Study on Employment, Growth and Innovation in Rural Areas (SEGIRA)

Main report

Final

Client: European Commission, Directorate-General for Agriculture and Rural Development

ECORYS Nederland BV

In cooperation with ÖIR, ECOTEC, IDEA Consult and CRE

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Abbreviation list

AT	Austria
BE	Belgium
BG	Bulgaria
CAP	Common Agricultural Policy
CZ	Czech Republic
DE	Germany
DG AGRI	Directorate-General for Agriculture and Rural Development, EC
DG REGIO	Directorate-General for Regional Development
DK	Denmark
EAFRD	European Agricultural Fund for Rural Development
EAGGF	European Agricultural Guidance and Guarantee Fund
ERDF	European Regional Development Fund
EC	European Commission
EE	Estonia
EL	Greece
ES	Spain
ESU	European Size Unit
EU	European Union
EU15	The 'old' Member States: AT, BE, DE, DK, EL, FI, FR, IE, IT, LU, NL, PT, SW, UK.
EU27	The 27 Member States of the European Union (EU15 + NMS)
FADN	Farm Accountancy Data Network
FI	Finland
FR	France
FSS	Farm Structure Survey
GDP	Gross Domestic Product
GVA	Gross Value Added
HU	Hungary
IE	Ireland
IT	Italy
LAG	Local Action Group
LFA	Less Favoured Area
LT	Lithuania
LV	Latvia
MT	Malta
NL	The Netherlands
NMS	The New Member States of the EU, also called EU12: BG, CZ, CY, EE, HU, LT, LV, MT, PL, RO, SI, SK.
PL	Poland
pp	percentage point
PPS	Purchasing Power Standards
PT	Portugal

R&D	Research and Development
RDI	Rural Development Indicators
RDP	Rural Development Programme
RO	Romania
SE	Sweden
SEGIRA	Study on Employment, Growth and Innovation in Rural Areas
SK	Slovakia
SL	Slovenia
TRDI	Temporary Rural Development Instrument
UAA	Utilised Agricultural Area
UK	United Kingdom
vs.	versus

Executive Summary

1. Objective of SEGIRA

The European Commission, Directorate-General for Agriculture and Regional Development (DG AGRI) has initiated the **Study on Employment, Growth and Innovation in Rural Areas** (SEGIRA).

The aim of SEGIRA is to provide "a thorough assessment of employment and growth in rural areas with particular attention paid to women and young people, agriculture and the agri-food industry; the key conditions for stimulating economic growth in rural areas; and providing a classification of major drivers of employment and socio-economic development in rural areas".

Although there have been many studies analysing employment and growth throughout Europe, only very few of them are at NUTS3 level and focusing on the development of specifically the 501 rural areas in comparison to the 495 intermediate and 307 urban regions[1].

2. SEGIRA consists of four main parts

Firstly, a *trend analysis* has been made of the trends on employment and growth in the rural areas throughout EU27 from 1995 onwards, based on literature and on NUTS3 data.

Secondly, rural areas have been *clustered* based on a set of socio-economic indicators which show the specifics of rural areas throughout Europe.

Thirdly, for *15 regional case studies* more qualitative research has been done on the drivers and barriers for employment and growth in rural areas.

Fourthly, *80 good practices* have been collected: all projects stimulate employment and growth in rural areas and are funded with EU rural development funding (2000-2007 and 2007-2013) that are regarded as good practices on stimulating employment and growth in rural areas.

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1 DG AGRI/DG REGIO classification

Figure 0.1 Overview of the four parts of the SEGIRA study
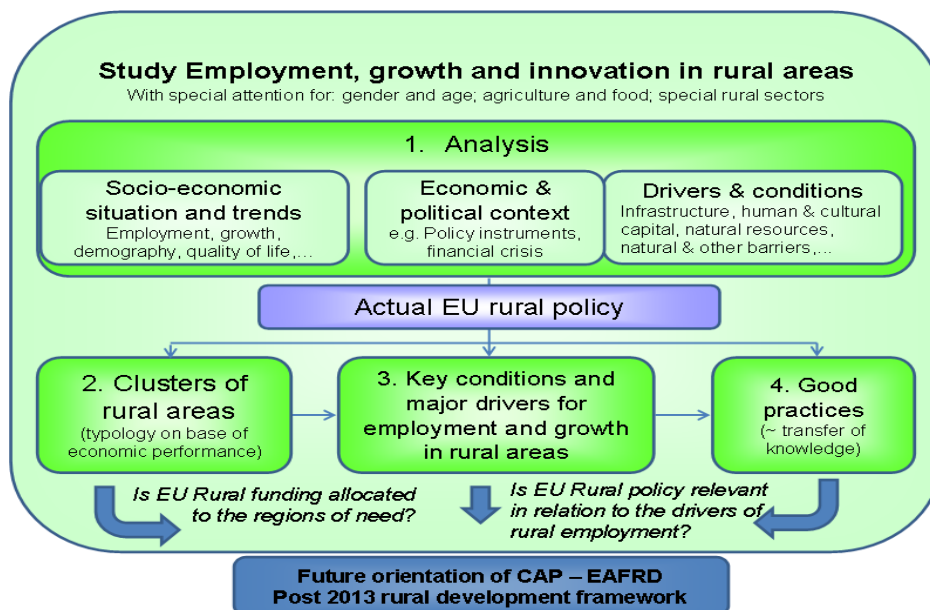
The research has been done by ECORYS Nederland in cooperation with IDEA Consult (Trend analysis), ÖIR (Clustering), ECOTEC (Case studies), CRE (Good practices) and with the support of country experts.

Part 1. Key Findings of the SEGIRA Trend Analysis

3. Approach of Trend Analysis

A trend analysis was made through 3 steps: 1) literature review, 2) identify and select indicators, 3) analyse 32 indicators.

All trends were analysed at NUTS3 level with an exception of the food industry and migration. At NUTS3 level the completeness and availability of data is a serious barrier for a reliable analysis. For this study indicators have been used that are considered most relevant and for which most data is available.

4. Importance of rural areas

More than half of the population of the European Union lives in predominantly or intermediate rural areas. These regions produce 45% of Gross Value Added and provide 53% of the employment of the EU27. In land use terms, rural areas represent 93% of the EU27 territory, with 20% of the population living in predominantly rural areas and 38% in significantly rural areas.

5. Higher growth in rural areas than urban areas

From the mid 1990s, both GDP/capita and the employment rate in rural regions have shown a positive trend. The growth of GDP/capita in rural regions is higher than in urban regions since 2001, due to a strong growth in New Member States especially from 2006 onwards. However, despite the positive trend that GDP/capita is increasing in rural areas, the gap between rural and urban is widening.

Additionally, the catching up of GDP/capita in rural regions is not reflected in employment rates: the growth in the employment rate in rural regions for the period 2005-2007 remains on average lower than the growth in all EU27-regions, although the employment rate in 2007 in rural regions is much higher than in the period 1995-2004.

A striking and very positive trend is the decline of unemployment rates in rural regions in the period 1999-2008 (before the economic crisis of 2008-2010).

6. Fast transition of rural economies

The economic structure of rural regions is in transformation: the share of the primary sector in GVA declines continuously, while the share of the tertiary sector grows. This is a general trend in all regions, but it is more pronounced in rural regions. The growth in tourism illustrates the growth of the tertiary sector. It is increasing in all regions (especially in Southern European countries) and is found as a main driver for growth and employment.

Rural areas across the EU have undergone profound changes in the last few decades. One of the most pervasive changes is the sectoral shift and the decline of the relative importance of agriculture in the rural economies of Europe, driven largely by productivity increases across the sector. In the EU27, while 96% of rural land use is agricultural (including forestry) only approximately 13% of employment is in agriculture, producing only 6% of gross value added in rural regions. Although the employment from the primary sector has declined from 18% in 2000 to 12% in 2006, the key activities (agriculture, forestry and fishing) remain important rural activities.

In rural regions across the EU27 the share of primary sector employment is more than twice the share of primary sector gross value added. It was observed that there is a tendency for fewer but larger farms (in ha and €) and that the average age of farmers is increasing. Critically, primary sector activities also act as a platform for many kinds of diversification activities.

The tertiary sector has become a more important job creator in rural regions. In both employment and GVA the tertiary sector increases. It was found that the expansion of the secondary and tertiary sector is one of the main drivers of economic growth in rural regions. New activities have grown up, including tourism, small scale, niche manufacturing and food production and business services.

The number of bed places per NUTS3 region in rural regions is lower than for EU27-regions in general, and the trend in rural regions is lagging behind compared with all EU27 regions.

There are strong input-output-interrelations in the food chain between the agricultural sector and the food industry. Based on an analysis of the performance of the food sector it can be concluded that the food sector in EU15 seems to have been a rather stable industrial sector.

7. Population: counter urbanization and declining share of active population

Alongside such changes to the economic base of many rural areas, demographic shifts have occurred, with many accessible rural areas across Europe experiencing counter urbanisation as more affluent, mobile people have chosen to move out of urban centres and into rural locations to commute, to start new enterprises or to retire.

Not all rural areas have seen population increases, however, and in many remote, mountainous parts of central and northern Europe and across much of southern Europe, depopulation remains the dominant demographic trend, particularly amongst the younger and economically active groups in the population.

Population growth in rural regions is limited, and falls below the growth of population of urban and intermediate regions. This is due to a lower birth rate in rural areas and a higher death rate.

While population density is relatively stable in all types of EU27 regions, the population of rural regions is older and ageing: the share of people more than 65 years old increases in rural regions and exceeds the share in urban and intermediate regions.

The analysis shows that the share of active population is declining in rural areas and this is considered to be an important barrier for future economic growth.

8. NMS versus EU15: GDP/capita in New Member States on 45% of EU15

There is a higher growth of GDP/capita in rural regions of New Member States than of EU15, but the GDP/capita level of the New Member States is only at 45% of EU15.

The employment rate is lower in rural regions of New Member States (59%) than in rural EU15 (64%), and there is not really a catching up by New Member States, even after 2004-integration. However, the evolution of unemployment in New Member States' rural regions is positive: unemployment rates have fallen in general, for men and women, and for youth, to levels below those of EU15 rural regions.

In addition, the share of the primary sector in GVA in rural regions of New Member States (9.3%) is more than double that of rural EU15 (4.7%). For the tertiary sector it is the opposite picture. The share of tertiary employment in rural regions of EU15 (64%) is much higher compared with the New Member States (50%).

There is still a divide in agricultural dynamics and structure between New Member States and EU15: agriculture in the New Member States typically employs more people, on a higher number of farms, which are on average smaller in size (in area size and economically). Semi-subsistence farming is much more a feature of the New Member States (60% of farms are between 1 and 8 ESU) compared to EU15 (24%).

Part 2. Clustering of Rural Areas

9. Approach for the clustering

In SEGIRA the rural areas have been clustered through 1) identify and select indicators, 2) use a correlation analysis, hierarchical algorithm and Ward's method to choose number of clusters, 3) three clustering exercises with 24, 27 and 20 indicators. This resulted in choosing the clustering on basis of 27 indicators; 4) analyse territorial distribution of EU policy.

10. Thirteen clusters were identified on the basis of 27 indicators

The clustering exercise on basis of 27 indicators provided a very concise and detailed specification of EU NUTS3 regions. The most determining indicators were:

- Socio-economic situation of the regions (in terms of employment, growth).

- Growth patterns of socio-economic situations (employment, unemployment, demography).

- Sectoral structure of the regions (in terms of primary, secondary and tertiary sectors as well as their development).

- Territorial specifics of the regions (in terms of built up areas vs. natural land).

- Funding situation of the CAP in these regions (included only in exercise with 27 variables).

This resulted in the following clusters:

Cluster 1: "Large European Cities"

Cluster 2: "Semi-urban areas with land use pressure"

Cluster 3: "Cities not aggregated with their surroundings"

Cluster 5: "Balanced rural areas with declining manufacturing sector"

Cluster 6: "Southern and Northern periphery and Mountains"

Cluster 7: "Coastal and mountain areas"

Cluster 8: "Eastern periphery – agriculturally dominated" - This cluster categorises very remote rural areas at the eastern boarder of the European Union.

Cluster 9: "Strong" rural regions in new Member States"

Cluster 10: "Central and North European industrial regions"

Cluster 11: "Rural Regions with significant Industry"

Cluster 12: "Global Cities"

Cluster 14: "Eastern periphery – industrialized"

Cluster 15: "Rural areas with strong rural development"

Map 0.2   Result of the clustering exercise

Data source: GISCO - Eurostat (European Commission)
© Copyright: EuroGeographics for the administrative boundaries

Enlargements

Greater London   Île-de-France   Malta   Départements et régions d'outre-mer Islas Canarias   Madeira & Ilhas dos Açores

Overseas

CLUSTER

I - Large European Cities	IX - 'Stomg' rural regions in new MS
II - Semi-urban areas with land use pressure	X - Central and Northern European industrial regions
III - Cities not aggregated with their surroundings	XI - Rural regions with significant industry
V - Balanced rural areas with declining manufacturing sector	XII - Global cities
VI - Southern and Northern periphery and mountains regions	XIV - Eastern periphery
VII - Coastal and mountain areas	XV - Rural areas with strong rural development
VIII - Eastern periphery - agriculturally dominated	

Variables
Ind_01_newurban
Ind_02_GDP_per_capita
Ind_03_change_gdp_pps
Ind_04_unemployment
Ind_05_change_unemploy
Ind_06_Training_education_agri
Ind_07_empl_dev_prim
Ind_08_change_emp_prim
Ind_09_farmers_gainful
Ind_12_tourism_beds
Ind_13_change_tourism_beds
Ind_14_lower_natural
Ind_15_lower_artif
Ind_16_pop_dens

Variables
Ind_17_change_popdens
Ind_18_share_oldage
Ind_19_oldage_develop
Ind_20_change_gva_prim
Ind_21_change_gva_sec
Ind_22_change_gva_tert
Ind_23_change_emp_sec
Ind_24_change_emp_tert
Ind_25_emp_sec
Ind_26_emp_tert
Ind_29_P1_Capita
Ind_30_P2_Capita
Ind_37_PrevP2_Capita

Map developed by ÖIR
© September 2010

Sources:
DG AGRI (Expenditure Data)
"Study on employment, growth
and innovation in rural areas"
(2010) managed by DG AGRI.

11. A description of the thirteen clusters

The classification of rural and urban areas according to the methodology of DG AGRI/DG REGIO shows a mixed map, with rural, urban and intermediate regions scattered throughout Europe. The European periphery can generally be titled as rural, especially Ireland, Portugal, Greece, great parts of Scandinavia and the Baltic States (excluding capital agglomerations). Predominantly rural are also great parts of Eastern and South-Eastern European countries. In contrast most urban areas can be found in the United Kingdom and the Benelux countries.

When comparing the territorial classification with the clustering approach it becomes apparent that all ten rural clusters are covering all types of regions (from predominantly urban to predominantly rural). When looking at the predominantly "rural areas" it becomes visible, that some of them are characterized by a balanced mix of economic sectors with some specialisation in either way (i.e. either industrialized or more agricultural dominated). Apart from this sectoral division of EU NUTS3 regions the location of the regions played a role when grouping the regions. This is remarkable as accessibility has not been depicted in the indicator set for clustering. Still the "remoteness" of regions (e.g. mountain areas, Eastern and Southern periphery) determined some of the clusters. As such the clustering shows that there is no "typical rural region" in terms of employment and growth, but a different type of "rurality" as depicted in the different clusters of regions. The clusters with a rather high share of rural regions are clusters 15, 5, 6, 8, 9 and 11.

12. "Rural" regions are structurally not lagging behind

"Rural" regions are structurally not lagging behind. A significant amount of "rural regions" showed a quite satisfactory structural condition as expressed by: development of population, share of employment of women, development of economically active population (in primary, secondary and tertiary sector), share of commuters, share of nights spent in relation to resident population, tax quota of resident population. All of these indicators (as represented in the cluster analysis) show that many of the "rural" regions are performing better than "urban" ones.

13. More diversity of economic activities in rural areas

Economic activities are spatially more and more equally distributed – leading to a higher diversity of economic activities in all regions: this situation is important in several ways:

- Higher resilience of regions through better buffer capacities (adaptive capacities) against shocks. The more economic sectors are represented in a region, the better the social safety net if one of these sectors is affected by an economic downturn.

- The territorial conditions are thus becoming a regional finger-print and will lead to better competitiveness and specialisation of regions (Porter hypothesis) – with a concentration on regional strengths.

- Synergies between sectors (e.g. agriculture, crafts and services) may lead to more growth and employment than a monopolistic concentration in one sector. Thus

policy support has to take these horizontal/ cross-sectoral growth aspects into account.

14. **"Rurality is determined by functions of spaces and not its economic activity**

"Rurality" is rather determined by functions of spaces than economic activity within: all regions are determined by their multi-functionality, which defines their development paths and character. Examples of such spatial functions are: production and procurement, economic function (creating employment and income), education and culture, settlement and housing, social services, recreational function, deposit function, eco-services. Thus – once again – regions are characterized rather by this mix of functions than a single economic activity.

15. **More differentiation needed**

What has been visualised by the clustering analysis is the need to differentiate far more regional development by the regional contexts. Growth and employment in rural areas is based upon a wide variety of economic activities and the main lesson to be learned is that those regions are likely to perform better, which succeed in taping on the synergies between economic sectors the most. It goes without saying that urban areas are still the motors and poles of growth and employment – however rural areas are apparently playing a far more differentiated role than just agricultural production pools and natural residual of cities, which build the counterbalance to their negative externalities. The analysis shows that the spectrum of functions of rural areas together with their potential for growth and employment has increased significantly, which could support an orientation towards a *place-based policy.*

16. **Territorial distribution of EU agricultural policy support**

The analysis of the territorial distribution of EU CAP expenditures at NUTS3 level shows that the CAP rural development policy followed the EU policy principle of territorial cohesion strengthening the Eastern peripheral regions by increased funding support. Interestingly enough this holds both true for Pillar 1 and Pillar 2, which for Pillar 1 (direct payments) is quite remarkable, as it does not follow in general the principle of cohesion policy and NMS are still in a process of phasing-in. Also in 2007-2009 this division continued.

Part 3 Regional case studies

17. **Approach for the regional case studies**

A set of 15 regional case studies were developed in SEGIRA to obtain more specific information in a diverse set of rural regions, through 1) develop typology for selecting case studies, 2) select case studies, 3) collect information per case study, 4) analyse trends, commonalities and to draw conclusions of the case studies.

18. Drivers of growth

In the case studies the following key drivers for employment and growth in rural economies were considered to be the most important:

1. Natural resources and environmental quality.

2. The sectoral structure of the economy.

3. Quality of life and cultural capital.

4. Infrastructure and accessibility.

These key sectors and drivers of growth have generally been well supported through co-ordinated local, regional, national and EU policy – and that this policy intervention has lead towards increasing effectiveness in key sectors.

Interestingly, the public service and voluntary ('third') sectors are not cited as a driver of growth (or as a key sector at all) despite the fact that public services in, for example, education, health, transport, local government/administration are often cited by case studies as being integral parts of the local economic structure. Equally, the wider service sector in the private sector beyond that associated with the visitor economy is also notable by its absence – for example, retail, banking.

19. Barriers to growth

The key barriers reported through case studies to growth in rural areas are primarily:

1. Demographic evolutions and migration (loss of young people and ageing).

2. Infrastructure and accessibility.

3. The sectoral structure of the economy.

In addition, the relative narrow sectoral structure of the economy for many regions illustrates a fragility of regional economies, vulnerable to economic and political change. Finally, for those regions more remote from urban centres, the poor nature of communications infrastructure and accessibility continue to hinder economic progress.

The loss of young people and the corresponding replacement by an ageing population provides a critical threat to the ongoing vitality of rural economies and rural communities. This threat applies across sectors but may be particularly important in agriculture where the average age of farmers increases relentlessly. Equally, retirees to the countryside force up house prices and restrict the available stock for young people, further exacerbating the problem of retaining young people. An ageing population also brings new challenges to rural areas (and in fact new economic opportunities) relating to service delivery (health, social services) and accessibility for older and less mobile people.

Those regions where prioritisation has not been given to supporting young people to stay in their communities are potentially failing to address a key aspect of sustainability and supporting an ageing demography for rural areas, undermining both employment and growth targets.

Migration and migrants inclusion into the local society and labour market has been outlined as an issue in several cases. In some EU15 countries where an influx of

young workers from some New Member States have provided a degree of replacement for the loss of local workers, particularly for the farming and food processing sectors (e.g. in South West Ireland).There is a need of tolerance, need of cultural understanding, employed in non-stable/seasonal jobs, etc.

20. Key sectors in rural areas

For rural Europe as described through the case studies, the key economic sectors are currently 1) Agriculture; 2) Tourism; 3) Food and drink and 4) Construction. Within the first three sectors, diversification of regional economies is considered key in driving growth.

From a number of case studies it can be observed that the economic base of rural areas, whilst diverse within key sectors (many activities comprise agriculture, food and drink production and the tourism/visitor economy), is still relatively narrow and therefore fragile. This may be apparent in the area referred to as the New Rural Economy and in particular in relation to eco-system services. For most rural areas there is little emphasis placed upon the emergence of a new economy based on, for example, IT or sustainable energy production. Similarly, little emphasis was placed on lack of high speed broadband availability as a barrier to new economic growth, although it surely can be concluded that slow or even non existent terrestrial broadband availability can only disadvantage rural economic growth and competitiveness. Farm diversification appears as a concept in almost all regions as a way of finding new income possibilities, especially for small-scale farms – in several regions major diversification activities are outlined. Furthermore Commuting seems important for a number of areas.

21. Impact of and responses to the economic crisis

The impact of the economic crisis has been extremely mixed across the rural regions of the EU. There is some indication that certain sectors have been more susceptible to the crisis than others – for example organic farming, added value processed food and drink. However, there is limited evidence to substantiate this presently.

Access to finance again is a potential barrier to growth for both start ups and businesses seeking to expand. However, no direct evidence is offered to suggest this is any more a problem for rural business as compared to urban ones.

It also seems that young people, those aged up to 25-30 years are most affected by the crisis in terms of unemployment and options for (starting) a job.

Policy responses to the crisis have generally been regarded as sub optimal.

22. Young people and women

The Case Studies have investigated the extent to which policy has supported the engagement with and involvement of both young people and women in securing economic success for rural areas. The case studies produce mixed conclusions, showing a relatively strong focus of policy upon young people, across both EU15 and New Member States but a less strong focus upon women, although again with no particular disparity across EU15 and New Member States.

23. Effect of rural development policy

Most regions studied were generally positive about the *effect of rural development policy* upon growth and employment, but with many regional variations of course observed. Tourism, agriculture and tertiary industry were all sectors noted as having been stimulated by policy intervention.

A well-based local / regional *integrated approach* is important for an effective utilisation of funds from different sources.

Complementarity and synergy between policies and funds should have an effect that leads to the successful economic development of regions, which as confirmed by the case studies.

Part 4 Good practices on employment and growth in rural areas

24. Approach for identifying and compiling a 80 Good Practices Database

The final aspect of the SEGIRA project was to identify 80 good practices and develop a database based on these for further dissemination. They are widely spread geographically (across all Member States), across the four RDP axes and for 2000-2006 and 2007-2013. The approach used was: 1) developing a selection criteria typology, 2) collecting a 'long list' of 170 potential good practices, 3) selecting 80 good practices for analysis, 4) complete project fiche per good practice, 5) summarizing the results.

They essentially perform a dual function of a) illustrating the effectiveness of rural development interventions and support and b) furthering the exchange of information and providing inspiration and a source of new ideas for practitioners in rural development across EU.

25. Sectors and topics of the Good Practices

There are Good Practices in the following 11 sectors, namely 1) Agricultural; 2) Producer 7) Agri tourism; 8) Basic services; 9) Village renewal; 10) ICT; and 11) Training/Skills. Furthermore also projects that focus on young people and women have been selected. Many projects are actually cross-sectoral and cover several areas.

An overview of the 80 good practices has been provided in this report on the below topics in order to highlight similarities and differences among countries, new and old Member States, geographical areas and sectors:

1. Project sectors
2. Focus on young people and women
3. Focus on technological innovation
4. Focus on partnerships / networking
5. Focus on innovation in rural service provision
6. Project size (as defined by total budget and EAFRD contribution)
7. Application process
8. Business plan development
9. Success factors
10. Lessons learned
11. Transferability
12. Employment situation
13. Other key points

Some quantified analysis of the projects is possible but the commentaries which appear in the fiches are especially rich in qualitative information. There would be particular merit in encouraging further contact between projects, particularly those of a similar type which feature in the database.

26. Common strands emerging from the case studies

It would appear that *modernization of primary production* systems is the main priority for New Member States in deploying RDP funding. Conversely, *economic diversification* and *community services* and *infrastructure* feature more strongly in the more mature rural economies of EU15.

27. Project application

There is inevitably some criticism of the RPD project application, support and appraisal/approval process which is commonly accepted as being complex and time consuming to navigate. Overall however the sentiments expressed by projects managers have been mainly neutral or positive.

28. Lessons learnt and success factors

The 80 good practices provide a wealth of information on lessons learned and factors for success. It can be concluded that three elements are considered the most important for successful projects:

1. Management. Professional project management has been indicated as the most important success factor and good preparation before the application has been mentioned as the second most important lesson.

2. People. Regional support, good cooperation, enthusiasm and commitment have been mentioned as very important success factors. Under the lessons learnt the effective partnerships, professionals and experts are considered the most important lesson and furthermore a good organisation structure is an important lesson mentioned.

3. Content. A good project content has been mentioned as an important lesson and under the success factors a sound business development plan is mentioned.

It is recommended that DG AGRI explores how these success factors and lessons learnt can be used in future projects and programming period.

29. Other key points in the good practices

During the analysis of the good practices, a number of key points were observed that could not be placed under any of the sub-sectors used in the above analysis. These 'key points' fall into the following categories and are briefly discussed here:

- The *ageing population* structure and *out migration* of young people to find suitable employment is almost universal. Many of the good practices are designed to address this issue.

- *Unemployment rates* are especially high in New Member States (particularly among women) and this is despite the fact that rural areas tend to export their unemployment.

- *Employment in the primary sector* remains higher in the New Member States and remoter parts of the EU15 although productivity and farm structure are much weaker. There is a resistance to producer cooperation in traditional farming areas.

- Considerable emphasis is placed on the connections between *environmental quality and tourism*, and the scope for adding value to primary products. These are regarded as areas with scope for innovation and having growth potential.

- *Healthcare* has been identified as a potential growth sector and an expanding source of female employment in rural areas.

- *Renewable energy* is also regarded as a growth sector and some highly imaginative projects illustrate the potential.

- It is interesting to see that mostly projects on renewable energy are considered *innovative.* Furthermore there are several projects on innovation in rural service provision (on disabled people and broadband infrastructure for remote communities).

- *Adequate broadband* infrastructure is regarded as essential for the economic and social sustainability of communities in more remote rural areas.

- There is some apparent tension between *sectoral* (agricultural) development *vs. territorial development* and between localisation vs. centralisation. Leader is often regarded as the essential mechanism for initiating local action and building capacity in rural communities.

ECORYS

Study on Employment, Growth and Innovation in Rural Areas (SEGIRA)

1 Introduction

1.1 Introduction

This 'Study on Employment, Growth and Innovation in Rural Areas' (hereafter SEGIRA) has been initiated by Directorate-General for Agriculture and Rural Development of the European Commission (hereafter DG AGRI) and has been executed by ECORYS Nederland in cooperation with IDEA Consult (analysis), ÖIR (clustering), ECOTEC (case studies and good practices) and CRE (good practices) and with the support of country experts.

Overall aim of SEGIRA: Policy questions to be answered

The overall aim of this study is to give the European Commission a better understanding of what constitutes and drives employment and growth in European rural areas; and how EU policy can best support future rural development. More specifically, this study will serve as a basis for the European Commission to:

1. *Assess the evolution and patterns of development* of employment, growth and socio-economic situations in rural areas and the current state of play (with a specific focus on young people and women, and on the influence of the rural development policy on employment and growth).

2. *Identify those rural areas* where agricultural development is *under pressure*, such as areas with a mountain or island character, those affected by some degree of remoteness to the food-chain, consumers and labour markets, and those with environmental constraints.

3. *Assess the factors* that create demand for rural development funding, the key conditions for economic growth and major drivers of employment and socio-economic development in rural areas including relationships to wider EU employment policy (with special attention to the diversity of rural areas across the EU).

4. Assess the *role played by rural development policy*, looking at the extent to which the specific approach of EU rural development policy meets local needs and what synergies are gained through Community action.

5. Identify the issues and areas on which *future rural development policy* actions could focus, according to the identified employment and economic growth needs (with a special attention to rural development policy areas of intervention such as rural tourism, farm income diversification, basic infrastructure and social services).

6. Further support innovation and the *transfer of knowledge* – via the identification and development of a set of good EAFRD-practices with respect to initial conditions, key drivers of employment and growth, impacts and benefits.

7. Potentially support the discussions on the post-2013 rural development policy framework.

1.2   Objectives of SEGIRA

The major objective of SEGIRA is to "*provide a thorough assessment of employment and growth in rural areas with particular attention paid to women and young people, agriculture and the agri-food industry, the key conditions for economic growth and providing a classification of the major drivers of employment and socio-economic development in rural areas*".

This study has been carried out through four major parts:

1. **Trend analysis:** Assessment of employment and growth in rural areas with particular attention paid to women and young people, agriculture and agri-food industry.

2. **Cluster analysis:** Identify clusters of regions based on socio-economic situations and developments.

3. **Factor analysis:** Carry out 15 regional (NUTS3) case studies to identify *key conditions* for economic growth and *classification of major drivers* of employment and socio-economic development in rural areas.

4. **Good practices:** Identify and document a set of 80 good practices on rural development (EAFRD) initiatives that stimulate(d) employment, growth and innovation in rural areas.

It is clear from the strategic and operational objectives as described above, that this is a broad study, both in terms of scope and content. The figure below visualizes the overall structure of this project – highlighting the issues and linking the different parts and the main tasks.
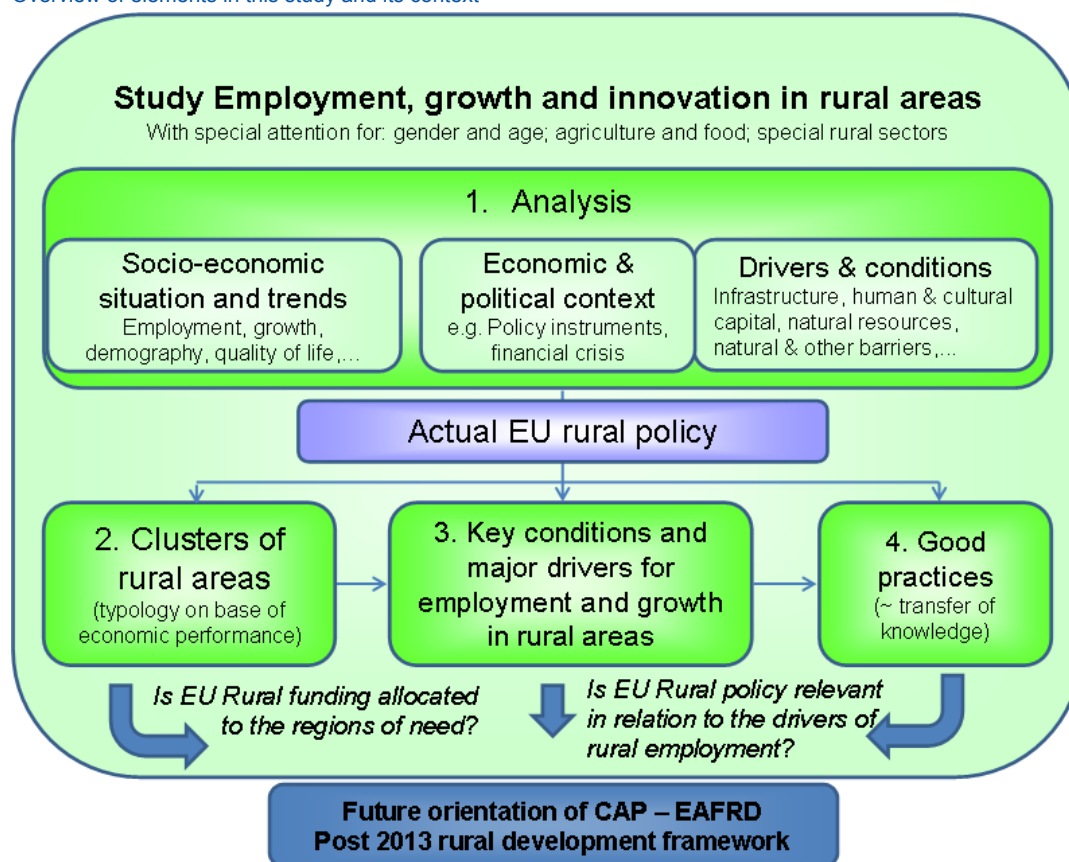
1.3   How to read this document

This main report is the final result of the SEGIRA. The report starts with an executive summary in English.

After this introduction (chapter 1), the chapters each present one of the main parts of the study and are followed by a final chapter with the conclusions of the study:

- **Chapter 2** presents the literature review and the theoretical factor framework.
- **Chapter 3** presents results of the trend.
- **Chapter 4** presents the results of the clustering analysis.
- **Chapter 5** presents the results of the regional case studies.
- **Chapter 6** presents the results of the good practices.
- **Chapter 7** summarizes the conclusions of the study.

Each chapter has a similar structure: After the objective of the chapter, the approach and theoretical framework is described after which the analysis and conclusions are given. This study finishes with the conclusions for the whole study.

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2 Literature review

2.1 Theoretical approaches to rural development

Rural areas represent 93% of the territory of the EU-27, with 20% of the population living in predominantly rural areas and 38% in significantly rural areas. Rural areas across the EU have undergone profound changes in the last few decades. As farming has declined in terms of its economic contribution in many rural areas, new activities have grown up, including tourism, small scale, niche manufacturing and food production and business services. In many areas, however, farming remains important in terms of its contribution to employment. Alongside such changes to the economic base of many rural areas, demographic shifts have occurred, with many accessible rural areas across Europe experiencing counter urbanisation as more affluent, mobile people have chosen to move out of urban centres and into rural locations to commute, to start new enterprises or to retire. The *Study on Employment in Rural Areas (SERA)* (European Commission 2006) describe this process as 'accumulation' both in demographic terms and in terms of economic activity. Not all rural areas have seen population increases, however, and in many remote, mountainous parts of central and northern Europe and across much of southern Europe, depopulation remains the dominant demographic trend, particularly amongst the younger and economically active groups in the population. The SERA (European Commission 2006) describes this process as 'depletion'. As a result of these diverse processes, Persson and Westhold (1994) talk of 'a new mosaic of rural regions' with winners, in-betweens and losers.

As the EDORA project explains, a number of 'big ideas' have emerged in recent years to offer a holistic, wide-ranging explanatory context for change in the countryside, including rural restructuring, ecological modernisation, the consumption countryside, multifunctionality, post-productivism, endogenous development, the network paradigm, sustainable rural communities and globalisation (EDORA 2008, p. 2). All of these approaches and concepts emphasise the increasing diversity of the European countryside. Alongside these socio-economic changes, there have also been policy shifts in terms of a move away from an agricultural (i.e. sectoral) approach to rural development towards a more integrated, territorial and holistic approach to the development of rural areas, as advocated in *'The Future of Rural Society'* (European Commission 1988).

As Arnason *et al.* (2009) argue, there is also a set of social and cultural factors that have influenced how environments are used in rural Europe. Marsden (1998, p. 15), for example, notes that the *"new demands, for "quality" food production, public amenity space, positional residential property, areas of environmental protection and for the experience of different types of rural idyll or urban antithesis, are now much more entrenched in rural space"*. Added to this could be new demands on rural areas as sites for mitigating responses to climate change. These demands have arisen both from the movement of population from urban to rural areas in many countries, but also from a broader, European-wide rethinking of the uses of rural areas, informed by food scares and the rise of environmental movements.

As rural areas across Europe are so diverse, there is no single, overarching 'rural problem' for rural development policy to address. However, it is increasingly agreed that the development of rural areas should build upon and conserve their intrinsic qualities and assets (Bryden and Hart 2004; van der Ploeg and Long 1994). What may be required in one rural locality may differ from the prevailing needs, and indeed resources, that are available in another (Ward et al. 2005, p. 4).

First an exogenous approach to rural development…

In recent decades there has been a major shift in the predominant approach to the development of rural areas. Dominant in post-war Europe up until the 1970s, the classical formulation of rural development was an exogenous model ('driven from the outside'). Urbanisation and industrialisation were the key population and economic trends across Europe and these were put at the centre of development. The exogenous model emphasised urban areas as the growth poles of development; in short the main forces of development were conceived of as emanating from outside rural areas. Rural areas were left to benefit from trickle out effects from these growth poles and tended to be regarded as the places which provided food and labour to the expanding cities which were the powerhouses of economic growth. Any investment in rural areas tended to be sectoral (i.e. to modernise the agricultural sector) or focused on setting up branch plants in order to create employment opportunities for the local population (Terluin 2003, p. 332). Rural areas were regarded as marginal and distant in geographical, technical, economic and cultural terms from the main centres of activity and in all these respects were considered 'backward' (Ward et al. 2005, p. 4). Rural development was externally determined and effectively transplanted into particular regions, with the benefits exported from the region and local values trampled on (Slee 1994, p. 184).

