SIXTH FRAMEWORK
PROGRAMME

PRIORITY 8.1.B.3.5

Information Society
Technologies

022780

Benchmarking and Fostering
Transformative Use of ICT in EU Regions

TRANSFORM: Benchmarking and Fostering Transformative Use of ICTs in the EU Regions:

D1.2 Statistical Exploration

Annex 1: Full Analysis

TRANSFORM

D 1.2: STATICTICAL EXPLORATION : ANNEX 1

1. INTRODUCTION

1.1 Data Collection

In the statistical exploration we have used two types of data: the regional (NUTS2) level of ICT adoption (household and business adoption) and the regional (NUTS2) GDP frame (GDP per capita and growth of GDP).

Data regarding the level of ICT adoption has been taken from the EPSON Project 2004. From that database, I collected the following indicators[1]:

- Household ICT Use:
  - Fixed line;
  - Mobile line;
  - Internet;
  - Broadband;
- Business ICT Use:
  - KMI categorisation;
  - Website firms.

We have established an ICT index on the basis of the above. The index ranges from 0 to 10 and gives greater weight to "Household ICT Use" than to "Business ICT Use" (see Paragraph 1.2).

We excluded these regions due to a lack of data:

- CH Suisse (CH)
- ES70 Canarias (ES);
- FI2 Åland (FI)
- FR91 Guadeloupe (FR);
- FR92 Martinique (FR);
- FR93 Guyane (FR);
- FR94 Reunion (FR);

[1] All the indicators in question use a scale ranging from 1 (the worst) to 6 (the best).

- PT2 Região Autónoma dos Açores (PT);
- PT3 Região Autónoma da Madeira (PT);

Data regarding the regional GDP frame has been taken from Regio, Eurostat's harmonised regional statistical database[2]. The data that we have collected is as follows:

- GDP per capita at regional level from 1995 to 2003;
- GDP per capita at national level from 1995 to 2003, both at current price and at constant price (Index=1995);
- GDP in Power Purchase Standard[3] (PPS) per inhabitant from 1995 to 2003.

We used GDP per capita at national level to calculate a GDP deflator. That index was useful for the purpose of calculating the Growth rate of real GDP per capita. The GDP deflator measures the difference between the real (or constant price) GDP and the nominal (or current price) GDP. The formula used to calculate the deflator is:

$$\textbf{\textit{GDP deflator}} = \frac{\textbf{\textit{Nominal GDP}}}{\textbf{\textit{Real GDP}}} \times 100$$

Dividing the nominal GDP by the GDP deflator would then give the figure for real GDP, thus deflating the nominal GDP into a real measure.

The ICT data are based on NUTS 2 regions from 1999, meaning that there are certain significant issue. In fact, in NUTS 2 in 2003, the classification of some regions had changed. We calculated the old region on the basis of NUTS 3 regions that had not changed. The following regions are affected by such changes:

- IT31 – Trentino Alto Adige (Table 1);

[2] URL: http://epp.eurostat.ec.europa.eu/pls/portal/url/page/PGP_QUEEN/PGE_QUEEN_TREE?screen=welcomeref&open=/general/regio&language=en&product=EU_general_statistics&root=EU_general_statistics

[3] PPPs are currency conversion rates that convert economic indicators expressed in national currencies to a common currency, called Purchasing Power Standard (PPS), which equalises the purchasing power of different national currencies and thus allows meaningful comparison. The PPS is an artificial currency that takes into account differences in national price levels. This unit allows meaningful volume comparisons of economic indicators over countries. Aggregates expressed in PPS are derived by dividing aggregates in current prices and national currency by the respective Purchasing Power Parity (PPP) (Eurostat, 2006).

- FI14 – Vali-Suomi, FI15 – Pohjois-Suomi, FI16 – Uusimaa (Suuralue) e FI17 – Etela-Suomi (Table 2).

Changes were also detected in the cases of Bulgaria, Hungary and Poland, but only the code of the regions was affected thereby. The Regio database does not provide data for the entire territory (EU25, Romania, Bulgaria and Norway) at NUTS 2 level, nor for each year, so there are certain exceptions (Table 3). The data for Norwegian Regions comes from the ESPON Database[4].

Table 1

NUTS 2 1999	NUTS 2 2003	NUTS 3
IT31 – Trentino Alto Adige	ITD1 – Provincia Autonoma Bolzano ITD2 – Provincia Autonoma Trento	ITD10 – Provincia Autonoma Bolzano ITD20 – Provincia Autonoma Trento

[4] URL:
http://www.espon.eu/mmp/online/website/content/tools/832/850/file_1523/04_wealth_and_production_nuts_2.xls

Table 2

NUTS 2 1999	NUTS 3
FI14 – Vali-Suomi	FI141 – Keski-Suomi FI142 – Etela-Pohjanmaa FI143 – Pohjanmaa FI144 – Keski-Pohjanmaa
FI15 – Pohjois-Suomi	FI151 – Pohjois-Pohjanmaa FI152 – Lappi
FI16 – Uusimaa (Suuralue)	FI161 – Uusimaa (Maakunta) FI162 – ITA- Uusimaa
FI17 – Etela-Suomi	FI171 – Varsinais-Suomi FI172 – Satakunta FI173 – Kanta-Hame FI174 – Pirkanmaa FI175 – Paijat-Hame FI176 – Kymenlaakso FI177 – Etela-Karjala
NUTS 2 2003	NUTS 3
FI19, Länsi-Suomi (West Finland)	FI141 – Keski-Suomi FI142 – Etela-Pohjanmaa FI143 – Pohjanmaa FI172 – Satakunta FI174 – Pirkanmaa
FIA, Pohjois-Suomi (North Finland)	FI144 – Keski-Pohjanmaa FI151 – Pohjois-Pohjanmaa FI152 – Lappi
FI18, Etelä-Suomi (South Finland)	FI161 – Uusimaa (Maakunta) FI162 – ITA- Uusimaa FI171 – Varsinais-Suomi FI173 – Kanta-Hame FI175 – Paijat-Hame FI176 – Kymenlaakso FI177 – Etela-Karjala

Table 3

NUTS 2	REGION	GDP PER CAPITA IN MILLIONS OF EUROS YEARS UNAVAILABLE
Germany		
DEA	Düsseldorf	1995 – 1999
DEA2	Köln	1995 – 1999
DEA3	Münster	1995 – 1999
DEA4	Detmold	1995 – 1999
DEA5	Arnsberg	1995 – 1999
Spain		
ES63	Ciudad Autónoma de Ceuta	1995 – 1999
Malta		
MT	Malta	1995 – 1998
Norway		
NO01	Oslo og Akershus	1995 – 2000, 2001 e 2003
NO02	Hedmark og Oppland	1995 – 2000, 2001 e 2003
NO03	Sør-Østlandet	1995 – 2000, 2001 e 2003
NO04	Agder og Rogaland	1995 – 2000, 2001 e 2003
NO05	Vestlandet	1995 – 2000, 2001 e 2003
NO06	Trøndelag	1995 – 2000, 2001 e 2003
NO07	Nord-Norge	1995 – 2000, 2001 e 2003
Romania		
RO01	Nord-Est	1995 -1997
RO02	Sud-Est	1995 -1997
RO03	Sud	1995 -1997
RO04	Sud-Vest	1995 -1997
RO05	Vest	1995 -1997
RO06	Nord-Vest	1995 -1997
RO07	Centru	1995 -1997
RO08	Bucuresti	1995 -1997
RO01	Nord-Est	1995 -1997
RO02	Sud-Est	1995 -1997
RO03	Sud	1995 -1997

In the case of the GDP in Power Purchase Standard (PPS) per inhabitant, some values are based on Eurostat estimates (Table 4).

Table 4

NUTS 2	REGION	GDP IN PPS PER INHABITANT YEARS ESTIMATED
BG01	Severozapaden	1995 – 1998
BG02	Severen Tsentralen	1995 – 1998
BG03	Severoiztochen	1995 – 1998
BG04	Yugozapaden	1995 – 1998
BG05	Yuzhen Tsentralen	1995 – 1998
BG06	Yugoiztochen	1995 – 1998
RO01	Nord-Est	1998
RO02	Sud-Est	1998
RO03	Sud	1998
RO04	Sud-Vest	1998
RO05	Vest	1998
RO06	Nord-Vest	1998
RO07	Centru	1998

1.2 ICT Index

In EPSON Project's database, we found an ICT Index based on "Household ICT Use" and "Business ICT Use". For some regions, the Household ICT' data is only available on a national level (Table 5). In EPSON Project, the unavailable date is obtained by means of a linear regression that gives a Household ICT Use Index.

The formula for the ICT Index is:

- If all the variables (Fixed line, Mobile line, Internet and Broadband) are available:

$$\textbf{\textit{ICT Index}} = \frac{\textbf{\textit{Fixed}} + 2\textbf{\textit{* Mobile}} + 3\textbf{\textit{* Internet}} + 4\textbf{\textit{* Broadband}} + \textbf{\textit{KMI}} + \textbf{\textit{Website}}}{6};$$

- If the aforementioned variables (Fixed line, Mobile line, Internet and Broadband) are unavailable:

$$\textbf{\textit{ICT Index}} = \frac{3\textbf{\textit{* Household ICTs Use Index}} + \textbf{\textit{KMI}} + \textbf{\textit{Website}}}{3}$$

The Index originally ranged from 1.67 to 12, so we decided to recode it in a scale ranging from 0 to 10.

Table 5

NUTS_2	REGION
Bulgaria	
BG01	Severozapaden
BG02	Severen Tsentralen
BG03	Severoiztochen
BG04	Yugozapaden
BG05	Yuzhen Tsentralen
BG06	Yugoiztochen
Czech Republic	
CZ01	Praha
CZ02	Střední Cechy
CZ03	Jihozápad
CZ04	Severozápad
CZ05	Severovýchod
CZ06	Jihovýchod
CZ07	Střední Morava
CZ08	Moravskoslezko
Hungary	
HU01	Közép-Magyarország
HU02	Közép-Dunántúl
HU03	Nyugat-Dunántúl
HU04	Dél-Dunántúl
HU05	Észak-Magyarország
HU06	Észak-Alföld
HU07	Dél-Alföld
Norway	
NO01	Oslo Og Akershus
NO02	Hedmark Og Oppland
NO03	Sør-Østlandet
NO04	Agder Og Rogaland
NO05	Vestlandet
NO06	Trøndelag
NO07	Nord-Norge

NUTS_2	REGION
Poland	
PL01	Dolnoslaskie
PL02	Kujawsko-Pomorskie
PL03	Lubelskie
PL04	Lubuskie
PL05	Lódzkie
PL06	Malopolskie
PL07	Mazowieckie
PL08	Opolskie
PL09	Podkarpackie
PL0A	Podlaskie
PL0B	Pomorskie
PL0C	Slaskie
PL0D	Swietokrzyskie
PL0E	Warminsko-Mazurskie
PL0F	Wielkopolskie
PL0G	Zachodniopomorskie
Romania	
RO01	Nord-Est
RO02	Sud-Est
RO03	Sud
RO04	Sud-Vest
RO05	Vest
RO06	Nord-Vest
RO07	Centru
RO08	Bucuresti
Slovenia	
SI	Slovenija
Slovakia	
SK01	Bratislavský
SK02	Západné Slovensko
SK03	Stredné Slovensko
SK04	Východné Slovensko

1.3 Indices used for cluster analysis

For the purposes of the cluster analysis, we used three different indices:

- GDP in PPS per inhabitant in 1999;

- Growth Rate of Real GDP per Capita[5] in the period 1999 – 2003;
- Transform ICT Index.

We decided to use the period from 1999 to 2003 because the ICT data was collected in 2001 and 2003, and therefore shows the adoption of ICT in 1999 – 2000. We thus decided to exclude data from before 1999 as it was unconnected to the ICT data and would have caused a bias in the analysis. Moreover, the majority of the non-EU 15 regions began to invest in ICT in 1999 – 2000. Taking this period, we have also eliminated the bias of change from national currency to ECUs and then to Euro[6].

1.4 Unresolved Issues

There are some significant unresolved issues as regards data capable of enhancing the results. At the time of writing, we have been unable to find a useful source.

The issues in question consist of:

- An official GDP Deflator from Eurostat or another international source;
- Data for Norwegian regions for 1999 and 2003.

2. BUILDING CLUSTERS

2.1 Data Explorations

We worked on the basis of Transform Project guidelines and thus began with three scatter plots obtained by interpolating the indices. We found that some regions were outliers (Graph 1, Graph 2 and Graph 3). The outlier regions are shown in Table 6.

