub-categories implicit

in the Consumption Countryside we can not speak of uniformity; each region under this category may have different economic settings with the common denominator of their orientation to urban consumption. Only two conditions seem to be implicit in this type of regions: on the one hand, a relative low importance of agriculture as economic activity and employment provider; on the other hand, a mature urban demand that makes possible consumption of rural goods beyond a critical threshold

Diversified regional economies with a strong secondary sector are located mainly in the NMS (58%) and Scandinavia (31%) but are also significantly present in all other categories of countries. Diversified rural economies with strong secondary sectors may refer to the implementation of diffuse processes of industrialisation in intermediate rural areas (ie. Marshallian districts in Spain or Portugal). It may, on the other hand, be the remnants of industrial specialization associated with the communist era (Hungary, Czech Republic, Slovakia, Poland) to be reinforced in recent years because of relocation of large industrial plants from other less competitive locations in terms of costs. For these areas, industrial know-how accumulated during the twentieth century and the lower costs of land and labour, along with the EU "umbrella" are the main potentials. However, the maintenance of an industrial activity of this sort does not guarantee an easy path to long term, sustainable development unless work is undertaken in a proper embedding of the industrial fabric, usually exogenous, in the local development strategy. It can also mean the case of rural regions where agriculture is not a relevant activity due to land or climate constraints and they have managed to develop or attract industrial activity.

Figure 10.11 EDORA Structural Typology. Percentage of GDP in each category, by non-exclusive groups of countries



GDP in diversified regional economies with a strong private service sector is relevant in the countries of Central and Western Europe (66%) and the EU 15 (59%), but it is also important in all other groups of countries.

Table 10.12 shows the percentage of GDP of the EU27 countries for each category of the EDORA Performance Typology, by non-exclusive groups of countries. The EDORA Performance Typology is calculated from a regional composite performance indicator from 5 indicators (net migration, per capita GDP, average annual change in GDP, average annual change in total employment, and unemployment rate). The composite indicator is calculated as the average of the normalised (Z) scores for the five indicators. The four categories have been defined by the average standardised score as follows:

- *Accumulation regions*: <-0.5 (i.e. more than half a standard deviation below the "non-urban" mean).
- *Above average regions*: -0.5 to 0 (i.e. less than half a standard deviation below the "non-urban" mean).
- *Below average regions*: 0 to +0.5 (i.e. less than half a standard deviation above the "non-urban" mean)
- *Depleting regions*: <-0.5 (i.e. more than half a standard deviation above the "non-urban" mean)

The depleting regions are located mainly within the NMS, where they represent 46% of the total, some 10% less than the equivalent territory. This is largely the regions from which there has been a continuous process of migration and loss of economic activity. This type of regions is also present in the other groups of countries considered, although to a much lesser extent. Thus, the rate falls below 5% in all other groups of countries. On the other hand, the percentage of regions "below average" is an almost constant share of between 25% and 35% in all groups of countries.

The sum of the percentages of regions "depleting" and "below average", gives an idea of the prevalence of regions with greatest difficulties. This percentage is much higher in the case of the NMS groups where the sum of these two categories accounts for 80% of all regions. All other groups of countries have percentages of the sum of these two categories about 25-30%.

Therefore, the number of "below average" regions is mostly relevant in the New Member States. "Below the average" and "depleting" areas are located in the less modernised economies of Europe. Consequently, the regions "above average" (including "Accumulation") are more than 70% in all categories of countries with the exception of the NMS.

Figure 10.12 EDORA Performance Typology. Percentage of GDP in each category, by non-exclusive groups of countries