By the late 1970s, the exogenous model was falling into disrepute, not least as it became evident that some rural areas were developing successfully and more sustainably using local resources and without relying on nearby urban growth poles (Bryden and Hart 2004). Exogenous development came to be criticised as *dependent* development (which relied on subsidies from, and decisions made by, distant agencies); *distorted* development (which boosted single sectors, selected settlements and certain types of business [e.g. progressive farmers]) but left others behind and almost totally neglected the non-economic aspects of rural life. It was also cast as *destructive* development (which erased the social, cultural and environmental differences of rural places) and *dictated* development (devised by external experts and planners from outside local rural areas) (Ward et al. 2005, p. 4).

… followed by an endogenous approach

Exogenous approaches were therefore replaced by endogenous approaches as the dominant rural development paradigm. Endogenous approaches ('driven from within') are based on the assumption that the specific resources of an area – natural, human and capital – hold the key to its sustainable development. Whereas exogenous development effectively erased and overcame local distinctiveness, endogenous development sees the key challenge as valorising difference through the nurturing of locally distinctive human and environmental capacities (Bryden and Hart 2004; van der Ploeg and Long 1994; Shucksmith 2000). Endogenous development sees local resource endowments – climate, land fertility and environmental quality – and the specific characteristics of human and

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cultural capital as providing the fundamental conditions for long-term rural socio-economic development (Ward et al. 2005, p. 5). In contrast to the exogenous model, the benefits of development tend to be retained in the local economy and local values are respected (Slee 1994, p. 184). In practice, an endogenous, integrated and territorial approach means support for rural diversification and local businesses and provision for suitable local training, education and capacity building for people in rural localities to undertake local initiatives (Shucksmith 2009, p. 3).

Resulting in mix approach

Recently, some authors have criticised the endogenous approach to development (see for example, Lowe et al. 1995; Ray 2001), arguing that the notion of local rural areas pursuing socio-economic development autonomously of outside influences, such as globalisation, trade or governmental policies and actions, is an ideal but not a practical proposition in contemporary Europe. Any locality will include a mix of exogenous and endogenous forces, and the local level must interact with the extra-local. The critical point is how to enhance the capacity of local actors and institutions to steer these extra-local processes, resources and networks positively to their advantage. This is the notion of neo-endogenous development (or mixed exogenous/endogenous development); the focus is on the dynamic interactions between local areas and their wider political, institutional, trading and natural environments and how these interactions are mediated (Ward et al. 2005, p. 5). Rural development is about horizontal relations and networks between local actors but also vertical relations through which the 'top-down' meets the 'bottom-up' (Murdoch 2000). Hence, rural development is considered as a complex mesh of networks in which resources are mobilised and in which the control of the process consists of an interplay between local and external forces (Terluin 2003, p. 333). The key is to ensure that local actors, with good stocks of human and social capital, positively and proactively participate in internal and external development processes (Ward et al. 2005, p. 5). Critical actors in neo-endogenous processes include area-based partnerships, EU-funded LEADER groups, business support agencies, local authorities and larger voluntary agencies. These are intrinsically locally rooted and have a localistic orientation, but also draw upon non-local networks and resources. Other actors might also include those whose mode of working is simultaneously local and global but do not necessarily have any specific localistic orientation or commitment, such as NGOs, regional universities and national and international companies.

This project is rooted in a neo-endogenous approach to development in which the importance of both local and extra-local drivers and barriers for rural growth is recognised.

2.2 Characteristics and trends in EU rural economies

Introduction

This section reviews a wide range of research projects that have been undertaken recently to highlight the key characteristics and trends in terms of rural economic development across the EU countries. This section draws heavily on a number of recent research reports, including the 'SERA' report (European Commission 2006).

Rural economic growth

Rural areas generate 45% of gross value added in the EU-27 and 53% of employment (European Commission 2006). GDP per capita in rural locations tends to be lower than the national average and across the EU-27 the income per capital of predominantly urban areas is almost double that of predominantly rural areas. Low levels of income make it harder to attract and retain skilled individuals (European Commission 2006). However, as noted by Ward et al. (2005, p. 3) it is possible to find some rural regions in every EU Member State that are amongst the most economically active in their country. In England, for example, the evidence suggests that the smallest rural settlements have seen the largest growth rates in average annual GVA between 1995 and 2005, larger than urban centres (Commission for Rural Communities 2008). Further work by Defra (the Department of the Environment, Food and Rural Affairs) in England (Defra 2005) has identified five key drivers of growth: skills, enterprise, innovation, investment and competition. This study identified that poor productivity in rural England is associated with a variety of factors, including low educational attainment and lower levels of job related training (i.e. lower levels of human capital), a lower proportion of knowledge intensive businesses and lower adaptation to new technologies and ICT and lower levels of investment in rural firms, which can hamper their ability to grow.

Rural business activity

The creation of new enterprises can offer an important means of diversifying and strengthening rural economies, but the diversity of businesses across rural areas of the EU represents a real challenge in policy and business support terms. A flexible policy approach is required which takes account of the characteristics (e.g. age, experience and origin) of individual business owners, the needs of rural SMEs and the broader characteristics of the rural economies in which they are operating.

Evidence on the performance and growth prospects of rural firms is mixed, but some studies have found that rural businesses tend to out-perform urban businesses (see for example, Keeble et al. 1992; North and Smallbone 1996). The performance of rural businesses will depend on broader sectoral trends, and also the orientation of business owners, for example in terms of accessing new markets or networking relationships. Some evidence from rural England in the 1990s suggested that remote rural firms were less innovative than urban businesses (North and Smallbone 1996), and Keeble et al. (1992) found that accessible rural firms were more innovative than remote rural firms. Remoteness can impede innovation if there is a relative absence of non-local networks. Highly localised networks may hamper the development of technical and market intelligence and limit market opportunities, while the maintenance of dis-embedded markets can broaden innovation possibilities (Atterton 2007).

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Home based businesses are becoming increasingly popular in rural areas of European countries experiencing growth in terms of the NRE (the New Rural Economy). Evidence from England in 2001, for example, suggested that 12% of the economically active population in rural districts were working at or mainly from home (over half a million people), compared to 8.2% in urban districts outside London (Commission for Rural Communities, 2005). This 'live-work' model contrasts sharply with the 'live-work' model in other Member States, particularly in southern and eastern Europe, which is based on self-employment in the agricultural sector (Lee et al. 2009, p. 9). Further work by Phillipson et al. (2004) confirms the importance of households in providing support and resilience to rural micro-businesses during times of crisis, by acting as a buffer to firms, absorbing revenue and employment effects through adjustments in the wage taken from the business, restrictions in household spend, the deployment of personal savings and the use of household members as a flexible labour reserve.

Rural employment

The European Commission (2006) recognises the diversity of Europe's rural areas in terms of a number of different socio-economic factors, including labour markets. This diversity is part of the richness of the EU but many of Europe's rural areas face a common challenge – their capacity to create high quality, sustainable jobs is falling behind urban areas. The Commission terms this the 'Rural Jobs Gap'. In the period 1996-2001, employment has increased fastest in the urban areas of the EU-25. The employment rate has increased by 3.6% in predominantly urban areas compared to 1.9% in predominantly rural areas, suggesting a widening of the urban-rural employment rate gap (SERA: European Commission 2006, p. 44), although the variations between old and New Member States are marked. In 2004, employment rates in the EU-27 were almost 5% higher in predominantly urban (64.7%) than predominantly rural areas (60.1%). However there are considerable geographical variations across the EU, with southern and eastern Member States tending to have lower activity rates than those in the north east. Regions closer to larger economic centres also tend to have relatively higher rates, and indeed higher rates of growth in employment rates, than peripheral regions. This is in line with the general trend in OECD countries (OECD 2006). Moreover, at sub-regional level the trends can also be varied, for example where labour moving out of agriculture in the countryside has been absorbed into market towns and large villages (European Commission 2006).

In terms of gender differences, the differential employment rates of females in urban and rural areas is particularly marked suggesting that the "employment constraints of rural areas affect women disproportionately and compound the societal limitations on female participation" (SERA: European Commission 2006, p. 22). Having said this, many rural areas have seen increasing rates of female employment in recent years, although this rate has generally been lower than in urban areas, and many of the opportunities are in poorly paid and under-valued sectors of employment (Mauthner and Hay 2003). Further work in the North of the Netherlands has examined differences in female participation in rural and urban labour markets. Mirroring the findings of the SERA study, this work found lower rates of female participation in the labour market in rural areas although differences in rural and urban net female participation in salaried employment appear minimal. Females in rural areas were more likely to opt for part-time work than in urban areas, and the report notes the importance of considering urban-rural differences in accessibility and potential job availability (Polman and van der Elst 2008; see also Green and Hardill

2003). Some of the reasons why female participation rates are lower in rural areas include inadequate child-minding services and transport facilities and the inaccessibility and scarcity of training centres. Mauthner and Hay (2003) note the importance of enhancing employment opportunities as well as improving infrastructure and services to attract and retain women in rural areas and thereby ensure the sustainability of rural communities.

Unemployment is higher amongst rural women (10.6%) than rural men (7.9%) and this differential is higher than in urban areas (SERA: European Commission 2006). However, often women are highly active in rural communities, but their multiple roles and responsibilities (in addition to their domestic roles) are not well recognised. For example, women have been found to be highly active in terms of the LEADER project as important facilitators, innovators and taking on key roles in rural development programmes.

Unemployment rates vary considerably across regions and countries of the EU. On average, unemployment rates are generally higher in rural than in urban areas, but as Ward et al. (2005) note, unemployment in some rural regions of the most developed EU Member States (e.g. Denmark, Germany, France and the UK) is lower than in urban areas. In countries characterised by high unemployment rates, urban-rural differences may be particularly marked. Unemployment rates amongst young people in rural areas are also high in many EU countries (particularly amongst young males, with young females more likely to find part-time, insecure and poorly paid work than young males), often as a result of lack of experience and accessibility to training infrastructure and information technology. SERA (European Commission, 2006) notes youth unemployment rates of 17.6% and 16% in predominantly and significantly rural areas, compared to 11% in urban areas. Despite the identification of young people as a policy priority in both European and national level, there are few policies directly specifically at young people, especially within the rural economy.

The PAYPIRD project (Jentsch and Shucksmith 2004) examined how young people are integrated into or excluded from local labour markets in rural areas. Building on previous work, the project highlighted the complex nature of youth transitions into employment as a result of various factors, including difficulties in accessing training and further education, a lack of quality jobs, the seasonal nature of jobs, a lack of transport provision and problems of housing affordability (see also Hay and Shucksmith 2003). The project identifies youths as an isolated and constrained demographic within rural areas, often overlooked and excluded from labour markets. Their lack of involvement and unawareness prompts recommendations in the report suggesting that partnerships need to engage with young people in the communities, making them more accountable throughout the processes of development. The report also highlights the importance of the education system in offering young people the prospect of well paid, quality employment but that its formality and inflexibility can be disadvantageous to those who do not complete their education. Amongst other tangible actions, the report recommends building an explicit youth element into community development and promoting a local culture which accepts children and young people as social actors.

Long-term unemployment tends to be highest in significantly rural areas, which could indicate growing exclusion of low-income groups. It is estimated that 'hidden unemployment' (involving underemployed farmers and farm workers) probably accounts for around 5 million people in rural areas of the EU (European Commission, 2006). Work by Lindsay et al. (2003, 2005) in rural Scotland has explored the barriers to work faced by long- and short-term unemployed people in remote rural labour markets. The research

found that many job seekers had gaps in generic and job-specific skills, while some (particularly males) were reluctant to pursue opportunities in non-traditional sectors of the economy. The importance of informal job search and recruitment networks (which may exclude the young and long-term unemployed) and lack of access to formal employment services in remote areas also potentially contributed to labour market disadvantage.

There is no doubt that primary sector activities (including agriculture, forestry and fishing) remain important rural activities in terms of their dominance of land use, their management of natural resources and role in determining the environment and landscape, and as a platform for many kinds of economic diversification in rural communities, especially in the southern and New Member States. However, particularly in northern and western parts of Europe, traditional farming and forestry activities can no longer realistically be viewed as the drivers or 'backbone' (Terluin 2003, p. 327) of the rural economy. A recent EU statistical report notes that 82% of employment and 95% of value added in predominantly rural areas of the EU-27 came from non-agricultural sectors (European Commission 2009c).

As noted in Lee et al. (2009), the most pervasive change affecting rural economies is the declining relative importance of agriculture in European rural economies. Two main economic processes underlie this: first the rise of the 'New Rural Economy' (NRE) and second the refocusing of agricultural activity towards the production of quality food products on the one hand, and environmental benefits on the other. Both these processes are contributing towards the diversification of rural economies, reducing the economic reliance on mainstream agriculture and promoting the non-farm economy and alternative forms of farm-related business.

The importance of primary sector activity varies across Member States; for example, in Sweden and Belgium primary sector activity forms less than 3% of total employment. However, in Romania and Bulgaria, primary sector activities account for 33.3% and 21.4% of total employment respectively (SERA: European Commission 2006). In these areas, farm diversification strategies have had little impact on the structure of the labour market with agricultural contracting by large-scale farms the main outcome. The creation of non-agricultural opportunities (in line with the NRE trajectory of Western Europe) has generally failed to materialise and the SAPARD programme did little to address non-farming issues (Lee et al. 2009, p. 5). The EU-25 average is somewhere around 5% (European Commission 2006, p. 4). Part-time work has become increasingly popular within the EU-15 enabling more females to enter the farming sector: 39% of females working in the sector worked part time in the EU-15 (SERA: European Commission 2006, p. 84) and there is a higher share in central and eastern Member States. Some farmers have taken on other gainful economic activities to supplement their farming income: 35% of European farmers had another gainful activity other than agriculture in 2007 (European Commission 2009c).

Often the proportion of workers employed in farming is highest in the poorer, more peripheral regions where adjustment levels are low and few alternative employment opportunities available. A strategy of diversification in these regions would reduce the dependence on the farming sector and help to encourage more young people to remain (SERA: European Commission 2006). The SCARLED project has found that the elderly and less educated appear to be more likely to stay in agriculture which leads to impoverishment in terms of human capital. In comparison, the young and educated are mobile and seek alternative employment outside of agriculture in the industrial or service

sectors (van Herck 2009). The report reiterates the importance of non-pecuniary benefits, with self-employed farmers tending to stay within the agricultural sector and emphasises the need for diversification with more employment alternatives vital to provide options for the young and educated.

Total agricultural working units in both Poland and Romania are above 2 million, compared to around 340,000 in the UK and 165,000 in the Netherlands (EDORA 2008, p. 3). Moreover, agricultural productivity is far lower in most predominantly rural areas. Technological change continues to result in a steady loss of farm jobs, and economies of scale motivate a continuing process of holding amalgamation. At the same time, in some countries, particularly in southern and eastern Europe where agriculture and related activities remain more important, small holdings remain common. In other European countries small holdings have emerged close to major cities and towns largely to satisfy the lifestyle aspirations of affluent commuters (EDORA 2008, p. 4). More broadly, some farmers have moved out of mainstream production and towards non-conventional food products and the generation and maintenance of environmental goods. In this regard, new markets have been developed around the production of quality food products identified by PDOs, PGIs, organic and other branding tools signifying locality, regionality and/or production methods. The orientation of small-scale farming around quality food is in line with the aspirations of the Lisbon Strategy to focus upon higher value added economic activity (Lee et al. 2009, p. 3-4). Other new initiatives have emerged within farming, including social farming, which aims to promote the rehabilitation of disadvantaged groups and increase their integration as well as helping farmers to diversify in their activities and broaden their role within society (Di Iacovo 2006). This has resulted in a polarisation of the farming sector between large-scale commercial agriculture and small-scale pluri-activity (EDORA 2009, p. 3). A major issue for the agricultural sector is the ageing of the farm population. As the European Commission (2006, p. 5) reports, less than 10% of farm holders in the EU-25 are younger than 35 and more than 24% are over 65 years old. Over the period 2000-2005, EU-25 agriculture has shed labour mainly in the prime-age group (25-54), followed by younger workers (15-24) and only then by older workers (55-64). The decreasing number of young people in the agricultural sector can create specific difficulties for generational renewal (European Commission 2006). Farmers' training levels are highly variable between Member States and in some instances, many farmers do not have the skills necessary to take advantage of new economic opportunities, both in farming and outside it.

The growth potential of many rural areas is now more strongly linked to a range of new development opportunities, particularly in the secondary or tertiary sectors, many of which are a response to demands from urban consumers (EDORA 2008). As Lowe et al. (2006, p. 42) argued:

"if the goal is to widen the base and vitality of the economies of rural areas, it is surely important that the crucial, consistent and largely non-agricultural drivers that are revitalising rural economies are supported".

The term 'NRE' refers to the growth of the secondary and tertiary sectors in rural areas which has been gaining ascendancy over several decades (IEA 2005) and which has created a structural shift in the rural economy. As SERA (European Commission 2006) reports, across the EU-27 the tertiary sector accounts for 57% of employment in predominantly rural areas and 63% in significantly rural areas. However, it is clear that more peripheral locations are less likely to benefit from growth in this sector (especially

without any forms of assistance and incentives), whilst more accessible locations are experiencing diversification and increasing prosperity amongst their population.

Lee et al. (2009, p. 4) note that although the NRE and diversification strategies signify a movement towards mixed rural economies, the labour market across rural Europe has not necessarily responded. Labour market segmentation – the structuring of the labour market into several, largely autonomous sub-markets – remains strong. In richer European states, low paid, low status jobs are increasingly done by in-migrants, an international migration trend which is happening alongside the general urban to rural movement of people internally within these countries (counter urbanisation). Within New Member States, international migration represents an exodus of human capital from rural areas which are not benefiting from counter urbanisation evident in accessible rural areas of Northern and Western Europe (Johansson, 2009).

The public sector remains an important employer in many rural areas and many rural places have seen a growth in this sector in recent years (SERA: European Commission 2006). According to Eurostat, 31% of jobs in predominantly rural areas and 30% of jobs in significantly rural areas of the EU-27 are in the public sector making it the single largest source of employment (SERA: European Commission 2006). However, whilst the public sector is a viable source of employment in many rural areas, it is subject to a number of challenges arising from the need to deliver specific services in a context of declining capacity and fiscal restraint. Investment in social services and educational facilities not only improves the support and opportunities available to rural communities, but also generates valuable sources of employment (Lee et al. 2009, p. 5-6).

One key process in producing the great diversity across rural areas is the response of rural areas to changing consumption patterns, whereby rising income levels have led to increased spending on the leisure goods and services provided in rural areas. As a result, tourism has become an important element of diversification strategies in many rural areas and thus has a key role in maintaining rural livelihoods and landscapes. In many rural areas, tourism has been vital in transforming otherwise declining rural economies, and the sector continues to provide significant development options for rural economies in much of Europe. For example, whilst traditional forestry, timber and wood industry activities have been in decline in many rural areas, they remain important but it is also the wider services offered by forests – including recreation and eco-tourism – that offer new diversification opportunities (so called multifunctional forestry). However, it is true that different rural areas have shown diverse abilities to respond to changing leisure and consumption patterns, and responses are rooted within particular landscapes, traditions and farming styles which may or may not encourage pluriactivity. Local cultural heritage and cultural landscapes are crucial elements of rural tourism and thus of the economic development and marketing strategies of rural regions (Lee et al. 2009, p. 6-7; see also Bryden and Hart 2001). In many areas of western and northern Europe, the appeal of rural areas to wealthy, mobile urban dwellers has also resulted in a rising demand for housing, meaning that in some areas, average rural house prices are higher than urban house prices forcing out young people and those who are dependent on low-income employment.

Examples of processes in rural areas identified in the literature

- Migration processes and demographic trends (including in- and out-migration, migration patterns of different age groups, population ageing).

- Types of employment (e.g., part-time and self-employment, home working) and gender/age variations.

- Sectoral shifts in employment (including trends in public and private sector employment).

- Key features of agriculture and agri-food industry (including employment trends, age, gender).

- Investments in infrastructure (e.g., transport and communications), in business premises, in education (including adult education); capital investments by businesses, etc.

- Business start-up rates, business closure rates, male and female entrepreneurship rates, young people and new enterprise start-ups, etc.

- Skills/education levels of the population; local training provision and accessibility; importance of public/private transport for accessing employment; commuting patterns; etc.

- Quality of life issues (crime levels, access to services, health situation,.etc.).

- Cultural and environmental capital issues: natural resource endowments, investment in environmental maintenance, commercialisation of heritage (expenditure on historic/heritage sites); etc.

These processes are all leading to new patterns of diversity and differentiation within the contemporary European countryside. The sectoral shifts in employment, for example, have affected different rural areas to varying degrees, with some more remote rural areas in southern and Eastern Europe continuing to depend heavily on agriculture, whilst some more accessible rural areas in northern and Western Europe have benefited from new opportunities to diversify their employment base and to grow. Varying migration patterns have left some rural areas void of skilled, entrepreneurial individuals whilst other areas have benefited from large influxes of well–educated, skilled and wealthy migrants.

Innovation in rural areas

The traditional understanding of innovation as a science-based technical process is not necessarily applicable to the rural situation (Shucksmith and Dargan 2008), not least because in identifying 'knowledge' with science and technological expertise, the knowledge society gives little recognition to the role of 'lay' citizens in knowledge generation and use (Koutouris 2008) (Tovey, 2008 p. 186). Such an approach also downplays the more small-scale but nevertheless important innovations that tend to happen in rural locations. Mahroum et al. (2007 p. 10) define rural innovation as "the introduction of something new (a novel change) to economic or social life in rural areas, which adds new economic or social value to rural life". These authors also note the blurring in the divisions between rural and urban and also between the rural and urban innovation systems. Still, they argue that it is possible to distinguish three types of rural innovations: innovations from rural areas aimed at applications elsewhere (such as organic food); innovations for rural areas that have originated elsewhere (such as GIS) and innovations that are universal in nature but which have had strong impacts on rural life (such as the internet). These three types of innovation do not occur in isolation from one another but are connected through market forces and the wider innovation system.

It is clear that rural areas possess several structural characteristics which disadvantage them from the perspective of innovation. These include:

- A relatively thin economic base, low business densities, low clustering, all tending to undermine knowledge transfer, networking and competition - fundamental drivers of innovation in industry (Quigley, 1998)

- A weak knowledge sector outside of the agricultural/land management sector (which is almost always located in rural areas). So, students and academics are inevitably drawn to urban scenarios to practice in colleges, universities etc., creating intellectual deserts in rural areas. Young people leave rural communities to access higher education, often not returning and thereby robbing those communities of skilled workers for knowledge based industry (Mahroum et al, 2007).

Clearly these disadvantages are heightened by geography with remoter regions facing the prospect of more dispersed populations and greater remoteness from academic institutions. Rural areas are also disadvantaged in terms of the innovation agenda by the tendency for policy to focus around creating knowledge hubs and technology clusters in and around cities and urban economies (NESTA/IPPR 2007). This is largely justified by the fact that cities often bring together important conditions for innovation including depth and breadth of resources, proximity and connectivity (NESTA/Centre for Cities 2007). However, not all innovations have their origins in cities: for example, satellite generated geographic information systems used by motorists (SatNav) have their origins in rural Canada and rural waste management techniques (such as composting waste) are now used to manage waste in cities. There are also many examples of rural locations that have transformed themselves into global centres of innovation including Silicon Valley (Mahroum et al. 2007).

Various recent and current trends have favoured innovation in rural areas including:

- The diversification of local economies which has allowed rural areas to become prime locations for new business ventures, in particular knowledge based businesses based upon 'clean' technology such as ICT.

- Footloose entrepreneurs are also attracted to rural areas by perceived higher environmental quality and living standards.

- Improved infrastructure and accessibility have encouraged businesses to locate in rural areas allowing the transfer of knowledge and the promotion of innovation.

- Technological advancements and market trends too have encouraged small businesses to locate in rural areas, although typically accessibility to high speed broadband is far more restricted in availability in more remote rural regions.

- New interactions between the local and the global have allowed once isolated communities to develop networks at an international scale.

- Internal synergies increase innovative development, as new relationships between local areas expand allowing the absorption of new technologies and the emergence of potential new markets. The diffusing and transfer of innovation between rural areas are key areas for future discussion and there is a need for further analysis of how the needs of innovation are formulated and who formulates them (LEADER European Observatory 1997).

Moreover, there is an increasing relationship between natural resources and innovation enhanced by the growing strategic importance of sustainable technologies that rely on rural resources such as crop-based energy, wind and wave power. These technologies

bring new resources to rural areas and also create a renewed political interest in their role in the wider economy (Atterton and Ward 2007). Other trends are important in generating innovation in rural areas too including:

- The continuing need to see technological advancements in food production (genetic modification, disease prevention and management, improved yields, crop/livestock production systems, supply chains and food security, soil/water management etc.), often centred on agricultural and land management colleges and instates.

- Growth in the eco industry and eco-innovation sector. Eco-innovation is increasingly relevant not only in eco-industries, but in all sectors of the economy. Of particular relevance to rural areas are activities related to nature/natural area protection, renewable energy production, extractive industries, water management and waste management.

Thus traditional activities that have historically been important in rural areas are acquiring new roles through increased diversification and broader multifunctional economic use. These are explored in more detail in section 4.

The public sector is a critical employer in most rural economies and it is another important source of innovation. In-migrants into many rural areas are creating new demands for public services, including education, health and business support services. In-migrants also expect a good quality infrastructure, including housing and transport. Thus this group creates both pressure and incentives for increased innovation in public services (Mahroum et al. 2007). More generally, innovation in public service provision and delivery is driven by the challenges of providing populations remote from major population centres and urban providers, such as high inefficient transport connectivity and access costs, and recruiting skilled workers. The more rapid ageing of the rural population places these areas at the vanguard of this demographic trend and thus opens the door for the further adoption of innovative methods of service delivery in future (Atterton).

Much has been written about innovation within the LEADER programme which has been seen as a laboratory for the identification of the unique resources of rural areas and as a means of strengthening and consolidating social relations as tools for learning and innovation. The programme has allowed the testing of new rural development points and the applying of new policies at different stages within the intervention (LEADER European Observatory 2001).

The LEADER programme issued a methodological guide to identify, monitor and evaluate innovative processes occurring in local areas and to encourage the transfer of experience and knowledge between LEADER groups in different countries. The guide identifies eight key points as being important signifiers to analyse local innovation:

- Mobilisation of the local population/social cohesion

- Identity of the area

- Activities and jobs

- Image of the area

- Migration, social and vocational integration

- Management of space and natural resources

- The evolution of technologies and competitiveness and

- Access to markets (LEADER European Observatory: date unknown).

There is a challenge for policy makers in the EU and its Member States to acknowledge the growing prospects of a new rural economy fuelled by innovation and to recognise the potential for rural areas to act as cites for innovation (Mahroum et al. 2007).

2.3   Trends in the agriculture and agri-food sectors

Agriculture - Current situation

Section 3 of the literature review has already outlined the declining importance of agricultural activities in rural areas in terms of employment, although the situation varies markedly across and within Member States (see also SERA (European Commission 2006) for more detailed exploration of the changing agricultural employment situation including a discussion of the gender and age differentials in the patterns observed).

With around 12.9 million persons employed in 2006 across the EU-27 (DG AGRI, December 2009), the primary sector (agriculture, hunting and forestry) represents an important part of the EU economy in terms of employment: 6% for EU-27, ranging from 1% in United-Kingdom to 30% in Romania. In terms of value-added, the EU-27 primary sector reached around 179.5 billion Euros in 2006 and accounted for 1.7% of GDP, ranging from 0.4% in Luxemburg to 8.8% in Romania. However, the importance of the primary sector in the EU-27 is declining. Between 2000 and 2006, its share diminished by 1.2 percentage points in terms of employment and by 0.6 percentage points in terms of value-added. The number of jobs decreased by 1.9 million persons or -2.2% per year, ranging from -9% in Poland and Romania to +4.0% in Luxemburg. Between 2000 and 2006, the value-added of the primary sector decreased by 9.1 billion Euros. This is due to particularly low production in 2006, with no increase in volume at EU level and average annual changes ranging from -6.1% in Luxemburg to +7.1% in Slovakia. However, in most New Member States, there has been an increase in the production in volume leading to an average growth rate of 2.9% per year for EU-12. However, looking beyond the employment and value added contribution of agriculture, the sector (along with forestry) plays a major role in shaping the environment and landscapes of Europe. A considerable part of the agricultural area is located in regions where conditions are difficult for this activity, for instance in mountainous areas. Extensive farming covers at least 15.8% of area for arable crops and 22.8% of area for grazing animals in the EU-27. It is estimated that high nature value farming systems cover more than 20% of agricultural area in most Member States (and even more than 30% in some).

Over the past few years, the pluri-activity of farmers and farming households has been increasing. Though this concerns mainly small farmers looking for complementary income, it may also represent farmers animated by a genuine 'entrepreneur's will', who set up diversification activities on their own farm, an option currently implemented on 12% of EU-27 holdings (DG AGRI, December 2008). This analysis is based on Eurostat Farm Structure Survey (FSS) data. According to Farm Structure Survey definitions, a family farm manager is considered as pluri-active if that person carries out any activity other than farm work for remuneration, be it on the holding itself (farm diversification), on another holding, or as an employee in a non-agricultural enterprise. Farm

diversification is understood as the creation of any gainful activities that do not comprise any farm work but are directly related to the holding i.e. use its resources or products, and have an economic impact on the holding (agro tourism, on-farm processing of agricultural produce, contracting services).

With more than one third of EU-27 family farmers being pluri-active and 12% of EU-27 holdings having developed diversification activities, the existence of other gainful activities in the agricultural sector is a reality. Nevertheless, neither farms nor farmers are equal when choosing to diversify. Previous analysis suggests that factors such as the size of the farm, its location, its specialisation as well as the age of the farmer or his level of education can facilitate or prevent the setting-up of diversification activities on the farm, or the existence of a complementary job for the farmer. It also underlines the fact that most EU-27 agricultural production is performed on farms where it is difficult for the farmers to diversify their income sources via external employment: on farms with more than 16 ESU (European Size Unit), representing 75% of the economic potential of EU27 family farms, pluri-activity is relatively modest (18%), and the diversification activities set up often consist in the prolongation of agricultural activity (contract work using the farm equipment, processing of farm products). Last but not least, the support to diversification activities for farms provided through rural development funds seems to achieve its goal and facilitate their setting-up (DG AGRI 2009).

The trend of farm income diversification is also picked up on the national level. In the Netherlands, for example, the Ministry of Agriculture, Nature and Food Quality (LNV) set up a Multifunctional Taskforce, which actively focuses on the opportunities and obstacles facing the development of multifunctional agriculture based on a partnership between private and public parties. The Taskforce focuses on 6 sectors: care, childcare, farm sales, agricultural nature management, recreation and tourism and education (LEI, 2009: Roest, A, K. Oltmer, G. Venema, J. Jager, L. Jeurissen, E. Gies, H. Schoorlemmer, V. Hendriks, Goossens, A. Dekking, J. Kamstra en A. Visser). Currently (reference year 2007) multifunctional agriculture in the Netherlands is generating a turnover of approx € 300 million of which the majority is generated by agricultural nature management (€ 80m), farm sales (€ 80m), care farms including child care (€ 40-60 m), recreation and tourism (€ 100 m) and education very limited (€2 m). The Taskforce aims to double the turnover of multifunctional agriculture in the four year period 2008-2011. An impact survey has been held among 173 multifunctional farmers and it is clear that multifunctional agriculture fulfils an important function in the countryside. It improves the job satisfaction of the farmers and also provides extra income, some of which the farmers then spend locally. Multifunctional agriculture expands the supply of services and products in the region; it also generates directly and indirectly the necessary jobs and involves local residents and volunteers in agriculture. In addition, extended activities form a sound basis under agricultural nature management because many farmers wish to present a positive image of their farm to local residents.

The SCENAR 2020 study (DG AGRI, December 2006) explored a number of different scenarios for agriculture, agricultural markets and rural areas in the EU. These included (these shifts are not mutually exclusive and it is likely that some will occur simultaneously): the continuation of youth out-migration from rural areas where agriculture becomes increasingly unprofitable and alternative employment opportunities are scarce; a continued decline in the number of farms (about 2% per annum in the EU-15 and 4% per annum in the EU-10); dual production systems will emerge with family

farmers on smaller holdings and large scale industrial production existing next to each other requiring differentiated policy approaches; the continued diversification of farmers; changing diets and food preferences, with food safety, quality and animal welfare concerns becoming increasingly important; continued decline in world prices due to high productivity growth and inelastic demand; a shift towards industrial use (including biofuels); an increasing importance of environmental issues related to land use; some increase in the importance of organic agriculture but with a limited market due to consumers' inability/unwillingness to pay; continued liberalization of trade leading to a decline in the number of farms and in the productive area (although there will be sectoral variations); the effects of global warming, including water shortages, flooding, a shift of crops northwards and adjustment of floral and faunal species

According to SCARLED 2008, which explored the characteristics of agriculture in the New Member States (NMS), rural issues are of high importance in the New Member States countries since more than 90% of the NUTS3 regions are rural with more than 80% of the total population. Factors affecting rural development in the New Member States include negative demographic development (low fertility and out-migration), unemployment in the rural areas and farm restructuring. The general finding is that the share of agricultural employment is greatest in poorer peripheral rural regions suggesting a low rate of past adjustment and a lack of alternative employment opportunities.

Broadly speaking, changes in the CAP have sought to move farmers out of mainstream production and into the production of niche or non-conventional food products and the generation and maintenance of environmental (or public) goods. New markets have developed around the production of quality designated foods in line with the aspirations of the Lisbon Strategy to focus on higher value added economic activity (Lee et al. 2009). These changes are creating greater differentiation between regions of the EU. For example, during periods when farming profitability is under pressure, activity tends to become more concentrated in the most productive regions with marginal regions left to diversify if alternative opportunities exist. If such opportunities are not present, agricultural workers may be forced to leave the local area.

As reported by the EDORA project (EDORA, 2009 p. 12) another major factor in the increasing differentiation between rural regions (and especially those where agriculture continues to play a key role) is the continuing structural change of farm holdings. There is an increasing contrast between large 'commercially oriented' holdings and small pluri-active and diversified units, whether supported by policy intervention or simply the result of market and technology trends.

This diversity in farm structure is analyzed in a Dutch study carried out by LEI in 2009 (Backus, G., W. Baltussen, M. van Galen, H. van der Meulen en K. Poppe). The great diversity in farm types both within and outside the Netherlands appears striking to the authors: examples include family farms, growers' associations, mobile bulb stands, vertical integration, sovkhoz (state farms), kibbutzim, tea plantations and share milking. Key words in the choice of farm type are specialization, flexibility, controllability of the production process, critical mass, alignment with the market, and covering risks. By outsourcing more and more work, the entrepreneur is able to specialize even further. Cooperation brings opportunities but also involves drawbacks. Participation in joint ventures often results in a non-transparent financial structures, and financing becomes more complex. The good definition of the cooperation is therefore also a critical success factor. On the larger farms, it is more important to cover liability, and the traditional form

of succession is more difficult. The family farm of 2020 is expected to be less dominant. It will also have changed in character and will be combined with other farms types in more cases, such as making use of franchising and quality marks, hiring independent contractors, and taking part in joint ventures. Franchising and quality marks help create alignment with the market and make specialization possible. Cooperation in terms of purchasing, production, processing and sales offers potentially great prospects.

This trend of polarisation and adapting farm structures has important implications for the locus of market power and the degree to which rural areas are integrated into the global economy. Large scale commercialised holdings tend to be tied into global agri-business supply chains which are often controlled by multinational companies and supermarket retailers, for whom price is the normal basis of competitive advantage, but for whom food quality and traceability have gained importance since the 1990s. Small scale producers tend to be attached to shorter, locally embedded supply chains, often competing primarily on quality rather than solely on price (the EDORA project explored the la Rioja region of Spain where the link between the crop production and the final product has always remained strong, with value added to the previously dominant activity). However, they are often facing more problems than large scale producers to comply with food quality and traceability standards set by legislation or by supermarket retailers. Often the more fertile and productive areas where large scale holdings are common are the more accessible rural areas of the EU. However, these areas offer important opportunities for small-scale producers to produce niche, high quality products too, as they are close to mobile and affluent urban-based consumers to whom products may be sold directly or marketed through such short supply chains.

In theoretical terms, Marsden (2003) distinguishes three models of agricultural and rural development in Europe – an agro-industrial model, an alternative post-productivist model and a nascent rural development model, each with their own dynamic. He argues that recent CAP reforms have been attempts to deal with the growing crises of legitimacy in the dominant agro-industrial model. In competition with this, in north-west Europe, an alternative post-productivist model of the countryside has been promoted, which has sought to make the countryside more attractive to wealthy ex-urban groups. He argues that in regions least exploited by the agro-industrial and post-productivist models – i.e. peripheral rural regions – an emergent rural development model may instead hold out greater hope. The latter is a model based on local food production through 're-embedded local food supply chains' with a truly sustainable development dynamic. This may be related to local development models such as LEADER (EDORA, 2009 p. 13).

The EDORA project develops an 'agri-centric narrative' as one of three grand narratives of rural change. It acknowledges that in areas where agriculture remains significant, farming may be a productivist activity, it may be a means of preserving traditional environments or it may be a response to consumer demands for a variety of specialist products. This is differentiated by region, with productivist activity concentrated in the most productive areas and those on marginal land retrenching and where possible diversifying. EU policy has both reflected and driven the changing role of agriculture within rural economies (EDORA, 2009 p. 18).

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Agriculture and the delivery of public goods

Another key driver of rural change is the increasing value placed by society on the rural environment, culture and heritage, and the increasing ability of the urban population to access recreational amenities. In areas where the environment is of a high quality - which is often the more marginal agricultural areas - these present important diversification opportunities for rural areas. These major economic development opportunities are associated with directly exploiting environmental and cultural assets by making them accessible for recreation, leisure and tourism and through product differentiation. The agrarian traditions which are highly valued in a European context offer significant opportunities for commoditisation of built attractions, marketing and branding in exportable production, and for revenue generated by visitor experiences as part of integrated rural tourism development. Rural areas containing or close to natural areas (such as natural parks) or with a high density of built heritage attractions have a stronger potential to attract visitors, as do areas with distinct historical and authentic cultural practices which are constructed as part of their territorial identity (EDORA, 2009 p. 9).