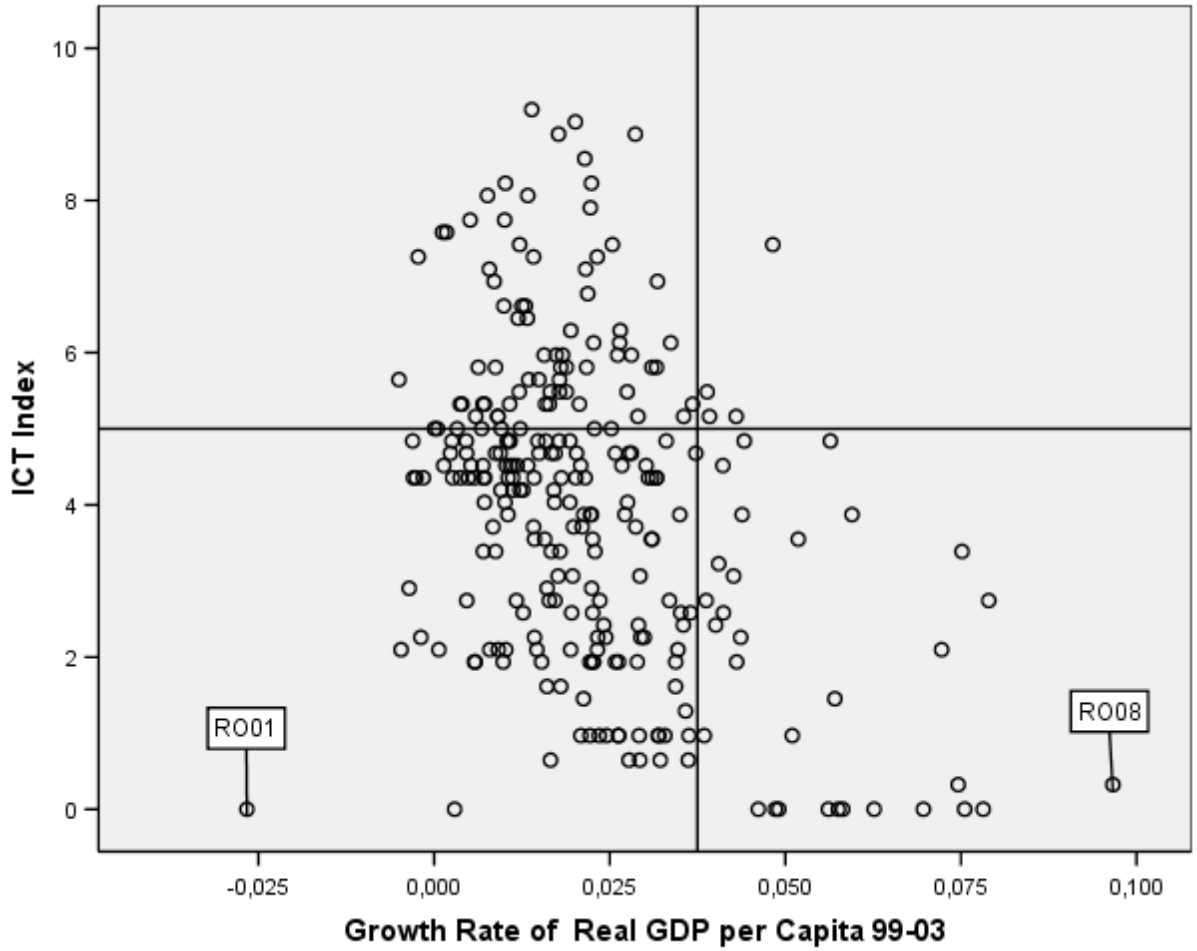
Table 6

COUNTRY	REGION	NUTS 2
Belgium	Région Bruxelles-capitale	BE1
Germany	Hamburg	DE6
Luxembourg	Luxembourg	LU
Romania	Nord-Est	RO01
Romania	Bucuresti	RO08
United Kingdom	Inner London	UKI1

[5] The calculation of the annual growth rate of GDP per capita at constant prices is intended to allow comparisons of the dynamics of economic development both over time and between economies of different sizes.

[6] The change in statistical accounts starts as of 1.1.1999.

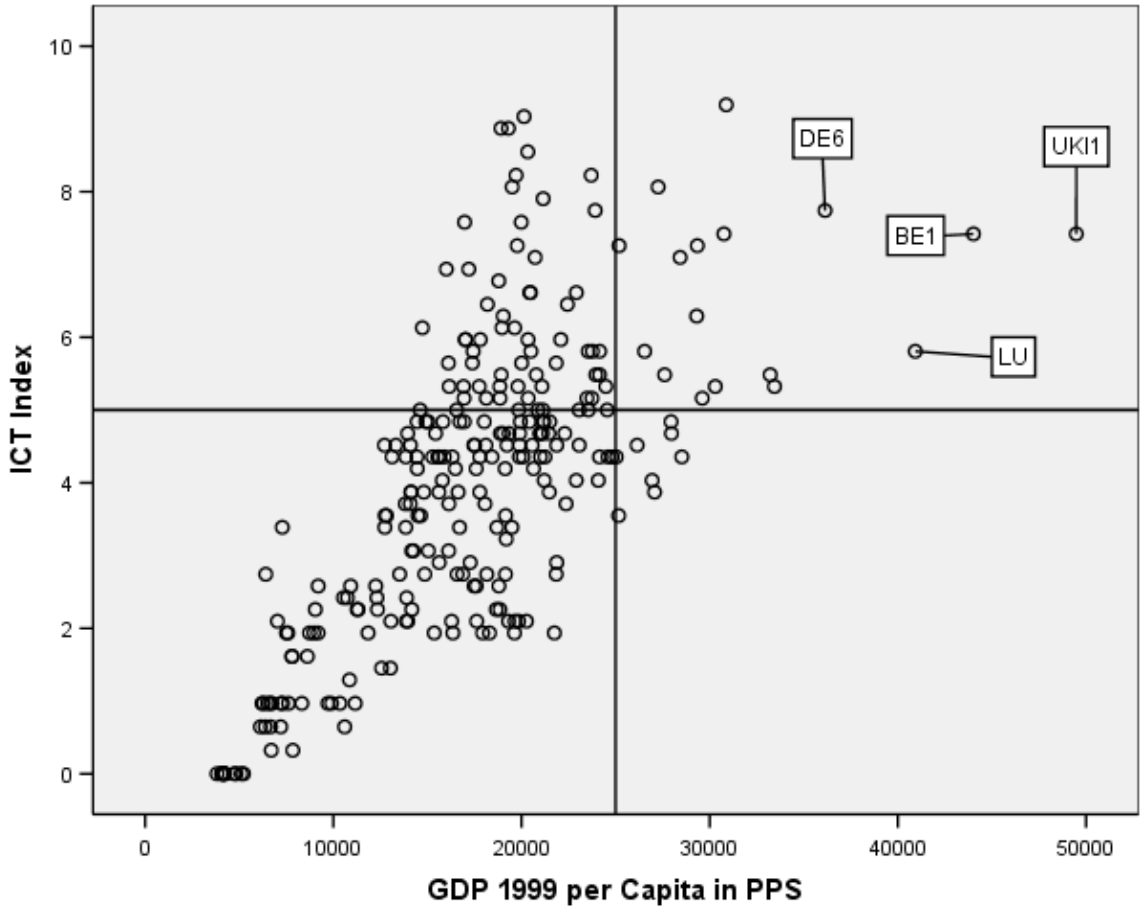
Graph 1



RO01 Nord-Est

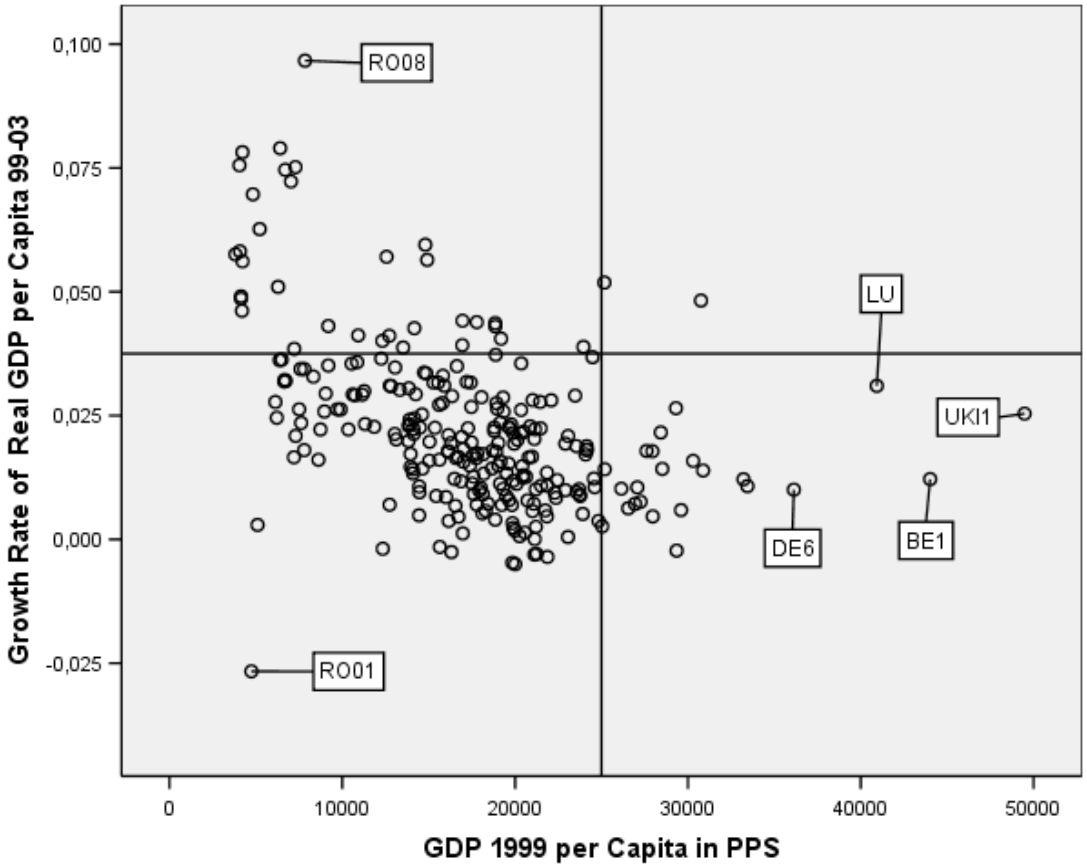
RO08 Bucuresti

Graph 2



BE1	Région Bruxelles-capitale
DE6	Hamburg
LU	Luxembourg
UKI1	Inner London

Graph 3



BE1	Région Bruxelles-capitale
DE6	Hamburg
LU	Luxembourg
RO01	Nord-Est
RO08	Bucuresti
UKI1	Inner London

2.2 Cluster Analysis

We performed two different cluster analyses[7] without the outliers[8] (for the results, see Appendix 1).

In the case of the first (ICT Index vs Growth Rate of Real GDP per Capita; see Graph 4) we identified the following four clusters:

- Regions High ICT – High Achievers (High Growth Rate of Real GDP vs High ICT Index);
- Regions High ICT – Low Achievers (Low Growth Rate of Real GDP vs High ICT Index);
- Regions Low ICT – High Achievers (High Growth Rate of Real GDP vs Low level of ICT adoption);
- Regions Low ICT – Low Achievers (Low Growth Rate of Real GDP vs Low level of ICT adoption).

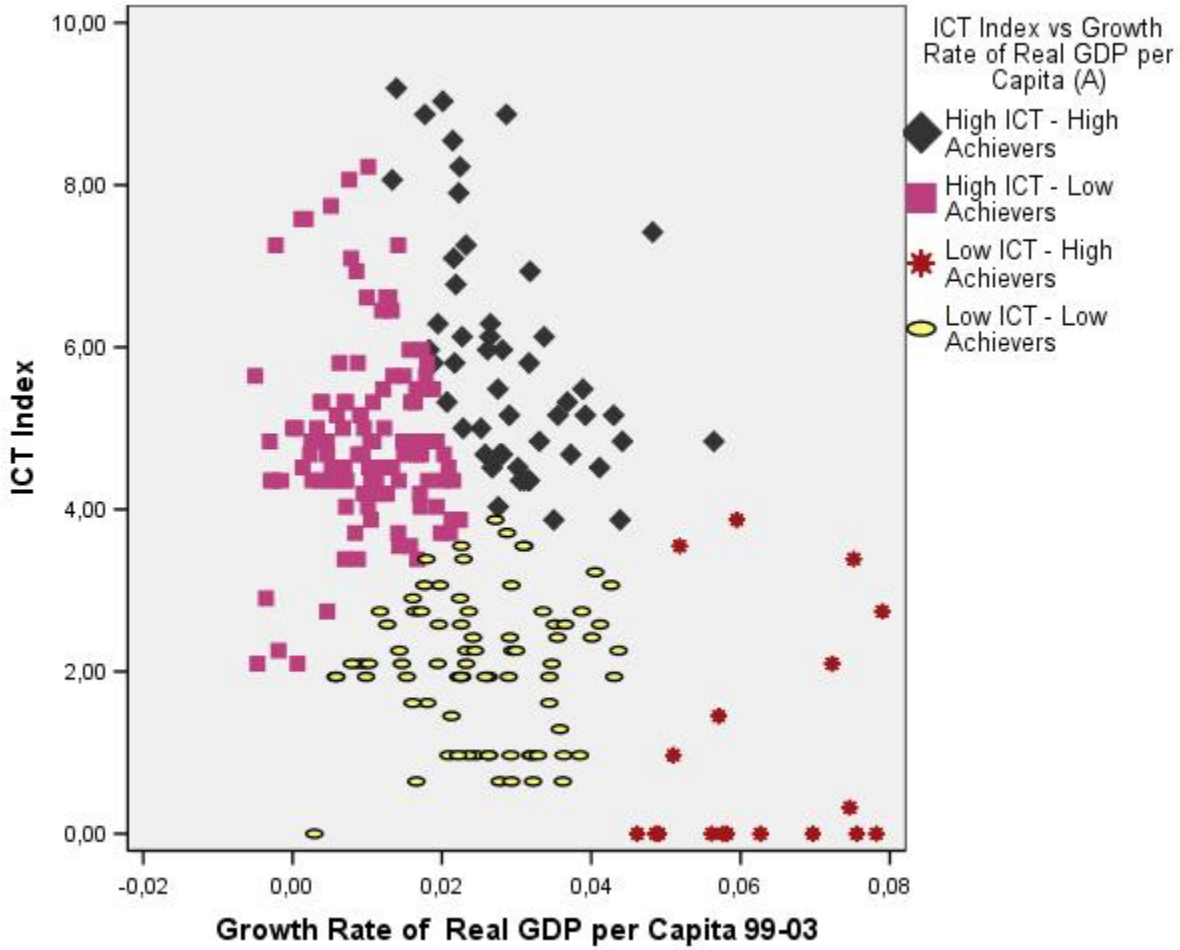
In the case of the second (ICT Index vs GDP per capita in PPS; see Graph 5), we identified the following four clusters:

- Regions High ICT Intensity – Leaders (High level of ICT adoption vs High GDP per capita in PPS);
- Regions Medium ICT Intensity – Leaders (Medium-high level of ICT adoption VS High GDP per capita in PPS);
- Regions Medium ICT Intensity – Middling Performers (Medium-low level of ICT adoption VS Medium GDP per capita in PPS);
- Regions Low ICT Intensity – Laggers (Low level of ICT adoption VS Low GDP per capita in PPS).

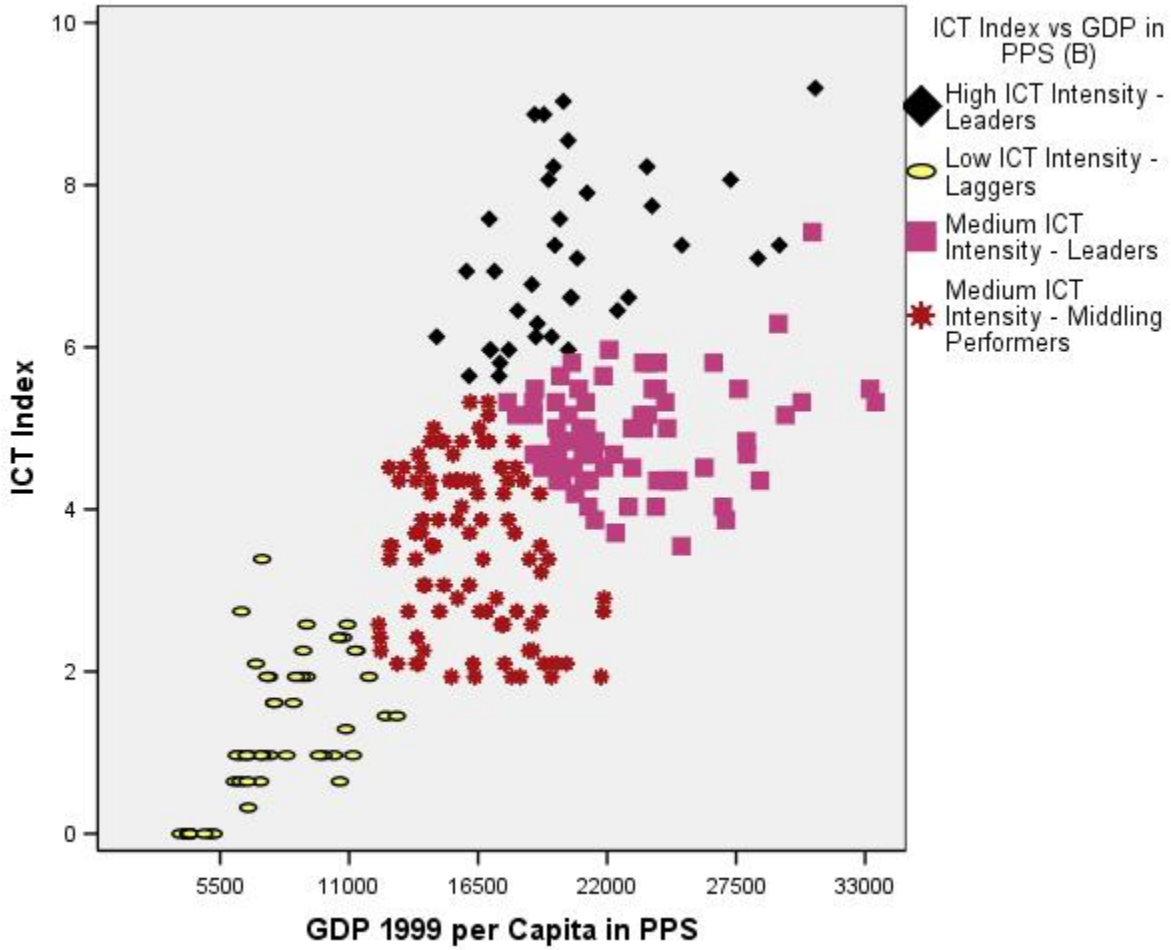
[7] Cluster analysis is a multivariate procedure for detecting groupings in data where there is no clarity. Cluster analysis is often applied as an explorative technique. The purpose of a cluster analysis is to divide the units of the analysis into smaller clusters so that the observations in the cluster are homogenous and the observations in other clusters are, one way or another, different from the former. We performed a non-hierarchical cluster analysis. The method is based on an iterative procedure where every single observation is grouped into a number of clusters until the relationship (the variance between the clusters and the variance within the clusters) is maximized.

[8] We have standardized each variable to prevent large values (e.g. GDP per Capita in PPS) from influencing the analysis excessively.

Graph 4

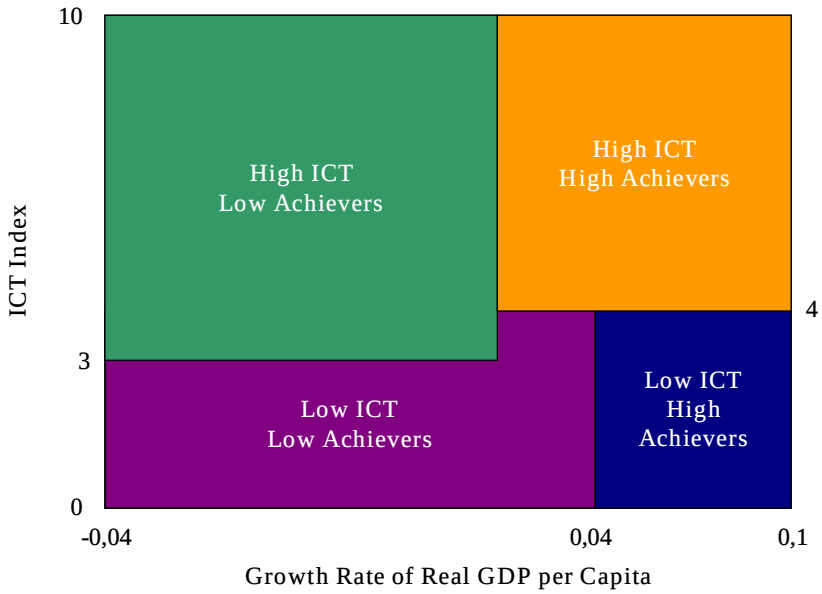

ICT Index vs Growth Rate of Real GDP per Capita (A)
High ICT - High Achievers
High ICT - Low Achievers
Low ICT - High Achievers
Low ICT - Low Achievers
ICT Index
10,00
8,00
6,00
4,00
2,00
0,00
-0,02
0,00
0,02
0,04
0,06
0,08
Growth Rate of Real GDP per Capita 99-03

Graph 5

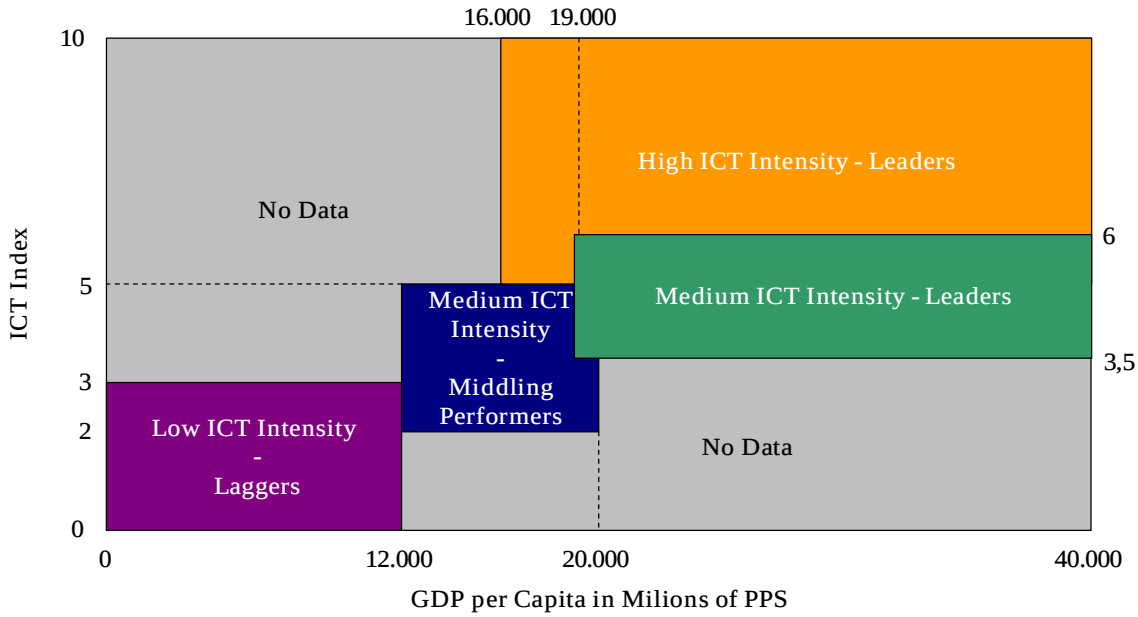

ICT Index vs GDP in PPS (B)
High ICT Intensity - Leaders
Low ICT Intensity - Laggers
Medium ICT Intensity - Leaders
Medium ICT Intensity - Middling Performers
ICT Index
0
2
4
6
8
10
5500
11000
16500
22000
27500
33000
GDP 1999 per Capita in PPS

On the basis of the cluster analyses (Graph 4 and Graph 5), we built two matrices (Graph 6 and Graph 7).

Graph 6



Graph 7



In the end, the four region types indicated in the project were established as follows:

- Vanguard Regions are those that have a medium-high level of ICT adoption, a medium-high growth rate in terms of real GDP per Capita and a high GDP per Capita;
- Potential Regions are those that have a low level of ICT adoption, a high growth rate in terms of real GDP per Capita and a low GDP per Capita;

- Sluggish Regions are those that have a medium-high level of ICT adoption, a low growth rate in terms of real GDP per Capita and a high GDP per Capita;
- Lagging Regions are those that have a low level of ICT adoption, a medium-low growth rate in terms of real GDP per Capita and a low GDP per Capita.

The table[9] (Table 7Table 7) below shows the nature of the clusters corresponding to the regions.

Table 7

		VANGUARD REGIONS	POTENTIAL REGIONS	SLUGGISH REGIONS	LAGGING REGIONS
Number of Regions		36	33	76	114
GDP per capita in PPS 1999		21.226,81	10739,05	22538,09	13941,24
Real rate of growth GDP per capita 1999/03		2,73%	4,90%	1,03%	2,03%
ICT Index		6,37	2,65	5,28	2,68
Percentage of Objective 1 Regions[10]	In the cluster	11,1% (4)	45,5% (15)	2,6% (2)	61,4% (70)
	In the sample	4,4%	16,5%	2,2%	76,9%
Percentage of Pentagon Regions10	In the cluster	30,6% (11)	0% (0)	59,2% (45)	19,3% (22)
	In the sample	14,1%	0%	57,7%	28,2%
Settlement Structure[11]		Medium-High 63,9%	Low 72,7%	Medium-High 76,3%	Medium-Low 65,8%

Appendix 2 contains all the tables regarding the region typology, as well as some useful graphs.

The following table[12] (Table 8) shows all the regions, specifying the clusters to which they belong and the type to which they correspond. Table 9 does likewise, but on a separate basis for each country.

Table 8

[9] This table does not include the outlayer regions.

[10] Data on Objective 1 and Pentagon Regions has been taken from the ESPON database.

[11] This information is based on a Settlement structure category found in the ESPON database. This index ranges from 1 (High Density) to 6 (Low Density). The most densely populated regions are in category 1 or 2, while the less densely populated regions are in category 5 or 6 and the regions with a medium population density are in category 3 or 4. The label "Medium-High" thus applies to categories 1, 2 and 3, the label "Medium-Low" to categories 4, 5 and 6, and the label "Low" to categories 5 and 6. The percentage shown represents the cumulative percentage of regions in each category.

[12] This table also includes the outlier regions.