This shift in expectations of farmers has come to be termed multifunctionality and describes a vision of agriculture that layers a range of policy objectives onto highly productive agricultural landscapes at various spatial scales (Hollander 2004; Wilson 2007). A tension remains between productivism and multifunctionality in agricultural policy making in the EU (and indeed elsewhere). The desire to exploit these assets is placing new demands on farmers to be effective stewards of them. This is often seen as problematic as these goods are goods that are hard to value and often not paid for by those who benefit from them. Currently, agricultural subsidies provide the primary means by which the public 'contract' with farmers to supply these types of benefits from the hills that people want to see. But the long-term future of subsidy payments is uncertain and depends on public support. Additional support is provided to farmers through agri-environment schemes which are designed to encourage farmers to provide public goods such as improved habitat for particular species or public access for recreation, but these policies are also undergoing major changes. Current research within the Rural Economy and Land Use Programme (RELU) is exploring the extent to which visitors and local residents are willing to pay to maintain or increase current levels of conservation and the ways in which agricultural subsidy schemes can be designed more effectively to provide benefits for biodiversity (see RELU 2009 for more information).

Ecosystems services thinking is becoming more popular, in the UK for example, as awareness is growing of the challenge of prescribing economic value to nature and that such services are limited and threatened by human activities. Such services include the services on which value can more easily be placed (such as clean water, carbon storage and flood management) and those on which placing value is difficult (such as habitats for wildlife, cultural heritage and the appearance of the landscape). There is wide variation in how currently is being paid for these different services and they may conflict with land managers' other objectives either by compromising economic viability or because the objectives demand a different approach (RELU 2010). The Department of the Environment, Food and Rural Affairs in the UK for example has argued that ecosystem function thinking and the valuations associated with it need in future to be embedded within measures such as the Rural Development Programmes and the revised strategies for upland areas and nutrient management. Current research has argued that a possible way forward would be to move towards subsidies that are increasingly based on payments

for ecosystem services, with a more holistic and systematic approach taken, for example considering that one piece of land may provide multiple ecosystem services and providing incentives that assess and take into account trade-offs and exploit synergies between ecosystem services (RELU 2010).

Climate change will bring important challenges and opportunities for the EU's rural areas. In some areas, higher temperatures, desertification and water shortages will mean it is harder to produce crops and livestock on a reduced land area. However, other areas will benefit from such changes with some agriculturally-dependent areas able to introduce new crops and varieties and increase their productivity and cultivate larger areas of land. It is critical that planning for such changes occurs at the local level, and well developed, innovative and timely adaptation strategies could lead to beneficial outcomes. Such beneficial outcomes will be felt in both rural and urban areas, given the vital role of rural areas in 'producing' a variety of products for urban dwellers (including clean water for cities and safe, good quality food).

The opportunities provided by climate change and by the increasing demands for public goods could mean that rural areas become increasingly important locations for innovation in future. More and more people are seeking 'quality of life innovations' such as healthier food and environment-friendly products and services which are seen as typically rural offerings. Businesses are seeking to capitalise on this growing trend. The sectors that have traditionally dominated land use in rural areas are acquiring innovative new roles through increased diversification and broader multifunctional land use (Knickel 2002; Atterton and Ward 2007). Farms are increasingly producing non-food products, such as crops for energy purposes or serving as tourism destinations, as well as new, high quality food products (including organic and regional speciality foods) and undertaking on-farm processing and marketing to develop new short supply chains. Forests are being used in efforts to adapt to and mitigate the effects of climate change and flooding, and as a source of 'green fuel'. Knickel (2002) argues that these new uses of land are set to redefine the place of agriculture in society. It can also be argued that urban-based organisations like supermarkets are driving innovation on farms, such as Farm Biodiversity Action Plans (UK supermarket Sainsbury's premium fresh produce suppliers). The growing environmental and health agendas and associated regulations are also exerting political and social pressure to achieve changes in the agricultural industry to meet national and international standards. This puts increasing pressure on small rural industries and small scale producers to respond innovatively, although such actors may lack the means to invest in new technologies, practices and techniques to meet these challenges (Mahroum et al., 2007).

A number of contemporary and future challenges will shape the policy agenda for agriculture, including the need for an energy transition in an era of peak oil and the push to expand biofuels, the need for strategies to adapt to and mitigate the impacts of climate change and the threat of global food insecurity. The importance of these issues in affecting food production and prices was evident in steep rises in world agricultural commodity prices (and thus of food producer prices and consumer food prices) in 2007-8 as a result of a variety of factors including structural reasons (rising demand, rising energy prices, emergence of alternative market outlets such as biofuels, slowing down of the growth in food cereal yields and climate change) and temporary reasons (adverse weather conditions in exporting countries, financial markets developments, low levels of stocks, US dollar depreciation and export restrictions) (Ilzkovitz 2008).

The agro-food industry

The agro-food industry currently represents 2% of Europe's GDP and 13.5% of employment in Europe's manufacturing sector and often this employment is located in rural areas. As a whole, the food supply chain accounts for 12% of EU employment and Europe is the largest exporter and importer of food and drink products with a positive trade balance (European Commission 2009a p. 9). The importance of the food industry within the manufacturing sector is growing and the value added of the food and drink sub-sector is higher than that of most other sub-sectors in manufacturing.

The food supply chain is complex, connecting three important sectors of the European economy - the agricultural sector, the food processing industry and the distribution sector. Together these make more than 5% of European value-added and 7% of employment. The supply chain is composed of a diverse range of companies operating in different markets and selling varied food products to meet the tastes and demands of different customers. Recent research at a European scale (see for example, Petovici et al. 2005; Ritson 2010) has explored the different diets and preferences across Member States revealing considerable differences between countries in the spending patterns of consumers, although great similarities in the ways in which different consumers ranked the quality of a food product. Across Europe, food represents 16% of European households' expenditure.

There have been changes in all areas of the supply chain, including amongst primary producers (for example, in terms of the development of farms into larger enterprises but taking on the characteristics of small companies). In the food processing sector, there are numerous varied activities, consisting of 310,000 companies operating from the local to the global scale. Large companies dominate the industry in terms of turnover and employment, but only account for 0.9% of all food and drink companies. There are 26,000 agricultural co-operatives in the EU accounting for almost 50% of the production, transformation and commercialisation of agrarian products. Within the food processing sector there are several sub-sectors of which meat, grain based products and beverages are the largest in terms of turnover. The distribution sector, the final link in the food chain, is diverse. In terms of the food retail sector, the current degree of concentration is high with the five largest retailers chains accounting for over 50% of the market in most Member States. The research and development of innovative products and production processes are important for the entire food supply chain and aim at satisfying ongoing changes in consumer preferences while ensuring product diversification. However, the level of R&D investment is considered to be low in this sector and there are further opportunities to be exploited (European Commission, 2009a p. 10);

The context in which the industry is operating is significantly different to just a decade ago meaning that the industry needs to undergo significant structural transformation. A number of issues have driven increasing global interest in the food industry and food policy, including concern about the impact of global warming on food production, the contribution of agriculture to greenhouse gas emissions, food scares and issues of food safety, population shifts and the growing prosperity of a number of emerging economies, technological advancements, long term food security, health and dietary issues and changing consumer preferences as a result of income and lifestyle changes. Tied up with these debates are the growing interest in shorter supply chains and in local small scale food enterprises (and in the greater involvement of voluntary groups in food production) and thus 'reconnecting' consumers with what they eat and how it is produced (Policy

Commission on Farming and Food 2002). At a European level, the completion of the internal market has brought with it huge opportunities for the food supply chain, enabling the industry to access 500 million consumers and generating an annual production of more than 600 billion Euros to the EU economy.

In 2008, the European Commission set up the High Level Group (HLG) on the Competitiveness of the Agro-Food Industry the manufacturing/processing of raw agricultural products) to identify the factors, future challenges and trends that can influence the competitive position of the European Agro-Food Industry. The creation of the HLG symbolises the Commission's commitment to setting out a 'forward looking approach' for the industry while addressing the challenges and opportunities that it currently faces. The aim of the HLG is to promote the competitive position of this key EU industry in global markets whilst ensuring that its recommendations are in line with the Lisbon Strategy in facilitating job creation and securing sustainable economic growth (European Commission 2009a). The Commission recognises that while in several dimensions the food supply chain performs well (for example, by delivering high quality, safe and traceable food products to consumers at affordable prices) the overall competitiveness of the chain is weak and its economic growth has underperformed the overall EU economy since 1995 with some sectors facing increased competition from international actors and recent food price developments pointing out a lack of resilience to shocks in agricultural prices. The Commission has recently identified three cross-cutting priorities relevant to the whole chain, despite its diversity, in order to strengthen its performance in future (see European Commission 2009b).

Nevertheless, despite its overall weakness, there are a number of world leading companies in the EU and fully exploiting economies of scale represents a real opportunity for the industry. New technologies and innovations (micro-machine processing) and consumer preferences for differentiated and healthy products enhance the opportunities to exploit economies of scope and stimulate product differentiation. Lower population growth in future represents a potential threat to the industry as does the increasing scale of the retail chain. Policy threats around restrictions on raw material production and competitiveness hampering enterprise policies are also concerns.

Ireland and New Member States e.g. the Czech Republic, Hungary and Poland have a stronger competitiveness. Large exporting countries like Spain, the Netherlands, Belgium and Italy also perform rather well. Weak in competitiveness are large EU countries: France, Germany, UK and Denmark.

The recommendations to increase competitiveness and thus sustained rural employment (Wijnands et al, 2007) are directed to enterprises, governments and researchers:

- The *agricultural policy and trade policy* should support the food industry by creating (cheap) access to more abundant raw materials. Trade promotion in rich target markets overseas could be beneficial. To mitigate the effects of CAP reform on a more liberalized trade policy, might be an option to explore.

- *Enterprise policy* should support cross border mergers and acquisitions (foreign direct investment) more easily. There should be a true common market for services. The use of ICT should be promoted, also adopting e-government at EU level. E-business chain supply systems are particularly important to the food industry.

- *Better and simplified (food) legislation* is needed and the European Commission should pursue the action it has already announced: impact assessments with independent quality control, reduction of administrative costs, technical simplification and co-regulation: using existing independent standards instead of new EU standards. A public-private initiative on reducing and standardising the large number of self-control systems and recognising them in public control systems might be beneficial.

- For *R&D policy* there is a large list of topics for innovation. These include health issues, micro-machine processing, food chain management ('fork-to-farm approach') and issues related to food and consumers. More important than the topics are access by SME and bringing SMEs into contact with other players in tomorrow's food economy like pharmacy, services and ICT. Food Valley approaches might enhance knowledge transfers from Universities to SMEs.

- Government policies could be directed to *harmonisation of legislation* within the EU as well as worldwide, to supporting advance industry standards of the future and to form enterprises and trade policies which will not weaken competitiveness.

2.4 Drivers and barriers to economic and employment growth in rural areas

Introduction

Sections 3 and 4 of the literature review outlined the key trends in rural areas in terms of economic growth and employment in recent decades. This section of the literature review moves on to discuss the drivers and barriers of those trends. This part of the literature review is structured into 5 key sections each of which discuss one critical form of 'capital' which may have a number of different factors or facets. These facets will influence rural economic growth in different ways, both positively and negatively. The review of literature in this section is critical in shaping the theoretical and factor frameworks for this project (see Section 1, including Table 2.1 and Table 2.2 which shows the Factor framework) which feeds in turn into the selection of indicators for data analysis. The structure of this section of the literature review and much of the discussion is adapted from a recent paper by Agarwal et al. (2009).

Agarwal et al. (2009) note the increasing body of research which has explored the differential economic performance of nations (see for example, Porter 1990), regions (Putnam 1995; Cooke and Morgan 1998; Storper 1998), localities (Piore and Sabel 1984) and rural environments (see for example Terluin and Post 2000; Reimer 2003; Bryden and Hart 2004). The latter studies of rural regions have highlighted the marked variations in performance between leading and lagging or well performing and less well performing rural regions and attempted to highlight the reasons for differing levels of performance. The research has revealed that differential economic performance is multi-dimensional, with explanatory factors likely to differ within and between rural areas in terms of their degree of influence, and that the availability of the five types of capital and the ways in which they interplay, is crucial for successful performance.

Finally, it should also be noted that the measurement of economic performance is notoriously difficult because each facet is likely to differ in its role in the economic

process. Some, such as productivity, are production outputs, whilst others, such as employment and enterprise, are production inputs. Each facet will also differ in terms of its relationship with other facets and with the overall level of performance of the area (Agarwal 2009, p. 311). Also, as argued by Terluin (2003, p. 327), the factors behind the different economic performance of rural regions are related to an interplay of local and global forces and responses (coloured by different national conditions). Agarwal et al. (2009) also note the importance of distinguishing between those factors which are endogenous to the process (i.e. produced locally using local resources with the benefits retained locally with respect paid to local values) and those that are exogenous (i.e. externally determined by factors outside the system under study, with the benefits usually exported and local values trampled).

Economic capital

Economic capital refers to 'capital resources that are invested and mobilised in pursuit of profit' (Lin 2001, p. 3). Generally speaking areas that are rich in economic capital are well performing whilst areas that lack economic capital are poorly performing. This form of capital includes a wide range of different factors, including productivity, employment, investment, enterprise and innovation. Moreover, each factor consists of a number of facets. For example, employment comprises type of employment, participation rate, the nature of employment and the unemployment rate. Innovation refers to the degree to which new technologies are adopted, investment in research and development and the degree to which there is diversification and/or specialisation (Agarwal et al. 2009, p. 310). For many rural areas, employment in the agriculture and agri-food sectors (including the proportion of employment, wage levels, agricultural output, farm diversification and pluri-activity) may be critical in explaining local economic performance. These different facets have informed the factor framework for this project which sets out the drivers and barriers to economic and employment growth in rural areas. As reported in Section 3, the economic capital of rural areas is hugely varied resulting in differing levels of economic performance (see FARO-EU 2009). However, there are a number of other, 'less tangible' factors which will influence the growth performance of a rural area, as described in the subsequent sections.

Human capital

Human capital has also been identified as a key ingredient of rural economic development. Johnson (1990) and Becker (1964) refer to human capital as 'the value added to a labourer when the labourer acquires knowledge, skills and other assets useful to the employer or firm in the production and exchange processes (Lin, 2001, p. 5). A further, more recent explanation is provided by the ONS (2001) who emphasise that it is an attribute that may be associated with the individual and relates to the stock of skills, qualifications and knowledge that individuals possess. The factors that comprise human capital include education and skills, entrepreneurship, demographic structure, migration, access to services, housing and quality of life. Again related to each of these is a number of facets, including the availability of higher and further education institutions in the local area and the level of educational attainment within the factor education and skills. Within the entrepreneurship factor, several facets are important, including availability of capital, relevant prior experience, knowledge and skills and the availability and use of business support and advice.

It is important to discuss the key demographic and migration shifts that have occurred in rural areas in recent years as a key means of explaining the varying levels of human capital in different parts of rural Europe. As reported by the OECD (2006), rural regions are increasingly dependent on in-migration to maintain population levels, and the current labour force. While the overall rural share of the population has remained relatively stable in recent decades but this masks large variations between and within Member States. Two large scale processes of demographic change are taking place in Europe – a long established urbanisation trend drawing people (especially in younger age groups) and economic activity out of remote rural areas into accessible and urban areas. The more recent trend is one of counter urbanisation, a flow out of urban areas and into accessible rural areas. As a result, accessible rural areas represent a zone of growth, with an economic structure increasingly similar to that of urban areas. In contrast, predominantly rural areas, especially in the more remote parts of the EU are still being depleted of population and economic activity (SERA: European Commission 2006, p. 214).

Out-migration from remote rural areas results in the demise of the skill and knowledge base (including the skills base in traditional activities), a loss of social and cultural capital and a weakening of the social cohesion of rural communities, with negative implications for rural development. Many of those who are moving into rural locations are mobile and continue to commute to work in nearby urban centres, whilst others (and the proportion varies in different countries) are moving into rural areas in order to retire, although many will remain socially active. Evidence across Europe varies in terms of the impact of these in-migrants with evidence of significant impacts on community cohesion and the housing market in the UK, but little evidence of an impact on social composition in rural Sweden (Amcoff 2000). Stockdale (2006) suggests that in-migrants do not necessarily set up new businesses and create new jobs; on the other hand, research by Bosworth (2006) found that in-migrants were responsible for a large proportion of new businesses and considerable employment creation in rural areas of the North East of England. There is little doubt, however, that in-migration can form the basis for renewal and growth in rural areas whether it be in terms of an increased stock of human capital or an influx of new ideas, influences and skills.

Counter urbanisation is a key factor, in addition to declining fertility rates, which is contributing to demographic ageing in some parts of rural Europe. In the UK for example, most rural in-migrants are in their 40s and 50s and they age in-situ after arriving. On the other hand, out-migration from rural areas is a major cause of ageing in other rural areas. For example, sparsely populated rural areas in the Baltic States, Hungary, Bulgaria and Romania face a particularly severe situation and the combined effect of out-migration and low-fertility rates is more pronounced in the New Member States (Lee et al. 2009, p. 7-8). Broader social changes are also likely to affect the development of rural areas, including changes in family structures with family units becoming less cohesive, higher divorce rates and more single parent families. With respect to gender, the most important trend is a 'masculinisation' of sparsely populated Nordic rural areas and less developed rural areas of New Member States, due to the out-migration of younger women (SERA: European Commission 2006, p. 34).

On average, educational levels in rural areas tend to be lower than in urban areas and skills training is less prevalent. In particular, fewer people in rural areas have a university degree (13%) than in urban areas (22%) (Shucksmith et al. 2007). Those young people who do well at school tend to leave to gain higher education as career progression is

limited in most rural areas, contributing to high out-migration amongst the young, well educated population in many rural areas.

The European Commission (European Commission 2006) has used the term 'Rural Jobs Gap' to describe the lower rates of employment and economic activity, higher rates of unemployment, and lower levels of qualitative human capital (training and skills) characterising some rural areas of Europe: *"many of Europe's rural areas face a common challenge – their capacity to create high quality, sustainable jobs is falling behind urban areas"* (European Commission 2006, p. 1). The income per capita of predominantly urban areas in the EU-27 is considerably higher than that in predominantly rural areas, although the European Quality of Life Survey (EQLS) shows that this gap is systematically wider in poorer EU-27 countries and less in richer Member States (Shucksmith et al. 2007). Lower levels of pay make it harder to attract and retain skilled individuals (European Commission 2006, p. 3).

The Commission links the rural jobs gap to demographic trends (ageing, selective migration and gender issues) and structural differences (such as the slower development of tertiary activities in rural areas). Indeed the Agriculture Council of July 2003 identified several challenges for the future of rural employment such as the ageing of the farming population, the participation of young people and women in the rural economy, the enlargement of the European Union and the switch from product to producer support under the revised CAP. It also notes how heterogeneous rural areas are with some rural areas amongst the leading regions in their respective countries whilst others (generally the more remote rural areas) face challenges with regards growth, jobs and sustainability. In SERA (European Commission 2006) is noted that many urban and significantly rural areas had already reached the Lisbon employment target of 70% employment rate, but that further progress was dependent on addressing the low rates in the predominantly rural regions (EDORA 2008, p. 4).

Access to services in rural communities can be a critical determinant of their economic and social well-being, particularly access to public services such as education, health, crime and justice, social and welfare, transport and communications. Clifton et al. (2006) report that rural citizens' perceptions of access to services suggest that utility, communication and transport services are all less accessible than in urban areas, although there are variations across rural Europe (as highlighted in the Euro barometer surveys). Service provision is a particularly pressing concern in areas experiencing population decline or areas where there are large numbers of commuters (who may not use local services) or retirees (who place additional demands on local services). More broadly, access to services may be a particular issue for some groups, such as the elderly, the young and the less mobile.

Access to services is a key issue in the policy debate regarding 'Territorial Equivalence' and has important links to migration and quality of life issues. Employment and population may drain out of rural areas following a loss of services (Gilg 1983; European Commission 2007b). Changing patterns of service provision and access are linked to a number of factors, including technological change in travel and transport, by retrenchment in the public sector, often as a result of changing political attitudes to 'the welfare state' and by the relatively increased accessibility of more accessible rural locations close to urban agglomerations (EDORA 2008, p. 5). As acknowledged in EU policy documents:

"... the construction of infrastructure of all kinds and the provision of health care, education and other basic services is usually also more costly because of the nature of the terrain and the remoteness of the location, and more difficult to justify because of the small numbers of people being served... Despite the difficulties of some regions, equality of access to basic facilities, essential services and knowledge – to what are termed 'Services of General Economic Interest – for everyone, wherever they happen to live, is a key condition for territorial cohesion." (European Commission, 2004, p. 33).

Social capital

There has been growing interest in the concept of social capital in recent years although definitions of the term vary. It is commonly understood to relate to the property of the group rather than the individual, and refers to connections among individuals and social networks and to reciprocity which arises from these connections (Putnam 2000; ONS 2001). The out-migration of people from rural areas will generally result in a decrease in the level of social capital. There are a number of factors and facets that may be associated with social capital, some of which relate to existing stock and others that relate more to processes, organisations and/or institutions which may positively or negatively affect this stock, which may in turn affect the economic success of an area. Trust, reciprocity and norms of behaviour are important factors of social capital (Putnam 1993) and of social cohesion, and in turn are important in facilitating economic transactions. There are a number of other aspects of social capital including the degree of autonomy, co-operation and effectiveness of institutional structures (Amin and Thrift 1994), the role of partnerships in relationship-building between sectors and the number and role of voluntary and community sector organisations in local socio-economic development processes. The 'RUREMPLO' study by Terluin and Post (2000) revealed the importance of the capacity of local actors and the presence of internal and external networks in explaining rural employment growth.

Social capital is often regarded as playing a key role in enhancing the benefits of investment in other forms of capital. More broadly, Porter (1990) argues that the social and cultural environment that surrounds businesses is important in encouraging successful performance, competitiveness and innovative behaviour and as Atterton (2001) argues, a body of literature has emerged which agrees on the role of social relations, networks and institutions in embedding economic interactions. Arnason et al. (2009, p. 1) describe and compare case studies in rural development in six European countries. Taking many starting points, the authors suggest there is one clear lesson: that development happens through social processes, and in particular social networks, that come before and in some form or other, will last longer than any discrete development project. Understanding development requires a recognition that the dynamic of social continuity and change is key. However, research has also highlighted the dangers of these social relations becoming too strong and limiting access to new information and markets (Atterton 2007; Grabher 1993).

As outlined in an earlier section, rural regions traditionally relied on central government interventions and subsidies for their development, following the exogenous model of growth. However, more recently, emphasis has been placed on local development actions, which require supportive governance arrangements for local activities, including the creation and operation of local level partnerships by a wide range of stakeholders, between which the boundaries may become blurred. Governance comprises a complex set

of power relations and it does not solely form a territorial alternative to sector based policies, but it also advances endogenous development by building the local capacity of people to pursue their adaptability to external changes (EDORA 2008, p. 7). Recent research carried out in the 'Restructuring in Marginal Rural Areas' project (RESTRIM) has explored the importance of social capital (as one community asset) in the development of rural Italy (Arnason et al. 2009). Social capital, and its constituent elements, is included in the factor framework in the analysis.

Cultural capital

Bryden and Hart (2001) and Dawe and Bryden (1999) highlight the importance of cultural capital in affecting rural economic performance. Again the concept has a range of definitions. Matarasso (1999) considers cultural capital to be an aspect of human capital, something that an individual can accumulate over time through talent, skills, training and exposure to cultural activity. Meanwhile, Bourdieu (1996) conceptualises the analytical contribution of cultural capital from notions of social practice and from the social reproduction of symbols and meanings (Lin, 2001). In this respect, cultural capital is associated with a place. Again cultural capital consists of many facets, including the degree of commercialisation of heritage, the environment and identity, the existence of heritage sites and civic engagement. The components of a place and/or its historical and cultural identity may be exploited commercially and developed further therefore cultural capital has an important role to play in the development of an area (Agarwal et al. 2009, p. 311). Rural areas therefore have a difficult balancing act to play between adapting to changing socio-economic conditions and maintaining a strong cultural identity upon which to build a rural tourism industry. This is one example of the need for rural areas to manage the tension between change and continuity (Arnason et al., 2009). The RESTRIM project (reported in Arnason et al. 2009) explored development processes in a number of rural regions in the EU (such as the Lake District in Ireland and the Mountain Region in Norway) where building regional identity - in this case seen as one form of social capital - was critical as part of the initiatives.

Cultural heritage is one example of a locally embedded resource on which to focus endogenous development (Kneafsey et al. 2001). European rural development policy, and especially the 2007-13 LEADER programmes, identify cultural heritage as a potential 'resource' for rural development. Expressions of cultural heritage can serve to both strengthen social identity and cohesion and can be transformed into the commodity market through place-based promotion, and more broadly, mobilised in the creative and cultural industries (EDORA 2008, p. 7). The transformation of cultural heritage into an asset for place-based promotion reflects an important part of the move towards greater multifunctionality in rural economies (as discussed in more detail in Section 4). Heritage sites and their use as a resource is included in the Factor Framework used for the analysis of this study, alongside civic engagement and identity within the category 'cultural capital'.

Environmental capital

Environmental capital plays a key role in encouraging or limiting economic growth and development, and there is increasing recognition of the importance of maintaining and commodifying the rural environment for rural development. The preservation of landscapes is an important element of agri-environment schemes and serves to support the tourism sector. Changing consumer consumption preferences and a rise in 'green' tourism and recreation have created opportunities for many rural areas, particularly areas with high quality natural assets (so-called multifunctionality). Thus the quality of the environment can have a direct influence on the level of economic growth of an area. Areas that are peripheral and lack high quality amenities or which have suffered negative environmental impacts as a result of poor rural development, may find that their lack of environmental capital serves to discourage or limit business operations and performance. Environmental capital consists of a number of factors which include natural resource endowments, peripherality and remoteness, the cost of environmental maintenance and pollution and congestion (Agarwal et al. 2009, p. 311). It is important to acknowledge the potential impacts of climate change on the landscapes and environmental resources, and the quality of those landscapes and resources, in future (Lee et al. 2009, p. 13).

Arnason et al. (2009) report the results of case study work in rural regions in Europe which have promoted locally specific environmental and cultural features as a means of achieving successful rural development strategies. Many of these regions have attempted to undertake new uses of the land but link these strongly to the past, such as the Dalarna region in Sweden (where an existing resource [a concert venue] is being used in a novel way to promote development and Skye and Lochalsh in the Highlands of Scotland [where a wind farm is proposed in an area where traditional 'crofting' practice remains important]. Environmental capital is included as the final category in the Factor Framework and includes the level and quality of local resources and peripherality. However, rural areas which have high quality natural resources require other forms of capital in order to 'exploit' these resources to bring economic benefit, highlighting one example of the strong interconnections between the forms of capital.

Conclusion

This section of the literature review has highlighted a wide range of factors and facets that will influence the growth trends in rural areas (as outlined in Section 3). These factors and facets appear in the Factor Framework guiding the analysis of this project. It is important to note that rural is not synonymous with decline, as the data shows variations between rural areas and that many rural areas are performing as well, if not better, than many urban areas (OECD 2006; see also Bryden and Hart 2004). Highlighting the importance of a range of factors and the interplay between them, the DORA project (Bryden and Hart 2004) found six sessions underlying differences in economic performance between sixteen study areas across Europe: (i) cultural traditions and social arrangements; peripherality and infrastructure; (ii) governance, institutions and public investment; (iii) entrepreneurship; (iv) economic structures and organisations; (v) human resources and demography. Similar conclusions were reached in the RUREMPLO project (Terluin and Post, 2000; Terluin 2003) where emphasis was particularly placed on the capacity of local actors and the networks between them and with external actors. Bryden and Hart (2004) conclude that successful local responses to globalisation derive essentially from cultural and social factors, though these can be encouraged or

discouraged by styles of governance, institutional arrangements and forms of organisation that encourage or undermine self-determination, independence and local identity. Policy should focus on the improvement of governance and economic structures, and facilitating community and individual action. More specifically, 'local enterprise' can be stimulated by a range of factors, including good local institutional autonomy and governance, investment in appropriate public goods, strong local identity and market positioning and a 'can do' entrepreneurial approach. These arguments are taken forward by the OECD in its 'New Rural Paradigm' (OECD 2006).

2.5 Review of relevant policies that influence rural development

It is critical to ensure that there is a full understanding of the characteristics, trends and drivers and barriers affecting economic employment, growth and innovation in rural areas in order to support targeted policy development and to ensure that there is coherence between different policy areas and instruments. It is also important that all available data sources are used comprehensively and accurately to create robust findings that form a firm foundation for policy recommendations. Typologies, created from detailed data analysis, can help to identify patterns and trends, unravel the complexity of rural areas and can be used as a reference for targeting policies (FARO-EU 2009).

As rural areas have come to fulfil other functions, so a wide range of other public policies (apart from agriculture) have impinged on rural areas and governments have been drawn in to resolve issues concerning social and economic development in rural areas through rural development policy. Whilst many rural areas in Europe have undergone similar economic and social changes recently, the nature of rural areas and the challenges that they face vary considerably across Europe with the consequence that what is understood to constitute rural development policy also varies (see Baldock et al. 2000). The common feature is a certain perspective that cuts across sectoral concerns and has a territorial orientation. As a deliberate focus of activity, rural development policy has emerged as a counterpoint to, and in the intersection between, two other established fields: agricultural policy and spatial policy (Ward et al. 2005, p. 2-3). More broadly, policies formulated in other fields, including regional development, transport, energy, information technology, innovation and employment (European Commission, 2008a) will all impact on the development of rural areas.

In most EU Member States, public policy for rural affairs is a wide policy area that embraces land use planning, environmental management and conservation, rural services provision, agricultural modernisation and community development. Over recent years, concerns about economic development in rural areas have come to increasing prominence at the European level and within Member States. This is partly a consequence of the scale of economic restructuring among traditional primary industries in rural areas, but also because of a concern for more inclusive forms of local economic development that work with the grain of new economic functions of rural areas. 'New rural economy' approaches to local economic development in rural areas are characterised by efforts to diversify farm businesses into non-agricultural enterprises, promote and develop SMEs and micro-businesses, encourage community enterprise (for example through LEADER) and rethink the economic functions and roles of small towns in rural areas (Ward et al. 2005, p. 5-6). In terms of the latter, whilst their original *raison d'etre* of serving primarily agricultural

communities may have been removed, they continue to play an important role in maintaining wealth and employment in rural areas, albeit to varying degrees (see for example, Courtney et al. 2007; Mayfield et al. 2005). These observations support notions of the European Spatial Development Perspective which sees a shift towards a more polycentric system (rather than a traditional core-periphery model) as being central to achieving balanced competitiveness and the creation of several dynamic zones of global economic integration. Having said this, some researchers have noted the tendency for regional development research and spatial planning literature to view rural areas as the empty space between city regions which are the main drivers of growth (see for example, Bryden 2007 and Ward 2006).

Without doubt there are significant challenges with regard to the creation of new employment opportunities in many rural areas of Europe. Not only is insight into the driving factors and barriers behind the economic performance of rural regions of scientific interest, but it is also highly politically relevant, as socio-economic cohesion among regions constitutes one of the three pillars of the EU (Terluin 2003, p. 327). There are policy instruments that can be used to close the 'jobs gap' between urban and rural locations. The key, as explored in Section 5 is to understand the multi-dimensional and inter-related nature of the processes that characterise rural areas. Flexible, multi-sectoral, area-based (rather than narrow sectoral) approaches based on partnership-working should be encouraged, with a high degree of coherence, integration and transparency (DG AGRI 2004). In particular, rural development measures should be fully exploited for their capacity to increase human capital, skills and employment (European Commission 2006, p. 7). It is these endogenous factors and processes which are more amenable to policy influence than exogenous ones (FARO-EU project 2009).

Some efforts have been made to increase the market orientation of farming through the CAP. Some re-orientation has also occurred in the Agenda 2000 and Mid-Term Review forms towards the Lisbon/Gothenburg Strategy of supporting job creation and economic growth in rural areas in a sustainable way (EDORA 2008). Yet the CAP still accounts for just under half of the EU's annual budget, thus agriculture remains a strategically significant sector in policy terms. However, as argued by Lee et al. (2009, p. 4), although rural development instruments intended to support farming can – potentially – maintain existing agricultural employment, it is suggested that they do not promote new job opportunities and wider rural development (see also OECD [2006]). Moreover, they may perpetuate fragile or closed labour markets at the expense of a more diversified economy.

Debate continues as to the meaning of the term rural development and what is meant by rural development policy. Shucksmith (2009, p. 3) argues that the term rural development has acquired a new and highly contested meaning in EU parlance through the establishment of the CAP's second pillar – the Rural Development Regulation (RDR). Whilst also deriving from attempts to move towards a more territorial integrated rural development policy, rural development has become a site for symbolic and material struggle between agricultural and other interests (Shucksmith, 2009, p. 3; van der Ploeg et al. 2000). A recent study amongst some of the main players in significant arenas has shown that will some see rural development as a process that will end with the final expropriation of farmers, while others regard it as a force that will revitalise agriculture.

For those who advocate an integrated approach to rural development, the RDR is seen as limited in its ability to tackle the problems of failing rural areas (Bryden and Hart 2004) and *"remains primarily a structural adjustment policy for agriculture"* (Dwyer et al.

2002, p. 13). In the 2007-2013 period, LEADER-type measures have been incorporated into Pillar 2, albeit as a very small element and as a delivery mechanism for the principal measures rather than a measure in itself.

A number of recent policy documents and statements have highlighted the increasing differentiation of rural Europe, as explored in many of the research projects discussed in this review. These include the Fourth Cohesion Report (European Commission 2007b) which highlighted the increasing suburbanisation of accessible rural areas and the continuing drain of human capital from many less accessible rural areas (see also European Commission 2006). DG REGIO's Fifth Progress report on Economic and Social Cohesion confirmed continued concern for the development of nonmetropolitan areas of the EU and focused on the need to develop regional potential to enhance competitiveness (European Commission, 2008b). This latter point was picked up in the Green Paper on Territorial Cohesion (European Commission 2008a) which pointed to regional specificities as a potential resource which may provide an alternative to agglomeration as a foundation for economic development. The Cyprus conference on Rural Development (European Commission 2008c) discussed the diversity of rural regions as a potential development resource and raised the possibility of further targeting of rural development expenditure in future. The importance of rural-urban linkages and co-operation and partnership working was highlighted in the Territorial Agenda (agreed in Leipzig in 2007), and formed the basis of an Action Plan agreed by the European Parliament (2007). A number of policies are impacting on development processes and actions in rural areas. Underpinning these policies are a number of broad agendas, including (adapted from EDORA 2008, p. 10):

The 2000 Lisbon Agenda, re-launched in 2005, which sets overarching objectives for growth by building a competitive knowledge economy, increasing employment, through innovation and entrepreneurship, whilst respecting and enhancing social cohesion; from 2005 the Lisbon Strategy has been focused on two principal tasks – delivering stronger, lasting growth and creating more and better jobs. The guiding principles for the contribution of the CAP – markets and rural development – to the Lisbon Strategy were set by the European Council in Goteborg in 2001 and confirmed in the Lisbon Strategy Conclusions in June 2003 – strong economic performance must go hand in hand with the sustainable use of natural resources. This was reaffirmed in the renewed EU Sustainable Development Strategy adopted by the European Council in June 2006;

The Gothenburg Agenda, agreed by the European Council in 2001, and subsequently re-formulated as the European Sustainable Development Strategy 2005-2010, which seems to ensure that growth is compatible with environmental objectives.

The Europe 2020 Strategy has 5 EU wide headline targets that focus on employment, R&D / innovation, climate change / energy, education and the reduction of poverty.

The Lisbon Treaty incorporated territorial cohesion, alongside social and economic cohesion.

The new CAP is based on a modified market policy (e.g. income stabilisation is delivered through decoupled aids subject to cross compliance) and a reinforced rural development policy focused on jobs, growth and sustainability. The Community Strategic Guidelines for rural development identify the areas key to the realisation of EU priorities for the period 2007-2013, in relation to the renewed EU Sustainable Development Strategy and to the Lisbon Strategy for growth and jobs.

In 2006, the OECD published its 'New Rural Paradigm' document which sets out the major changes that are happening in rural areas across the OECD countries and recognises that weaker performance in some rural areas (but certainly by no means all) is driven by a number of factors, including out-migration and ageing, lower educational attainment, lower average labour productivity and overall low levels of public service. The OECD (2006) identifies a number of new factors which are influencing rural policy making including an increased focus and value placed on natural and cultural amenities, pressures to reform agricultural policy and decentralization and trends in regional policy. As a result of these factors, the OECD (2006) notes that several countries are increasingly seeking to develop a multi-sectoral, place-based approach that aims to identify and exploit the varied development potential of rural areas. The OECD's 'new rural paradigm' is characterized by two key principles: a focus on places instead of sectors and a focus on investments rather than subsidies. The 'new rural paradigm' requires important changes in how policies are conceived and implemented to include a cross-cutting and multi-level governance approach (OECD 2006, p. 16-17).

Finally, it is important to note that the most fundamental conclusion emerging from the recent RESRIM project (Arnason et al. 2009 p. 183) is that social processes through networks are fundamental to rural development. In this sense, social capital has a vital role in rural development processes, along with appropriate structures of governance. The role of public policy and development agencies is to trust, foster and enable local action. Thus the authors argue that public policy should support the social processes which are as essential to rural development as 'hard' economic intervention. In practice, this means supporting rural community development by working with and building the capacity of individuals and groups within their communities – an approach advocated by the LEADER community initiative.

The RESTRIM project also raises a number of other policy implications which are important in the context of this study which is aiming to explore the importance of 'quantitative' and 'qualitative' factors in rural employment and economic growth. Other policy implications arising from this project include: the need to support the development of vertical and horizontal networks in community action which can transcend the dichotomy of endogenous/exogenous development; the crucial need for training local and regional officials in the social processes surrounding local development; priority should be given by development agencies to collective action which is both inclusive and reflexive when offering grants and other support (it is notable that most expenditure under the RDR is targeted at individuals rather than collective activities and there is scope to make the RDR more effective at promoting collective action); the social structures that already exist should be built on and maintained rather than offering support only for new projects and structures; value should be placed on alternative development discourses; the branding and marketing of rural places should be based on a plurality of cultural identities and linked to cultures of everyday life through a broad participative process; appropriate structures of governance are also essential in facilitating local leadership and innovation (see also Bryden and Hart 2004). The authors conclude by arguing that talk of a post-productive countryside is premature as:

"For many people, production – of food or other commodities, but also of particular forms of social relationships, landscapes, land use or even kinds of people – is still important. Moreover, the environment in the rural communities is understood not just as the plants, soil and animals, but also as relating to work, heritage and land tenure, and

other social and cultural forms. The idea of multifunctionality in agriculture needs to be broad enough to include such sessions." (Vergunst and Shucksmith, 2009 p. 184).

2.6   Conclusions on literature review

From the literature review it is possible to identify a number of key factors determining growth and employment in rural areas for further investigation. The combination of factors leads to significant differences and trends in development in the EU Member States:

- Geographical variations in terms of economic performance, with Southern and Eastern Member States tending to have lower activity rates than those in the northeast of Europe.

- The disparity in economic performance between regions closer to larger economic centres which tend to have relatively higher rates of economic activity, and indeed higher rates of growth in employment rates, than peripheral regions.

- At sub-regional level the trends can also be varied, for example where labour moving out of agriculture in the countryside has been absorbed into small/market towns and large villages.

Other key differentials in rural labour markets and economies for investigation at the regional case study level include:

- The differential in unemployment rates of females in urban and rural areas, which is particularly marked with lower activity levels for rural women.

- Unemployment rates which are generally higher in rural than in urban areas, but in some rural regions of the most developed EU Member States (e.g. Denmark, Germany, France and the UK) it may be markedly lower than in urban areas.

- The complex nature of youth transitions into employment, with young people often isolated, overlooked and excluded from labour markets.

- Long-term unemployment tending to be highest in significantly rural areas, which could indicate growing exclusion of low-income groups.

- The extent to which 'hidden unemployment' is a major factor in rural areas, estimated to account for around 5 million people in rural areas of the EU.

- The differential in unemployment between rural women (10.6%) compared to rural men (7.9%) and why this differential is higher than in urban areas.

The literature review has identified the role of two main economic processes underlying the performance of rural economies: first the rise of the 'New Rural Economy' (NRE) and second the refocusing of agricultural activity towards the production of quality food products on the one hand, and environmental benefits on the other. Both these processes are contributing towards the diversification of rural economies, reducing the economic reliance on mainstream agricultural primary production and promoting the non-farm economy and alternative forms of farm-related business. The growth potential of many rural areas is now more strongly linked to a range of new development opportunities,

particularly in the secondary or tertiary sectors, many of which are a response to demands from urban consumers and in response to which the term 'NRE' has developed.

In addition, the public sector is identified as remaining an important employer in many rural areas and many rural places have seen a growth in this sector in recent years.

Mirroring the decline in agriculture as a driver of growth in rural areas is the growing importance of so-called 'ecosystem services' – those functions which the land can provide, including those in relation to mitigating and adapting for climate change processes. This reflects a growing concern for the impacts of climate change and is potentially resulting in a greater degree of multi-functionality in rural land use, where land is used for a broad range of services which may be enhanced, captured and sold on the market for economic gain. Ecosystem services as an 'industrial activity' range from those with a well established and traditional track record, such as water management, through to emerging clean energy technologies.

A key driver for employment and growth is, of course, the extent to which innovation as a creative force is embedded in the national/regional/local economy and through the particular sectors which dominate or are emerging in rural economies. Various trends have been identified that favour innovation in rural areas, including:

- The diversification of local economies.

- The continuing need to see technological advancements in food production.

- Footloose entrepreneurs - attracted to rural areas by perceived higher environmental quality and living standards.

- Technological advancements and market trends too have encouraged small businesses to locate in rural areas.

- New interactions between the local and the global have allowed once isolated communities to develop networks at an international scale.

- Improved infrastructure and accessibility have encouraged businesses to locate in rural areas allowing the transfer of knowledge and the promotion of innovation.

- Innovation in service provision and delivery driven by need to provide for populations remote from urban providers.

- Growth in the eco industry and eco-innovation sector.

However, the literature review also identifies fundamental structural characteristics which still disadvantage rural areas them from the perspective of innovation. These include:

- A relatively thin economic base, low business densities, low clustering, all tending to undermine knowledge transfer, networking and competition;

- A weak knowledge sector outside of the agricultural/land management sector and a consequent lack of communities of skilled workers for knowledge based industry.

2.6.1 Factor framework analysis

This sub-section presents the factor framework that was constructed on the basis of the literature review. The below tables show the relevant factors of growth and employment development in rural areas that are suggested by the literature, splitted on the basis of their measurability.

<u>The indicators mentioned in bold are directly derived from the literature review</u>. The other indicators are closely related to facets of the literature and can serve as an alternative.

Measurable indicators

The theoretical framework lead to an identification of possible indicators of growth and employment development in rural areas (summarised in Table 2.1). The overview of indicators was the basis for the data collection.

Table 2.1   Factor Framework for the indicators determining employment, growth and innovation

Factor and Issue	Indicators
Economic capital - Economic Growth	
Productivity	- Change in GDP / GVA / productivity / turnover - GDP/GVA per capita
Employment growth	- Change in employment / participation rate - Employment/participation rate of people of working age
Economic capital - Trends in employment and entrepreneurship, investment in infrastructure and R&D	
Productivity	**Output from different (i.e. growing/declining) economic sectors**, **earnings** (by place of work and place of residence) - income (household income including composition of income and proportion on low incomes)
Employment	**Economic activity/inactivity rates** **Type of employment** (e.g. full time, part time, seasonal, contract, self-employment) **Unemployment rate**, Job vacancies (and benefits claimants), Hidden unemployment, Underemployment **Sectors of employment** (at least broken down into agriculture and related activities, secondary, tertiary, public sector and 'knowledge economy businesses') **Commuting patterns** (distance travelled to work, flows out of the area boundary for work in urban locations, modes of travel to work - should include both rural --> urban and urban --> flows of workers) - Numbers/% of people working from home and activities engaged in, all by gender, age and level of educational attainment - Also agricultural data (see separate row in this table)
Agriculture-specific data	- Full-time and part-time holdings in agriculture **Average age of farmers** **CAP payments** - Distribution of total **subsidies** along farm size categories **Gross Agricultural Output** - Value of agricultural production - Crop production and livestock production - Agricultural and rural development Policy Area Expenditure - Working Hours - Early Retirement - Agricultural Trade

Factor and Issue	Indicators
	• Share of farms with **diversification activity** according to the type of farm • Relative importance of main types of farming according to **diversification** of farms • Rural development **support to the diversification of agricultural holdings** • Intra-EU trade
Agro-industry specific data	• Number of agro-industrial companies in EU • Split-up per relevant NACE code • Number of Agricultural Holdings with on-farm processing • **Number of agricultural holdings with micro-machine processing** (on-farm processing under control of larger scale food industry companies) • Relevance of agro-industry compared to other industries and service sectors • Value of food production • **Employment in agro-industry** • **Added value** per employee working in food industry
Investment	• Investment in transport and communications infrastructure (e.g. capital expenditure per capita) • Density of infrastructure (e.g. railways, roads and navigable inland waterways) • Distance of firms to transport infrastructure (including roads, railways, airports) • Investment in IT/broadband infrastructure • Speed of connections • Level of broadband demand amongst households and businesses • Levels of capital investment by businesses • Investment in suitable local business premises • E-government availability • E-commerce levels
Enterprise	• **Business start-ups** (by sector, age, gender, by people of working age) • Prevalence of micro-businesses and SMEs • Capital availability for business start-ups • Business closure rates (by sector, age, gender) • Number of active enterprises • Business growth rates and generation of employment • Business size • Importance of in-migrants/locals in business start-ups • Household members working in the business
Innovation	• **Investment by public and private sectors in R&D** • Businesses receiving funding (from public/private/education sectors) for innovation. Based upon the UK Innovation Index[2] • Investment by the private sector in rural areas in the following 7 categories: 1. R&D; 2. Design; 3. Organisational improvement; 4. Software Development; 5. Market research & advertising; 7. Mineral exploration and copyright development
Human capital - Demographic structure, migration trends, skills and education and quality of life	
Education/skills	• Total public expenditure on education (as % of GDP) • **Presence of higher and further education institutes** • **Levels of educational attainment** e.g. proportion of workforce with primary, secondary and tertiary level education • Proportion of graduates in the population/proportion of science and technology graduates in the population (or in population aged 20-29) • **Adult participation rates in lifelong learning and training**
Entrepreneurship	• Entrepreneurial activity indices (e.g. nascent entrepreneurial or young people's

	entrepreneurial activity)
	• **Availability of capital** for enterprise creation
	• **% of local and in-migrant entrepreneurs** and success rates
	• Use of internet and other telecommunication technologies
Demography	• Total population
	• **Overall population growth/decline**
	• Population density
	• P**opulation structure** (including **gender** and **age** breakdown)
	• **Fertility** and mortality rates
Migration	• **In-migration and out-migration** (by **age, gender**, socio-economic characteristics)
Access to Services	• **Availability of public services** (including education, health/medical, employment services)
	• **Accessibility of population to services** (usually measured in 'as the crow flies' distances)
	• **Access to/availability of public transport**, private car ownership patterns (by age and gender)
Housing	• Affordability of housing (i.e. relationship between average incomes and average house prices)
	• Housing conditions
	• Supply of housing (e.g. number of new dwellings constructed and of what type)
	• Levels of demand/need for housing locally (by age, gender and income level)
Quality of Life	• Crime levels
	• **Access to services**
	• Health statistics (e.g. proportion of population with a limiting long-term illness)

Social capital - Level of social capital and local institutional capacity	
Degree of autonomy, co-operation & effectiveness within & between institutional structures	• Number and 'density' of local institutions • Numbers/levels/sources of grants applied for and received
Role of community and voluntary organizations in the development processes	• **Number of voluntary/community sector groups** and their membership levels (by age, gender) • Provision of local sporting and leisure clubs/facilities • Services/facilities for children and young people • Overall number of community facilities (including libraries, community centres and cultural centres)

Cultural capital - Vibrancy of civic engagement & identity; use of heritage as a 'resource' for economic growth	
Existence of heritage sites; Degree of Commercialization of Heritage	• **Number of sites;** • Public/private sector spend on historic/heritage sites; • Visitor numbers to heritage sites; • Local/regional spend on marketing local historic sites; • **Tourism data** (e.g. capacity, occupancy rates).
Civic Engagement	• **Number and membership of 'civic' institutions**, e.g. the church, WI, community associations • Voting behaviour (% of population turning out to vote in elections) • Number of contested local elections • Level of community representation

Environmental capital - Peripherality & level & quality of & expenditure on local natural resources;	
Natural Resource Endowment	• **% of land under different uses** • Level of forestry planting, processing and marketing activities in primary products

	(e.g. forestry and fishing) • % of **land area that has a designation** (e.g. National Park, Area of Outstanding Natural Beauty) • Land ownership patterns (e.g. % of land under public/private/community ownership)
Peripherality and Remoteness	• **Distance to nearest urban centre** of substantial size • **Distance from national capital city**
Cost of Environmental Maintenance	• **Amount spent on maintaining the environment**, forests, lakes and rivers etc
Pollution and Congestion	• Data on air pollution • Pollution of rivers/river quality

Source: IDEA Consult / ECORYS

Non measurable indicators

The indicators mentioned in bold are directly derived from the literature review.

Table 2.2   Factor framework for the non measurable indicators determining employment, growth and innovation

Factor and Issue	Indicators
Economic capital - Trends in employment and entrepreneurship, investment in infrastructure and R&D	
Investment	• Quality of infrastructure • Quality of 'soft' transport infrastructure (e.g. pedestrians, cyclists, disabled/less mobile people)
Innovation	• Extent of links between businesses and universities • Qualitative indicators which capture the following drivers of innovation: 1. Availability of talented people; 2. Intensity of competition; 3. Demand-led innovation resulting from demand for new services or products; 4. Quality of ICT infrastructure; 5. Availability of finance for R&D; 6. Public research investment
Human capital - Demographic structure, migration trends, skills and education and quality of life	
Education	• Availability of adult/lifelong learning opportunities locally • Satisfaction with lifelong learning and training • Uptake of local training courses and their relevance to the local economic structure (e.g. to growing 'new rural economy' sectors)
Entrepreneurship	• Attitudes of local population (e.g. to risk-taking, starting new ventures, work ethic of local population etc) • **Degree of relevant prior experience** • **Knowledge and skills of entrepreneurs** • **Availability and use of (public and private sector) business advice and support**
Migration	• Comparisons of the attitudes of locals and in-migrants • Business sectors in which in-migrants are more common than locals as business owners
Access to Services	• Quality of local service provision • Access to/availability of public transport • Satisfaction with public transport
Quality of Life	• Surveys asking people the factors that contribute to their quality of life? (e.g. availability of affordable housing, low crime rates, good neighbours, clean streets)
Social capital - Level of social capital and local institutional capacity	

Trust, Reciprocity and Norms of Behaviour	• Any measurements of **trust** amongst the local population? • Any data on **social networks/cohesion** amongst local people?
Degree of autonomy, co-operation & effectiveness within & between institutional structures	• **Degree of community-public sector** • **Public-private and private-community sector engagement**
Existence of public and private sector networks and partnerships	• Any data on number of partnerships, which organisations are involved, length of time partnerships in existence? • Public and private sector networks within the local area and that extend beyond the local area?
Cultural capital - Vibrancy of civic engagement & identity; use of heritage as a 'resource' for economic growth	
Civic Engagement	• Surveys of community vibrancy?
Identity	• Indicators of **strength of local/regional identity amongst population**
Environmental capital - Level & quality of local Natural resources; expenditure on maintaining high quality natural resources; peripherality	
Natural Resource Endowment	• Processing and marketing activities in primary products (e.g. forestry and fishing) • Indicators of natural beauty (or values placed on different areas) • Rural land consumption by different 'urban' uses

Source: IDEA Consult / ECORYS

3 Analysis of employment and growth in rural areas

3.1 Objective of the analysis on employment and growth in rural areas

The objective of the analysis is *to analyse employment and growth development in rural areas and the various sectors that are located there, with particular attention to women and young people, agriculture and the agri-food industry.*

To respond to the objectives an extensive trend analysis has been made of a set of 33 indicators to provide an overview of the employment and growth development in rural areas as well as those that are associated with agriculture and the agri-food industry.

This analysis focuses on the changes in rural areas of the EU from 1995/1999 until now (using the most current data available from Eurostat, DG AGRI and other relevant EU sources). The level of analysis is NUTS3 level, which restricts to certain extent the data availability, but at the same time allows a thorough situational and trend analysis of the socio-economic situation in the EU. Analysis at NUTS2 level is only done for a very limited number of indicators (e.g., on agri-food industry) for which no NUTS3 equivalent was found and for which the analysis has been requested for this study.

This chapter starts with a short description of the approach, and an overview of the key-indicators for rural regions used for the analysis (section 3.2), an analysis per indicator (section 3.3). Lastly some conclusions are drawn from this analysis (section 3.4).

The development of this analysis was preceded by a detailed literature review (chapter 2), definition of a theoretical factor framework, all these accompanied by an overview of attention specifically paid in all rural development programmes to women and young people.

3.2 Methodology for the trend analysis

The methodological approach of the analysis consisted of three steps:

1) In the literature review, an overview was given of the trends in rural development and a list of relevant growth factors was extracted.

2) In the second step, the factors were translated into indicators on which data needed to be collected. First data availability was checked from public data sources and data has been collected and extensively looked at to check completeness and usefulness.

3) Based on the collected (quantitative) data on rural development and its *potentially* influencing factors (as indicated by the literature review), a thorough data analysis consequently shows the trends in rural development in the EU and the *real* influencing factors, which is included in section 2.4 of this report.

3.2.1 Data collection

The (extended) factor framework presented in the previous section was the basis for the data collection. This has been derived from the literature review and contains those factors (represented by indicators) that potentially have an effect on rural development.

Initially, all publicly available Eurostat statistical databases were checked for availability of indicators that corresponded to the factors in the framework. Based on the constructed datasets, a detailed data request was set up that included information that was missing. Data was requested from 1995 onwards, wherever possible disaggregated by gender, age and sector.

The below indicators were selected on basis of the following criteria:

- SMART-criteria of which **relevancy** was a point of attention. The focus was on those indicators that are relevant for the modeling of factors driving rural development.

- **Comparability**: as only EU-wide databases were used, indicators could be compared between regions and over time.

- **Coverage**: The use and analysis of some indicators was burdened by missing data (sometimes going beyond the 50% threshold level of non-availability). These indicators were thus not used. For indicators included in the data set, but experiencing certain data availability issues, an explanation clarifying the issue is provided in the text.

The data availability at NUTS3-level for some of the indicators of Eurostat proved to be very limited. Therefore other sources were crucial to enlarge the dataset, but had mainly the disadvantage of not providing long time series (such as the Farm Structure Survey data which was only available for 2005 and 2007 or for only one point in time).

For some aspects of the factor framework there is no or little regional data available. For example, indicators related to social and cultural capital were rather impossible to find at a NUTS2 or NUTS3 level. Also the Structure Business Statistics, that offer indicators on entrepreneurship, are only available at country level.

Table 3.1   Selected and available growth and employment indicators and their NUTS-level

Capital	Theme	Full description	Source	NUTS
Economic capital	Productivity	GDP at current market prices at NUTS level 3 - Purchasing Power Standard per inhabitant	Eurostat	3
	Employment	Unemployment rates, at NUTS level 3 (%) - 15 years and over (by gender)	Eurostat	3
		Unemployment rates, at NUTS level 3 (%) - 25 years and over	Eurostat	3
		Employment rate by NACE-code	Eurostat	3
		Youth Unemployment	Eurostat	3
	Structure of economy	Share of primary sector in GVA	Eurostat	3
		Share of tertiary sector in GVA	Eurostat	3
		Share of primary sector in employment	Eurostat	3
		Share of tertiary sector in employment	Eurostat	3
	Agriculture	Number of farms	FSS*	3
		Utilized agricultural area	FSS	3
		Average area farm size	FSS	3
		Percent of holdings with less than 5 ha	FSS	3
		Percent of holdings with between 5 and 50 ha	FSS	3
		Average economic farm size	FSS	3
		Labour force	FSS	3
		Importance of semi-subsistance farming in NMS: % of farms with < 1 ESU	FSS	3
		Percent of managers with basic or full agricultural training	FSS	3
		Ratio of farmers <35 years & farmers of 55> years	FSS	3
	Other	% holders with other gainful activity	Eurostat-RDI*	3
	Food	Number of employees in the food industry	FSS	2
	Tourism	Number of bed places	Eurostat	3
Human capital	Demography	Annual average population by gender - Total	Eurostat	3
		Births and deaths - Crude birth rate	Eurostat	3
		Births and deaths - Crude death rate	Eurostat	3
		Population density	Eurostat	3
		Percentage of population with age less than 14 years	Eurostat	3
		Percentage of population with age between 15 and 64 years	Eurostat	3
		Percentage of population with age over 64 years	Eurostat	3
		Net migration rate	Eurostat	2
Social capital	Infrastructure	Accessibility via roads – index – EU27	ESPON	3
		Accessibility via roads - change 2001-2006– EU27	ESPON	3
Environmental capital	Environment	% irrigated UAA	Eurostat - RDI	3

Source: IDEA Consult / ECORYS

* FSS = Farm Structure Survey, RDI = Rural Development Indicators

3.2.2 Descriptive analysis

For describing the employment and growth in rural areas a trend and factor analyses have been used. Based on these evolutions in the approach to rural development *the neo-endogenous growth model has been used where both local and extra-local barriers and drivers of growth are recognised*. This entailed the inclusion of both exogenous and endogenous factors in the analytical model.

(1) Trend analysis of employment and growth in rural areas

In order to have a clear view of the socio-economic developments in rural areas, data covering various employment and growth aspects have been analysed. To compare growth and employment trends in rural areas with other regions, the classification of DG AGRI / DG REGIO has been used.

As indicated the analysis has been done at NUTS3 level, with the exception of the food industry indicators for which no information was available at NUTS3 level. For each of these NUTS3 indicators has been looked at the following elements:

- Rural, intermediate and urban trend (and/or level)
- Evolution over time (since 1995 onwards)
- Division between EU15 and New Member States (NMS).

(2) Statistical analysis

The literature review leads to an overview of the variables potentially influencing rural development in terms of growth and employment. The data analysis started from the relevant variables identified in the literature review for which the corresponding data is EU-wide available at the required geographic level and identify those variables having a statistically demonstrable influence on growth and employment indicators.

3.3 Analysis of employment and growth in rural areas

This section contains the analyses of the data collected. It shows all most recent trends and situations, with particular focus on the EU rural areas.

Following the agreement reached with the Steering group, the analysis is based on a delimitation developed by the European Commission (DG AGRI/DG REGIO) (see Table 3.2 and Map 3.1), which improves and modifies the current OECD definition at NUTS3 level (see below box). This classification is also used for the clustering of regions later on in this study.

The delimination of the EU NUTS3 regions developmed by the European Commission

The European Commission (DG AGRI / DG REGIO) has developed a new classification of the (NUTS3) regions in the EU. The new classification improves the OECD one, currently in use for statistical and analytical purposes, by overcoming some intrinsic limitations due to the variable size across the EU of Local Administrative Units (LAU2) and NUTS3 regions. The new classification does not introduce major changes with respect to the OECD classification, and is now in its testing phase. The new typology builds on a simple two-step approach to identify population in urban areas:

Table 3.2   Number of NUTS3 regions per Member State by regional typology according to DG AGRI/REGIO classification

Country	Urban	Intermediate	Rural	Country	Urban	Intermediate	Rural
AT	5	7	23	BG	1	12	15
BE	18	13	13	CY	0	1	0
DE	97	208	124	CZ	2	6	6
DK	2	4	5	EE	0	2	3
ES	12	26	21	HU	1	6	13
FI	1	6	13	LT	1	2	7
FR	16	30	54	LV	2	1	3
GR	2	5	44	MT	2	0	0
IE	1	0	7	PL	16	22	28
IT	18	48	41	RO	2	15	25
LU	0	1	0	SI	0	4	8
NL[3]	21	18	1	SK	1	3	4
PT	6	4	20				
SE	1	10	10				
UK	79	41	13				
EU15	279	421	389	NMS	28	74	112
EU27	307	495	501	Total EU27:	1303		

Source: European Commission (DG AGRI/DG REGIO)

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[3] The Netherlands includes only one rural region. The calculated average at Member State level should thus be looked at with caution.

Map 3.1   Urban, rural and intermediate regions at NUTS3 level

Classification

- Predominantly urban regions
- Intermediate regions
- Predominantly rural regions

Map developed by ÖIR
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Source: DG AGRI/DG REGIO
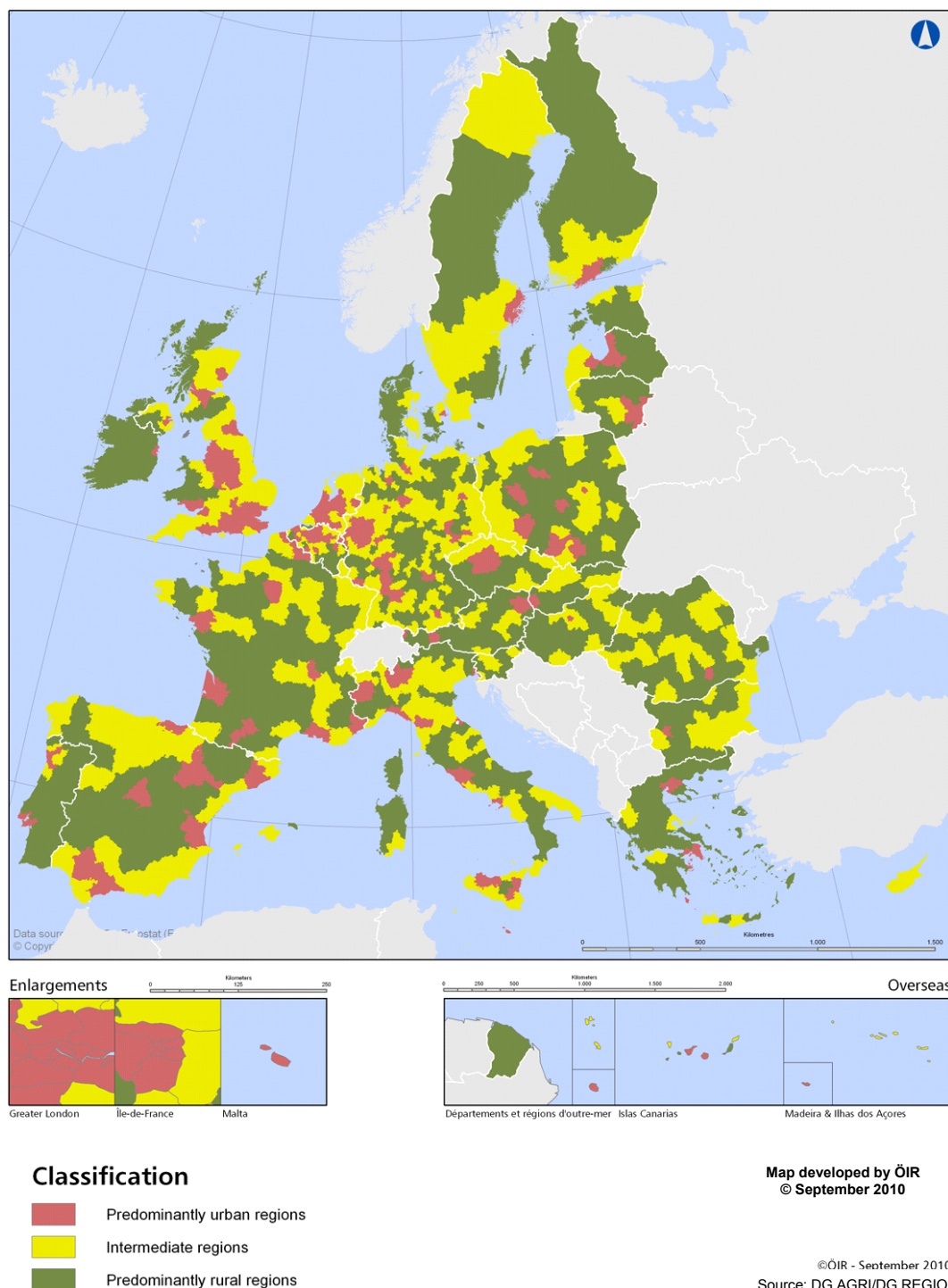
In Map 3.1 the division of the NUTS3 regions in EU27 is indicated by regional typology as it has been used for the descriptive analysis. The classification of rural and urban areas according to the DG AGRI / DG REGIO shows a mixed picture, with rural, urban and intermediate regions scattered throughout Europe. The European periphery can generally be titled as rural, especially Ireland, Portugal, Greece, great parts of Scandinavia and the Baltic States (excluding capital agglomerations). Predominantly rural are also great parts

of Eastern and South-Eastern European countries. In contrast most urban areas can be found in the United Kingdom and the Benelux countries.

A few remarks on the data used

For the chosen indicators, the evolution in time is shown for predominantly rural regions and compared to intermediate and predominantly urban regions (further in this document referred to as 'rural', 'intermediate' and 'urban'). If relevant, the annual growth of the indicator is shown as well. Furthermore, the evolution of the indicator is compared for different EU territories with in particular EU15 versus New Member States. This comparison is done by taking into account the average value for the rural regions;

At Member State level[4], the change of the indicator in rural regions before and after the enlargement of the EU in 2004 has been analysed. Since Cyprus, Luxembourg and Malta do not have any rural region, those countries are not taken into account in the analysis at Member State level.

Whenever possible (e.g., employment, population, etc.), differentiation is made by gender and attention is given to young people.

Since for most of the indicators data are only available up to 2007, the impact of the current economic crisis is not described in this trend analysis. In the case-studies, however, attention has been paid to the impact of the economic crisis.

3.3.1 Economic growth: Productivity

Gross Domestic Product (GDP)

Productivity is measured through two indicators: Gross Domestic Product and Gross Value Added. For comparison reasons and for the purpose of the study, the indicator *Gross domestic product at current market prices[5] – Purchasing Power Standard per inhabitant* (i.e., GDP in pps per capita)[6] is analysed.

Figure 3.2 and Figure 3.3 provide a visual overview of the evolution of the *Productivity* variable over time.

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[4] Averages at Member State level are calculated by taking the average of all available data of rural NUTS3 regions. Due to missing data for some NUTS3 regions in some years, the annual estimates given for a certain Member State are not every year based on the same NUTS3 regions. The change between two years is calculated as the difference between the Member State averages of the two years. Member States with serious lack of data are mentioned in footnotes. This methodology holds for every Member State level analysis in this document.

5 Thus in nominal terms.

6 For this indicator there are NUTS3 level data from 1995 to 2007. Data on real GDP growth are only available at NUTS2 level and for an extensively lower number of regions than GDP at current market prices.

Source: IDEA / ECORYS

As a general trend, GDP in pps per capita has been steadily increasing over time in all regions. By type of region, however, rural regions appear to have consistently the lowest GDP/capita levels[7]. The latter are slightly higher in intermediate regions and are considerably higher in urban regions. Moreover, the absolute (nominal) gap between urban and rural areas have increased (i.e. almost doubled) between 1995 and 2007.

Next, the average[8] annual GDP (pps/capita) **growth** rate is calculated for each type of region. The average annual *growth* of GDP is higher in rural regions since 2001, but still insufficient to bring in substantial catching-up effects and close the gap (see Figure 3.3). One reason for this is the relatively higher base level in urban regions based on which the growth rates are estimated (the accelerated growth of GDP in urban regions in the period 1996-2000 made the difference (in value) between the regions even larger).

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[7] The GDP/capita is even overestimated, because the GDP data is collected on the household level rather than the place where economic value is created (i.e. the place of work).

[8] The average over all regions of the same region type.

Figure 3.3   Average annual growth of GDP at current market prices (PPS/cap) in **EU27** by regional typology (NUTS3), 1996-2007
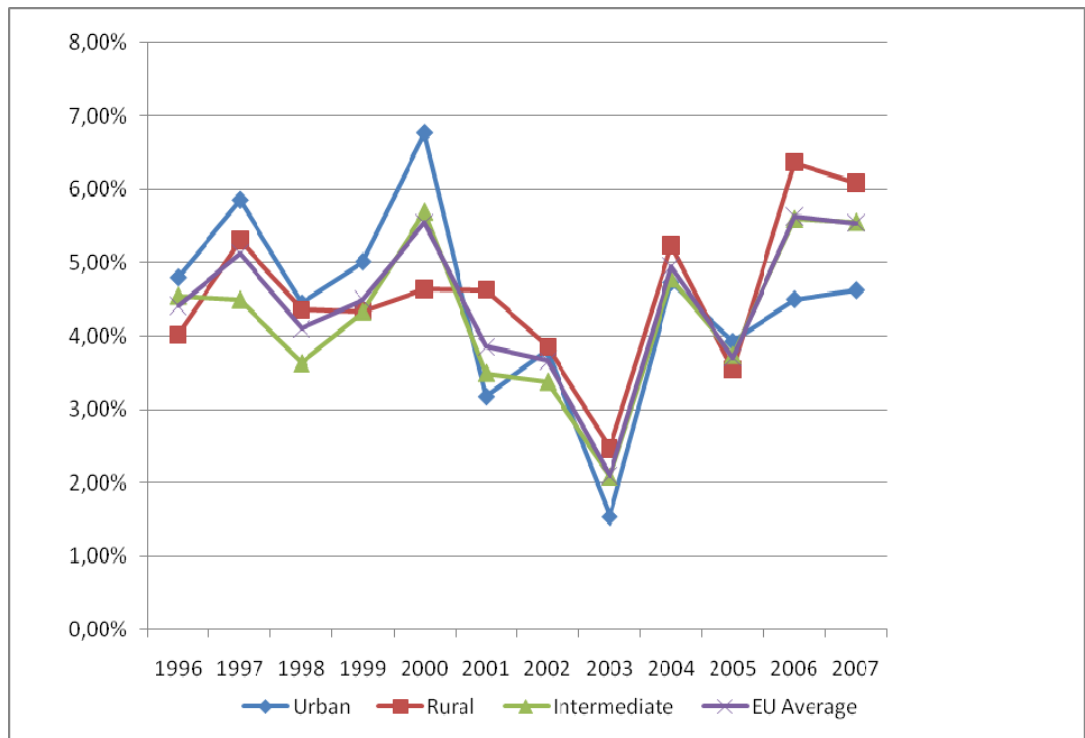
Source: IDEA Consult / ECORYS based on Eurostat data

The difference in growth rates between urban and rural areas that appears in 2006-2007 is the largest over the period 1996-2007 which may suggest that there is a potential in rural areas for a further 'catching- up' process. From this perspective, and given the findings, it is worthwhile exploring how the economic crisis has affected these developments, but this goes beyond the scope of the study (as data at NUTS3 level was not available).

The higher growth of rural regions' GDP/capita in the EU in 2006-2007 is particularly in rural areas in EU15 (Figure 3.4). In the New Member States, the average growth of *urban* regions' GDP has been the highest in the same period, but rural growth has also quite substantially increased (Figure 3.5), the latter being evident also for the rural regions in EU15.
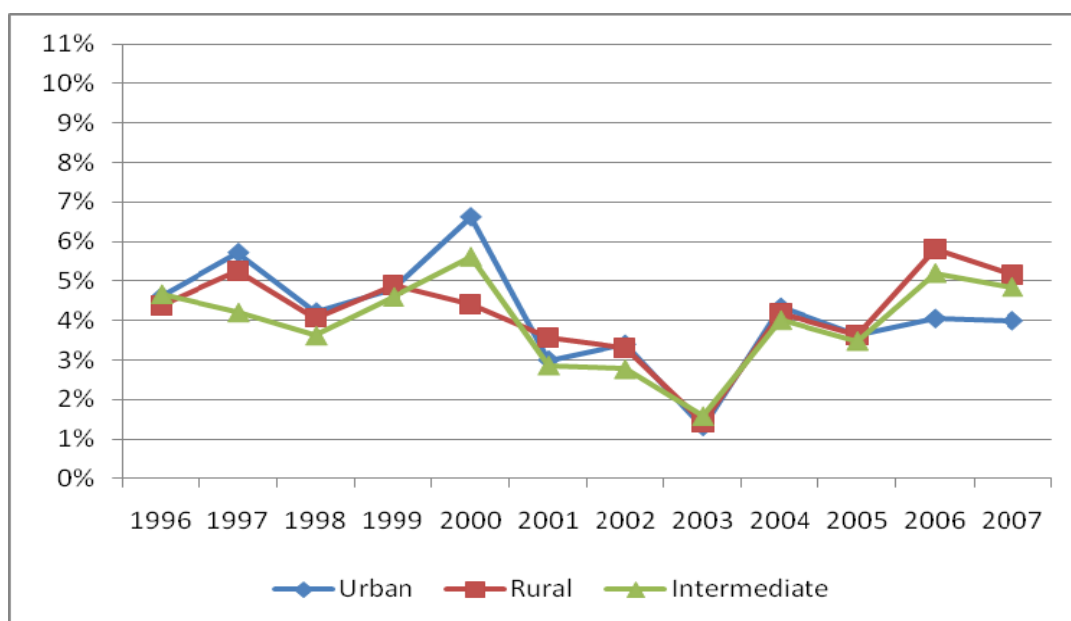
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.5   Average annual growth of GDP at current market prices (PPS/cap) in **NMS** by regional typology (NUTS3), 1996-
2007
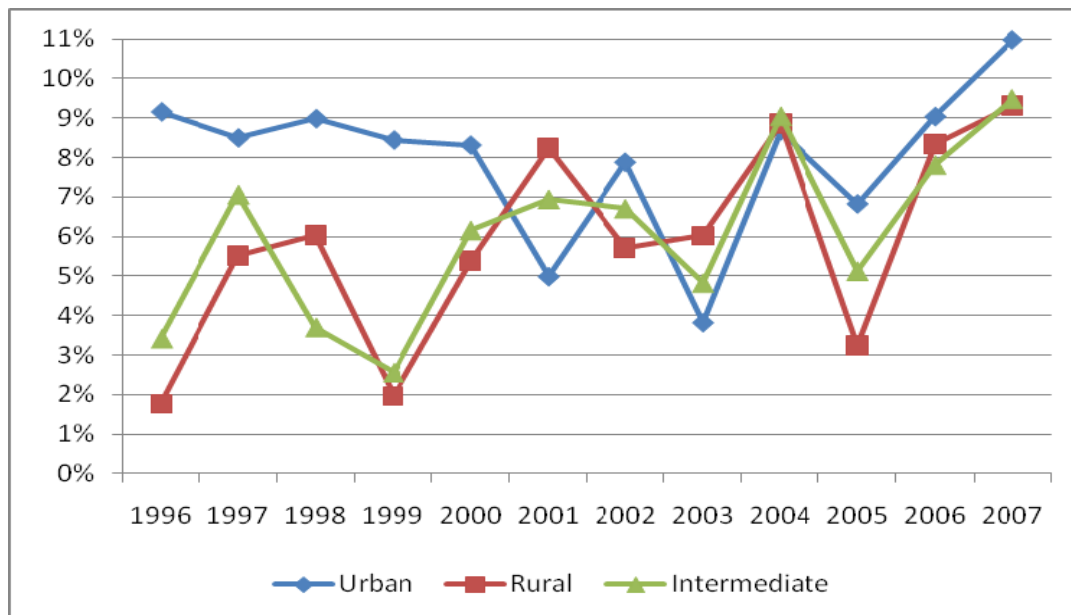
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.6 illustrates the gross domestic product in purchasing power parity per capita depicts a clear east-west divide in 2007. The New Member States are characterized by a low level of purchasing power, while the central European belt from Scandinavia, through western Germany, Benelux to Austria and northern Italy show a very high level of this indicator. The same can be said about Ireland, North-Western Spain and parts of the UK and France.