COUNTRY	NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	
VANGUARD REGIONS					
Austria	AT33	Tirol	High ICT High Achievers	Medium ICT Intensity Leaders	
Belgium	BE23	Oost-Vlaanderen	High ICT High Achievers	High ICT Intensity Leaders	
Belgium	BE31	Brabant Wallon	High ICT High Achievers	Medium ICT Intensity Leaders	
Czech Republic	CZ01	Praha	High ICT High Achievers	Medium ICT Intensity Leaders	
Spain	ES22	Comunidad Foral de Navarra	High ICT High Achievers	Medium ICT Intensity Leaders	
Spain	ES51	Cataluña	High ICT High Achievers	Medium ICT Intensity Leaders	
Finland	FI16	Uusimaa (suuralue)	High ICT High Achievers	High ICT Intensity Leaders	
Ireland	IE02	Southern and Eastern	High ICT High Achievers	Medium ICT Intensity Leaders	
Luxembourg	LU	Luxembourg	High ICT High Achievers	High ICT Intensity Leaders	+
Netherlands	NL11	Groningen	High ICT High Achievers	Medium ICT Intensity Leaders	
Netherlands	NL21	Overijssel	High ICT High Achievers	High ICT Intensity Leaders	
Netherlands	NL34	Zeeland	High ICT High Achievers	High ICT Intensity Leaders	
Norway	NO01	Oslo Og Akershus	High ICT High Achievers	Medium ICT Intensity Leaders	
Norway	NO04	Agder Og Rogaland	High ICT High Achievers	Medium ICT Intensity Leaders	
Norway	NO05	Vestlandet	High ICT High Achievers	Medium ICT Intensity Leaders	
Sweden	SE01	Stockholm	High ICT High Achievers	High ICT Intensity Leaders	
Sweden	SE02	Östra Mellansverige	High ICT High Achievers	High ICT Intensity Leaders	
Sweden	SE04	Sydsverige	High ICT High Achievers	High ICT Intensity Leaders	
Sweden	SE06	Norra Mellansverige	High ICT High Achievers	High ICT Intensity Leaders	
Sweden	SE07	Mellersta Norrland	High ICT High Achievers	High ICT Intensity Leaders	
Sweden	SE08	Övre Norrland	High ICT High Achievers	High ICT Intensity Leaders	

Sweden	SE09	Småland med öarna	High ICT High Achievers	High ICT Intensity Leaders	
Sweden	SE0A	Västsverige	High ICT High Achievers	High ICT Intensity Leaders	
United Kingdom	UKC2	Northumberland, Tyne and Wear	High ICT High Achievers	High ICT Intensity Leaders	
United Kingdom	UKD3	Greater Manchester	High ICT High Achievers	High ICT Intensity Leaders	
United Kingdom	UKD5	Merseyside	High ICT High Achievers	High ICT Intensity Leaders	
United Kingdom	UKE2	North Yorkshire	High ICT High Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKG3	West Midlands	High ICT High Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKH1	East Anglia	High ICT High Achievers	High ICT Intensity Leaders	
United Kingdom	UKH3	Essex	High ICT High Achievers	High ICT Intensity Leaders	
United Kingdom	UKJ1	Berkshire, Bucks and Oxfordshire	High ICT High Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKJ2	Surrey, East and West Sussex	High ICT High Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKJ3	Hampshire and Isle of Wight	High ICT High Achievers	High ICT Intensity Leaders	
United Kingdom	UKK1	Gloucestershire, Wiltshire and North Somerset	High ICT High Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKL2	East Wales	High ICT High Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKM3	South Western Scotland	High ICT High Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKN	Northern Ireland	High ICT High Achievers	High ICT Intensity Leaders	

+: Outlier Region.

COUNTRY	NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	
POTENTIAL REGIONS					
Austria	AT11	Burgenland	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Bulgaria	BG01	Severozapaden	Low ICT High Achievers	Medium ICT Intensity Laggers	
Bulgaria	BG02	Severen Tsentralen	Low ICT High Achievers	Low ICT Intensity Laggers	
Bulgaria	BG03	Severoiztochen	Low ICT High Achievers	Low ICT Intensity Laggers	

Bulgaria	BG04	Yugozapaden	Low ICT High Achievers	Low ICT Intensity Laggers	
Bulgaria	BG05	Yuzhen Tsentralen	Low ICT High Achievers	Low ICT Intensity Laggers	
Estonia	EE	Eesti	Low ICT High Achievers	Low ICT Intensity Laggers	
Spain	ES12	Principado de Asturias	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Spain	ES63	Ceuta y Melilla (ES)	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Finland	FI15	Pohjois-Suomi	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Greece	GR41	Voreio Aigaio	Low ICT High Achievers	Low ICT Intensity Laggers	
Hungary	HU01	Közép-Magyarország	Low ICT High Achievers	Medium ICT Intensity Middling Performers	
Hungary	HU06	Észak-Alföld	Low ICT High Achievers	Low ICT Intensity Laggers	
Ireland	IE01	Border, Midlands and Western	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Lithuania	LT	Lietuva	Low ICT High Achievers	Low ICT Intensity Laggers	
Latvia	LV	Latvija	Low ICT High Achievers	Low ICT Intensity Laggers	
Norway	NO02	Hedmark Og Oppland	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Norway	NO03	Sør-Østlandet	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Norway	NO06	Trøndelag	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Norway	NO07	Nord-Norge	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Poland	PL07	Mazowieckie	High ICT High Achievers	Medium ICT Intensity Middling Performers	
Romania	RO02	Sud-Est	Low ICT High Achievers	Low ICT Intensity Laggers	
Romania	RO03	Sud	Low ICT High Achievers	Low ICT Intensity Laggers	
Romania	RO04	Sud-Vest	Low ICT High Achievers	Low ICT Intensity Laggers	
Romania	RO05	Vest	Low ICT High Achievers	Low ICT Intensity Laggers	
Romania	RO06	Nord-Vest	Low ICT High Achievers	Low ICT Intensity Laggers	
Romania	RO07	Centru	Low ICT High Achievers	Low ICT Intensity Laggers	

Romania	RO08	Bucuresti	Low ICT High Achievers	Low ICT Intensity Laggers	+
Slovenia	SI	Slovenija	High ICT High Achievers	Medium ICT Intensity Middling Performers	
United Kingdom	UKE1	East Riding and North Lincolnshire	High ICT High Achievers	Medium ICT Intensity Middling Performers	
United Kingdom	UKE3	South Yorkshire	High ICT High Achievers	Medium ICT Intensity Middling Performers	
United Kingdom	UKF3	Lincolnshire	High ICT High Achievers	Medium ICT Intensity Middling Performers	
United Kingdom	UKG2	Shropshire and Staffordshire	High ICT High Achievers	Medium ICT Intensity Middling Performers	
United Kingdom	UKK3	Cornwall and Isles of Scilly	High ICT High Achievers	Medium ICT Intensity Middling Performers	

+: Outlier Region.

COUNTRY	NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	
SLUGGISH REGIONS					
Austria	AT12	Niederösterreich	High ICT Low Achievers	Medium ICT Intensity Leaders	
Austria	AT13	Wien	High ICT Low Achievers	Medium ICT Intensity Leaders	
Austria	AT21	Kärnten	High ICT Low Achievers	Medium ICT Intensity Leaders	
Austria	AT22	Steiermark	High ICT Low Achievers	Medium ICT Intensity Leaders	
Austria	AT31	Oberösterreich	High ICT Low Achievers	Medium ICT Intensity Leaders	
Austria	AT32	Salzburg	High ICT Low Achievers	Medium ICT Intensity Leaders	
Austria	AT34	Vorarlberg	High ICT Low Achievers	Medium ICT Intensity Leaders	
Belgium	BE1	Région Bruxelles-capitale / Brussels hoofdstad gewest	High ICT Low Achievers	High ICT Intensity Leaders	+
Belgium	BE21	Antwerpen	High ICT Low Achievers	High ICT Intensity Leaders	

Belgium	BE22	Limburg (B)	High ICT Low Achievers	High ICT Intensity Leaders	
Belgium	BE24	Vlaams Brabant	High ICT Low Achievers	High ICT Intensity Leaders	
Belgium	BE25	West-Vlaanderen	High ICT Low Achievers	High ICT Intensity Leaders	
Germany	DE11	Stuttgart	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE12	Karlsruhe	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE13	Freiburg	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE14	Tübingen	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE21	Oberbayern	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE22	Niederbayern	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE23	Oberpfalz	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE24	Oberfranken	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE25	Mittelfranken	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE26	Unterfranken	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE27	Schwaben	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE3	Berlin	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE5	Bremen	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE6	Hamburg	High ICT Low Achievers	High ICT Intensity Leaders	+
Germany	DE71	Darmstadt	High ICT Low Achievers	Medium ICT Intensity Leaders	

Germany	DE73	Kassel	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE91	Braunschweig	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DE92	Hannover	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DEA1	Düsseldorf	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DEA2	Köln	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DEA4	Detmold	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DEA5	Arnsberg	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DEB3	Rheinhessen-Pfalz	High ICT Low Achievers	Medium ICT Intensity Leaders	
Germany	DEF	Schleswig-Holstein	High ICT Low Achievers	Medium ICT Intensity Leaders	
Denmark	DK	Danmark	High ICT Low Achievers	High ICT Intensity Leaders	
Spain	ES21	Pais Vasco	High ICT Low Achievers	Medium ICT Intensity Leaders	
Spain	ES3	Comunidad de Madrid	High ICT Low Achievers	Medium ICT Intensity Leaders	
Spain	ES53	Islas Baleares	High ICT Low Achievers	Medium ICT Intensity Leaders	
Finland	FI14	Väli-Suomi	High ICT Low Achievers	Medium ICT Intensity Leaders	
Finland	FI17	Etelä-Suomi	High ICT Low Achievers	Medium ICT Intensity Leaders	
France	FR1	Île de France	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT11	Piemonte	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT12	Valle d'Aosta	High ICT Low Achievers	Medium ICT Intensity Leaders	

Italy	IT13	Liguria	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT2	Lombardia	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT31	Trentino-Alto Adige	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT32	Veneto	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT33	Friuli-Venezia Giulia	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT4	Emilia-Romagna	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT51	Toscana	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT52	Umbria	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT53	Marche	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	IT6	Lazio	High ICT Low Achievers	Medium ICT Intensity Leaders	
Italy	ITB	Sardegna	High ICT Low Achievers	Medium ICT Intensity Leaders	
Netherlands	NL12	Friesland	High ICT Low Achievers	Medium ICT Intensity Leaders	
Netherlands	NL13	Drenthe	High ICT Low Achievers	Medium ICT Intensity Leaders	
Netherlands	NL22	Gelderland	High ICT Low Achievers	High ICT Intensity Leaders	
Netherlands	NL23	Flevoland	High ICT Low Achievers	High ICT Intensity Leaders	
Netherlands	NL31	Utrecht	High ICT Low Achievers	High ICT Intensity Leaders	
Netherlands	NL32	Noord-Holland	High ICT Low Achievers	High ICT Intensity Leaders	
Netherlands	NL33	Zuid-Holland	High ICT Low Achievers	High ICT Intensity Leaders	

Netherlands	NL41	Noord-Brabant	High ICT Low Achievers	High ICT Intensity Leaders	
Netherlands	NL42	Limburg (NL)	High ICT Low Achievers	High ICT Intensity Leaders	
United Kingdom	UKC1	Tees Valley and Durham	High ICT Low Achievers	High ICT Intensity Leaders	
United Kingdom	UKD1	Cumbria	High ICT Low Achievers	High ICT Intensity Leaders	
United Kingdom	UKD2	Cheshire	High ICT Low Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKD4	Lancashire	High ICT Low Achievers	High ICT Intensity Leaders	
United Kingdom	UKE4	West Yorkshire	High ICT Low Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKF1	Derbyshire and Nottinghamshire	High ICT Low Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKF2	Leicestershire, Rutland and Northants	High ICT Low Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKG1	Herefordshire, Worcestershire and Warks	High ICT Low Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKH2	Bedfordshire, Hertfordshire	High ICT Low Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKI1	Inner London	High ICT Low Achievers	High ICT Intensity Leaders	+
United Kingdom	UKI2	Outer London	High ICT Low Achievers	High ICT Intensity Leaders	
United Kingdom	UKJ4	Kent	High ICT Low Achievers	High ICT Intensity Leaders	
United Kingdom	UKM1	North Eastern Scotland	High ICT Low Achievers	Medium ICT Intensity Leaders	
United Kingdom	UKM2	Eastern Scotland	High ICT Low Achievers	Medium ICT Intensity Leaders	

+: Outlier Region.