Figure 3.6   GDP (in PPP) per capita in the EU, 2007, NUTS3

Gross Domestic Product in Purchasing Power Parity per Capita 2007 [in €]

≤ 5.000	15.001 - 20.000
5.001 - 10.000	20.001 - 25.000
10.001 - 15.000	> 25.000

Map developed by ÖIR
© September 2010
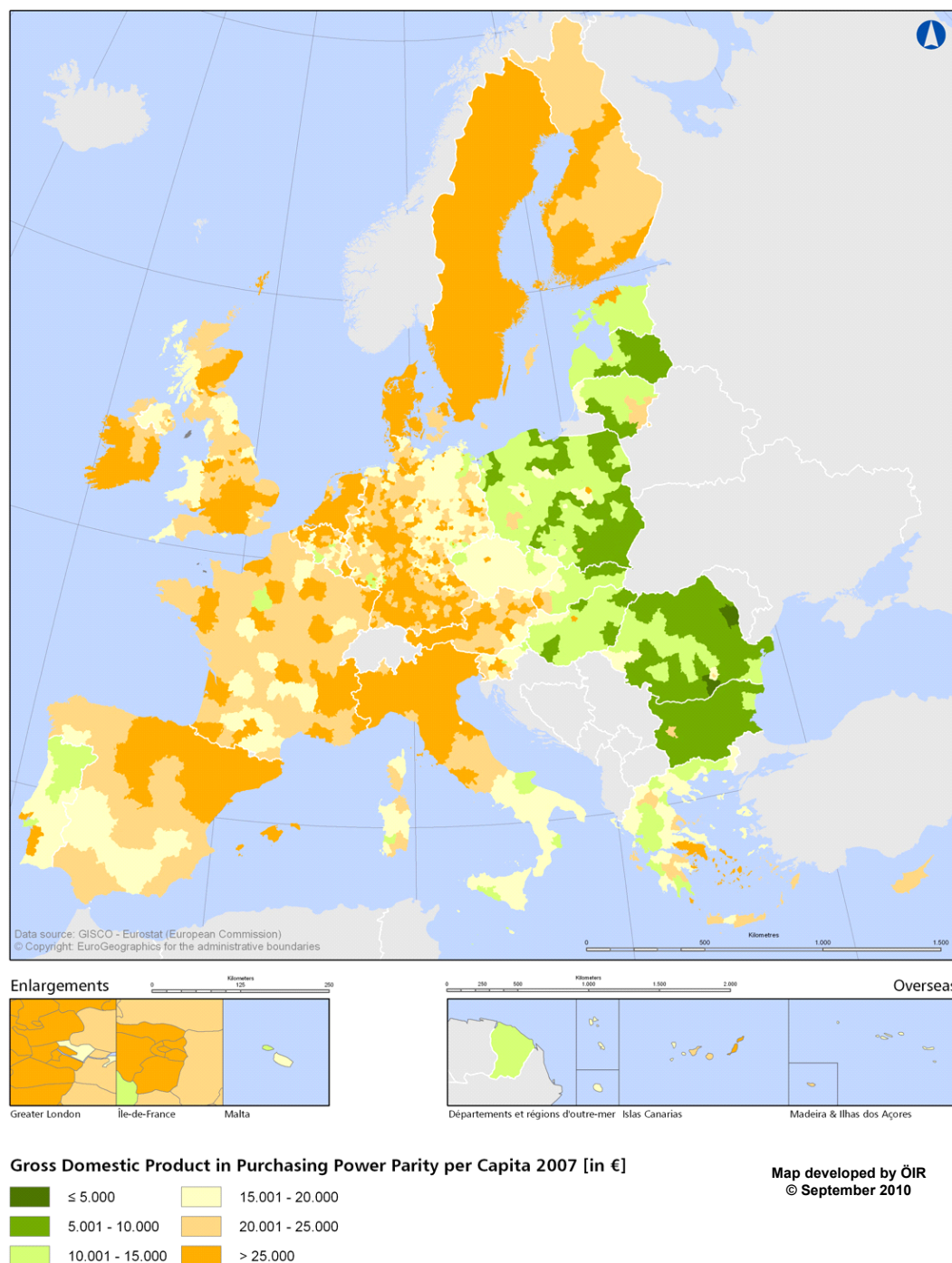
Source: DG AGRI/DG REGIO

As for the situation of GDP in rural areas it becomes clear that the distinction between urban and rural regions is less distinctive than the East-West divide. The problem behind this phenomenon is the statistical collection of GDP data. GDP data is collected on the household level rather than the place where economic value is created (i.e. the place of work). As households are far more territorially disperse than jobs (especially in urban hinterlands) the territorial distribution of economic performance "frays" along the settlement structures. If adjusting the GDP data to the work places the picture would be far more focused around the urban agglomerations, which host the European wealth

creation to a large extent. However, rural areas around urban centres and along traffic corridors are also showing an increasing GDP per capita performance.

Comparing the EU15 and NMS rural regions (Figure 3.7), it can be seen that the GDP in rural areas is growing faster in the New Member States, certainly after 2004. This holds especially for Slovakia, Poland and the Czech Republic, where the difference in growth before and after 2004, is substantial.[9] This may suggest that EU accession has contributed in general positively to the economic development in the New Member States. The lower starting (i.e. accession) levels in the New Member States, however, should also be taken into account as this affects the size of the growth.

Figure 3.7 shows that in almost all EU Member States the compound annual average growth rate of the GDP is higher for the period 2005-2007 than for the years before (1996-2004). Only UK, Ireland, Hungary and Slovenia recorded a slower growth after 2004.

Figure 3.7   Compound annual average growth[10] of GDP at current market prices (PPS/cap) in rural NUTS3 regions per Member State (EU15 left – NMS right), before and after 2004[11]
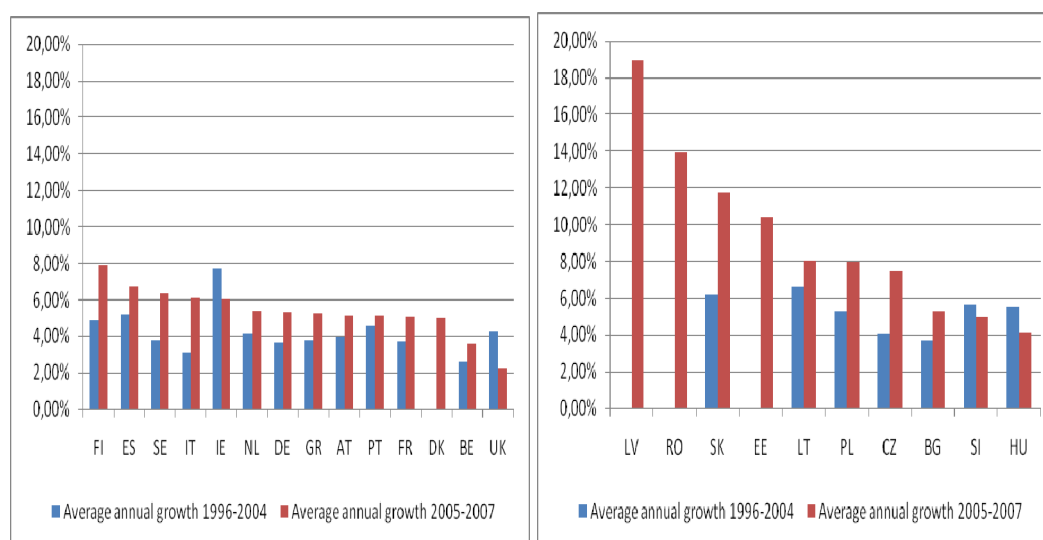
Source: IDEA Consult / ECORYS based on Eurostat data

During 1995-2007 the GDP /capita in rural regions of the EU15 increased steadily. In contrast, whilst GDP/capita in the New Member States remained fairly static from 1995 to 1998, it has shown a growth since then, and particularly after 2004. In 2007, the GDP/capita level in the EU15 was approximately double that in the New Member States, i.e. the absolute (nominal) difference has increased over the analysed period.

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9 Data unavailability has caused the lack of comparison for Latvia and Romania.

10 Figure 3.7 shows per Member State the compound annual average increase or reduction of GDP as a percentage from the base year, calculated by the formula: exponential growth= (exp (in variable final year/variable initial year)/number of years)-1)*100. To make the analysis at Member State level, the Member States average over all compound annual average changes per rural NUTS3 region in the Member State is calculated.

11 Since Malta has only Predominantly Urban regions and Cyprus and Luxemburg only Intermediate regions, no Member State analysis is shown for those countries.

Source: IDEA Consult / ECORYS based on Eurostat data

3.3.2   Employment

Employment rate

For the analysis on *employment* the employment rate is used as a basic indicator. The employment rate is measured as the total number of employed people divided by the total working age population 15-64[12].

Calculations show that urban regions have a higher employment rate than other regions, and since 2005, the difference between urban regions and intermediate, and especially rural regions, has grown. Between 2005 and 2007, the employment rate in urban areas increased to approximately 70%. Intermediate areas also saw a relatively sharp increase (up to 65.5%) in the same period. In contrast, the increase in employment rate in rural regions was much smaller. This data suggests that the Rural Jobs Gap[13], as already described in the literature review, has widened even more in recent years.

As for the performance of rural regions the highest share of unemployment could be seen in all types of regions, from urban to rural. Like for GDP the territorial pattern of unemployment does not seem to be very similar with its type. In other words, unemployment is not so much an "urban" or "rural" phenomenon but a phenomenon of economic structures and favourable conditions for economic activity (e.g. accessibility, skilled work force).

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[12] Since population data are only available since 2000, the employment rates can only be calculated from 2000 onwards.

[13] In literature review: "Across the EU25, in the period 1996-2001,the employment rate has increased by 3.6% in predominantly urban areas compared to 1.9% in predominantly rural areas, suggesting a widening of the urban-rural employment gap (European Commission, 2006)"
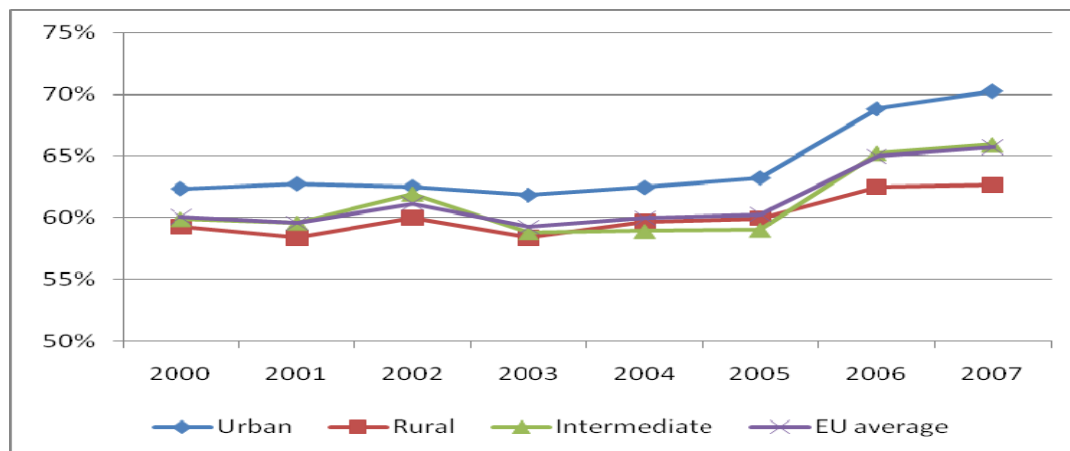
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.10 shows that in the period 2003-2007, employment rates in rural regions have increased in both, EU15 and New Member States. The rate for the New Member States rate generally remains nearly by 5%-point below the EU15-level (63.8% in EU15 vs. 59.0% for the New Member States in 2007).

Figure 3.10   Employment rates (%) in EU15 and NMS in rural NUTS3 regions[14], 2003-2007
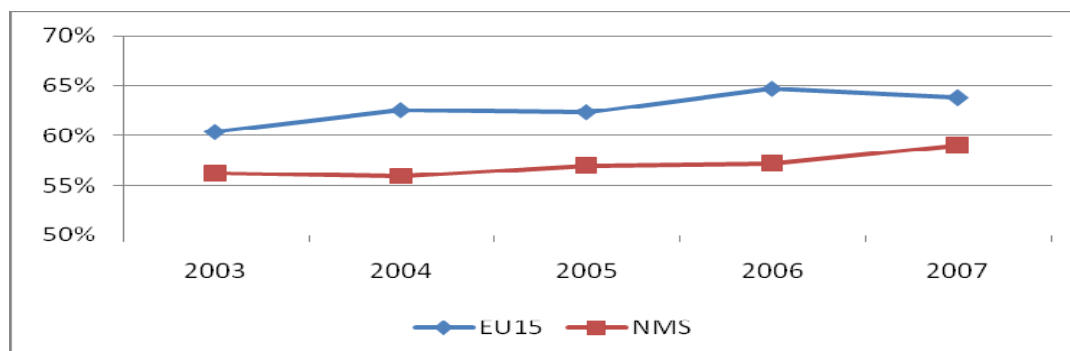
Source: IDEA Consult / ECORYS based on Eurostat data

Table 3.3 shows that there are considerable differences in employment rates between rural regions across the EU, when looking at Member State-level. The New Member States with the highest employment rates in their rural regions are the Baltic states, Czech Republic and Bulgaria (which was not an EU-member before 2007), all of which have a rate of over 60%, with the Czech Republic almost at 70%. Slovakia has the lowest employment rate of just under 50%.

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14 In period 2000-2002 data were missing for most NMS countries. The figures are therefore presented from 2003 onwards.

ECORYS   Study on Employment, Growth and Innovation in Rural Areas (SEGIRA)

Table 3.3 Average employment rate per Member State in rural NUTS3 regions[15] [16]

Country	Employment rate 2000 (%)	Employment rate 2004 (%)	Change 2000-2004 (pp)[17]	Employment rate 2005 (%)	Employment rate 2007 (%)	Change 2005-2007 (pp)
BE	48.99	49.15	0.16	49.33	49.53	0.20
DE					65.49	
DK					68.46	
ES					65.05	
FI					65.88	
FR	60.67	60.34	-0.33	60.27	60.08	-0.19
GR					61.34	
IT		60.35		60.06	59.82	-0.24
NL		59.51		59.03	57.54	-1.49
PT		76.11		75.84	76.34	0.51
SE	73.25	72.77	-0.47	71.93	73.30	1.37
UK					72.80	
EU15					**63.81**	
BG	52.54	57.81	5.27	59.71	64.99	5.27
CZ				66.27	69.23	2.96
EE					64.40	
HU		56.57		55.74	55.94	0.20
LT	60.81	60.03	-0.77	62.07	63.93	1.86
LV		57.07		59.44	65.33	5.89
PL		50.32		51.2	53.23	2.01
RO		59.64		59.34	59.28	-0.06
SI		59.22		59.03	60.19	1.17
SK		48.71		47.95	49.91	1.96
NMS				**57.00**	**59.00**	**2.00**

Source: IDEA Consult / ECORYS based on Eurostat data.

Green: Above respectively average EU15 and average New Member State level

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15 Data is missing for AT and IE.

16 Since Malta has only Predominantly Urban regions and Cyprus and Luxemburg only Intermediate regions, no Member State analysis is shown for those countries.

17 Change between both years in percentage points (pp). For example an evolution of 60% to 61% is an evolution of +1pp.

Unemployment rate 15+

The unemployment rate represents unemployed[18] persons aged 15+ as a percentage of the economically active population[19].

Contrary to the steady growth of GDP per capita, unemployment rates have fluctuated more over time (see Figure 3.11). Between 1999 and 2004 the unemployment rate 15+ remained fairly stable, but from 2004 to 2007 a sharp decline can be seen. This fall in unemployment can be explained by the positive economic growth figures in EU27 in the period 2005-2007. From 2007 onwards the decline loses its speed.

Unemployment rates are generally higher in rural and intermediate regions than urban regions. Since 2004, unemployment rates have decreased in all regions, but while the difference between urban and rural unemployment rates appeared to narrow slightly in 2003-2004, a new, much bigger gap between urban and rural regions has appeared in recent years. Although it cannot be confirmed by the data, this suggests that urban regions have benefited more in employment terms from the improved economic climate than rural regions. Since 2007 the unemployment rate 15+ in rural areas is the highest of the three types of regions.

Figure 3.11   Unemployment rate 15+ years in EU27 by regional typology (NUTS3), 1999-2008
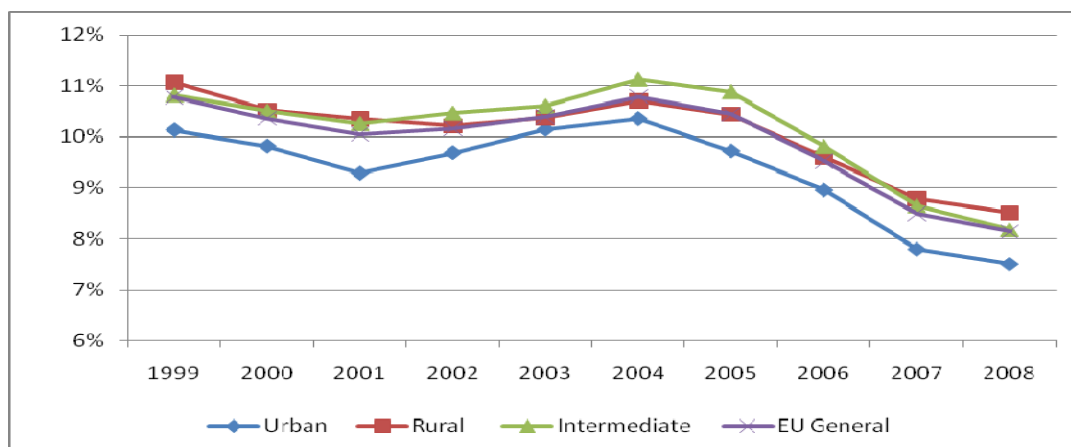
Source: IDEA Consult / ECORYS based on Eurostat data

The decrease in unemployment is much stronger in rural regions in the New Member States than in EU15. In 2007 and 2008 the average unemployment rate of the New Member States fell below the EU15 rate and has reached 7.8%. In the EU15 it dropped down for a first time in the last decade below the 9% threshold level.

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[18] Unemployed persons comprise persons aged 15 to 74 who were:
- without work during the reference week;
- available for work at the time (i.e. were available for paid employment or self employment;
- before the end of the two weeks following the reference week);
- actively seeking work (i.e. had taken specific steps in the four-week period ending;
- with the reference week to seek paid employment or self-employment) or who found a job to start within a period of at most three months; All three conditions must be fulfilled simultaneously.

[19] Economically active population (sometimes also labelled as labour force, active population or active persons) comprises employed and unemployed persons.

Figure 3.12   Unemployment rates 15+ years in EU15 and NMS for rural NUTS3 regions, 1999-2008
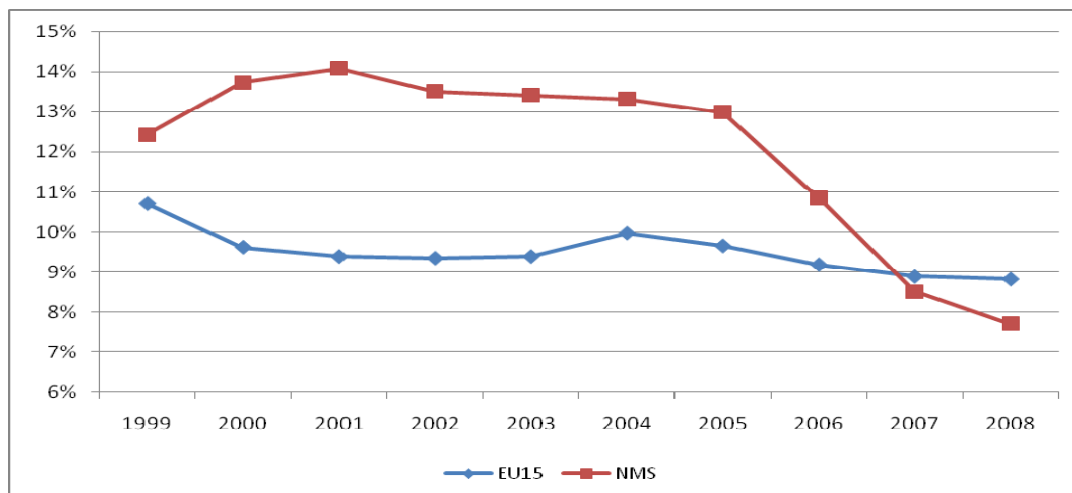
Source: IDEA Consult / ECORYS based on Eurostat data

For 20 Polish regions data is only available since 2005. This may cause some disturbances in the levels of the unemployment rate, because of which. Therefore some additional calculations have been carried out. What could be seen from Figure 3.13 and Table 3.4 is that, actually, the inclusion of these 20 new regions from 2005 onwards, did not affect the speed and the trend, as apparently, in all Polish regions, a strong decline in unemployment could be observed.

Table 3.4   Average unemployment rate 15+ years in Polish rural NUTS3 regions – with and without data for 20 new Polish rural regions since 2005 (%)

	2004	2005	2006	2007
Unemployment 15+ Poland without 20 new regions	35.5	19.6	14.7	9.9
Unemployment 15+ Poland with 20 new regions	NA	18.1	13.8	9.5

Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.13   Average unemployment rate 15+ years in Polish rural NUTS3 regions – with and without data for 20 new Polish rural regions since 2005
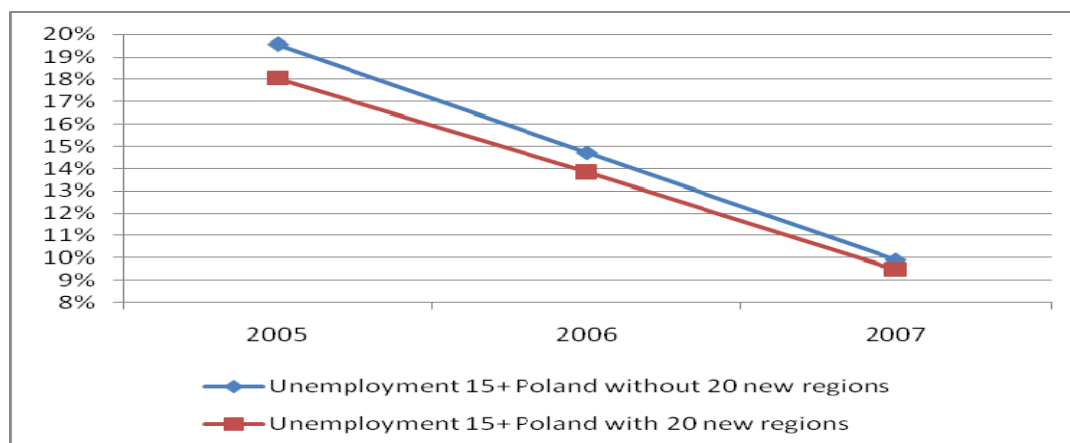
Source: IDEA Consult / ECORYS based on Eurostat data

As illustrated in Map 3.14, the highest concentration of regions with a high unemployment rate could be found in eastern Germany. Scattered throughout regions in Eastern and South-Eastern European countries, as well as Eastern Finland, northern Jutland in Denmark and Sicily (Italy) the share of unemployed people is equally high. In comparison regions in Central Europe, Benelux and the Baltic countries, the UK and Ireland as well as the north-west of Spain show a distinctively low unemployment rate.

Map 3.14   Unemployment rate in the EU27 in 2007 on NUTS3 level (%)
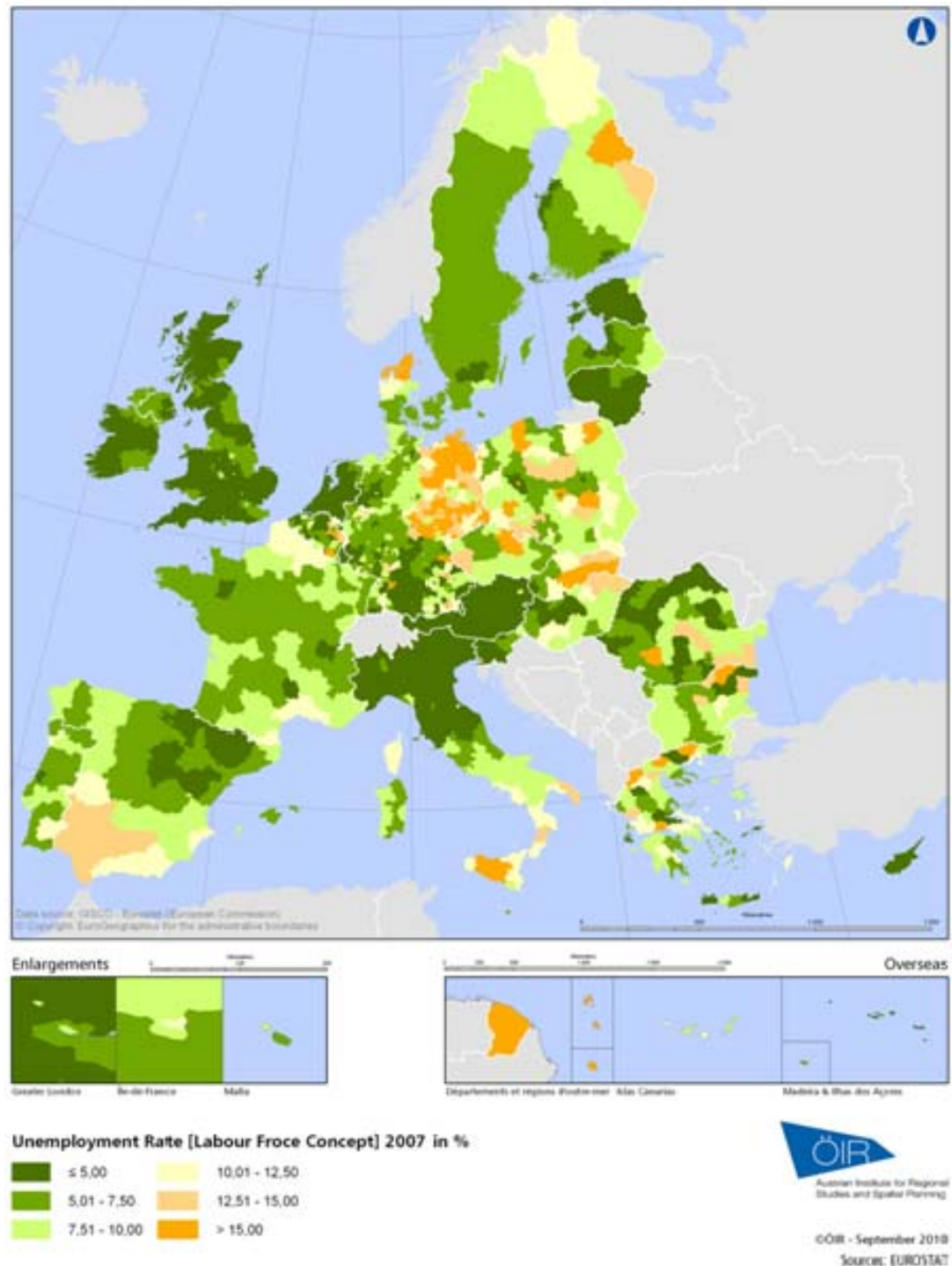
Table 3.5 and Figure 3.15 show the situation at Member State-level. Due to serious lack of data for some NUTS3 regions the displayed averages should be treated with caution. Data from AT, ES, FR, GR, IE, IT, NL, CZ, EE, HU, LT and LV is reliable and can be found in the table. There is no data from SK, SI, SE, UK and FI. These countries are excluded from the table. Incomplete data is available for BE (data of the year 2008 is missing), DE and DK (only data for 2008), PT, RO and PL (only data for half the regions), BG (data 2001 is missing).

In general, most of the EU Member State show decline in unemployment rates after 2004, with New Member States having the higher drop. Since EU-accession, rural regions in Poland (-28pp[20]), Bulgaria (-4.9pp), the Czech Republic (-3.7pp) and the Baltic states (-2.6 to -5.7pp) have seen the largest declines in unemployment. For Poland in particular, data of 20 new Polish regions is available only since 2005. The remaining Polish regions, for which data for 1999-2005 was available, also show a strong decline in unemployment, so that it could be concluded that the additional data does not change the already defined impact. (see Table 3.4 and Figure 3.12).

For EU15, the rural regions in most countries also saw a decrease over the 2004-2008 period, but the decreases were smaller than for the New Member States. The largest falls were seen in rural regions in Greece.

Table 3.5   Average unemployment rate 15+ years per Member State in rural NUTS3 regions, 2001-2008[21]/[22]

EU15	2001 (%)	2004 (%)	Change 2001 – 2004 (pp)	2008 (%)	Change 2004 - 2008 (pp)	NMS	2001 (%)	2004 (%)	Change 2001 – 2004 (pp)	2008 (%)	Change 2004 – 2008 (pp)
AT	3.59	4.29	0.70	3.08	-1.21	BG		15.18		10.28	-4.90
BE	8.53	9.82	1.29			CZ	7.50	7.47	-0.03	3.80	-3.67
DK				3.23		EE	11.83	7.90	-3.93	5.20	-2.70
ES	9.26	10.23	0.97	10.27	0.04	HU	6.36	6.58	0.22	8.99	2.42
FR	8.41	8.52	0.11	7.27	-1.25	LT	17.56	11.39	-6.17	5.78	-5.61
GR	11.80	12.42	0.62	9.70	-2.72	LV	14.37	10.97	-3.40	8.40	-2.57
IE	4.36	4.64	0.29			PL	35.88	35.48	-0.40	7.80	-27.68
IT	9.73	8.09	-1.64	7.99	-0.10	RO	5.61	7.13	1.51	6.02	-1.11
NL		4.00	4.00	4.00	0.00						
PT	4.89	6.41	1.52								
EU15	9.39	9.97	0.58	8.82	-1.15	NMS	14.09	13.32	-0.76	7.72	-5.61
EU27	10.36	10.70	0.34	8.51	-2.19						

Source: IDEA Consult / ECORYS based on Eurostat data

Green: Above EU27 average level

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20 pp = percentage points. For example an evolution of 60% to 61% is an evolution of +1pp

21 Data is missing for UK, SE and FI

22 Since Malta has only urban regions and Cyprus and Luxemburg only Intermediate regions, no Member State analysis is shown for those countries.
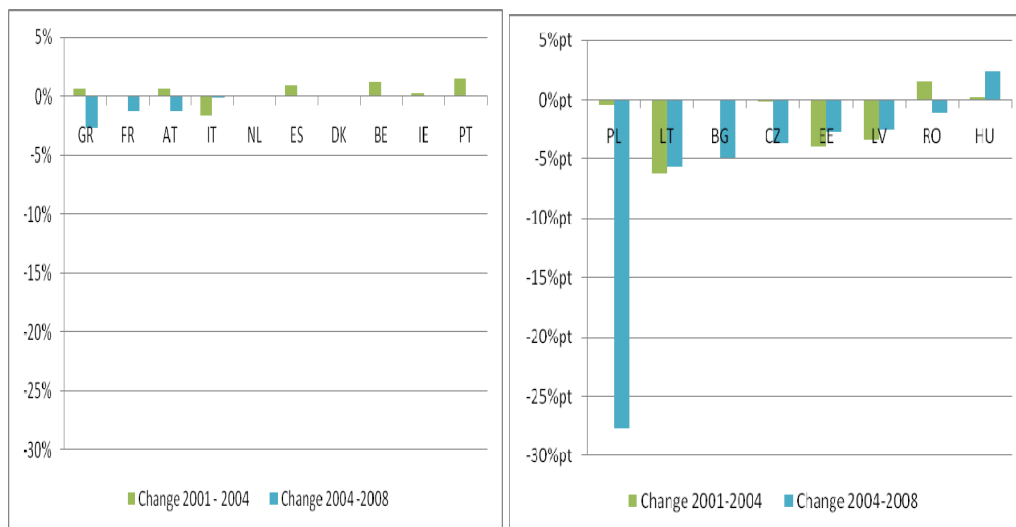
Source: IDEA Consult / ECORYS based on Eurostat data

Unemployment rate 15+ men and women

Figure 3.16 and Figure 3.17 show the unemployment rate for men and for women separately (for people of working age above 15 years). A comparison of the figures shows that unemployment is generally higher for women than men, and especially in rural regions, which confirms the findings of the SERA study for previous periods, despite the almost equal for both categories marked drop since 2004 for all territories. In 2003-2004, unemployment rates for both men and women increased slightly and decreased from 2004 onwards.

Figure 3.16   Unemployment rate (%) **men** 15+ years by regional typology (NUTS3), 1999-2008
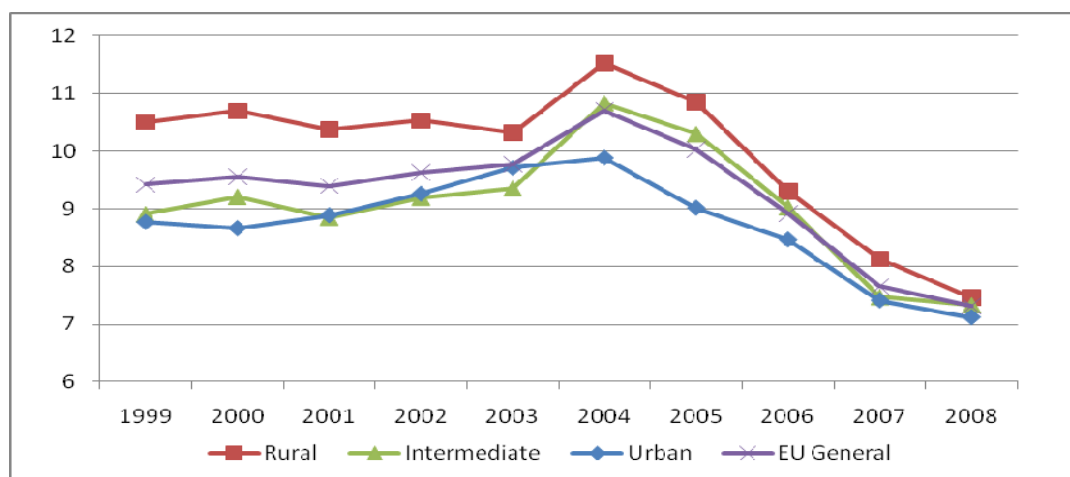
Source: IDEA Consult / ECORYS based on Eurostat data
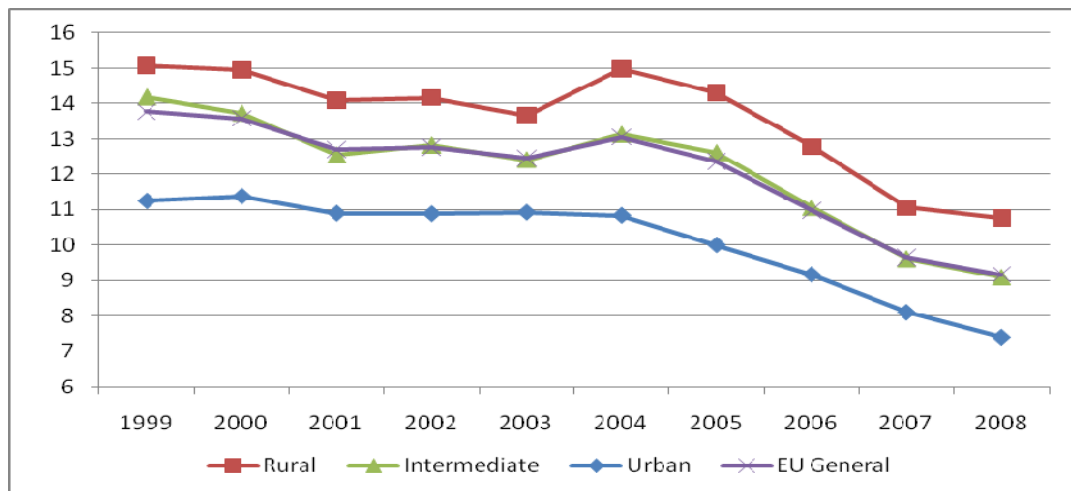
Source: IDEA Consult / ECORYS based on Eurostat data

For women, the gap between unemployment rates in urban and rural regions remains constant over time, at approximately 4%, following the 11% level of the rate in rural regions in 2008 and the respective 7% level in urban regions. For men this gap is almost absent. The gap has closed down from 2-3% in 2004-2005 to as less as approximately 1% in 2008.

Since 2004, only a slight difference between the unemployment rates of men and women can be noticed in urban regions. In 2008 both rates were almost equal (Figure 3.18) at 7%. For rural regions, however, there is still a significant difference of about 3.5pp between unemployment of women and unemployment of men (Figure 3.21).