COUNTRY	NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	
LAGGING REGIONS					
Belgium	BE32	Hainaut	High ICT Low Achievers	Medium ICT Intensity Middling Performers	

Belgium	BE33	Liège	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Belgium	BE34	Luxembourg (B)	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Belgium	BE35	Namur	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Bulgaria	BG06	Yugoiztochen	Low ICT Low Achievers	Low ICT Intensity Laggers	
Cyprus	CY	Kypros	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Czech Republic	CZ02	Střední Cechy	Low ICT Low Achievers	Low ICT Intensity Laggers	
Czech Republic	CZ03	Jihozápad	Low ICT Low Achievers	Low ICT Intensity Laggers	
Czech Republic	CZ04	Severozápad	Low ICT Low Achievers	Low ICT Intensity Laggers	
Czech Republic	CZ05	Severovýchod	Low ICT Low Achievers	Low ICT Intensity Laggers	
Czech Republic	CZ06	Jihovýchod	Low ICT Low Achievers	Low ICT Intensity Laggers	
Czech Republic	CZ07	Střední Morava	Low ICT Low Achievers	Low ICT Intensity Laggers	
Czech Republic	CZ08	Moravskoslezko	Low ICT Low Achievers	Low ICT Intensity Laggers	
Germany	DE4	Brandenburg	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DE72	Gießen	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DE8	Mecklenburg-Vorpommern	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DE93	Lüneburg	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DE94	Weser-Ems	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DEA3	Münster	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DEB1	Koblenz	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DEB2	Trier	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DEC	Saarland	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DED1	Chemnitz	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DED2	Dresden	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DED3	Leipzig	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DEE1	Dessau	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DEE2	Halle	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DEE3	Magdeburg	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Germany	DEG	Thüringen	High ICT Low Achievers	Medium ICT Intensity Middling Performers	

Spain	ES11	Galicia	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Spain	ES13	Cantabria	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Spain	ES23	La Rioja	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Spain	ES24	Aragón	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Spain	ES41	Castilla y León	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Spain	ES42	Castilla-la Mancha	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Spain	ES43	Extremadura	Low ICT Low Achievers	Low ICT Intensity Laggers	
Spain	ES52	Comunidad Valenciana	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Spain	ES61	Andalucia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Spain	ES62	Région de Murcia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Finland	FI13	Itä-Suomi	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR21	Champagne-Ardenne	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR22	Picardie	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR23	Haute-Normandie	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR24	Centre	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR25	Basse-Normandie	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR26	Bourgogne	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR3	Nord - Pas-de-Calais	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR41	Lorraine	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR42	Alsace	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR43	Franche-Comté	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR51	Pays de la Loire	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR52	Bretagne	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR53	Poitou-Charentes	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR61	Aquitaine	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR62	Midi-Pyrénées	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR63	Limousin	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR71	Rhône-Alpes	High ICT Low Achievers	Medium ICT Intensity Middling Performers	

France	FR72	Auvergne	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR81	Languedoc-Roussillon	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR82	Provence-Alpes-Côte d'Azur	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
France	FR83	Corse	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Greece	GR11	Anatoliki Makedonia, Thraki	Low ICT Low Achievers	Low ICT Intensity Laggers	
Greece	GR12	Kentriki Makedonia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Greece	GR13	Dytiki Makedonia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Greece	GR14	Thessalia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Greece	GR21	Ipeiros	Low ICT Low Achievers	Low ICT Intensity Laggers	
Greece	GR22	Ionia Nisia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Greece	GR23	Dytiki Ellada	Low ICT Low Achievers	Low ICT Intensity Laggers	
Greece	GR24	Sterea Ellada	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Greece	GR25	Peloponnisos	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Greece	GR3	Attiki	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Greece	GR42	Notio Aigaio	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Greece	GR43	Kriti	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Hungary	HU02	Közép-Dunántúl	Low ICT Low Achievers	Low ICT Intensity Laggers	
Hungary	HU03	Nyugat-Dunántúl	Low ICT Low Achievers	Low ICT Intensity Laggers	
Hungary	HU04	Dél-Dunántúl	Low ICT Low Achievers	Low ICT Intensity Laggers	
Hungary	HU05	Észak-Magyarország	Low ICT Low Achievers	Low ICT Intensity Laggers	
Hungary	HU07	Dél-Alföld	Low ICT Low Achievers	Low ICT Intensity Laggers	
Italy	IT71	Abruzzo	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Italy	IT72	Molise	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Italy	IT8	Campania	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Italy	IT91	Puglia	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Italy	IT92	Basilicata	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Italy	IT93	Calabria	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Italy	ITA	Sicilia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	

Malta	MT	Malta	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Poland	PL01	Dolnoslaskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL02	Kujawsko-Pomorskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL03	Lubelskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL04	Lubuskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL05	Lódzkie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL06	Malopolskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL08	Opolskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL09	Podkarpackie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL0A	Podlaskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL0B	Pomorskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL0C	Slaskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL0D	Swietokrzyskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL0E	Warminsko-Mazurskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL0F	Wielkopolskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Poland	PL0G	Zachodniopomorskie	Low ICT Low Achievers	Low ICT Intensity Laggers	
Portugal	PT11	Norte	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Portugal	PT12	Centro (PT)	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Portugal	PT13	Lisboa e Vale do Tejo	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
Portugal	PT14	Alentejo	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Portugal	PT15	Algarve	Low ICT Low Achievers	Low ICT Intensity Laggers	
Romania	RO01	Nord-Est	Low ICT Low Achievers	Low ICT Intensity Laggers	+
Slovakia	SK01	Bratislavský	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	
Slovakia	SK02	Západné Slovensko	Low ICT Low Achievers	Low ICT Intensity Laggers	
Slovakia	SK03	Stredné Slovensko	Low ICT Low Achievers	Low ICT Intensity Laggers	
Slovakia	SK04	Východné Slovensko	Low ICT Low Achievers	Low ICT Intensity Laggers	
United Kingdom	UKK2	Dorset and Somerset	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
United Kingdom	UKK4	Devon	High ICT Low Achievers	Medium ICT Intensity Middling Performers	

United Kingdom	UKL1	West Wales and The Valleys	High ICT Low Achievers	Medium ICT Intensity Middling Performers	
United Kingdom	UKM4	Highlands and Islands	High ICT Low Achievers	Medium ICT Intensity Middling Performers	

+: Outlier Region.

Table 9

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
AUSTRIA					
AT11	Burgenland	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
AT12	Niederösterreich	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
AT13	Wien	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
AT21	Kärnten	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
AT22	Steiermark	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
AT31	Oberösterreich	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
AT32	Salzburg	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
AT33	Tirol	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
AT34	Vorarlberg	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
BELGIUM					
BE1	Région Bruxelles-capitale Brussels hoofdstad gewest	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	+
BE21	Antwerpen	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
BE22	Limburg (B)	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
BE23	Oost-Vlaanderen	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
BE24	Vlaams Brabant	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
BE25	West-Vlaanderen	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
BE31	Brabant Wallon	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
BE32	Hainaut	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
BE33	Liège	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
BE34	Luxembourg (B)	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
BE35	Namur	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	

+: Outlier Region.

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
BULGARIA					
BG01	Severozapaden	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
BG02	Severen Tsentralen	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
BG03	Severoiztochen	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
BG04	Yugozapaden	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
BG05	Yuzhen Tsentralen	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
BG06	Yugoiztochen	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
CYPRUS					
CY	Kypros	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
CZECH REPUBLIC					
CZ01	Praha	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
CZ02	Střední Cechy	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
CZ03	Jihozápad	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
CZ04	Severozápad	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
CZ05	Severovýchod	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
CZ06	Jihovýchod	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
CZ07	Střední Morava	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
CZ08	Moravskoslezko	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
GERMANY					
DE11	Stuttgart	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE12	Karlsruhe	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE13	Freiburg	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE14	Tübingen	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE21	Oberbayern	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE22	Niederbayern	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE23	Oberpfalz	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE24	Oberfranken	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE25	Mittelfranken	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE26	Unterfranken	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE27	Schwaben	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE3	Berlin	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE4	Brandenburg	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DE5	Bremen	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	

DE6	Hamburg	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	+
DE71	Darmstadt	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE72	Gießen	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DE73	Kassel	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE8	Mecklenburg-Vorpommern	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DE91	Braunschweig	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE92	Hannover	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DE93	Lüneburg	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DE94	Weser-Ems	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DEA1	Düsseldorf	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DEA2	Köln	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DEA3	Münster	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DEA4	Detmold	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DEA5	Arnsberg	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DEB1	Koblenz	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DEB2	Trier	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DEB3	Rheinhessen-Pfalz	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DEC	Saarland	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DED1	Chemnitz	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DED2	Dresden	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DED3	Leipzig	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DEE1	Dessau	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DEE2	Halle	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DEE3	Magdeburg	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
DEF	Schleswig-Holstein	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
DEG	Thüringen	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	

+: Outlier Region.

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
DENMARK					
DK	Danmark	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
ESTONIA					
EE	Eesti	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
SPAIN					
ES11	Galicia	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ES12	Principado de Asturias	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
ES13	Cantabria	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ES21	Pais Vasco	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
ES22	Comunidad Foral de Navarra	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
ES23	La Rioja	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ES24	Aragón	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ES3	Comunidad de Madrid	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
ES41	Castilla y León	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ES42	Castilla-la Mancha	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ES43	Extremadura	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
ES51	Cataluña	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
ES52	Comunidad Valenciana	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ES53	Islas Baleares	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
ES61	Andalucia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ES62	Région de Murcia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ES63	Ceuta y Melilla (ES)	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
FINLAND					
FI13	Itä-Suomi	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FI14	Väli-Suomi	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
FI15	Pohjois-Suomi	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
FI16	Uusimaa (suuralue)	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
FI17	Etelä-Suomi	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
FRANCE					
FR1	Île de France	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
FR21	Champagne-Ardenne	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR22	Picardie	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR23	Haute-Normandie	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR24	Centre	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR25	Basse-Normandie	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR26	Bourgogne	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR3	Nord - Pas-de-Calais	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR41	Lorraine	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR42	Alsace	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR43	Franche-Comté	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR51	Pays de la Loire	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR52	Bretagne	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR53	Poitou-Charentes	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR61	Aquitaine	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR62	Midi-Pyrénées	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR63	Limousin	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR71	Rhône-Alpes	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR72	Auvergne	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR81	Languedoc-Roussillon	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR82	Provence-Alpes-Côte d'Azur	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
FR83	Corse	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
GREECE					
GR11	Anatoliki Makedonia, Thraki	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
GR12	Kentriki Makedonia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
GR13	Dytiki Makedonia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
GR14	Thessalia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
GR21	Ipeiros	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
GR22	Ionia Nisia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
GR23	Dytiki Ellada	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
GR24	Sterea Ellada	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
GR25	Peloponnisos	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
GR3	Attiki	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
GR41	Voreio Aigaio	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
GR42	Notio Aigaio	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
GR43	Kriti	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
HUNGARY					
HU01	Közép-Magyarország	Low ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
HU02	Közép-Dunántúl	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
HU03	Nyugat-Dunántúl	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
HU04	Dél-Dunántúl	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
HU05	Észak-Magyarország	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
HU06	Észak-Alföld	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
HU07	Dél-Alföld	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
IRELAND					
IE01	Border, Midlands and Western	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
IE02	Southern and Eastern	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
ITALY					
IT11	Piemonte	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT12	Valle d'Aosta	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT13	Liguria	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT2	Lombardia	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT31	Trentino-Alto Adige	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT32	Veneto	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT33	Friuli-Venezia Giulia	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT4	Emilia-Romagna	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT51	Toscana	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT52	Umbria	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT53	Marche	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT6	Lazio	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
IT71	Abruzzo	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
IT72	Molise	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
IT8	Campania	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
IT91	Puglia	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
IT92	Basilicata	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
IT93	Calabria	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ITA	Sicilia	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
ITB	Sardegna	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
LITHUANIA					
LT	Lietuva	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
LUXEMBOURG					
LU	Luxembourg	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	+

+: Outlier Region

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
LATVIA					
LV	Latvija	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
MALTA					
MT	Malta	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
NETHERLANDS					
NL11	Groningen	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
NL12	Friesland	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
NL13	Drenthe	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
NL21	Overijssel	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
NL22	Gelderland	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
NL23	Flevoland	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
NL31	Utrecht	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
NL32	Noord-Holland	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
NL33	Zuid-Holland	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
NL34	Zeeland	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
NL41	Noord-Brabant	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
NL42	Limburg (NL)	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
NORWAY					
NO01	Oslo Og Akershus	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
NO02	Hedmark Og Oppland	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
NO03	Sør-Østlandet	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
NO04	Agder Og Rogaland	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
NO05	Vestlandet	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
NO06	Trøndelag	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
NO07	Nord-Norge	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
POLAND					
PL01	Dolnoslaskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL02	Kujawsko-Pomorskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL03	Lubelskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL04	Lubuskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL05	Lódzkie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL06	Malopolskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL07	Mazowieckie	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
PL08	Opolskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL09	Podkarpackie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL0A	Podlaskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL0B	Pomorskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL0C	Slaskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL0D	Swietokrzyskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL0E	Warminsko-Mazurskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL0F	Wielkopolskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
PL0G	Zachodniopomorskie	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
PORTUGAL					
PT11	Norte	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
PT12	Centro (PT)	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
PT13	Lisboa e Vale do Tejo	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
PT14	Alentejo	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
PT15	Algarve	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
ROMANIA					
RO01	Nord-Est	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	+
RO02	Sud-Est	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
RO03	Sud	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
RO04	Sud-Vest	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
RO05	Vest	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
RO06	Nord-Vest	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
RO07	Centru	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	
RO08	Bucuresti	Low ICT High Achievers	Low ICT Intensity Laggers	Potential Region	+

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
SWEDEN					
SE01	Stockholm	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
SE02	Östra Mellansverige	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
SE04	Sydsverige	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
SE06	Norra Mellansverige	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
SE07	Mellersta Norrland	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
SE08	Övre Norrland	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
SE09	Småland med öarna	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
SE0A	Västsverige	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
SLOVENIA					
SI	Slovenija	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
SLOVAKIA					
SK01	Bratislavský	Low ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
SK02	Západné Slovensko	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
SK03	Stredné Slovensko	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	
SK04	Východné Slovensko	Low ICT Low Achievers	Low ICT Intensity Laggers	Lagging Region	

NUTS 2	REGION	FIRST CLUSTER ANALYSIS	SECOND CLUSTER ANALYSIS	REGION TYPOLOGY	
UNITED KINGDOM					
UKC1	Tees Valley and Durham	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
UKC2	Northumberland, Tyne and Wear	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
UKD1	Cumbria	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
UKD2	Cheshire	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
UKD3	Greater Manchester	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
UKD4	Lancashire	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
UKD5	Merseyside	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
UKE1	East Riding and North Lincolnshire	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
UKE2	North Yorkshire	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
UKE3	South Yorkshire	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
UKE4	West Yorkshire	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
UKF1	Derbyshire and Nottinghamshire	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
UKF2	Leicestershire, Rutland and Northants	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
UKF3	Lincolnshire	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
UKG1	Herefordshire, Worcestershire and Warks	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
UKG2	Shropshire and Staffordshire	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
UKG3	West Midlands	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	

UKH1	East Anglia	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
UKH2	Bedfordshire, Hertfordshire	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
UKH3	Essex	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
UKI1	Inner London	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	+
UKI2	Outer London	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
UKJ1	Berkshire, Bucks and Oxfordshire	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
UKJ2	Surrey, East and West Sussex	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
UKJ3	Hampshire and Isle of Wight	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	
UKJ4	Kent	High ICT Low Achievers	High ICT Intensity Leaders	Sluggish Region	
UKK1	Gloucestershire, Wiltshire and North Somerset	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
UKK2	Dorset and Somerset	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
UKK3	Cornwall and Isles of Scilly	High ICT High Achievers	Medium ICT Intensity Middling Performers	Potential Region	
UKK4	Devon	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
UKL1	West Wales and The Valleys	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
UKL2	East Wales	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
UKM1	North Eastern Scotland	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
UKM2	Eastern Scotland	High ICT Low Achievers	Medium ICT Intensity Leaders	Sluggish Region	
UKM3	South Western Scotland	High ICT High Achievers	Medium ICT Intensity Leaders	Leading Region	
UKM4	Highlands and Islands	High ICT Low Achievers	Medium ICT Intensity Middling Performers	Lagging Region	
UKN	Northern Ireland	High ICT High Achievers	High ICT Intensity Leaders	Leading Region	

APPENDIX 1: CLUSTER ANALYSIS WITHOUT OUTLAYER REGIONS

1.1 Quick Cluster: ICT vs Growth Rate of Real GDP per Capita (A)

	Cluster			
	1	2	3	4
Zscore: ICT Index	-,92733	,45152	-1,44604	,93706
Zscore: Growth Rate of Real GDP per Capita 99-03	,20021	-,74044	2,50597	,43540

Number of Cases in each Cluster

Cluster	Low ICT - Low Achievers	78,000
	High ICT - Low Achievers	112,000
	Low ICT - High Achievers	18,000
	High ICT - High Achievers	51,000
Valid		259,000
Missing		,000

1.2 Quick Cluster: ICT vs Growth Rate of Real GDP per Capita (B)

Final Cluster Centres

	Cluster			
	1	2	3	4
Zscore: ICT Index	-,23084	-1,36401	1,55234	,47229
Zscore: GDP per Capita in PPS 1999	-,13913	-1,50709	,54965	,94999

Number of Cases in each Cluster

Cluster	Medium ICT Intensity - Middling Performers	95,000
	Low ICT Intensity - Laggers	52,000
	High ICT Intensity - Leaders	37,000
	Medium ICT Intensity - Leaders	75,000
Valid		259,000
Missing		,000

1.3 Frequencies: ICT vs Growth Rate of Real GDP per Capita (A)

1.3.1 ICT Index vs Growth Rate of Real GDP per Capita (A) = High ICT - High Achievers

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	51	51	51	51	51
	Missing	0	0	0	0	0
Mean		19400,2216	,029028	5,8570	,25	,22

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = High ICT - High Achievers

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	8	15,7	15,7
	2	8	15,7	31,4
	3	11	21,6	52,9
	4	3	5,9	58,8
	5	8	15,7	74,5
	6	13	25,5	100,0
	Total	51	100,0	

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = High ICT - High Achievers

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Austria	2	3,9	3,9	22,2%
	Belgium	2	3,9	7,8	20,0%
	Czech Republic	1	2,0	9,8	12,5%
	Finland	2	3,9	13,7	40,0%
	Ireland	1	2,0	15,7	50,0%
	Netherlands	3	5,9	21,6	25,0%
	Norway	7	13,7	35,3	100,0%
	Poland	1	2,0	37,3	6,3%
	Slovenia	1	2,0	39,2	100,0%
	Spain	4	7,8	47,1	23,5%
	Sweden	8	15,7	62,7	100,0%
	United Kingdom	19	37,3	100,0	52,8%
	Total	51	100,0		

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = High ICT - High Achievers

1.3.2 ICT Index vs Growth Rate of Real GDP per Capita (A) = High ICT - Low Achievers

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	112	112	112	112	112
	Missing	0	0	0	0	0
Mean		20566,6393	,010112	4,8718	,14	,54

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = High ICT - Low Achievers

Settlement structure category (a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	23	20,5	20,5
	2	14	12,5	33,0
	3	39	34,8	67,9
	4	12	10,7	78,6
	5	13	11,6	90,2
	6	11	9,8	100,0
	Total	112	100,0	

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = High ICT - Low Achievers

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Austria	7	6,3	6,3	77,8%
	Belgium	8	7,1	13,4	80,0%
	Denmark	1	,9	14,3	100,0%
	Finland	2	1,8	16,1	40,0%
	France	6	5,4	21,4	27,3%
	Germany	34	30,4	51,8	87,2%
	Italy	19	17,0	68,8	95,0%
	Malta	1	,9	69,6	100,0%
	Netherlands	9	8,0	77,7	75,0%
	Portugal	2	1,8	79,5	40,0%
	Spain	6	5,4	84,8	35,3%
	United Kingdom	17	15,2	100,0	47,2%
	Total	112	100,0		

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = High ICT - Low Achievers

1.3.3 ICT Index vs Growth Rate of Real GDP per Capita (A) = Low ICT - High Achievers

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	18	18	18	18	18
	Missing	0	0	0	0	0
Mean		7173,1333	,062337	1,0215	,33	,00

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = Low ICT - High Achievers

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	1	5,6	5,6
	4	1	5,6	11,1
	5	14	77,8	88,9
	6	2	11,1	100,0
	Total	18	100,0	

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = Low ICT - High Achievers

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Bulgaria	5	27,8	27,8	83,3%
	Estonia	1	5,6	33,3	100,0%
	Greece	1	5,6	38,9	7,7%
	Hungary	2	11,1	50,0	28,6%
	Ireland	1	5,6	55,6	50,0%
	Latvia	1	5,6	61,1	100,0%
	Lithuania	1	5,6	66,7	100,0%
	Romania	6	33,3	100,0	100,0%
	Total	18	100,0		

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = Low ICT - High Achievers

1.3.4 ICT Index vs Growth Rate of Real GDP per Capita (A) = Low ICT - Low Achievers

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	78	78	78	78	78
	Missing	0	0	0	0	0
Mean		12804,2701	,025245	2,0740	,72	,08

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = Low ICT - Low Achievers

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	3	3,8	3,8
	2	7	9,0	12,8
	3	11	14,1	26,9
	4	10	12,8	39,7
	5	26	33,3	73,1
	6	21	26,9	100,0
	Total	78	100,0	

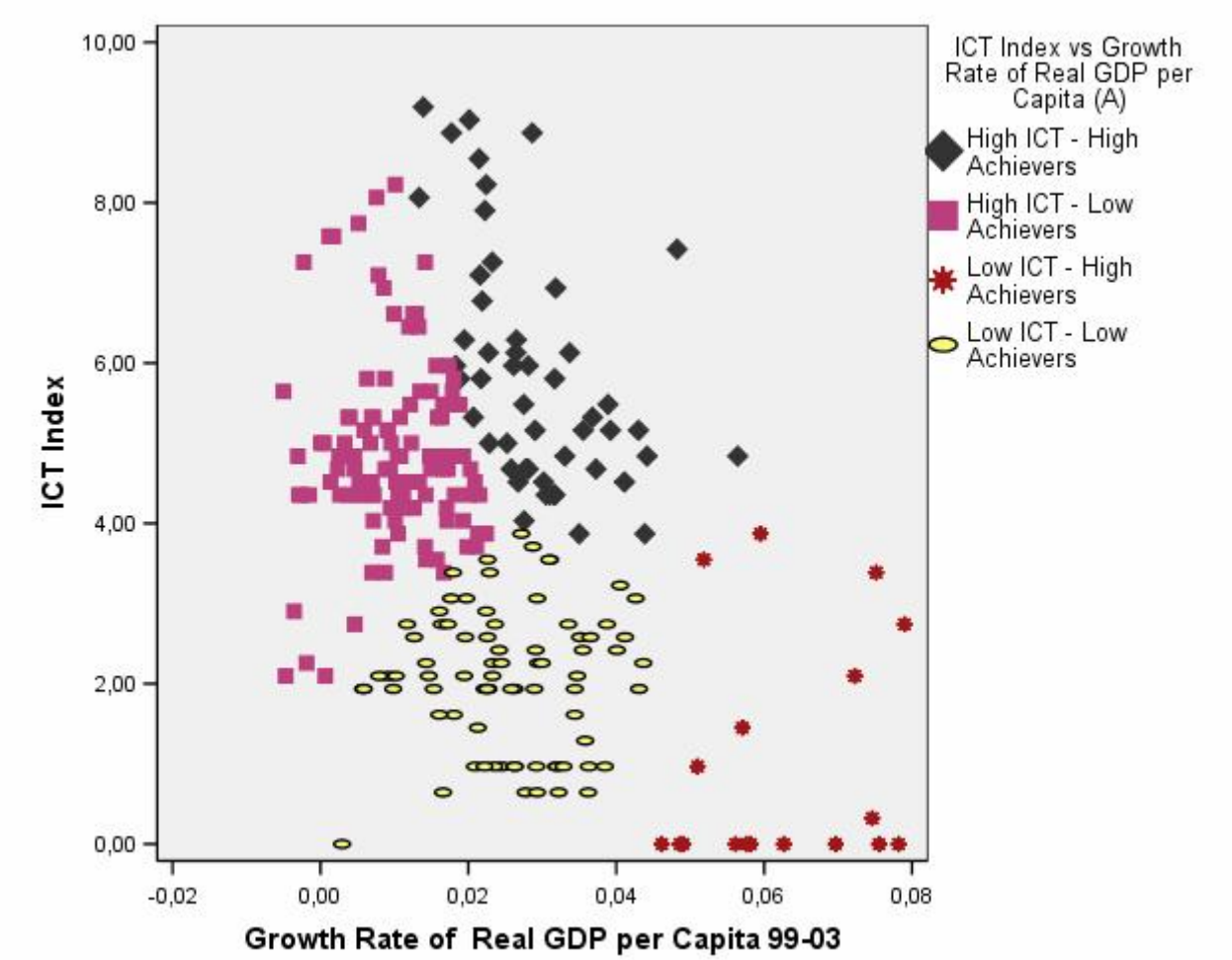
a: ICT Index vs Growth Rate of Real GDP per Capita (A) = Low ICT - Low Achievers

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Bulgaria	1	1,3	1,3	16,7%
	Cyprus	1	1,3	2,6	100,0%
	Czech Republic	7	9,0	11,5	87,5%
	Finland	1	1,3	12,8	20,0%
	France	16	20,5	33,3	72,7%
	Germany	5	6,4	39,7	12,8%
	Greece	12	15,4	55,1	92,3%
	Hungary	5	6,4	61,5	71,4%
	Italy	1	1,3	62,8	5,0%
	Poland	15	19,2	82,1	93,8%
	Portugal	3	3,8	85,9	60,0%
	Slovakia	4	5,1	91,0	100,0%
	Spain	7	9,0	100,0	41,2%
	Total	78	100,0		

a: ICT Index vs Growth Rate of Real GDP per Capita (A) = Low ICT - Low Achievers

Graph 8


ICT Index vs Growth Rate of Real GDP per Capita (A)
High ICT - High Achievers
High ICT - Low Achievers
Low ICT - High Achievers
Low ICT - Low Achievers
ICT Index
10,00
8,00
6,00
4,00
2,00
0,00
-0,02
0,00
0,02
0,04
0,06
0,08
Growth Rate of Real GDP per Capita 99-03