Figure 3.18 Unemployment rate 15+ years in EU27 by gender for **urban** NUTS3 regions, 1999-2008
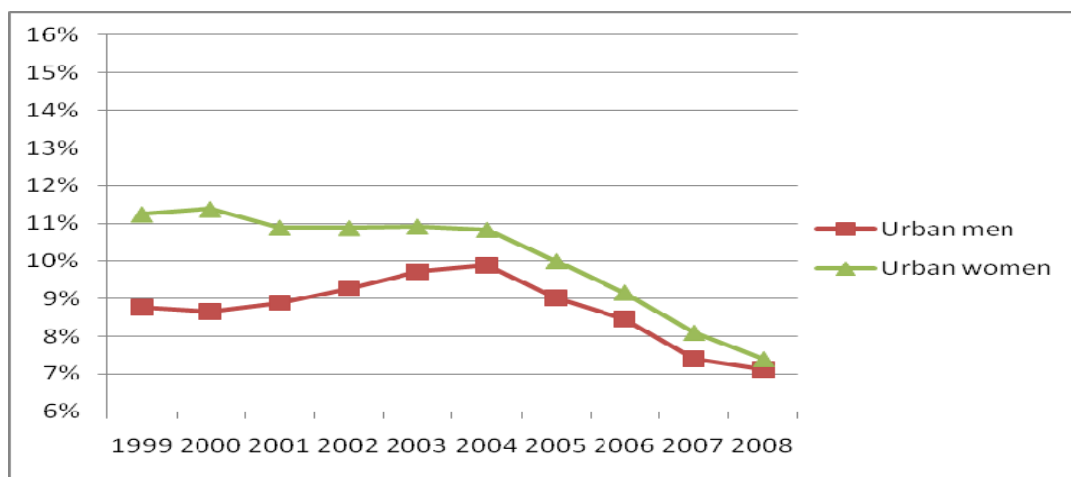
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.19   Unemployment rate 15+ years in EU27 by gender for **rural** NUTS3 regions, 1999-2008
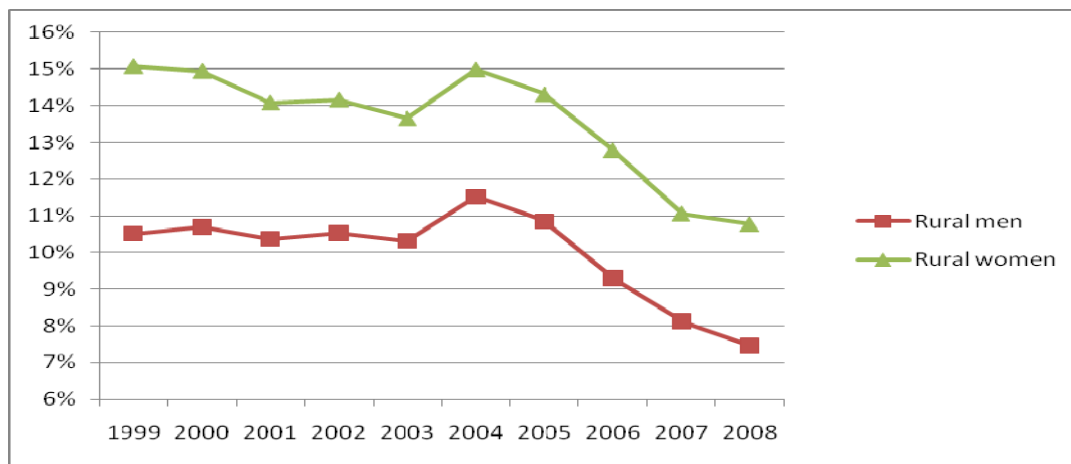
Source: IDEA Consult / ECORYS based on Eurostat data

In general, the unemployment rate for men in rural regions in New Member States is higher than the one for EU15 (Figure 3.20), but since 2006 this difference is almost eliminated. Both rates have declined markedly in the rural areas of the New Member States since accession in 2004. In 2008, as noted before, the gap between female unemployment rates in EU27 urban and rural territories, however, still remains quite large. At the same time, female unemployment in the rural regions of the New Member States is lower than the one in EU15 rural regions, the latter getting more intensified after 2007. From a very different starting point in 1999 (approximately 18% female unemployment in EU15 rural regions and 11% in the rural regions of the New Member States), the difference between the two narrowed down in 2002-2006, to widen up since 2007. This means that measures aiming at encouraging female employment (if any) are not yet reaching a steady and positive outcome, especially in the New Member States, and a re-enforcement might be needed.

Figure 3.20   Unemployment rate (%) for **men** 15+ years EU15 and NMS for rural NUTS3 regions, 1999-2006
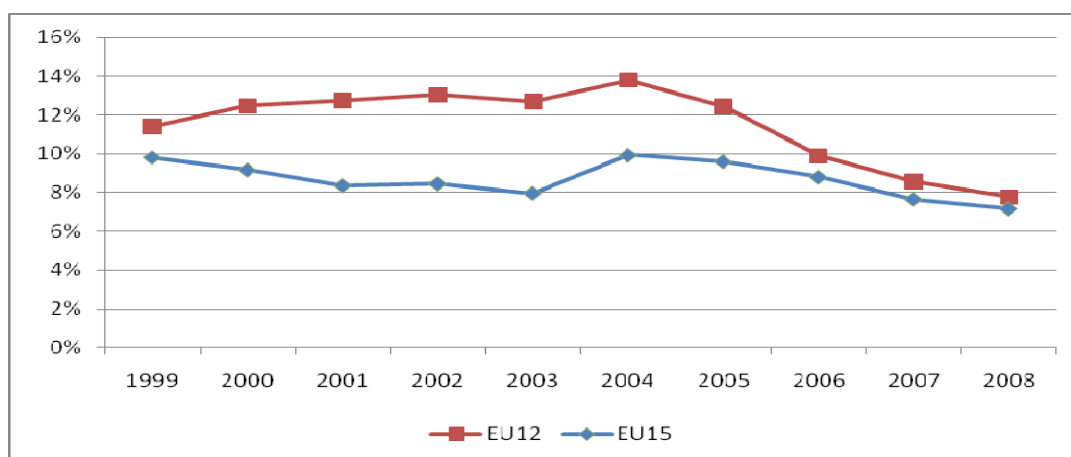
Source: IDEA Consult / ECORYS based on Eurostat data

Analysis by sector may give more useful information policy-wise, as more services usually means more job-opportunities for women (see the discussion in section 2.4.3 onwards).

Figure 3.21   Unemployment rate (%) for **women** 15+ years EU15 and NMS for rural NUTS3 regions, 1999-2006
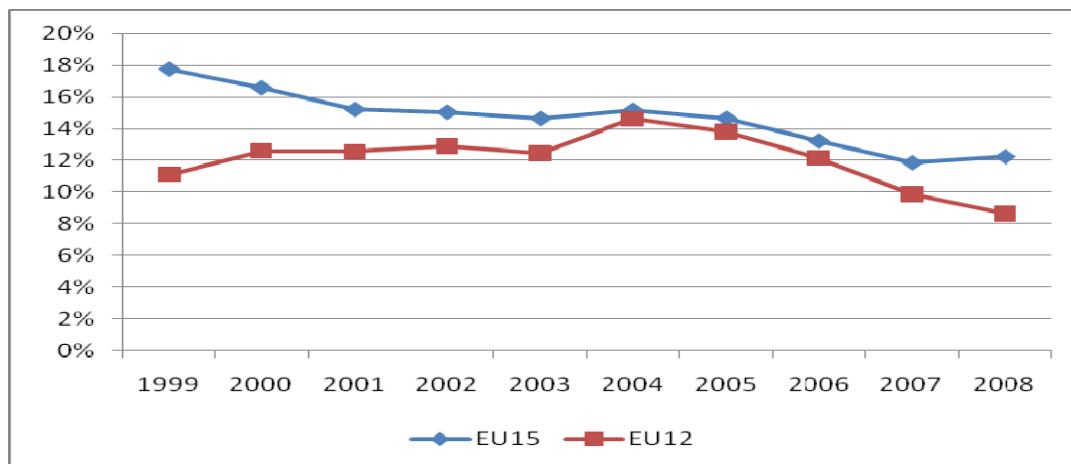
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.22 shows the change in unemployment rates for men in 2001-2004 and 2004-2008 in rural regions of EU15 and the New Member States. The figure shows that some Member States have seen large decreases in male rural unemployment rates, particularly in the 2004-2008 period, including Finland, Poland, Slovakia and Bulgaria. In contrast, far fewer Member States saw increased rural male unemployment rates in either period, the largest increase being in Romania from 2001-2004. It should be noted that in rural regions of the New Member States male unemployment rates have significantly declined since 2004 (4.6%, compared to less than 1% in EU15), which is a particularly positive development.

Figure 3.22   Change (before and after 2004) of unemployment rate men 15+ years by Member State in rural NUTS3 regions (EU15 left and NMS right)
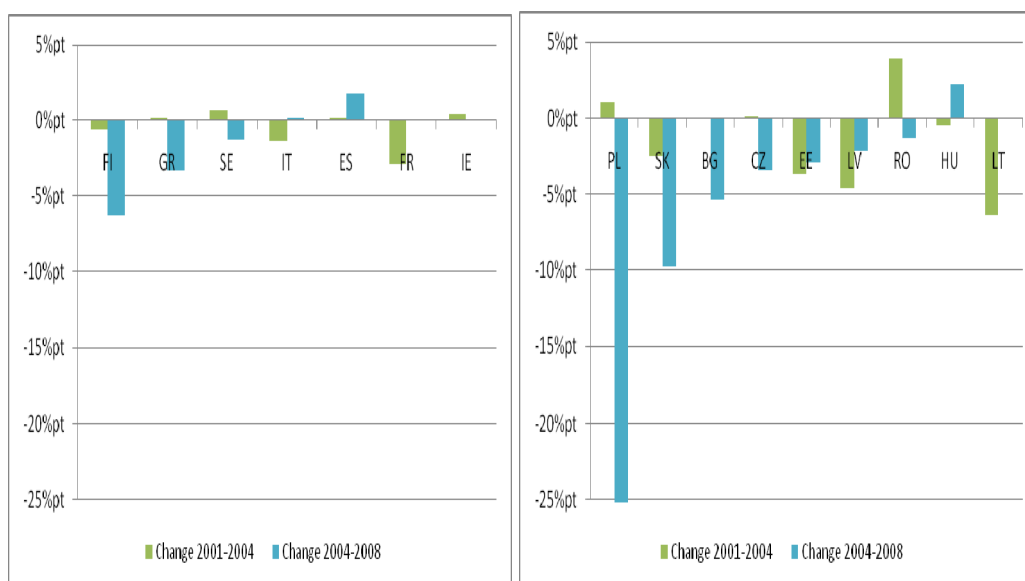
Source: IDEA Consult / ECORYS based on Eurostat data

Table 3.6   Unemployment rate for men 15+ years by Member State in rural NUTS3 regions (%) [23]/[24]

EU15	2001	2004	Change 2001-04	2008	Change 2004-08	NMS	2001	2004	Change 2001-04	2008	Change 2004-08
AT	3.6					BG		16.3		10.9	-5.4
BE		8.8				CZ	6.1	6.2	0.1	2.8	-3.4
DK				2.7		EE	12.1	8.5	-3.7	5.5	-2.9
ES	6.3	6.5	0.2	8.2	1.7	HU	7.0	6.5	-0.5	8.7	2.2
FI	14.9	14.2	-0.7	8.0	-6.3	LT	20.2	13.9	-6.3		
FR	25.4	22.5	-2.9			LV	16.2	11.6	-4.6	9.5	-2.2
GR	9.5	9.6	0.2	6.2	-3.4	PL	32.3	33.3	1.0	7.3	-26.0
IE	4.4	4.7	0.4			RO	6.9	10.8	3.9	9.5	-1.3
IT	7.8	6.4	-1.4	6.4	0.0	SI				4.3	
PT		5.9				SK	22.2	19.6	-2.5	9.9	-9.7
SE	6.7	7.3	0.6	6.1	-1.3						
UK	7.5										
EU15	**8.4**	**9.9**	**1.6**	**7.2**	**-2.8**	**NMS**	**12.8**	**13.8**	**1.1**	**7.8**	**-6.0**
EU27	**10.4**	**11.5**	**1.2**	**7.5**	**-4.1**						

Source: IDEA Consult / ECORYS based on Eurostat data.

Green: Above EU27 average level

Figure 3.23   Change (before and after 2004) of unemployment rate women 15+ years by Member State in rural NUTS3 regions (EU15 left and NMS right)
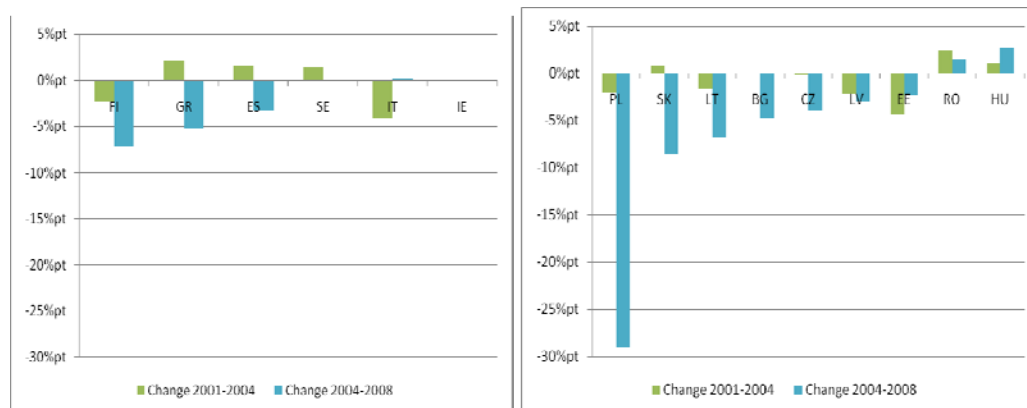
Source: IDEA Consult / ECORYS based on Eurostat data

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23 No data available for AT. For Poland, data of 20 new Polish regions is available only since 2005. However, it should be noted that for the remaining Polish regions for which data for 1999-2005 was available, a strong decline in unemployment could also be observed. As a result, the additional data does not disturb this trend

24 Since Malta has only urban regions and Cyprus and Luxemburg only Intermediate regions, no Member State analysis is shown for those countries.

EU15	2001 (%)	2004 (%)	Change 2001-04 (pp)	2008 (%)	Change 2004-08 (pp)	NMS	2001 (%)	2004 (%)	Change 2001-04 (pp)	2008 (%)	Change 2004-08 (pp)
BE		13.4				BG		15.9		11.2	-4.7
DK				3.9		CZ	9.3	9.1	-0.2	5.2	-3.9
ES	15.8	17.4	1.6	14.1	-3.3	EE	11.6	7.3	-4.3	4.9	-2.4
FI	17.8	15.6	-2.2	8.4	-7.1	HU	5.6	6.7	1.1	9.4	2.7
GR	19.6	21.7	2.2	16.5	-5.2	LT	15.4	13.8	-1.7	6.9	-6.8
IE	4.5	4.5	-0.5			LV	12.4	10.2	-2.2	7.2	-2.9
IT	15.4	11.2	-4.2	11.4	0.2	PL	40.4	38.3	-2.1	9.3	-29.0
PT		6.7				RO	5.7	8.2	2.5	9.7	1.5
SE	5.3	6.6	1.4	6.7	0.0	SI				5.6	
						SK	21.2	21.9	0.8	13.5	-8.5
EU15	**15.2**	**15.1**	**-0.1**	**12.2**	**-2.8**	**NMS**	**12.6**	**14.6**	**2.1**	**8.6**	**-5.9**
EU27	**14.0**	**14.9**	**0.9**	**10.8**	**-4.1**						

Source: IDEA Consult / ECORYS based on Eurostat data.

Green: Above EU 27 average level

For women it should be noted that between 2001 and 2004 the unemployment rate improves in almost half of the Member States for which data is available (see Figure 3.21, Figure 3.23 and Table 3.7). In the period 2004-2008, the decreases in female unemployment take a common form and are present in all Member States, except Hungary and Romania. The average decrease for EU15 countries was 3.2% over this period, compared to 6.4% in the New Member States. The decreases in rural regions from 2004-2008 were particularly marked in Finland and Greece (amongst the EU15 countries) and in Poland, Slovakia and Lithuania amongst the New Member States.[27]

Youth unemployment

To understand the differing unemployment rates for people of different ages, the analysis compares the unemployment rates for people aged over 15 years old and those aged over 25 years old for urban and rural regions, as shown by Figure 3.24 and Figure 3.25. As well in rural as in urban regions, unemployment rate is higher for age group 15+ than for age group 25+, although the difference between both age groups is smaller in rural than in urban regions.

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25 No data available for NL, AT, UK and FR

26 Since Malta has only urban regions and Cyprus and Luxemburg only Intermediate regions, no Member State analysis is shown for those countries.

27 The rather strong negative trend in Germany should be treated with care as data available is extremely limited.
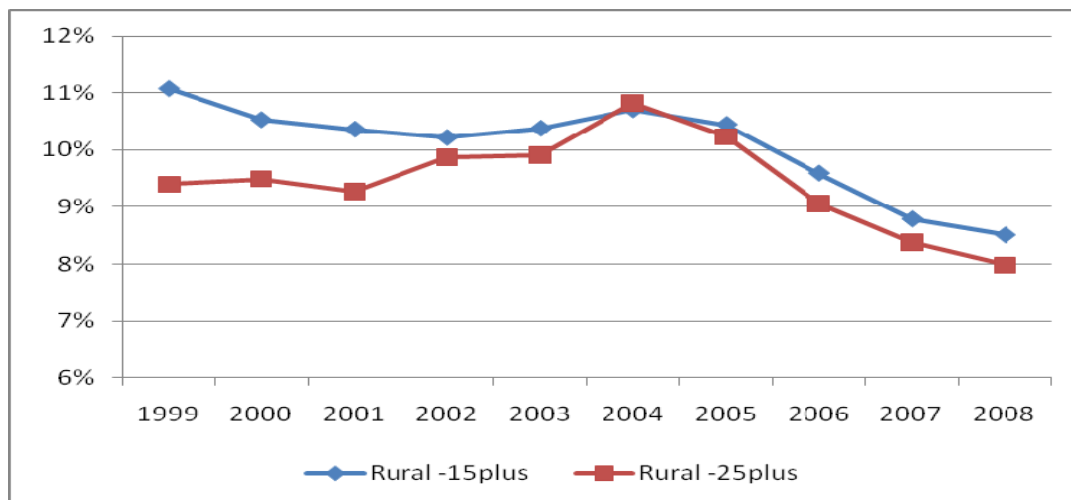
Source: IDEA Consult / ECORYS based on Eurostat data
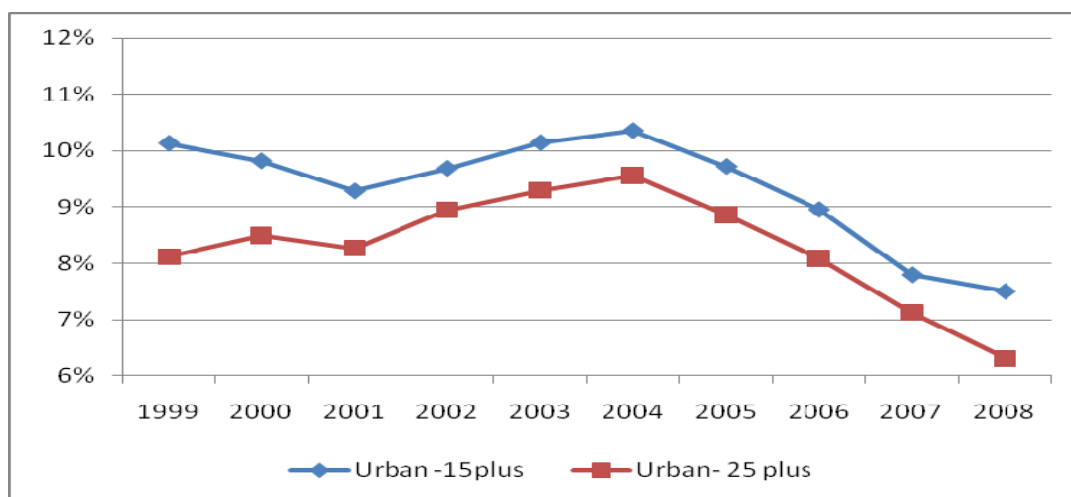
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.26 compares the unemployment rates for those aged 25+ in rural regions of the EU15 and New Member States. The figure shows that in 1999-2006 the rate in New Member States was higher than in EU15 but since 2006 the trend has changed following a substantial decline in the unemployment rates in the New Member States, especially after their accession in 2004. When compared to an average unemployment rate for those aged 25+ in the EU27 of approximately 8%, the rate in the New Member States is lower at approximately 6.5%.

Comparing the New Member States and EU15, it can be observed that unemployment among people of 25 and older has only slightly decreased in EU15, whereas it has substantially declined in the New Member States, especially since the EU-accession in 2004. The unemployment rate of those aged 25 and above in the NMS rural regions seems to have clearly dropped below EU15-level.[28]

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28 The sections further in the analysis look also at out-migration as a possible reason for this decline.
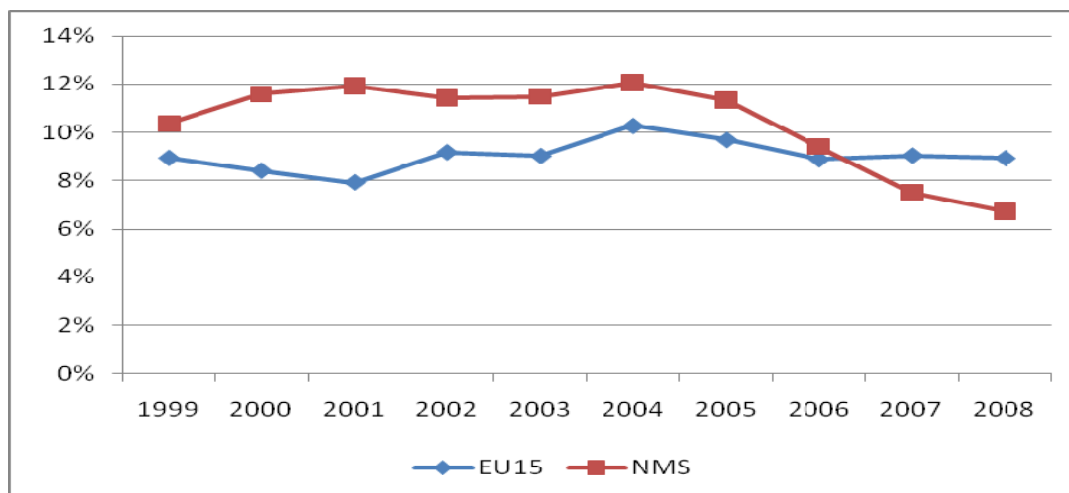
Source: IDEA Consult / ECORYS based on Eurostat data

While unemployment rates of those '15 years and above' and '25 years and above' are very similar in EU15 in 2008 (Figure 3.24 and Table 3.8), a slightly better situation of the older group is noticed in the NMS rural regions.

Table 3.8   Unemployment rate 25+ and 15+ years EU15 and NMS for rural NUTS3 regions, 2008

Countries	Unemployment 25+ (%)	Unemployment 15+ (%)	Difference 15+ - 25+ (pp)
NMS	6.7	7.7	0.9
EU15	8.7	8.8	0.1
EU27	7.9	8.5	0.5

Source: IDEA Consult / ECORYS based on Eurostat data

Data at the Member State level confirm this trend, as the unemployment 25+ decline is generally much higher for New Member States (see Figure 3.26).

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29 Average calculated based on rural NUTS3 regions of 10 countries: no data available for LUX (no rural regions) and for DK, FI, SE and UK.

30 Average calculated based on rural NUTS3 regions of 8 countries: no data available for MT and CY (no rural regions) and for SI and SK.

Source: IDEA Consult / ECORYS based on Eurostat data

Table 3.9   Unemployment rate 25+ years in the rural NUTS3 regions, 1999-2004

EU15	1999 (%)	2004 (%)	Change 1999 – 2004 (pp)	2008 (%)	Change 2004 - 2008 (pp)	NMS	1999 (%)	2004 (%)	Change 1999 - 2004 (pp)	2008 (%)	Change 2004 - 2008 (pp)
AT	3.0	3.3	0.2			BG		13.8		9.1	-4.7
BE	8.9	8.1	-0.9			CZ	6.6	6.3	-0.4	3.4	-2.9
DE		17.0[31]		13.1[32]	-3.9	EE	9.9	6.6	-3.3	4.2	-2.5
DK				2.4		HU	6.4	5.7	-0.6	7.9	2.1
ES	12.7	9.2	-3.4	9.2	-0.0	LT	11.6	10.5	-1.1	4.8	-5.7
FR		23.1				LV	13.4	10.0	-3.3	7.3	-2.7
GR	9.8	10.5	0.8	8.1	-2.4	PL	22.7	30.3	7.6	6.4	-23.9
IE	5.7	3.7	-1.9			RO	4.3	5.6	1.3	5.7	0.1
IT	8.9	6.6	-2.4	6.6	-0.0		10.4	12.1	1.7	6.7	-5.3
NL	6.0	3.9	-2.1								
PT	4.6	5.4	0.8								
EU15	8.9	10.3	1.3	8.7	-1.6						
EU27	9.4	10.8	1.4	7.9	-2.8						

Source: IDEA Consult / ECORYS based on Eurostat data.

Green: Above EU27 average level.

Figure 3.28 shows the difference in unemployment rate per Member State between the
unemployment rate 15+ and unemployment rate 25+ in 2008. The positive differences

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31 Based on 34 out of 124 NUTS3 regions.
32 Based on 27 out of 124 NUTS3 regions.

indicate that unemployment of people in the age group 15-25 years is higher than in age group 25+. This turns to be the case for all countries for which these data are available, as well for EU15-countries as for New Member States. The highest differences are in the southern EU15-countries such as Italy, Greece and Spain and for the New Member States in Romania, Poland and Bulgaria.

Figure 3.28   Difference of unemployment rate 15+ and 25+ years for EU15 and NMS rural NUTS3 regions, 2008
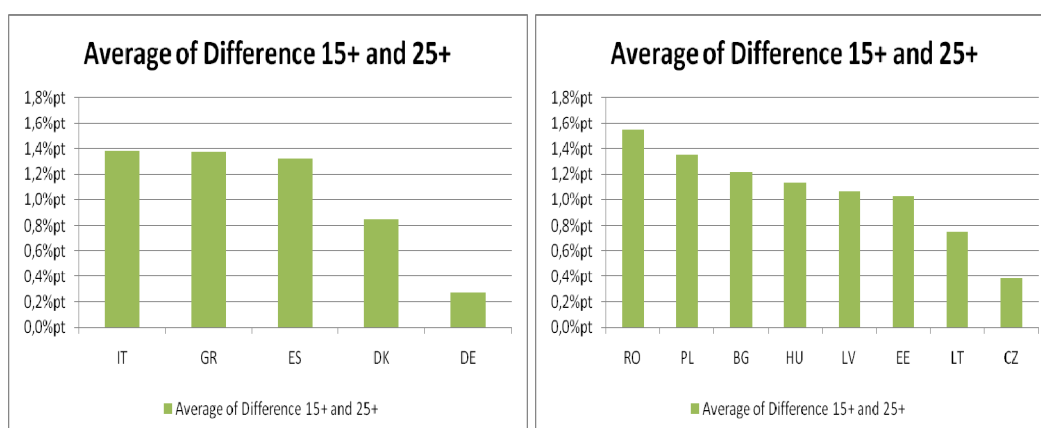
Source: IDEA Consult / ECORYS based on Eurostat data

3.3.3   Economic Capital: Structure of economy

Share of primary sector in GVA

Estimates from the European Commission (European Commission DG AGRI 2009c)[33] show that the EU27 primary sector reached around €179.5 billion of value added in 2006 and accounted for 1.7% of total GVA, ranging from 0.4% in Luxemburg to 8.8% in Romania. Figure 3.29 shows that in 2006 the EU27 primary sector accounted for 3.5% of the GVA. As expected, the primary sector accounted for the highest proportion of GVA in rural regions of the EU (6% of GVA in 2006), compared to 2.8% in the intermediate and approximately 1% in urban regions.

Figure 3.29 also shows how the importance of the primary sector in the EU27 is declining with rural areasbeing the ones mostly concerned, and at the same time the decline in rural regions is higher than in intermediate or urban areas (app. -2.5%). The steepest decline can be seen since 2004, which suggests the importance of the restructuring of the agricultural sectors in the New Member States combined with the economic development of their rural regions in general, and the associated diversification away from primary sector activity.

Between 2000 and 2006, the share of primary sector in GVA at EU27 level diminished by 1.28 percentage points reaching €9.1 billion in absolute values).

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33 European Commission (2009c) DG AGRI, Rural Development in the European Union: Statistical and Economic Information 2009, European Commission: Brussels.
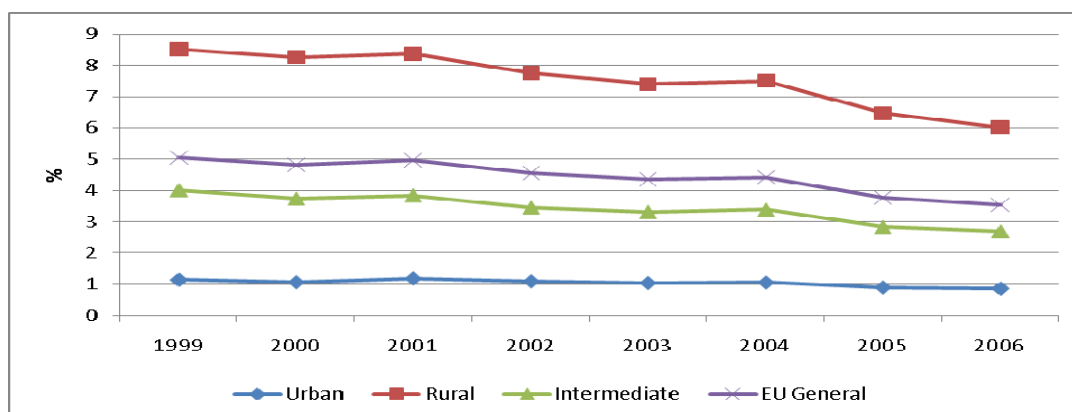
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.30 shows that the primary sector accounts for a larger proportion of GVA in New Member States than in EU15 - with the absolute share of New Member States being more than double than that of EU15 (11.18% versus 4.51%, in 2006) - but its contribution to GVA in both is in decline. The pattern of decline appears more stable in EU15 than in New Member States, perhaps due to the more turbulent economic developments in the New Member States in general.

However, closer observation (particularly at Table 3.10) shows that the sectoral restructuring of New Member States' rural economies does not completely explain this change. Figure 3.30 shows that it is not just in New Member States where the primary sector has been in decline, but also in some EU15 countries. While the largest declines have been in New Member States (and particularly Romania, Bulgaria), mostly the Southern EU15 countries (Greece, Spain) and UK/IE also have seen significant declines, but these countries remain with values above the EU27 average. This suggests that other explanatory factors are also operating at national and regional levels.

Figure 3.30   Share (%) of primary sector in GVA for rural NUTS3 regions EU15 and NMS, 1999-2006[34]

Source: IDEA Consult / ECORYS based on Eurostat data

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34 EU15: excl LU, because no rural region in LU. NMS: excl CY and MT, because no rural regions in CY and MT.

EU15	2004	2006	Change 2004-2006 (pp)	NMS	2004	2006	Change 2004-2006 (pp)
AT	4.4	3.9	-0.6	BG	22.2	18.7	-3.4
BE	4.2	3.0	-1.1	CZ	6.0	4.5	-1.5
DE	2.9	2.2	-0.7	EE	9.6	8.4	-1.2
DK	3.6	2.9	-0.7	HU	8.5	7.8	-0.7
ES	9.8	7.8	-1.9	LT	8.7	8.4	-0.4
FI	5.6	4.8	-0.7	LV	13.6	9.7	-3.8
FR	5.2	4.5	-0.8	PL	11.5	10.0	-1.5
GR	12.1	9.8	-2.3	SI	4.7	4.2	-0.5
IE	4.3	2.8	-1.5	SK	6.4	5.9	-0.4
IT	5.0	4.2	-0.8	RO	23.7	15.7	-7.9
NL	2.7	3.2	0.5				
PT	7.8	6.6	-1.2				
SE	4.4	3.5	-0.9				
UK	8.2	6.1	-2.0				
EU15	**5.6**	**4.5**	**-1.1**	**NMS**	**14.1**	**11.2**	**-2.9**
EU27	**7.5**	**6.0**	**-1.5**				

Source: IDEA Consult / ECORYS based on Eurostat data

Green: Above EU27 average level

Share of tertiary sector in GVA

In contrast to the primary sector, the share of the tertiary sector in GVA is increasing (Figure 3.31). In all types of regions the share is growing at around the same pace. In 2006 the share of the tertiary sector in rural regions accounted for nearly 63.5% of GVA, in the urban regions the proportion was slightly more than 72%.

Figure 3.31 Share of tertiary sector in GVA by regional typology (NUTS3), 1999-2006
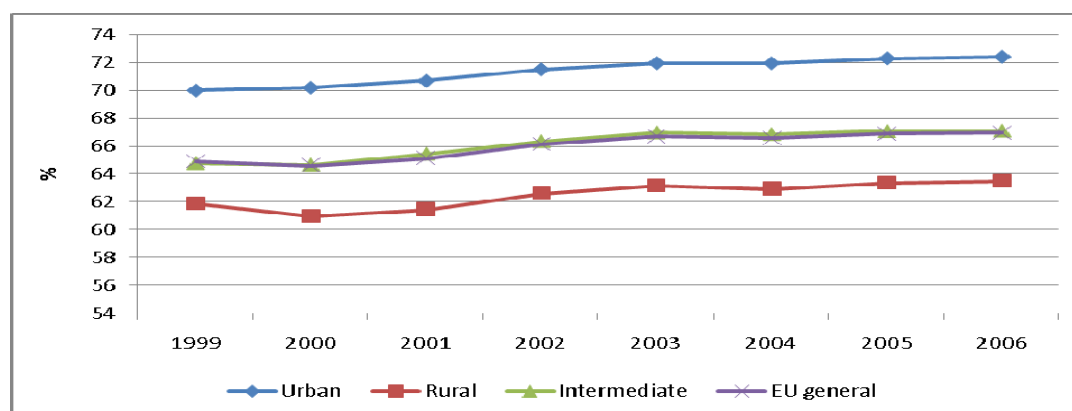
Source: IDEA Consult / ECORYS based on Eurostat data

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[35] EU15: excl LU, because no rural region in LU. NMS: excl CY and MT, because no rural regions in CY and MT.

[36] To distinguish the effect of the enlargement of the EU, change since 2004 has been calculated.

Since the initial decline in 1999-2001, the share of the tertiary sector in GVA in the EU rural areas increased in the period 2002-2003 when it stabilized around the 62.5% level. Since 2004 it started to rise again. In urban areas, the share has slowly, but steadily grown since 1999to account now for more than 72% of the total GVA. From Figure 3.32 it could be clearly seen that the changes in recent years in the EU are due to the trends experienced mostly in the New Member States as the level in the EU15 rural regions has remained more or less the same in 2003-2005.

Figure 3.32 Share of tertiary sector in GVA for rural NUTS3 regions EU15 vs NMS, 1999-2006
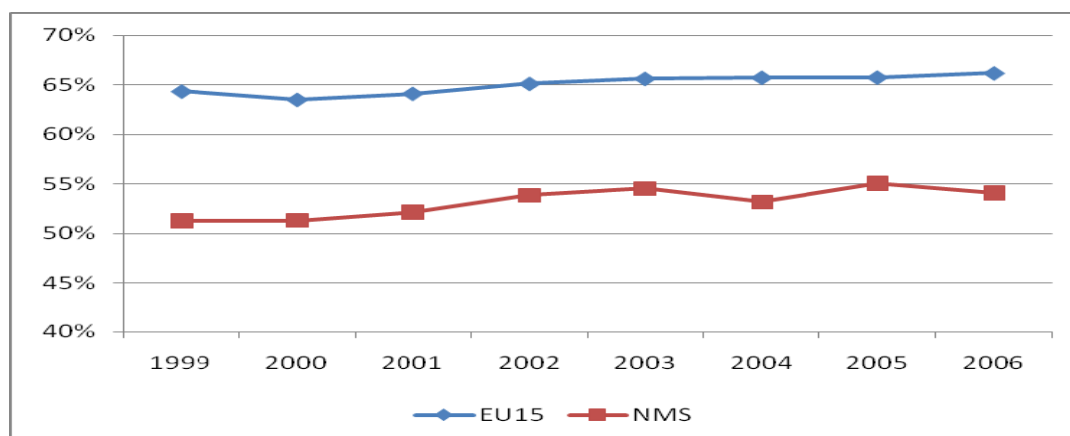
Source: IDEA Consult / ECORYS based on Eurostat data

Table 3.11 shows the proportion of GVA made up by the tertiary sector in rural regions of the EU Member States in 2004 and 2006. In terms of the EU15, the tertiary sector made up the largest proportion of GVA in France, Belgium, Italy and Denmark. In all New Member States the level is below the EU27 average.

Ireland saw the largest increase in the proportion of GVA from the tertiary sector over the 2004-2006 period (by 2.4 pp difference). From the New Member States, only rural regions in Latvia reached the EU27 average in 2006. As Latvia showed a relatively high decrease in the primary sector's share in GVA and a substantial increase of the share of the tertiary sector in GVA over this period, the GVA-shift between these two sectors in this country is clear.