1.4 Frequencies: ICT vs Growth Rate of Real GDP per Capita (B)

1.4.1 ICT vs GDP in PPS (B) = Medium ICT Intensity - Leaders

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	75	75	75	75	75
	Missing	0	0	0	0	0
Mean		22932,7853	,015338	4,9140	,01	,49

a: ICT Index vs GDP in PPS (B) = Medium ICT Intensity - Leaders

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	21	28,0	28,0
	2	11	14,7	42,7
	3	21	28,0	70,7
	4	5	6,7	77,3
	5	9	12,0	89,3
	6	8	10,7	100,0
	Total	75	100,0	

a: ICT Index vs GDP in PPS (B) = Medium ICT Intensity - Leaders

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Austria	8	10,7	10,7	88,9%
	Belgium	1	1,3	12,0	10,0%
	Czech Republic	1	1,3	13,3	12,5%
	Finland	2	2,7	16,0	40,0%
	France	1	1,3	17,3	4,5%
	Germany	23	30,7	48,0	59,0%
	Ireland	1	1,3	49,3	50,0%
	Italy	12	16,0	65,3	60,0%
	Netherlands	3	4,0	69,3	25,0%
	Norway	3	4,0	73,3	42,9%
	Spain	5	6,7	80,0	29,4%
	United Kingdom	15	20,0	100,0	41,7%
	Total	75	100,0		

a: ICT Index vs GDP in PPS (B) = Medium ICT Intensity - Leaders

1.4.2 ICT Index vs GDP in PPS (B) = High ICT Intensity - Leaders

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	37	37	37	37	37
	Missing	0	0	0	0	0
Mean		20461,4811	,016682	7,1055	,14	,51

a: ICT Index vs GDP in PPS (B) = High ICT Intensity - Leaders

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	8	21,6	21,6
	2	2	5,4	27,0
	3	18	48,6	75,7
	5	3	8,1	83,8
	6	6	16,2	100,0
	Total	37	100,0	

a: ICT Index vs GDP in PPS (B) = High ICT Intensity - Leaders

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Belgium	5	13,5	13,5	50,0%
	Denmark	1	2,7	16,2	100,0%
	Finland	1	2,7	18,9	20,0%
	Italy	1	2,7	21,6	5,0%
	Netherlands	9	24,3	45,9	75,0%
	Sweden	8	21,6	67,6	100,0%
	United Kingdom	12	32,4	100,0	33,3%
	Total	37	100,0		

a: ICT Index vs GDP in PPS (B) = High ICT Intensity - Leaders

1.4.3 ICT Index vs GDP in PPS (B) = Low ICT Intensity - Laggers

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	52	52	52	52	52
	Missing	0	0	0	0	0
Mean		7765,0654	,038915	1,1879	,77	,00

a: ICT Index vs GDP in PPS (B) = Low ICT Intensity - Laggers

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	1	1,9	1,9
	2	3	5,8	7,7
	3	6	11,5	19,2
	4	9	17,3	36,5
	5	24	46,2	82,7
	6	9	17,3	100,0
	Total	52	100,0	

a: ICT Index vs GDP in PPS (B) = Low ICT Intensity - Laggers

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Bulgaria	6	11,5	11,5	100,0%
	Czech Republic	7	13,5	25,0	87,5%
	Estonia	1	1,9	26,9	100,0%
	Greece	4	7,7	34,6	30,8%
	Hungary	6	11,5	46,2	85,7%
	Latvia	1	1,9	48,1	100,0%
	Lithuania	1	1,9	50,0	100,0%
	Poland	15	28,8	78,8	93,8%
	Portugal	1	1,9	80,8	20,0%
	Romania	6	11,5	92,3	100,0%
	Slovakia	3	5,8	98,1	75,0%
	Spain	1	1,9	100,0	5,9%
	Total	52	100,0		

a: ICT Index vs GDP in PPS (B) = Low ICT Intensity - Laggers

1.4.4 ICT Index vs GDP in PPS (B) = Medium ICT Intensity - Middling Performers

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	95	95	95	95	95
	Missing	0	0	0	0	0
Mean		16209,5502	,020137	3,4872	,47	,23

a: ICT Index vs GDP in PPS (B) = Medium ICT Intensity - Middling Performers

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	5	5,3	5,3
	2	13	13,7	18,9
	3	16	16,8	35,8
	4	12	12,6	48,4
	5	25	26,3	74,7
	6	24	25,3	100,0
	Total	95	100,0	

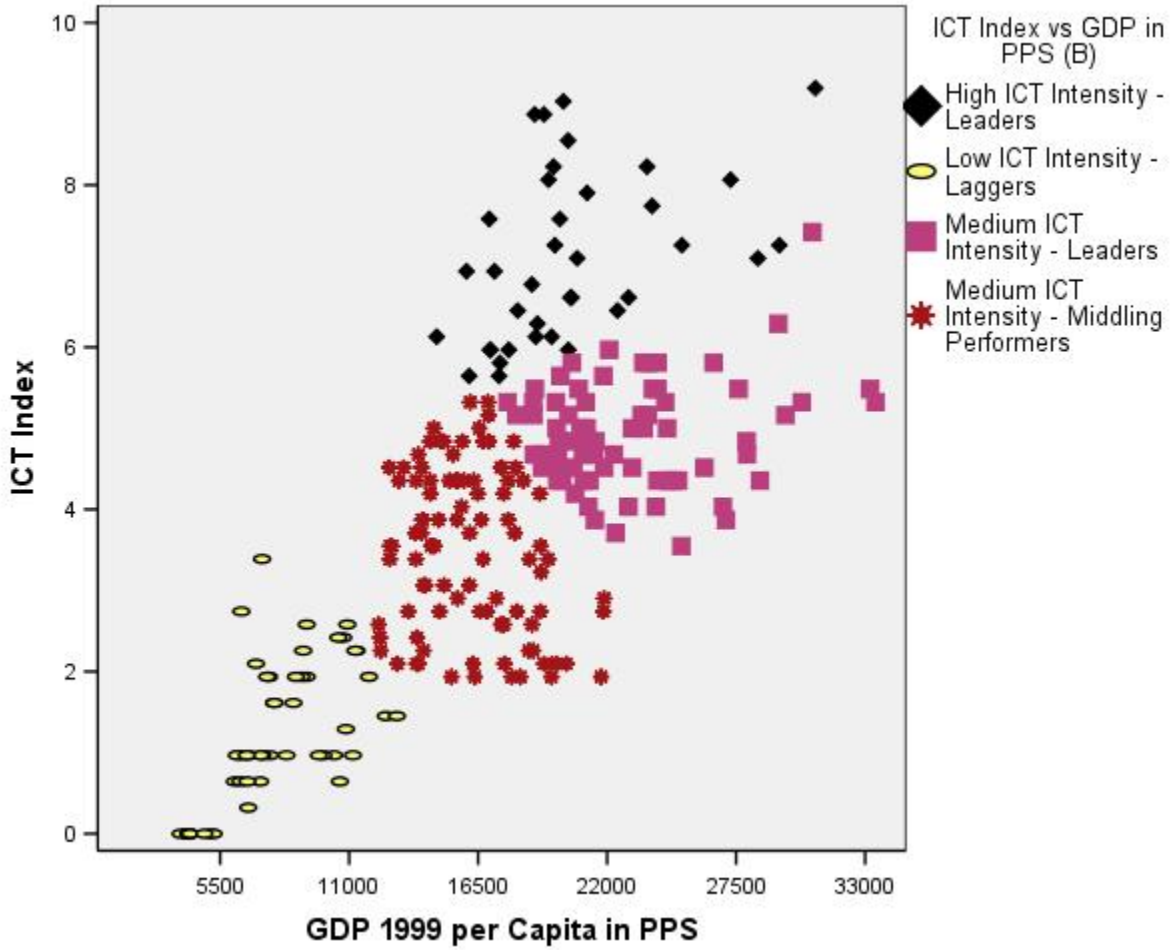
a: ICT Index vs GDP in PPS (B) = Medium ICT Intensity - Middling Performers

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Austria	1	1,1	1,1	11,1%
	Belgium	4	4,2	5,3	40,0%
	Cyprus	1	1,1	6,3	100,0%
	Finland	2	2,1	8,4	40,0%
	France	21	22,1	30,5	95,5%
	Germany	16	16,8	47,4	41,0%
	Greece	9	9,5	56,8	69,2%
	Hungary	1	1,1	57,9	14,3%
	Ireland	1	1,1	58,9	50,0%
	Italy	7	7,4	66,3	35,0%
	Malta	1	1,1	67,4	100,0%
	Norway	4	4,2	71,6	57,1%
	Poland	1	1,1	72,6	6,3%
	Portugal	4	4,2	76,8	11,1%
	Slovakia	1	1,1	77,9	40,0%
	Slovenia	1	1,1	78,9	100,0%
	Spain	11	11,6	90,5	40,0%
	United Kingdom	9	9,5	100,0	95,5%
	Total	95	100,0		

a: ICT Index vs GDP in PPS (B) = Medium ICT Intensity - Middling Performers

Graph 9


ICT Index vs GDP in PPS (B)
High ICT Intensity - Leaders
Low ICT Intensity - Laggers
Medium ICT Intensity - Leaders
Medium ICT Intensity - Middling Performers
ICT Index
0
2
4
6
8
10
5500
11000
16500
22000
27500
33000
GDP 1999 per Capita in PPS

APPENDIX 2: REGION TYPOLOGY

2.1 Frequencies: General Statistics

Statistics

N	Valid	259
	Missing	0

		Frequency	Percentage	Cumulative Percentage
Valid	Lagging Regions	114	44,0	44,0
	Potential Regions	33	12,7	56,8
	Sluggish Regions	76	29,3	86,1
	Vanguard Regions	36	13,9	100,0
	Total	259	100,0	

2.2 Frequencies: Region Typology

2.2.1 Lagging Regions

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	114	114	114	114	114
	Missing	0	0	0	0	0
Mean		13941,2462	,020336	2,6797	,61	,19

a: Region Type = Lagging Regions

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	4	3,5	3,5
	2	14	12,3	15,8
	3	21	18,4	34,2
	4	17	14,9	49,1
	5	33	28,9	78,1
	6	25	21,9	100,0
	Total	114	100,0	

a: Region Type = Lagging Regions

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Belgium	4	3,5	3,5	40,0%
	Bulgaria	1	,9	4,4	16,7%
	Cyprus	1	,9	5,3	100,0%
	Czech Republic	7	6,1	11,4	87,5%
	Finland	1	,9	12,3	20,0%
	France	21	18,4	30,7	95,5%
	Germany	16	14,0	44,7	41,0%
	Greece	12	10,5	55,3	92,3%
	Hungary	5	4,4	59,6	71,4%
	Italy	7	6,1	65,8	35,0%
	Malta	1	,9	66,7	100,0%
	Poland	15	13,2	79,8	93,8%
	Portugal	5	4,4	84,2	100,0%
	Slovakia	4	3,5	87,7	100,0%
	Spain	10	8,8	96,5	58,8%
	United Kingdom	4	3,5	100,0	11,1%
	Total	114	100,0		

a: Region Type = Lagging Regions

2.2.2 Potential Regions

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	33	33	33	33	33
	Missing	0	0	0	0	0
Mean		10739,0485	,049037	2,6539	,45	,00

a: Region Type = Potential Regions

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	2	6,1	6,1
	2	2	6,1	12,1
	3	1	3,0	15,2
	4	4	12,1	27,3
	5	16	48,5	75,8
	6	8	24,2	100,0
	Total	33	100,0	

a: Region Type = Potential Regions

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Austria	1	3,0	3,0	11,1%
	Bulgaria	5	15,2	18,2	83,3%
	Estonia	1	3,0	21,2	100,0%
	Finland	1	3,0	24,2	20,0%
	Greece	1	3,0	27,3	7,7%
	Hungary	2	6,1	33,3	28,6%
	Ireland	1	3,0	36,4	50,0%
	Latvia	1	3,0	39,4	100,0%
	Lithuania	1	3,0	42,4	100,0%
	Norway	4	12,1	54,5	57,1%
	Poland	1	3,0	57,6	6,3%
	Romania	6	18,2	75,8	100,0%
	Slovenia	1	3,0	78,8	100,0%
	Spain	2	6,1	84,8	11,8%
	United Kingdom	5	15,2	100,0	13,9%
	Total	33	100,0		

a: Region Type = Potential Regions

2.2.3 Sluggish Regions

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	76	76	76	76	76
	Missing	0	0	0	0	0
Mean		22538,0868	,010307	5,2886	,03	,59

a: Region Type = Sluggish Regions

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	22	28,9	28,9
	2	7	9,2	38,2
	3	29	38,2	76,3
	4	5	6,6	82,9
	5	6	7,9	90,8
	6	7	9,2	100,0
	Total	76	100,0	

a: Region Type = Sluggish Regions

Country(a)

		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Austria	7	9,2	9,2	77,8%
	Belgium	4	5,3	14,5	40,0%
	Denmark	1	1,3	15,8	100,0%
	Finland	2	2,6	18,4	40,0%
	France	1	1,3	19,7	4,5%
	Germany	23	30,3	50,0	59,0%
	Italy	13	17,1	67,1	65,0%
	Netherlands	9	11,8	78,9	75,0%
	Spain	3	3,9	82,9	17,6%
	United Kingdom	13	17,1	100,0	36,1%
	Total	76	100,0		

a: Region Type = Sluggish Regions

2.2.4 Vanguard Regions

Statistics(a)

		GDP 1999 per Capita in PPS	Growth Rate of Real GDP per Capita 99-03	ICT Index	Objective 1 Regions	Pentagon Regions
N	Valid	36	36	36	36	36
	Missing	0	0	0	0	0
Mean		21226,0861	,027341	6,3754	,11	,31

a: Region Type = Vanguard Regions

Settlement structure category(a)

		Frequency	Percentage	Cumulative Percentage
Valid	1	7	19,4	19,4
	2	6	16,7	36,1
	3	10	27,8	63,9
	5	6	16,7	80,6
	6	7	19,4	100,0
	Total	36	100,0	

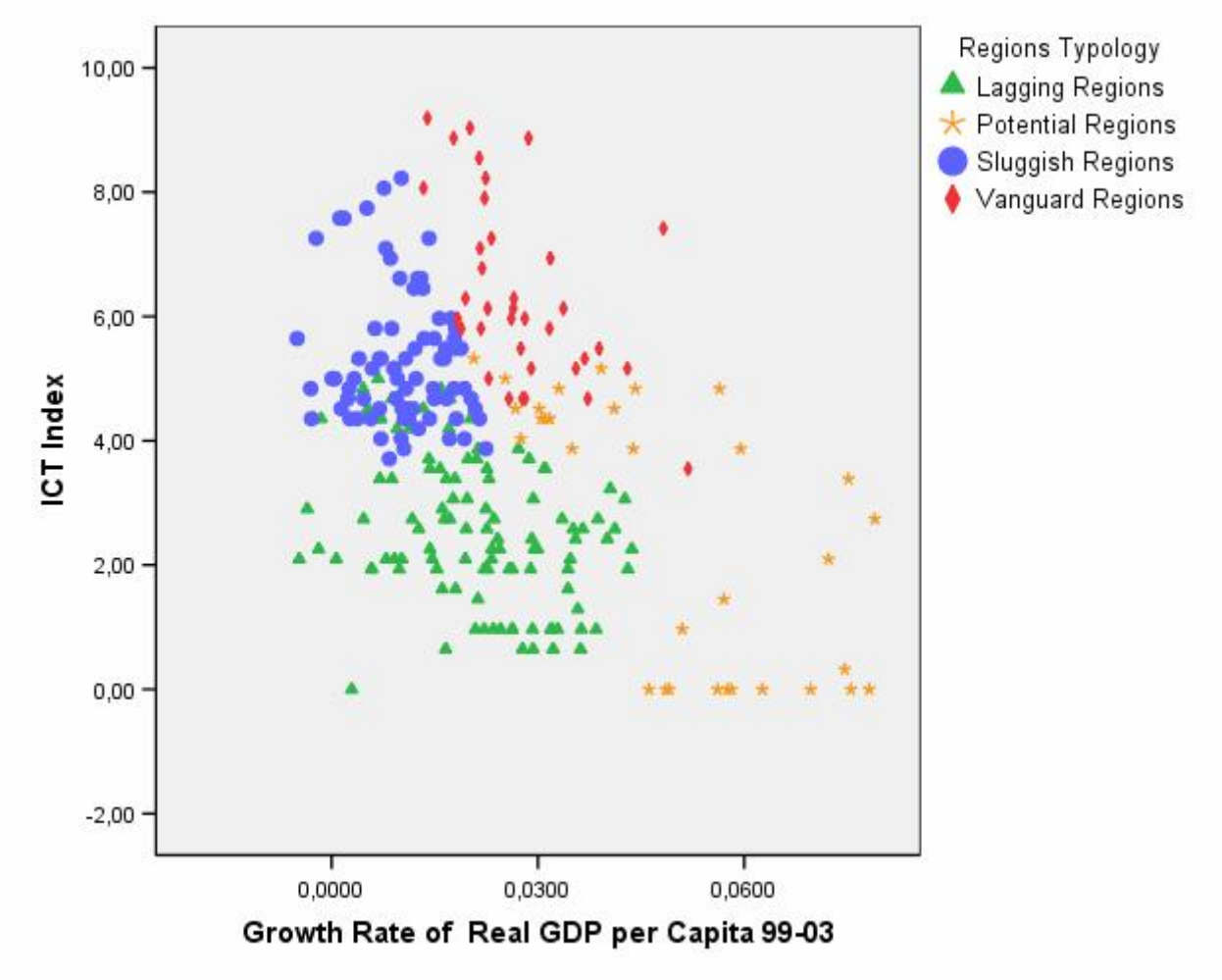
a: Region Type = Vanguard Regions

Country(a)

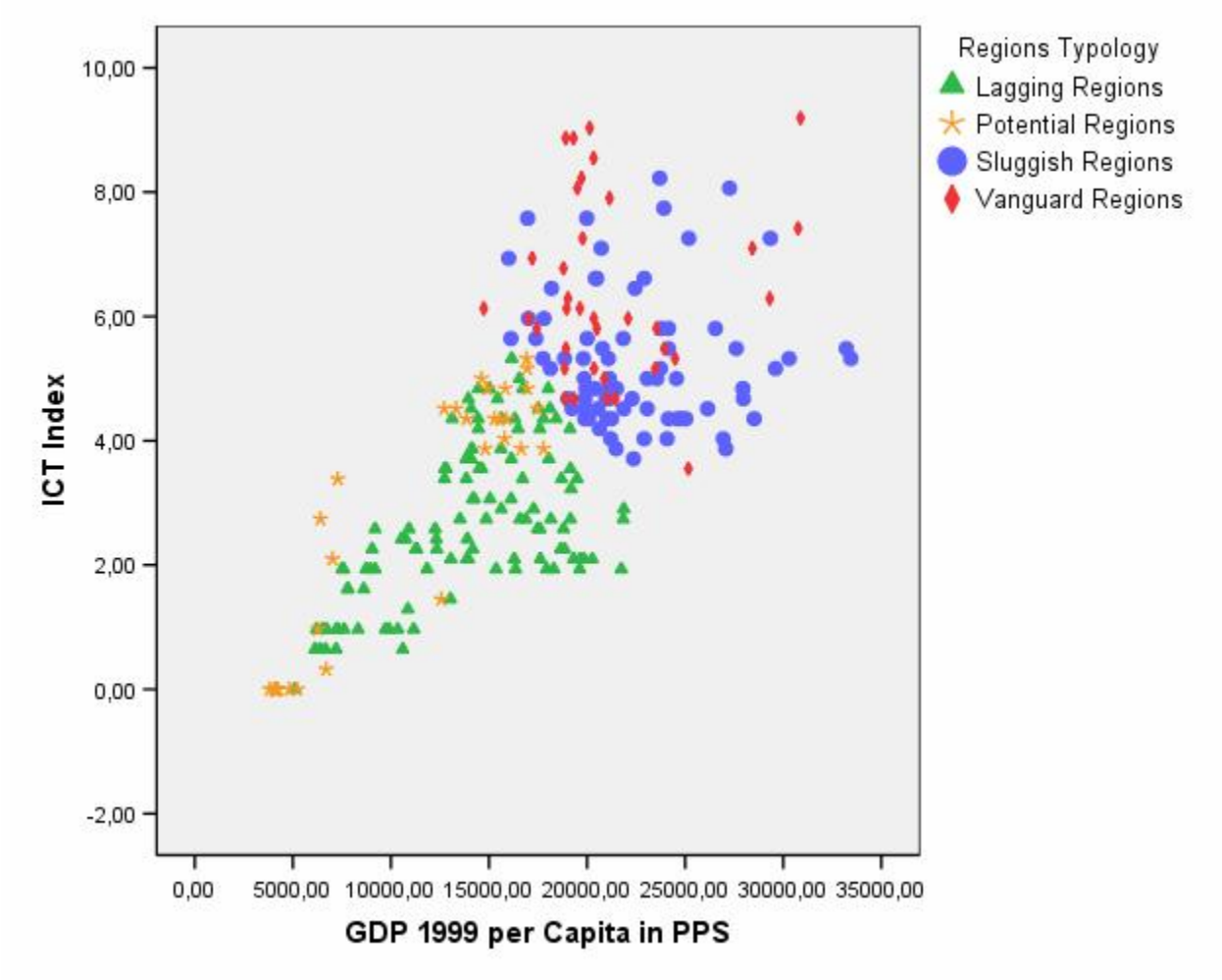
		Frequency	Percentage	Cumulative Percentage	Regions in the cluster / Regions in the country
Valid	Austria	1	2,8	2,8	11,1%
	Belgium	2	5,6	8,3	20,0%
	Czech Republic	1	2,8	11,1	12,5%
	Finland	1	2,8	13,9	20,0%
	Ireland	1	2,8	16,7	50,0%
	Netherlands	3	8,3	25,0	25,0%
	Norway	3	8,3	33,3	42,9%
	Spain	2	5,6	38,9	11,8%
	Sweden	8	22,2	61,1	100,0%
	United Kingdom	14	38,9	100,0	38,9%
	Total	36	100,0		

a: Region Type = Vanguard Regions

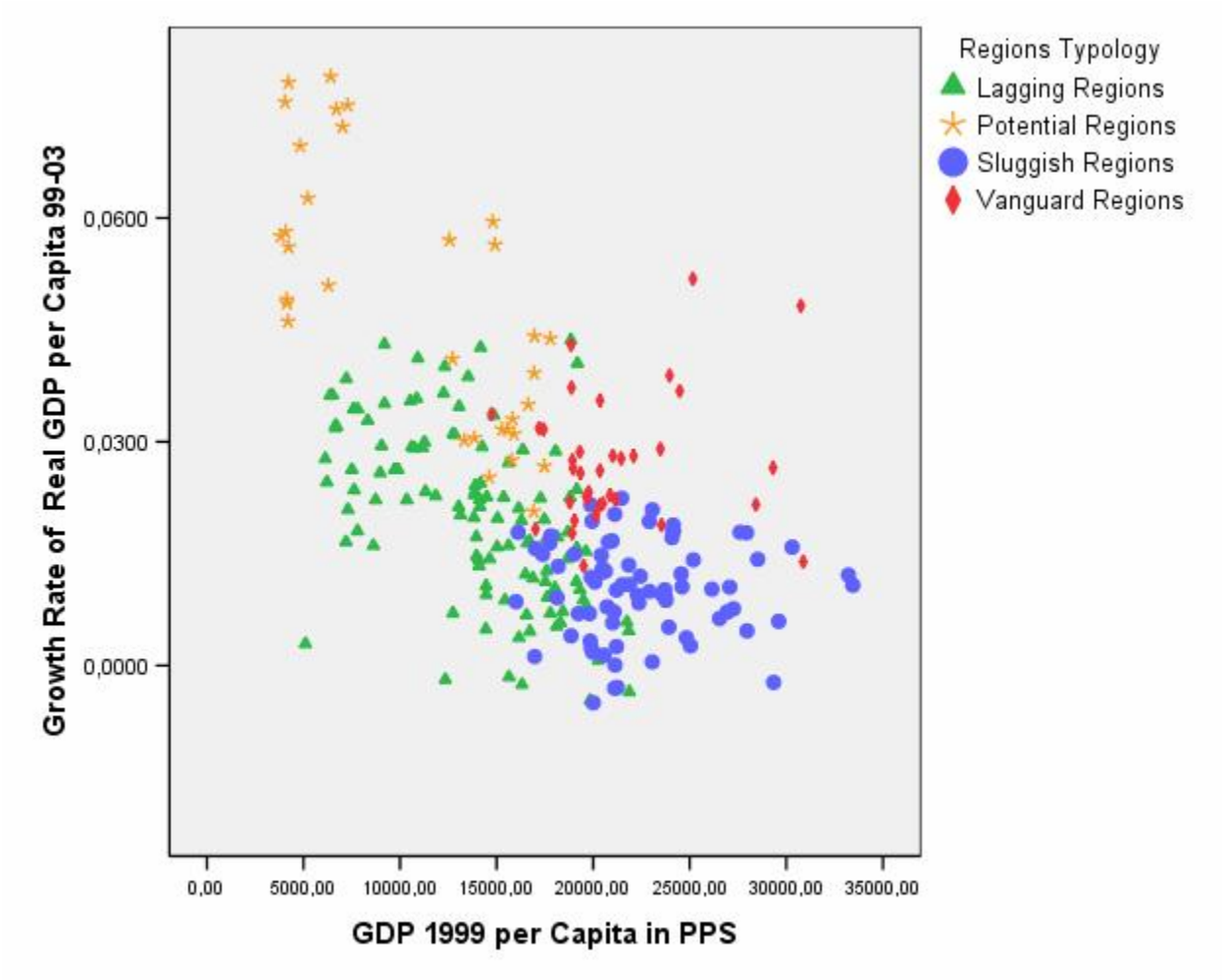
Graph 10


Regions Typology
Lagging Regions
Potential Regions
Sluggish Regions
Vanguard Regions
ICT Index
10,00
8,00
6,00
4,00
2,00
0,00
-2,00
0,0000
0,0300
0,0600
Growth Rate of Real GDP per Capita 99-03

Graph 11


Regions Typology
Lagging Regions
Potential Regions
Sluggish Regions
Vanguard Regions
ICT Index
10,00
8,00
6,00
4,00
2,00
0,00
-2,00
0,00
5000,00
10000,00
15000,00
20000,00
25000,00
30000,00
35000,00
GDP 1999 per Capita in PPS

Graph 12


Regions Typology
Lagging Regions
Potential Regions
Sluggish Regions
Vanguard Regions
Growth Rate of Real GDP per Capita 99-03
0,0600
0,0300
0,0000
0,00
5000,00
10000,00
15000,00
20000,00
25000,00
30000,00
35000,00
GDP 1999 per Capita in PPS