Some EU15 and New Member States countries, however, saw declines in the proportion of tertiary sector activity in their GVA over the 2004-2006 period, such as Greece, Finland and the Netherlands and Estonia, Hungary, Slovakia and Bulgaria.

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Table 3.11   Share (%) of tertiary sector in GVA for rural NUTS3 regions EU15 and NMS[37], 2004[38]-2006 and growth between both years (in percentage point)

EU15	2004	2006	Change 2004 - 06 (pp)	NMS	2004	2006	Change 2004 - 06 (pp)
AT	60.3	60.7	0.4	BG	54.1	49.3	-4.9
BE	71.8	72.2	0.4	CZ	49.2	50.5	1.3
DE	65.1	65.4	0.3	EE	57.5	56.7	-0.8
DK	69.2	70.2	1.0	HU	58.1	56.6	-1.4
ES	62.3	63.3	1.0	LT	51.7	53.5	1.8
FI	61.0	59.8	-1.3	LV	58.4	65.6	7.3
FR	70.7	71.4	0.8	PL	58.4	59.6	1.1
GR	64.6	63.6	-1.0	RO	45.3	50.1	4.7
IE	53.9	56.3	2.4	SI	50.2	51.6	1.3
IT	69.2	70.2	1.1	SK	53.2	51.0	-2.2
NL	49.2	47.2	-2.0				
PT	65.5	66.9	1.5				
SE	64.8	65.5	0.7				
UK	66.0	67.5	1.5				
EU15	**65.8**	**66.2**	**0.5**	**NMS**	**53.2**	**54.1**	**0.9**
EU27	**62.9**	**63.5**	**0.6**				

Source: IDEA Consult / ECORYS based on Eurostat data

Green: Above EU27 average level

Share of primary sector in employment

Figure 3.33 shows that the largest proportion of employment in the primary sector appears in rural regions, followed by intermediate regions and urban regions. As a result, intermediate and urban regions' level is below the EU27 average. The figure also shows the decline in primary sector employment across the three different types of regions of the EU over the six year period 2000-2006. In EU27 as a whole, the decline is from 11% in 2000 to 7.7% in 2006.

In 2006, primary sector employment accounted for 12% of all employment in rural regions (a decline from 17% in 2000), compared to 8% and 2% of employment in intermediate and urban regions respectively.

Furthermore, the share of primary sector in employment in rural regions (12%) is more than twice the share of primary sector in GVA (6%), which indicates the labour intensiveness of the primary sector.

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37 EU15: excl LUX, because no rural region in LUX. NMS: excl CY and MT, because no rural regions in CY and MT.

38 To distinguish the effect of the enlargement of the EU, change since 2004 has been calculated.
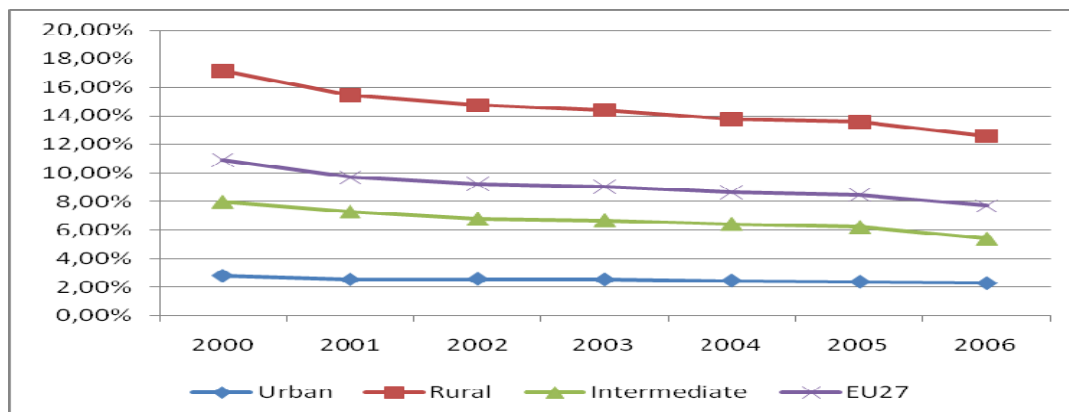
Source: IDEA Consult / ECORYS based on Eurostat data

The share of the primary sector in total employment of rural regions has always been higher in the New Member States than in EU15 (Figure 3.34)[39]. The difference amounts to 13pp in 2006, which, however, is much smaller than the one in 2000 (20pp). So, the share of the primary sector in employment is declining faster in the New Member States than in EU15, indicating the impact of the restructuring of the agricultural sector in the New Member States.

The importance of primary sector activity varies across Member States (Table 3.12) and between periods. It has to be noted that the changes, despite being negative, are more stable and similar for all countries, and respectively lower, in the period 2004-2006 compared to the period 2000-2004 when there were high fluctuations between Member States. Amongst EU15, the proportion of primary sector's employment in rural regions in Portugal and Greece is especially high (over 24% in 2006), compared to the EU15 average of 9.71%. Figure 2.32 further shows that in EU15 there has been almost no change above the 1% threshold in 2004-2006 (except for Spain), which is not the case for about half of the New Member States.

Amongst New Member States, the importance of the primary sector in terms of employment is particularly marked in rural regions of Poland and Romania, but it is much less important in Hungary and the Czech Republic, for example, where farm structures and sizes are in general of a different character. It can be said that to certain extent Hungary, the Czech Republic, Slovakia and Slovenia resemble EU15's developments, while restructuring processes are yet to be finalized in the rest of the New Member States. On average the primary sector accounted for 23% of employment in New Member States in 2006.

Overall, larger changes in the importance of employment in primary sector activities can be observed amongst New Member States rather than EU15. Poland, Romania and to a lesser extent the Baltic States saw large decreases in employment in the primary sector, in the 2000-2004 period.

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[36] Average based on available data of rural NUTS3 regions in 12 EU15 countries. No data for LU (no rural regions), AT and UK (only included to calculate level 2000). Average based on available data of rural NUTS3 regions in 9 NMS countries. No data for CY and MT (no rural regions) and BG.

Figure 3.34   Share of primary sector in employment EU15[40] and NMS[41] per year in rural NUTS3 regions
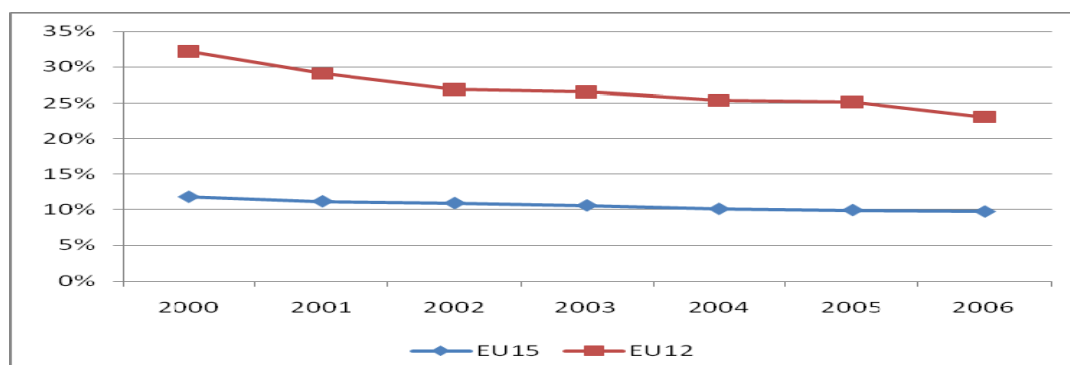
Source: IDEA Consult / ECORYS based on Eurostat data

Table 3.12   Share (%) of primary sector in employment for rural NUTS3 regions EU15 and NMS

EU15	2000	2004	Change 2000-04 (pp)	2006	Change 2004-06(pp)	NMS	2000	2004	Change 2000-04 (pp)	2006	Change 2004-06(pp)
BE	7.1	6.1	-1.0	5.9	-0.1	BG	28.9	26.9	-2.1		
DE	5.4	5.0	-0.4	4.8	-0.2	CZ	7.3	6.1	-1.2	5.8	-0.3
DK	5.5	5.0	-0.5	4.9	-0.1	EE	14.8	12.2	-2.5	10.0	-2.2
ES	14.7	13.2	-1.5	11.2	-1.9	HU	8.3	6.9	-1.4	6.7	-0.2
FI	9.5	8.4	-1.1	7.9	-0.5	LT	29.5	25.3	-4.1	21.4	-4.0
FR	7.4	7.2	-0.3	7.0	-0.2	LV	24.5	20.6	-3.9	18.1	-2.4
GR	30.9	24.4	-6.5	23.8	-0.6	PL	42.0	31.2	-10.8	28.1	-3.1
IE	11.5	9.1	-2.3	8.3	-0.9	RO	54.1	40.6	-13.6	38.3	-2.3
IT		8.6		8.4	-0.2	SI	16.2	15.3	-0.9	14.4	-0.9
NL		5.3		5.1	-0.2	SK	8.1	6.3	-1.8	5.6	-0.8
PT	27.4	26.3	-1.0	26.1	-0.2						
SE	5.4	4.5	-0.9	4.2	-0.3						
UK	12.4										
EU15	**11.8**	**10.1**	**-1.7**	**9.7**	**-0.4**	**NMS**	**32.2**	**25.4**	**-6.8**	**23.1**	**-2.3**
EU27	**17.2**	**13.8**	**-3.4**	**12.6**	**-1.2**						

Source: IDEA Consult / ECORYS based on Eurostat data

Green: Above EU27 average level

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[40] Average based on available data of rural NUTS3 regions in 12 countries. no data for LU (no rural regions), AT and UK (only included to calculate level 2000)

[41] Average based on available data of rural NUTS3 regions in 9 NMS countries. No data for CY and MT (no rural regions) and BG

Figure 3.35   Change of share of primary sector in employment per Member State in rural NUTS3 regions (EU15[42] left – NMS[43] right), before and after 2004
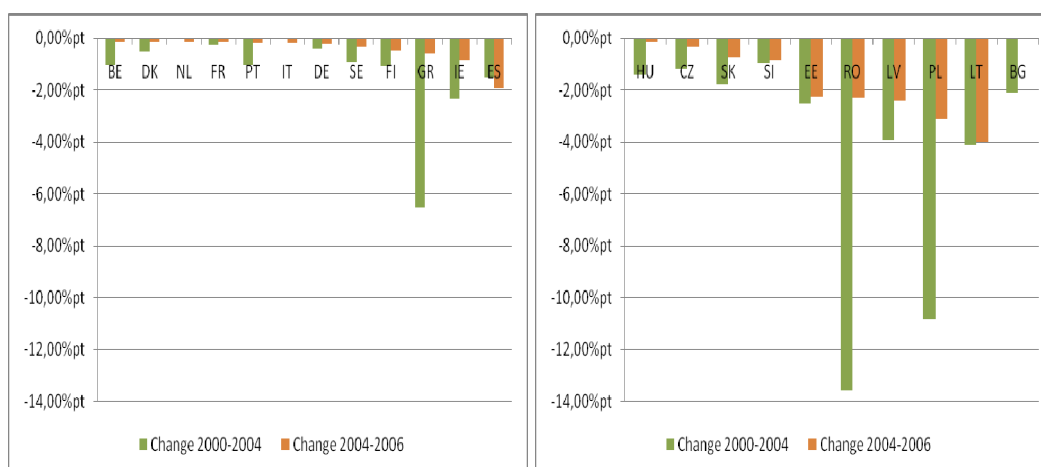
Source: IDEA Consult / ECORYS based on Eurostat data

Share of tertiary sector in employment

The tertiary sector is by far the largest of the three sectors in terms of employment shares. As expected, it is particularly dominant in urban and intermediate regions, making up over 65% of employment in 2006 (Figure 3.36). However, it is also important in rural regions, making up to 59% of employment in 2006 compared to approximately 55% of employment in 2000. Growth in employment in the tertiary sector can therefore be said to account for much of the loss of primary sector employment.

Figure 3.36   Share of tertiary sector in employment per regional typology in the EU (NUTS3), 2000-2006
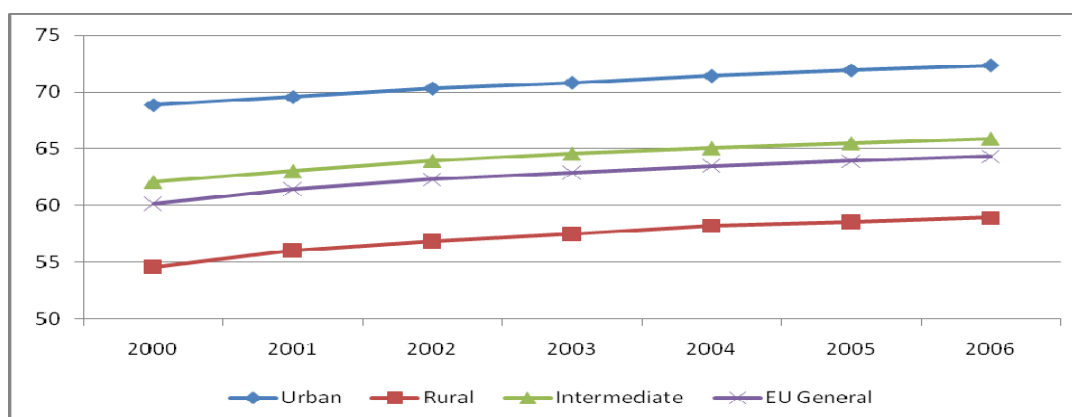
Source: IDEA Consult / ECORYS based on Eurostat data

The comparison between EU15 and the New Member States (Figure 3.37) shows that the share of the tertiary employment in rural regions remains higher in EU15 and that (same as with GVA) the difference with the New Member States has remained relatively stable over the 2000-2006 period at around 20% level: 63% in EU15 and 45% in New Member States for 2006. However, over time, the share of tertiary employment in NMS rural

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[42] No data for LU (no rural regions), AT and UK.
[43] No data for CY and MT (no rural regions).

regions has grown faster (+5% in New Member States versus 3% in EU15), but it also holds true that the speed has been much higher in the pre-accession years.

Figure 3.37   Share of tertiary sector in employment EU15[44] and NMS[45] per year in rural NUTS3 regions, 2000-2006
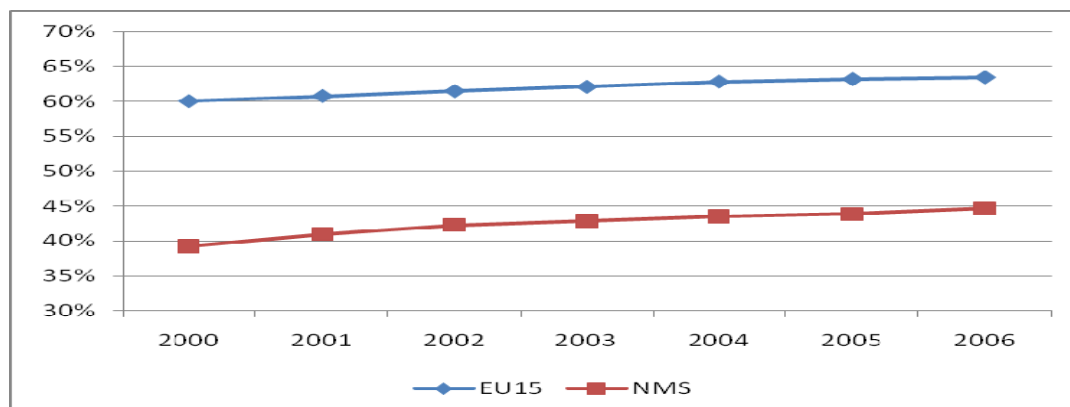
Source: IDEA Consult / ECORYS based on Eurostat data

Table 3.13   Share (%) of tertiary sector in employment for rural NUTS3 regions (EU15 and NMS), 2000-2006

EU15	2000	2004	Change 2000 - 2004 (pp)	2006	Change 2004 -2006 (pp)	NMS	2000	2004	Change 2000-2004 (pp)	2006	Change 2004 -2006 (pp)
BE	71.2	72.9	1.7	73.0	0.1	BG	43.1	45.7	2.6	43.5	-2.2
DE	61.1	63.6	2.6	64.4	0.8	CZ	49.5	50.2	0.7	50.4	0.3
DK	67.0	69.4	2.4	69.6	0.2	EE	53.3	53.2	-0.1	54.6	1.4
ES	58.0	58.5	0.4	60.1	1.7	HU	53.2	55.2	2.0	56.2	1.0
FI	62.4	64.7	2.3	65.2	0.5	LT	45.1	46.9	1.7	49.2	2.4
FR	66.5	67.8	1.3	68.5	0.7	LV	50.6	53.6	3.0	55.1	1.5
GR	50.7	56.7	6.1	56.8	0.0	PL	35.2	42.4	7.2	44.2	1.8
IE	56.0	59.3	3.3	59.6	0.4	RO	24.3	30.8	6.5	32.7	1.9
IT		63.2		63.7	0.4	SI	39.8	42.3	2.4	44.1	1.8
NL		67.4		66.7	-0.7	SK	56.7	58.0	1.3	59.1	1.1
PT	45.9	49.0	3.1	50.1	1.1						
SE	68.9	70.9	2.0	70.8	-0.1						
EU15	60.1	62.8	2.8	63.4	0.6	NMS	39.3	43.6	4.3	44.7	1.1
EU27	54.6	58.2	3.6	58.9	0.7						

Source: IDEA Consult / ECORYS based on Eurostat data

Green: Above EU27 average level

Tertiary sector's data for rural regions shows that in most of EU27, the share of tertiary sector employment has grown over the entire 2000-2006 period (with the exception of Estonia from 2000-2004 and Bulgaria, Sweden and the Netherlands for 2004-2006). Significant differences could be observed between Northern and Southern EU countries,

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[44] Average based on available data of rural NUTS3 regions in 12 countries. no data for LU (no rural regions), AT and UK.

[45] Average based on available data of rural NUTS3 regions in 9 NMS countries. No data for CY and MT (no rural regions) and BG.

with low rates of tertiary employment in Southern Europe (e.g., Portugal, Greece, Spain). The highest levels were observed in Belgium and Sweden (over 70%).

In the New Member States, the employment levels remain in general below the EU27 average for all Member States, except Slovakia.

If the importance of the tertiary sector is compared in terms of employment in rural regions with the earlier analysis on primary sector's employment, it could be seen that a reverse trend exists – in countries where primary sector's employment is high, tertiary employment is not that significant (e.g., Poland, Romania, Bulgaria), and vice versa (e.g., Hungary and the Czech Republic). Thus, a catching-up process could be expected to happen in the near future for the countries at the lowest levels.

In general, the employment situation is comparable to the one related to GVA in the tertiary sector. In some countries such as Estonia and Greece, however, an increase in share of tertiary sector in employment is combined with a decreasing share of tertiary sector in GVA. This may indicate a productivity problem, as GVA per employee does not grow.

Figure 3.38   Change of share of tertiary sector in employment per Member State in rural NUTS3 regions (EU15[46] left – NMS[47] right), before and after 2004
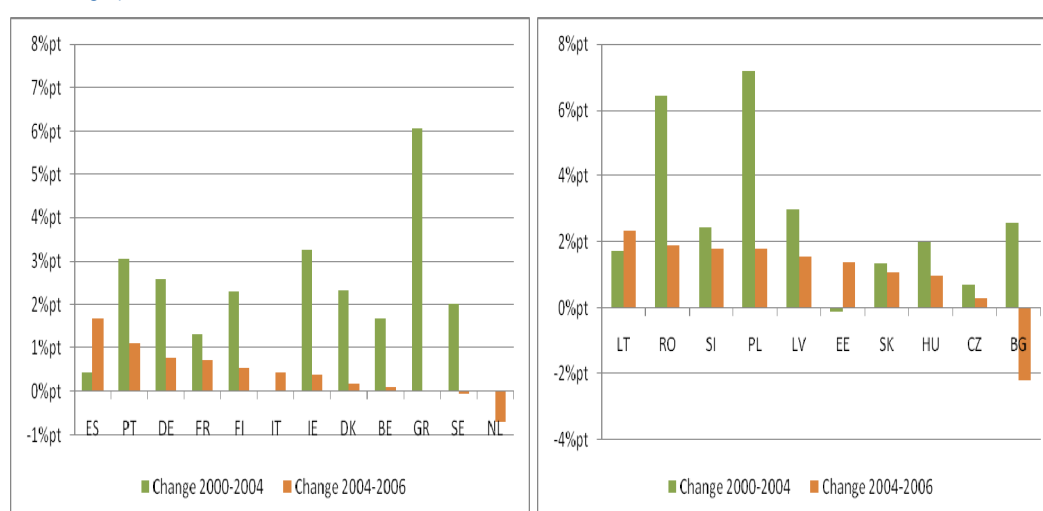
Source: IDEA Consult / ECORYS based on Eurostat data

In terms of the change of share in employment of the tertiary sector, Figure 3.38 shows the clear growth in employment in this sector between 2000 and 2004 in rural regions of many EU15 countries, including Greece (where the growth was 6%), Ireland and Portugal. Overall, the changes in 2000-2004 have been much more significant than in 2004-2006, except for Spain, Lithuania and Estonia which had a bigger change in 2004-2006. In 2004-2006 even negative increase could be noticed, examples being Bulgaria, the Netherlands and Sweden. Among the New Member States, the tertiary sector grew considerably in employment importance in Romania and Poland (again over 6%) between 2000 and 2004, given the very low starting levels, but still remains underdeveloped (including Bulgaria).

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[46] No data for LU (no rural regions), AT and UK.
[47] No data for CY and MT (no rural regions).

Employment in food industry

Figure 3.18 shows the number persons employed in the food industry and the number of local units in the food industry for the years 2003 and 2007.

Table 3.14   Number of persons employed in food industry[48] and number of local units in food industry in 2003 and 2007[49] (EU15 and NMS), NUTS2

	Nr. of people employed in the food sector (x 1,000)		Nr. of local units in th food sector (x 1,000)			Nr. of people employed in the food sector (x 1,000)		Nr. of local units in th food sector (x 1,000)	
	2003	2007	2003	2007		2003	2007	2003	2007
AT	73.1		6.4	6.1	HU	137.4	110.3	9.2	7.8
BE	98.1	99.0		8.0	PL	431.3		25.5	21.7
DE	525.7	531.5	5.9	5.8	RO	198.8	203.5	11.1	10.3
ES	375.9	385.9	30.7	29.4	SK				
FI	39.5		2.0	1.9					
FR	629.2	596.2	77.4	72.6					
GR	78.5	87.9	14.6	16.4					
IT			80.1	81.6					
NL	129.5	127.8	6.9						
PT	103.3	108.4	9.0	11.9					
UK	460.0	421.2	10.2	9.6					

Source: IDEA Consult / ECORYS based on Eurostat data

There are strong input-output-interrelations in the food chain between the agricultural sector and the food industry. Therefore, it is interesting to see how the food industry has performed in the recent years. This has been done by using three indicators:

- Change of number of people employed in the food sector.

- Change of number of local units in the food sector.

- Change of share of the food sector in total manufacturing.

Two general conclusions can be drawn based on the results presented in Table 3.15[50] for the period 2003-2007):

- In EU15 the food sector has been a stable industrial sector: there is a small growth in the number of people employed and in the share of the sector in total manufacturing employment. Since the number of local units has decreased, it can be concluded that the concentration-trend in the food sector has continued during the period 2003-2007 in EU15. The food industry performed relatively well in terms of employment in southern EU countries, such as Greece, Portugal, Italy and Spain. However, the food

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48 Food industry = Food and beverages.

49 Total manufacturing = nace section D.

50 It has to be noted that data at NUTS3 level was not available. The analysis is done at NUTS2 level, and is as requsted in the ToR for this study.

industry declined in terms of the number of employees in Finland, Austria, the UK and France.

- Data availability is limited for New Member States-countries. Reliable data on NUTS2-level was only available for Slovakia, Hungary, Romania and Poland. The food sector performed badly in Slovakia and Hungary (and in Poland to a lesser extent) with a high negative growth for the three indicators.

Table 3.15   Compound average annual change (%) of number of persons employed in food industry[51]. number of local units in food industry and share of employment in food industry to total manufacturing[52], 2003-2007 (EU15 and NMS), NUTS2

2003-2007	Change of nr. people employed in food sector	Change of nr. local units in food sector	Change of share of food sector in total manufacturing	2003-2007	Change of nr. people employed in food sector	Change of nr local units in food sector	Change of share of food sector in total manufacturing
AT	-2.0	-1.0	-1.5	HU	-6.1	-3.4	-4.5
BE	0.0		0.9	PL	0.5	-3.6	-2.6
DE	0.7	0.0	0.3	RO	0.1	-2.5	0.3
ES	1.0	-1.1	-1.1	SK	-15.4	-0.9	-13.0
FI	-2.3	-2.2	-2.3				
FR	-0.3	-0.9	0.7				
GR	3.2	2.8	0.9				
IT	1.5	0.3	1.4				
NL	2.3		1.3				
PT	1.0	8.3	3.1				
UK	-2.0	-0.8	1.1				
EU15	0.2	-0.1	0.5	NMS	-1.3	-1.6	-1.8
EU27	-0.0	-0.4	0.2				

Source: IDEA Consult / ECORYS based on Eurostat data (NUTS2-level).

Green: Above EU27 level.

Note: Period 2003-2007 was chosen because more data at NUTS2-level were available for these years. There were no data available for DK, IE, LU, BG, CY, CZ, EE, LT, LV and SI for this period.

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51 Food industry = Food and beverages.
52 Total manufacturing = nace section D.

3.3.4 Economic capital: Agriculture

Labour force

To analyze the labour force in agriculture the average number of Annual Work Units[53] (AWU) employed in agriculture per rural NUTS3 region is calculated for each Member State, where data are available (Table 3.15). As a general trend, the average employment in agriculture between 2005 and 2007 has declined in almost all Member States, except in ES, IT and the UK where it has grown up. From the New Member States only Poland has experienced a similar positive development.

There are substantial differences between the average employment growth in agriculture per rural NUTS3 region between EU15 and New Member States (and within these groups). The decline of this indicator between 2005 and 2007 is in general higher in New Member States than in EU15, except for Finland and Portugal which experienced a negative growth comparable, or even higher, with the one in the New Member States. The New Member States faced a decline in labour force in agriculture per rural NUTS3 region of almost 10% in period 2005-2007, which doubles the average for all EU-27 rural regions (3.7%).

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[53] An Annual Work Unit (AWU) is equivalent of the full-time employment. 1 AWU corresponds to the work performed by a person undertaking fulltime agricultural work on the holding over a 12 month period. The yearly working time of such worker is 1800 hours (225 working days of 8 hours per day), unless national provisions governing contracts of employment are specified. Countries where the yearly working time corresponding to 1 AWU follows national provisions:

Country	DE	GR	ES	FR	CY	LV	LT	LU	AT	PL	RO
Hours	1760	2200	1824	1824	2080	1840	2032	2200	2000	2120	1960
Days	220	275	228	228	260	230	254	275	250	265	245

As the volume of agricultural labour is being calculated on the basis of fulltime equivalent jobs, no one person can therefore represent more than one AWU. This constraint holds even if it is known that someone is working on agricultural activities for more than the number of hours defining full-time in the Member State concerned).

Table 3.16   Average number of people employed in agriculture in rural NUTS3 regions, 2005-2007

Country	Average employment in agri in rural NUTS3 2005 (AWU)	Nr. rural NUTS3 regions 2005	Average employment in agri in rural NUTS3 2007 (AWU)	Nr. rural NUTS3 regions 2007	Growth 2005 -2007 (abs.)	Growth 2005 - 2007 (%)
BE	1 112	13	1 062	13	-50	-4.5
DK	8 322	5	7 606	5	-716	-8.6
ES	17 459	20	19 299	16	1 840	10.5
FR	8 078	54	7 520	54	-558	-6.9
FI	4 008	13	3 469	13	-538	-13.4
GR	10 927	44	10 394	44	-533	-4.9
IE	21 566	7	20 897	7	-669	-3.1
IT	13 371	37	16 250	22	2 879	21.5
NL	1 950	1	1 870	1	-80	-4.1
PT	13 970	20	11 357	20	-2 613	-18.7
SE	2 279	10	2 135	10	-144	-6.3
UK	4 634	13	5 883	10	1 249	27.0
EU15	**10 061**	**237**	**9 684**	**215**	**-376**	**-3.7**
BG	25 358	15	19 218	15	-6 140	-24.2
CZ	12 490	6	11 278	6	-1 212	-9.7
EE	10 853	3	9 440	3	-1 413	-13.0
HU	22 688	13	19 773	13	-2 915	-12.9
LT	20 237	7	16 551	7	-3 686	-18.2
LV	32 503	3	24 583	3	-7 920	-24.4
PL	50 491	28	50 754	28	262	0.5
RO	61 313	25	53 366	25	-7 948	-13.0
SI	7 206	8	6 243	8	-964	-13.4
SK	16 173	4	14 643	4	-1 530	-9.5
NMS	**36 526**		**32 988**	**112**	**-3 538**	**-9.7**
EU27	**18 554**		**17 666**		**-888**	**-4.8**

Source: IDEA Consult / ECORYS based on Farm Structure Survey (FSS)

Green: Above EU27 average level

Utilized area for agriculture

Over the period 2005-2007 the utilized area for agriculture has increased by 3.1%, with both the EU15 and New Member States, showing the same trend. The average utilized area for agriculture per NUTS3 region is, as expected, the highest in rural regions. The change in the area utilized between 2005 and 2007 shows that there was a 5.0% increase in the area utilized in intermediate regions and a 3% increase in the area utilized in rural regions, while urban regions faced a decline with 0.5%. The latter, however, is a very minor change.

Table 3.17   Average area utilized for agriculture (in 1000 ha) by regional typology (NUTS3) in EU27[54] in 2005 and 2007

Year	Urban	Intermediate	Rural
2005	71.8	193.8	238.4
2007	71.4	203.3	245.7
Change 2005-2007	-0.4	9.5	7.3
Change 2005-2007 (%)	-0.5	4.9	3.1

Source: IDEA Consult / ECORYS based on Farm Structure Survey

EU15 countries faced a higher growth in the area utilized between 2005 and 2007 with 3.7% compared to 1.6% for New Member States.

While the majority of EU15 countries saw their rural area utilized for agriculture decline, the overall increase for EU15 was caused by relatively large comparative increases in Spain, Greece, Finland and the UK. It is thus important to conduct analysis at the national and sub-national level.

The differences between New Member States, regarding average area utilized for agriculture, are even more pronounced. Bulgaria, for example, experienced a large increase in the area utilized for agriculture (of 15%) over the 2005-07 period, with Estonia and Poland also observing large increases. To great extent this is driven by the entry into production of large amounts of abandoned agricultural land during the transition, triggered by the entry of the CAP direct payment support, which also pushed in a positive way the development of the land markets in these countries. However, in contrast, Lithuania and Romania were taking land out of agricultural production and this deserves policy attention.

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[54] There is no data available for DE, LU and AT.

Table 3.18   Average area utilized for agriculture (in 1000 ha) per rural NUTS3 region, 2005-2007

EU15	2005 (ha)	2007 (ha)	Change 2005-2007 (abs)	Change 2005-2007 (%)	NMS	2005 (ha)	2007 (ha)	Change 2005-2007 (abs)	Change 2005-2007 (%)
BE	34	34	-0.4	-1.0	BG	87	102	14.6	16.8
DK	402	395	-6.9	-1.7	CZ	291	288	-2.7	-0.9
ES	614	643	29.6	4.8	EE	251	273	22.7	9.0
FI	98	100	1.9	1.9	HU	218	214	-4.1	-1.9
FR	313	312	-1.3	-0.4	LT	274	261	-12.8	-4.7
GR	75	77	1.9	2.6	LV	385	401	16.5	4.3
IE	598	586	-11.8	-2.0	PL	329	346	17.1	5.2
IT	153				RO	325	316	-9.7	-3.0
NL	51	51	-0.6	-1.1	SI	37	36	-0.4	-1.1
PT	164	155	-8.7	-5.3	SK	309	321	11.9	3.9
SE	91	88	-2.5	-2.7					
UK	327	332	5.7	1.7					
EU15	230	239	8.4	3.7	NMS	255	259	4.1	1.6
EU	238	246	7.3	3.1					

Source: IDEA Consult / ECORYS based on Farm Structure Survey

Green: Above EU27 average level

Note: There is no data available for DE, LU, AT, CY and MT.

Dividing the average employment in agriculture by the average area used for agriculture gives an indication of labour intensiveness. All countries (except for ES and UK) show a decline in labour intensiveness between 2005 and 2007 (Table 3.19).

The average employment per ha in agriculture in rural NUTS3 regions is approximately 3 times higher in New Member States compared to EU15. The highest labour intensiveness per ha can be noticed in Greece, Bulgaria, Slovenia, Romania and Poland.

EU15	Average employment (AWU)/average area (ha) 2005	Average employment (AWU)/average area (ha) 2007	Change 2005-2007 (in pers/ha)	NMS	Average employment (AWU)/average area (ha) 2005	Average employment (AWU)/average area (ha) 2007	Change 2005-2007 (in pers/ha)
BE	32.7	31.2	-1.5	BG	291.5	188.4	-103.1
DK	20.7	19.3	-1.4	CZ	42.9	39.2	-3.8
ES	28.4	30.0	1.6	EE	43.2	34.6	-8.7
FI	40.9	34.7	-6.2	HU	104.1	92.4	-11.7
FR	25.8	24.1	-1.7	LT	73.9	63.4	-10.4
GR	145.7	135.0	-10.7	LV	84.4	61.3	-23.1
IE	36.1	35.7	-0.4	PL	153.5	146.7	-6.8
IT	87.4			RO	188.7	168.9	-19.8
NL	38.2	36.7	-1.6	SI	194.8	173.4	-21.3
PT	85.2	73.3	-11.9	SK	52.3	45.6	-6.7
SE	25.0	24.3	-0.8				
UK	14.2	17.7	3.5				
EU15	**43.7**	**40.5**	**-3.2**	**NMS**	**143.2**	**127.4**	**-15.9**
EU27	**78.0**	**71.8**	**-6.1**				

Source: IDEA Consult / ECORYS based on Farm Structure Survey

Green: Above EU27 average level

Percentage of irrigated Utilized Agricultural Area

Very little data is available for % irrigated utilized agricultural area. Reliable data were only found for Belgium, Germany and Denmark for EU15, and for the Czech Republic and Bulgaria for New Member States. A general conclusion is that for 4 out of 5 countries the % irrigated UAA is around 8% of total agricultural area. The exception is Belgium with an irrigated area of only 0.5% of the total agricultural area (Figure 3.39).
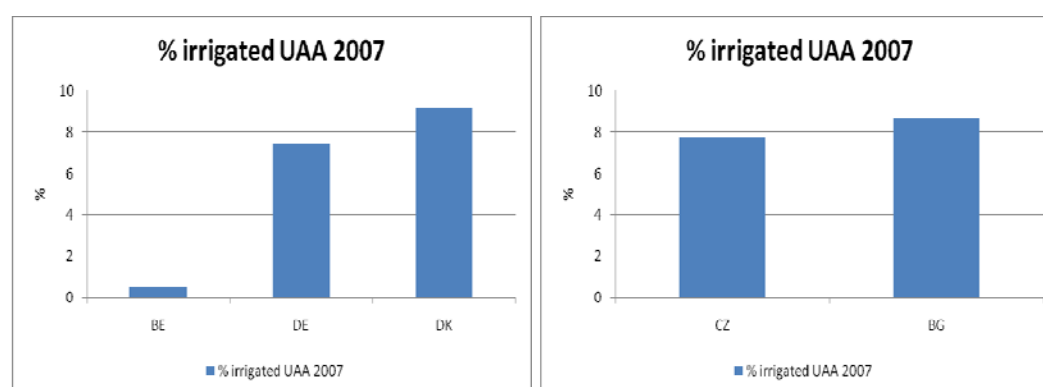
Source: IDEA Consult / ECORYS based on Rural Development Indicators (Eurostat)

Number of farms

The number of farms declined in the period 2005-2007 in all EU27-regions with on average 7 % (Table 3.20). Across all types of regions the trend is similar with the largest decline in the number of farms in intermediate regions and the smallest in rural regions.

Table 3.20   Total number of farms (in millions) by regional typology (NUTS3), 2005-2007

Year	Urban	Intermediate	Rural	EU27
2005	1.09	5.15	7.59	13.83
2007	1.01	4.75	7.11	12.87
Growth 2005-2007	-7.3%	-7.8%	-6.3%	-7%

Source: IDEA Consult / ECORYS based on Farm Structure Survey data

Consistent with the higher number of people employed in agriculture in rural regions of New Member States, these countries also have a higher density of farms per NUTS3 region compared to the New Member States.

For the EU15 the average number of farms dropped by 2%, while in New Member States it has declined by 6% during the period 2005-2007. Comparing the patterns across different Member States that amongst EU15 states, the decline in the number of farms was most pronounced in Denmark and Portugal, while amongst the New Member States the decline from 2005-2007 was most marked in Bulgaria, Hungary and Latvia (see Table 3.21).

Combining this information of declining average number of farms with the increase in average area used for agriculture, both in rural areas, means that the average area farm size must be increasing in rural areas. This is actually confirmed by the analysis of the next indicator.

ECORYS   Study on Employment, Growth and Innovation in Rural Areas (SEGIRA)

Table 3.21   Average number of farms in rural NUTS3 regions[55], 2005-2007

EU15	2005	2007	Growth 2005 – 2007 (abs)	Growth 2005-2007 (%)	NMS	2005	2007	Growth 2005 – 2007 (abs)	Growth 2005-07 (%)
BE	889	836	-53	-6.0	BG	20 779	19 313	-1 466	-7.1
DK	7 370	6 258	-1 112	-15.1	CZ	3 090	2 890	-200	-6.5
ES	22 297	23 838	1 541	6.9	EE	8 287	7 043	-1 243	-15.0
FI	3 278	3 179	-98	-3.0	HU	35 328	30 418	-4 910	-13.9
FR	5 627	5 243	-384	-6.8	LT	23 096	20 974	-2 121	-9.2
GR	15 051	15 566	515	3.4	LV	30 550	25 717	-4 833	-15.8
IE	18 837	18 207	-630	-3.3	PL	50 314	50 274	-40	-0.1
IT	16 602	18 786	2 184	13.2	RO	99 567	91 982	-7 585	-7.6
NL	1 390	1 320	-70	-5.0	SI	5 915	5 826	-89	-1.5
PT	11 872	9 635	-2 237	-18.8	SK	11 310	11 270	-40	-0.4
SE	2 630	2 491	-139	-5.3					
UK	4 518	4 585	68	1.5					
EU15	**10 759**	**10 558**	**-202**	**-1.9**	**NMS**	**45 163**	**42 379**	**-2 783**	**-6.2**
EU27	**21 864**	**21 165**	**-699**	**-3.2**					

Source: IDEA Consult / ECORYS based on Farm Structure Survey data

Green: Above EU27 average level

Note: For Italy only data for only 28 NUTS3 region were available for 2007 compared to 37 for 2005. For Spain there were 2 regions lacking in 2007, compared to 2005.

Average area farm size

There is a clear trend of concentration in the agricultural sector: a decreasing number of farms, but an increase in the average area of farm size. The average area of farm size has grown in all types of regions and in general with a +8.8% increase in the period 2005-2007 for all EU27-regions. The average size fluctuated around 31 ha per farm in 2007 (Table 3.22).

Table 3.22   Average area farm size (ha) – by regional typology (NUTS3), 2005-2007

Year	Urban	Intermediate	Rural	EU27
2005	29.3	30.4	27.4	28.9
2007	30.6	33.5	30.3	31.4
Growth in ha	**+1.3**	**+3.1**	**+2.9**	**+2.5**
Growth in %	**+4.3**	**+10**	**+10.6**	**+8.8**

Source: IDEA Consult / ECORYS based on Farm Structure Survey data

A comparison of the average farm size (Table 3.23) reveals that farms located in rural regions in EU15 are bigger in area size (39 ha in 2007) as well as in economic terms, than those located in the rural regions of the New Member States (14 ha in 2007). This means that farms in EU15 are on average 2.8 times larger than in New Member States. The

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[55] Data missing for DE and AT.

largest farms in New Member States are located in the Czech Republic (second largest in the EU after United Kingdom), Slovakia and Estonia. In the EU15, the largest farms can be found in the UK, France and Denmark. In EU15, Greece stands out as a specific case, but this is mostly due to its fragmented and small-scale agriculture which dominates in many regions, and which resembles the Balkan type of agriculture typical also for Bulgaria, Romania and Slovenia.

However, in both groups of EU regions the average farm size increased by approximately 11% over the period 2005-2007, lifting up the average EU27-size from 27 ha to 30 ha.

Table 3.23   Average area farm size (ha) in rural NUTS3 regions[56], 2005-2007

EU15	2005	2007	Growth 2005-2007 (in ha)	Growth 2005 - 2007 (%)	NMS	2005	2007	Growth 2005-2007 (in ha)	Growth 2005 - 2007 (%)
BE	43	45	2	5.3	BG	5	6	2	40.4
DK	55	63	9	16.3	CZ	97	103	6	6.1
ES	29	36	7	23.9	EE	32	42	10	30.6
FI	29	31	2	6.6	HU	7	8	1	16.3
FR	60	64	4	6.8	LT	12	12	0	4.3
GR	5	5	0	-0.1	LV	13	17	3	24.5
IE	34	34	1	1.9	PL	8	8	0	5.1
IT	11	13	1	13.0	RO	4	4	0	6.1
NL	37	38	2	4.2	SI	6	6	0	0.6
PT	18	20	2	9.4	SK	28	29	1	4.4
SE	35	36	1	2.3					
UK	113	113	0	-0.1					
EU15	34	39	4	11.9	NMS	13	14	1	11.0
EU27	27	30	3	10.6					

Source: IDEA Consult / ECORYS based on Farm Structure Survey data

Green: Above EU27 average level

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[56] Data missing for AT and DE.

Average economic farm size

The average economic farm size, expressed in ESU[57], has increased by 6% in the period 2005-2007 in all EU27-regions (Table 3.24). This growth rate can be seen in urban, intermediate and in rural regions. Although the growth of the average economic farm size over the period 2005-2007 has been similar in the three types of regions (although largest in urban regions), there is a clear difference in the ESU-level: urban regions have the largest average economic farm size, double the ESU-level in rural regions.

However, this data needs to be interpreted with caution as the geographical situation of the holding is defined by the geographical situation of the headquarters of the holding. (Meta) data on the Farm Structure Survey does not give any more information, but it is possible that some (economically) big farms may have their headquarters in urban regions while the farm itself is in an intermediate or rural region. This might be an explanation for the large difference between the average economic farm size of urban regions compared to that of intermediate and rural regions.[58]

Table 3.24   Average economic farm size – by regional typology (NUTS3), in ESU[59], 2005-2007

Year	Urban	Intermediate	Rural	EU27
2005	40.8	31.9	19.5	28.8
2007	43.4	33.7	20.8	30.5
Change in ESU	+2.6	+1.8	+1.3	+1.7
Growth in %	+6.3	+ 5.8	+6.7	+5.9

Source: IDEA Consult / ECORYS based on Farm Structure Survey

The average economic farm size in EU15-rural regions increased from 26 to 29 ESU between 2005 and 2007, which means a growth of more than 10% (Table 3.25). Only Finland and the United Kingdom show an opposite development. In the New Member States farms are on average much smaller, except in the Czech Republic, Estonia and Slovakia.

The ESU of New Member States averagely declined by 5% over the two-year period amounting to only 5.6 ESU in 2007. A closer look however reveals that a major downfall in Poland is the main cause for this. Also Romania and Slovakia show a decline, all other New Member States show a high percentual growth, but of course coming from a low level. It is clear that farms in the New Member States still face a big challenge to improve their economic size and performance.

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57 European Size Unit, represents the economic size of farms. (1 ESU=1200 € of Standard Gross Margin (SGM)). For each activity (or 'enterprise') on a farm (for example wheat production, dairy cows or the output from a vineyard), the standard gross margin (SGM) is estimated based on the area used for the particular activity (or the number of heads of livestock) and a regional coefficient. The sum of all such margins derived from activities on a particular farm is its economic size, which is then expressed in European size units (by dividing the total SGM in euro by 1200, thus converting it to ESU).

58 For example in Latvia in 2007: 80.8 in urban, compared to 3.90 and 3.13 in intermediate and rural regions respectively. The average economic farm size of the Latvian NUTS3 regions is calculated on at least 14.000 farms per NUTS3.

59 European Size Unit, represents the economic size of farms. (1 ESU=1200 € of Standard Gross Margin (SGM)).

Figure 3.40 Average economic farm size (in ESU) in rural NUTS3 regions compared to urban regions in 2007
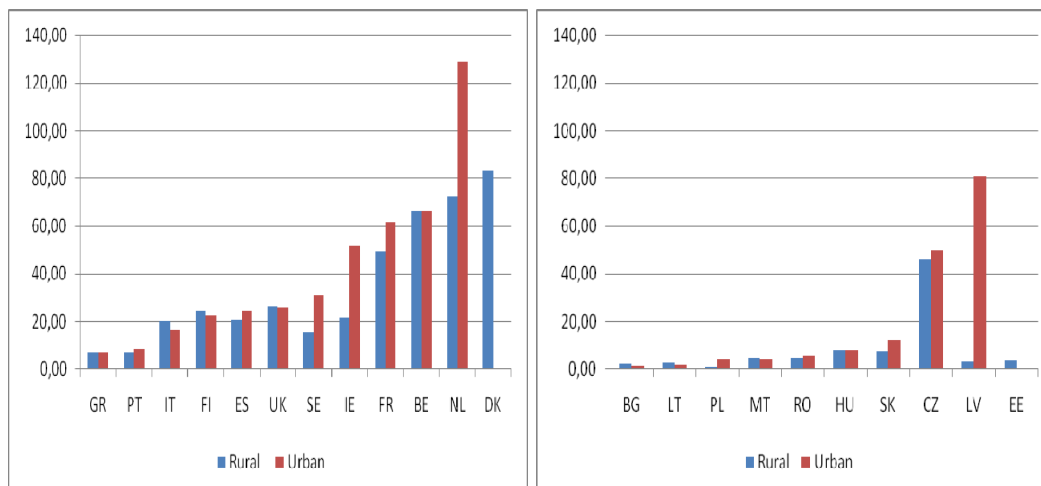
Source: IDEA Consult / ECORYS based on Farm Structure Survey

Table 3.25   Average economic farm size in rural NUTS3 regions[60], 2005-2007

EU15	2005	2007	Growth 2005 - 2007	Growth 2005-2007 (%)	NMS	2005	2007	Growth 2005-2007	Growth 2005-2007 (%)
BE	62.01	66.13	4.12	6.65%	BG	1.55	2.05	0.50	32.19%
DK	70.50	83.08	12.58	17.84%	CZ	40.37	45.92	5.55	13.75%
ES	20.09	20.57	0.48	2.41%	EE	4.97	7.97	3.00	60.40%
FI	25.11	24.32	-0.79	-3.16%	HU	2.78	3.43	0.65	23.55%
FR	46.84	49.69	2.84	6.07%	LT	2.19	2.53	0.34	15.69%
GR	6.58	7.18	0.60	9.19%	LV	2.23	3.13	0.90	40.30%
IE	20.87	21.37	0.50	2.40%	PL	8.38	4.82	-3.56	-42.49%
IT	15.34	20.04	4.70	30.67%	RO	1.11	0.98	-0.13	-11.87%
NL	66.90	72.80	5.90	8.82%	SI	4.09	4.97	0.88	21.63%
PT	7.15	7.15	0.00	-0.03%	SK	8.03	7.68	-0.35	-4.36%
SE	15.66	15.65	-0.01	-0.06%					
UK	27.19	26.02	-1.17	-4.30%					
EU15	**26.04**	**28.77**	**2.73**	**10.48%**	**NMS**	**5.94**	**5.65**	**-0.30**	**-5.00%**
EU27	**19.52**	**20.83**	**1.31**	**6.70%**					

Source: IDEA Consult / ECORYS based on Farm Structure Survey

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[60] Data missing for AT and DE.

Small and medium-sized agricultural holdings (below 5 ha and between 5 and 50 ha)

In general, the share of small agricultural holdings below 5 ha declines in the whole EU (Table 3.26). As shown in Figure 3.31, in EU15 rural regions holdings under 5 ha are much more located in the southern countries like Spain, Portugal, Italy, Greece, Bulgaria and Romania. Small-scale farming in the NMS rural regions is also much more common in Slovakia and Hungary as has already been suggested by the previous indicators of average farm size and average economic farm size.

Figure 3.42 confirms the higher proportions of holdings between 5 and 50 ha in Denmark, Sweden, The Netherlands, Finland and Ireland amongst the EU15 and in the Baltic States, Poland and the Czech Republic amongst New Member States.

Table 3.26 Percent of holdings with less than 5 ha per Member State in rural NUTS3 regions, 2005-2007

EU15	% of holdings less than 5 ha (2005)	% of holdings less than 5 ha (2007)	Change 2005-2007	NMS	% of holdings less than 5 ha (2005)	% of holdings less than 5 ha (2007)	Change 2005-2007
BE	14%	13%	-1%	BG	96%	95	-1%
DK	3%	3%	0%	CZ	48%	45	-3%
ES	55%	48%	-7%	EE	44%	35	-10%
FI	11%	11%	0%	HU	90%	89	-1%
FR	21%	20%	-1%	LT	48%	58	9%
GR	75%	75%	0%	LV	48%	41	-6%
IE	7%	7%	0%	PL	62%	61	-1%
IT	64%	70%	5%	RO	90%	89	-1%
NL	9%	10%	1%	SI	55%	56	1%
PT	72%	69%	-3%	SK	89%	86	-3%
SE	18%	19%	0%				
UK	27%	29%	2%				
EU15	**44%**	**41%**	**-2%**	**NMS**	**74%**	**73%**	**-1%**
EU27	**54%**	**53%**	**-1%**				

Source: IDEA Consult / ECORYS based on Farm Structure Survey

Green: Above EU27 average level

Figure 3.41 Percent of holdings with less than 5 ha per Member State in rural NUTS3 regions in 2005 and 2007
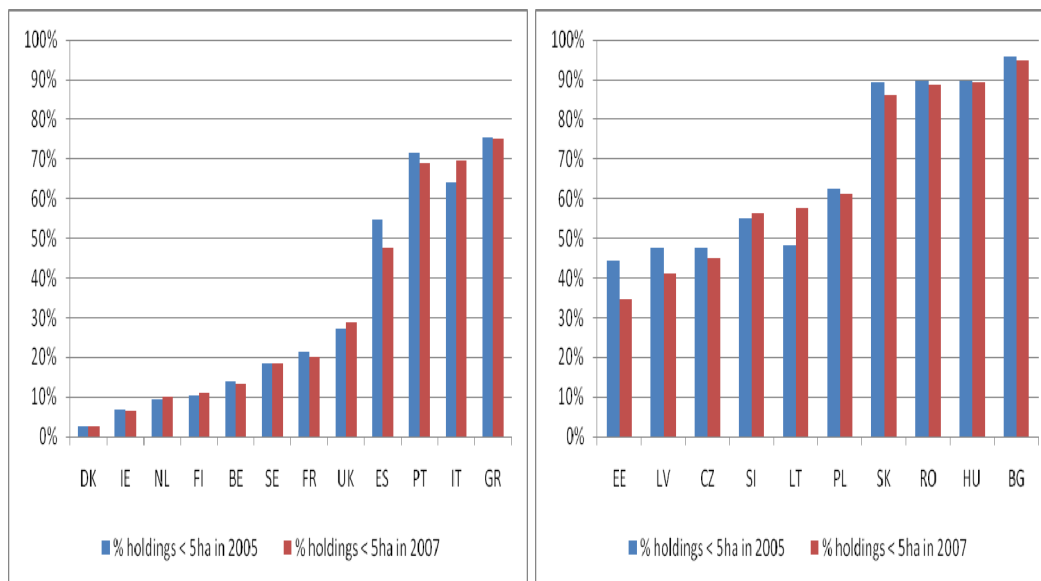
Source: IDEA Consult / ECORYS based on Farm Structure Survey

Table 3.27 Percent of holdings between 5 and 50 ha per Member State in rural NUTS3 regions, 2005-2007

EU15	% holdings between 5 and 50 ha (2005)	% holdings between 5 and 50 ha (2007)	Change 2005-2007	NMS	% holdings between 5 and 50 ha (2005)	% holdings between 5 and 50 ha (2007)	Change 2005-2007
BE	52%	50%	-2%	BG	2%	5%	3%
DK	63%	59%	-4%	CZ	36%	37%	1%
ES	45%	44%	0%	EE	47%	53%	7%
FI	74%	71%	-3%	HU	8%	9%	0%
FR	39%	38%	-1%	LT	49%	39%	-10%
GR	26%	26%	0%	LV	49%	54%	5%
IE	73%	73%	0%	PL	36%	37%	1%
IT	37%	35%	-2%	RO	10%	11%	1%
NL	66%	63%	-3%	SI	45%	43%	-1%
PT	25%	26%	1%	SK	7%	9%	3%
SE	60%	60%	0%				
UK	40%	39%	-1%				
EU15	**41%**	**41%**	**0%**	**NMS**	**25%**	**25%**	**1%**
EU27	**36%**	**35%**	**0%**				

Source: IDEA Consult / ECORYS based on Farm Structure Survey

Green: above EU average level

Source: IDEA Consult / ECORYS based on Farm Structure Survey

Importance of semi-subsistence farming (SSF) in New Member States

In Article 34 (1) of Council Regulation on Support for Rural Development by the European Agricultural Fund for Rural Development (EC No. 1698/2005), semi-subsistence farms are defined as agricultural holdings which produce primarily for their own consumption and do not sell (parts of) their product on the market.

The upper limits to define 'semi-subsistence' vary in literature[61]. In this study, farms with a production smaller than 1 ESU as semi-subsistence farms, according to the definition used in the Rural Development Statistical Report.

Table 3.28 shows that farms below 1 ESU are much more important in New Member States than in EU15. In 2007, for example, semi-subsistence farms (SSFs) made up approximately 61% of farms in rural regions and intermediate regions of New Member States, compared to just over 19% in rural regions of EU15 and 21% in intermediate regions. In New Member States, the proportion of SSFs in urban and intermediate regions declined between 2005 and 2007, whilst it increased by 1.5% in rural regions. In contrast in EU15, the proportion of SSFs increased across all three regional types, with the largest percentage increase in urban regions. The table also emphasises the importance of SSFs in urban regions of EU15, making up 30% of all farms.

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[61] For the Farm Structure Survey, Eurostat classifies farms smaller than 1 ESU as "subsistence" farms. On this basis farms between 1 and 8 ESU are often labelled as 'semi-subsistence' farms. In the Rural Development Statistical Report, farms below 1 ESU are considered as semi-subsistence.

Table 3.28   Percentage of farms below 1 ESU in NMS and EU15 by regional typology (NUTS3), 2005-2007

Countries	Type of region	2005	2007	Change 2005-2007 (percentage point)
NMS	Urban	63.5	56.7	-6.9
	Intermediate	62.5	61.7	-0.8
	Rural	59.9	61.4	1.5
	Total NMS	**61.2**	**60.9**	**-0.3**
EU15	Urban	25.8	29.7	3.9
	Intermediate	18.3	20.8	2.4
	Rural	18.7	19.3	0.6
	Total EU15	**21.2**	**23.7**	**2.5**

Source: IDEA Consult / ECORYS based on Farm Structure Survey

Table 3.28 also shows the large fall in the proportion of SSFs in urban regions of the New Member States between 2005 and 2007 (in contrast the opposite trend can be seen in EU15) and the increase in the proportion of SSFs in rural regions in the same period.

Very small farms that could be considered as based on semi-subsistence activities are very important in some Member States, particularly in the New Member States[62]. In 2007 the importance of SSF in urban regions dropped significantly, but the importance of SSF in rural regions increased.

Looking more closely at the available data reveals that the drop for urban regions was only due to the sharp fall in Latvia (85% in 2005 to 32% in 2007). In all the other countries in New Member States the importance of SSF in urban regions increased from 2005 to 2007.

Figure 3.40 highlights the importance of subsistence farming in rural regions of Bulgaria, Slovakia, Romania and Hungary, in particular. Here, this type of farm accounts for more than 70% of all farms. In most New Member States, the proportion of subsistence farms declined between 2005 and 2007, although in rural regions of Romania and Lithuania the proportion increased over the two year period.[63]

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[62] This information should be used with cautious as it is very sensitive to the definition of a farm and to the threshold of the survey adopted by the Member States. It explains the high proportion of very small farms recorded in UK in the Farm Structure Surveys since 2003 for which the national authorities decided to cover all farms left outside the field of observation in the previous surveys.

[63] More information on semi-subsistence farming in the EU from policy point of view could be found here: http://enrd.ec.europa.eu/en-rd-events-and-meetings/enrd-seminars/semi-subsistence-seminar/en/semi-subsistence-seminar_home_en.cfm
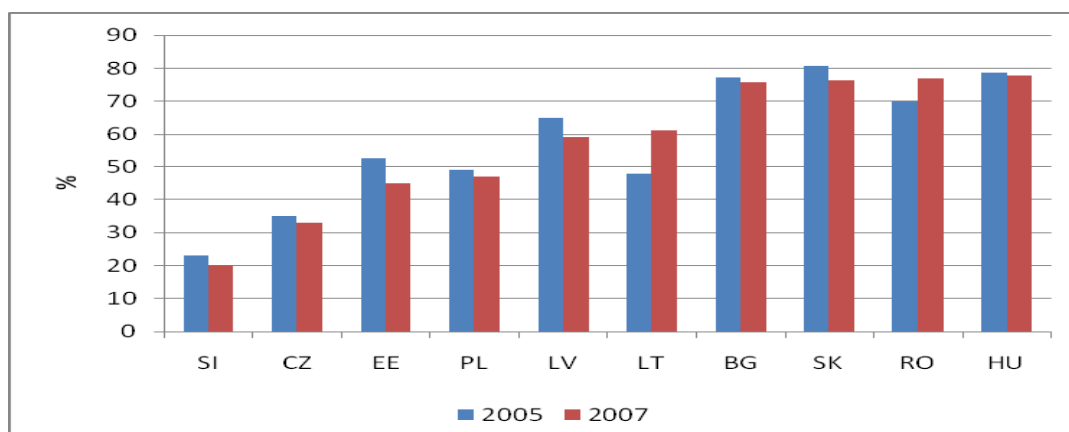
Source: IDEA Consult / ECORYS based on Farm Structure Survey

Percent of managers with basic or full agricultural training

Data on the proportions of farm managers with basic or full agricultural training is only available at NUTS3 level for 2005. The table shows that the proportion of managers with this level of training is highest in urban regions of the EU27, with 35% of farm managers holding this level of training (Table 3.29).

Table 3.29   Percentage of managers with basic or full agricultural training by regional typology (NUTS3) (data is only available for 2005)

Year	Urban	Intermediate	Rural	EU27
2005	34.49%	29.97%	26.38%	29.28%

Source: IDEA Consult / ECORYS based on Farm Structure Survey data

Table 3.30 shows the proportion of farm managers with basic or full agricultural training in rural regions of EU15 and the New Member States in 2005. The table shows that, on average, levels of training are higher in rural regions of EU15 than the New Member States, with 28% of managers having basic or full training in EU15 compared to 24% in the New Member States. Amongst EU15 countries, the Netherlands[64] has the highest proportion of managers in rural regions with basic/full training at 73%. In Belgium and France over half of all farm managers have received this level of training. In comparison, the level of training amongst farm managers in southern EU15 states is even lower. In the New Member States, The Czech Republic has the highest proportion of managers with basic or full training at 49%. Overall, the Southern EU Member States such as Greece, Spain, Portugal, Romania and Italy bring down the EU27 average.

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64 Since The Netherlands have only one rural region, data of the Netherlands are only based on one region and therefore should be treated with care.

Table 3.30   Percentage of managers with basic or full agricultural training EU15 and NMS[65] in rural NUTS3 regions (data is only available for 2005)

EU15	2005	NMS	2005
BE	53.1	BG	5.4
DK	45.5	CZ	48.7
ES	9.2	EE	33.9
FI	40.8	HU	14.4
FR	56.2	LT	31.6
GR	6.3	LV	34.8
IE	32.4	PL	43.0
IT	12.8	RO	7.6
NL	73.3	SI	27.6
PT	11.2	SK	16.2
SE	30.8		
UK	19.8		
EU15	**27.6**	**NMS**	**23.8**
EU27	**26.4**		

Source: IDEA Consult / ECORYS based on Farm Structure Survey data

Green: Above EU27 average level

Figure 3.43   Percentage of managers with training in rural NUTS3 regions compared to urban regions in 2005
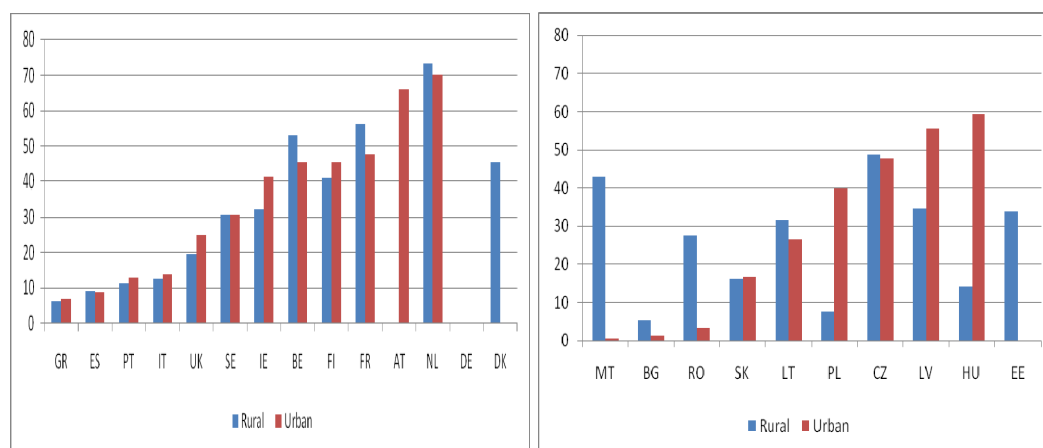
Source: IDEA Consult / ECORYS based on Farm Structure Survey data

Figure 3.43 compares the proportion of managers with training in rural and urban regions of EU15 and the New Member States. In EU15 the difference between rural and urban regions is fairly small. In Belgium, France and the Netherlands the proportions of managers with training is higher in rural than in urban regions. On average 27.6% of the managers in rural areas in EU15 received training, compared to 23.8% in rural areas of the New Member States.

In the New Member States the pattern is much more varied with larger difference in the proportions with training in urban and rural regions. In Poland, Latvia and Hungary the

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65 There is no data available for DE, LU, AT, CY and MT.

proportions of managers with training are higher in urban regions, whilst the opposite is true for Bulgaria, Romania and Lithuania. The data for the Czech Republic and Slovakia show similar educational levels in urban and rural regions close to what is happening in the EU15 countries.

Young versus old farmers (Ratio of farmers <35 to farmers >55 years)

The ageing of the EU population is a general concern for Europe. Estimates show that social and pension systems in the EU are on the verge of facing significant pressure in the forthcoming decade. The same importance bares the issue of ageing of rural population and the ageing of the farm population.

The decreasing number of young people in the agricultural sector can create specific difficulties for generational renewal (European Commission 2006), and raises concerns regarding the loss of valuable skills and knowledge as older, but experienced people, leave the sector. The recent SCARLED project highlighted how the farming population is likely to continue to age, given the tendency for the young, educated and mobile to seek alternative employment outside of agriculture in the industrial or service sectors among other factors that affect these trends (van Herck 2009c).

Comparing the age of farmers, the data indicates that rural regions have the highest ratio of farmers <35 years to farmers >55 (0.18 in 2007; see Table 3.31). In urban and intermediate regions the situation is even worse, with approximately 7 to 10 times more older farmers than young farmers.

Rural regions had the largest decline in the ratio from 2005 – 2007, but still have relatively more young farmers compared to urban and intermediate regions.

Table 3.31   Average ratio of farmers <35 to farmers >55 years by regional typology (NUTS3), 2005-2007

Type of region	2005	2007	Growth 2005-2007 (pp)
Urban	0.11	0.11	0.00
Intermediate	0.16	0.14	-0.02
Rural	0.23	0.18	-0.05
Total	**0.18**	**0.16**	**-0.02**

Source: IDEA Consult / ECORYS based on Farm Structure Survey data

Figure 3.44   Ratio of farmers <35 to farmers >55 years, 2005 vs 2007
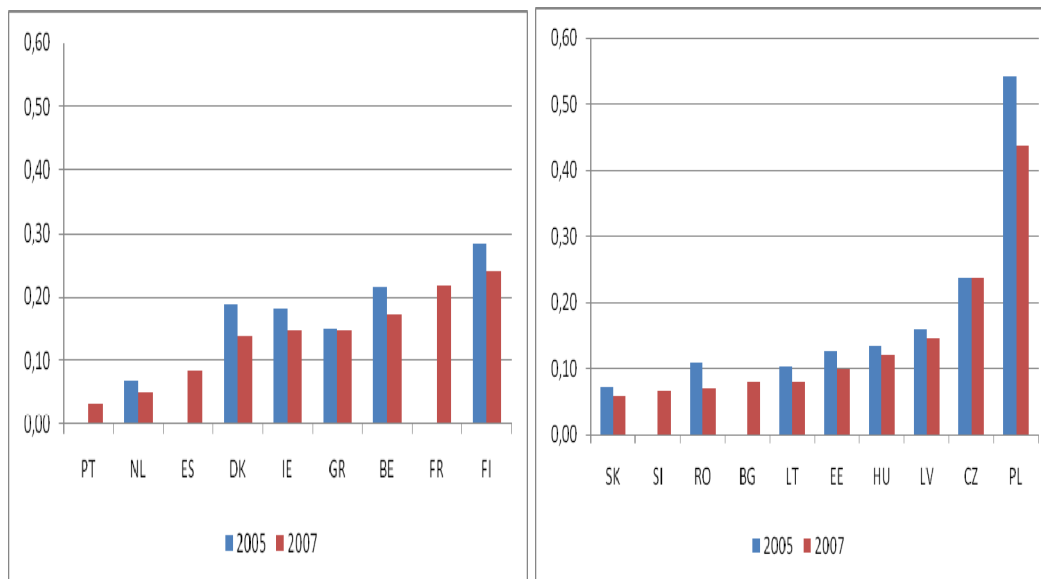
Source: IDEA Consult / ECORYS based on Farm Structure Survey data

Amongst the New Member States, Poland had a particularly high ratio of young to old farmers in both 2005 and 2007, but as a general trend, this ratio is declining everywhere (see Figure 3.44 and Table 3.32).

Table 3.32   Average ratio of farmers <35 to farmers >55 years per Member State in rural NUTS3 regions, 2005 vs 2007[66], NUTS3

EU15	2005	2007	Growth 2005-2007 (pp)	NMS	2005	2007	Growth 2005-2007 (pp)
AT				BG		0.1	
BE	0.2	0.2	-0.0	CZ	0.2	0.2	0.0
DE				EE	0.1	0.1	-0.0
DK	0.2	0.1	-0.1	HU	0.1	0.1	-0.0
ES		0.1		LT	0.1	0.1	-0.0
FI	0.3	0.2	-0.0	LV	0.2	0.2	-0.0
FR		0.2		PL	0.5	0.4	-0.1
GR	0.2	0.2	0.0	RO	0.1	0.1	-0.0
IE	0.2	0.2	-0.0	SI		0.1	
NL	0.1	0.1	-0.0	SK	0.1	0.1	-0.0
PT		0.0					
EU15	**0.2**	**0.2**	**-0.0**	**NMS**	**0.3**	**0.2**	**-0.1**
EU27	**0.2**	**0.2**	**-0.1**				

Source: IDEA Consult / ECORYS based on Farm Structure Survey data

Green: Above EU27 average level

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66 Due to serious lack of data for FR (3 NUTS3 in 2005 and 37 in 2007), SE (3 and 1), UK (1 and 3); IT (1 and 3), their averages have been omitted from the calculations.

Farmers in the New Member States are generally younger than in EU15, shown by the higher ratio of 0.20 compared to 0.17 in 2007, respectively. However, the decline in the ratio between 2005 and 2007 was greater in the New Member States (from 0.28 to 0.20) than in EU15, illustrating that the farmer population is ageing across the EU27 but at a faster rate in the New Member States. This echoes the conclusions found in the SERA report (European Commission 2006).

Income diversification: Agricultural holders with other gainful activity

Approximately one third of farmers in EU27-regions are pluri-active, meaning that they have other gainful activities to supplement their farming income. The trend is declining, as shown in Table 3.33 and this is seen in all types of regions. Previous analysis suggests that factors such as the size of the farm, its location, its specialization as well as the age of the farmer or his level of education can facilitate or prevent the setting-up of diversification activities on the farm, or the existence of a complementary job for the farmer (DG AGRI 2009).

Table 3.33   The percentage of holders with other gainful activity by regional typology (NUTS3), 2005-2007

Year	Urban	Intermediate	Rural	EU27
2005	31.24	37.83	35.87	35.66
2007	29.25	35.91	33.42	33.47
Change (pp)	**-2.0**	**-1.92**	**-2.45**	**-2.2**

Source: IDEA Consult / ECORYS based on Rural development Indicators (Eurostat)

Whereas the percentage of holders with other gainful activity in rural regions in EU15 decreased from 2005 to 2007, in the rural regions of New Member States more holders had other gainful activity in 2007. The share of pluri-active farmers in EU15 rural regions has fallen below 30%, while the same share in New Member States rural regions has increased above 41%. The percentage of holders with other gainful activity has grown in all rural regions of the New Member States, except for Hungary and Romania.

Table 3.34 shows a considerable variation in the percentage of holders with other gainful activities within EU15 countries. The overall average proportion is less than 30%, but Sweden for example, had a percentage of holders with other gainful activities of over 70% in 2007. In Denmark and Ireland this percentage is also over 45%. In Sweden, the Netherlands and Ireland, the percentage increased between 2005 and 2007.

Figure 3.45   Percentage of holders with other gainful activity (NUTS3), 2005 vs 2007
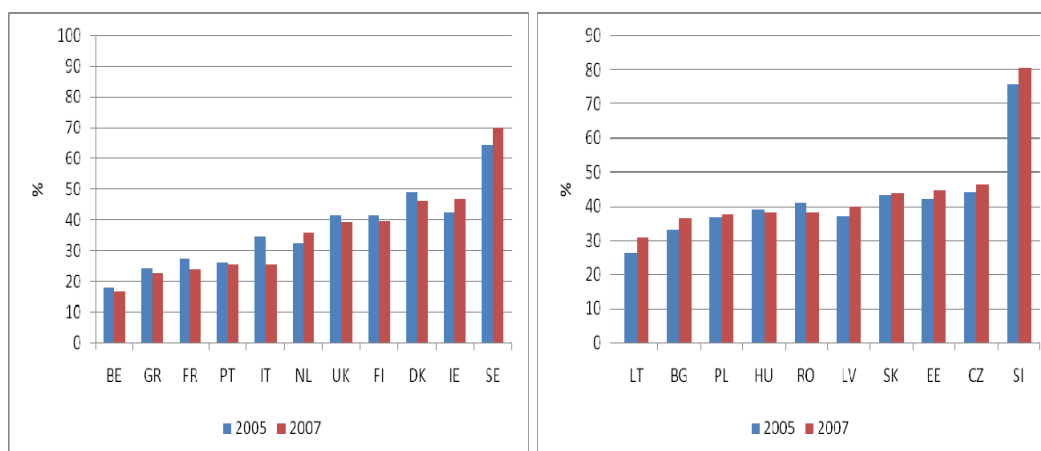
Source: IDEA Consult / ECORYS based on Rural Development Indicators (Eurostat)

Table 3.34   Percentage of holders with other gainful activity (NUTS3), 2005 vs 2007[67]

EU15	2005 (%)	2007 (%)	Change 2005-2007 (pp)	NMS	2005 (%)	2007 (%)	Change 2005-2007 (pp)
BE	17.9	16.8	-1.1	BG	32.9	36.7	3.8
DK	49.1	45.9	-3.1	CZ	44.1	46.4	2.4
ES		28.3		EE	41.9	44.7	2.7
FI	41.5	39.7	-1.8	HU	39.2	38.3	-0.9
FR	27.3	23.8	-3.5	LT	26.4	30.7	4.3
GR	24.2	22.7	-1.5	LV	37.0	40.1	3.1
IE	42.4	46.8	4.3	PL	36.8	37.8	1.0
IT	34.3	25.6	-8.8	RO	40.9	38.3	-2.6
NL	32.4	35.9	3.5	SI	75.8	80.5	4.8
PT	26.0	25.5	-0.5	SK	43.2	43.9	0.8
SE	64.5	70.7	5.6				
UK	41.6	39.3	-2.3				
EU15	**32.3**	**28.9**	**-3.4**	**NMS**	**40.4**	**41.4**	**1.0**
EU27	**35.9**	**33.4**	**-2.5**				

Source: IDEA Consult / ECORYS based on Rural Development Indicators (Eurostat)
Green: Above EU27 average level

Table 3.34 shows that the percentage of holders with other gainful activities is higher in New Member States (41.4% in 2007) than in the EU15 (28.9% in 2007). While in the EU15 the percentage declined with 3.4 percent point, the percenage increased in the New Member States with 1 percent point.

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67 Data is missing for AT and DE.

3.3.5   Economic capital: Tourism

Rural tourism - Number of bed places

To compare tourism activities among regions, the average number of bed places in the three types of regions was estimated. The indicator measures the number of bed places regardless of the origin, so beds in hotels, b&b's and other holiday dwellings are recorded together with agri-tourism beds.

Since 2001 the number of bed places in rural regions – expressed as number of bed places per NUTS3 region - has steadily increased (Figure 3.46). This means that the tourism sector in rural regions from a supply-side point of view is progressively developing. However, not surprisingly, the number of bed places in rural regions is far behind that of urban regions:

- The number of bed places per NUTS3 region in urban regions in 2008 doubles the number in rural regions.

- The number of bed places in urban regions has grown much faster in the period 2001-2008 than in rural regions.

In intermediate regions, however, the change has slowed down after the rather sharp increase in 2001-2004, but as an average absolute increase it equals the one in rural areas. In rural regions, the increase si actually reinforced after the accession in 2004.

Table 3.35   Average number of bed places per NUTS3 region by regional typology, 2001-2004

	Average n° bed places/ NUTS3 2001	Average n° bed places/ NUTS3 2004	Average annual change 2001-2004 (%)	Average n° bed places/ NUTS3 2008	Average annual change 2004-2008 (%)
Urban	11 413	12 018	1.7	13 153	2.3
Intermediate	8 514	9 010	1.9	9 497	1.3
Rural	6 490	6 591	0.5	6 968	1.4
Total	**8 400**	**8 789**	**1.5**	**9 404**	**1.7**

Source: IDEA Consult / ECORYS based on Rural Development Indicators (Eurostat)

The growth of the number of bed places is much higher in the NMS-rural regions. The number of bed places in New Member States-rural regions has grown in the post accession period 2004-2008 by 17%. In rural regions of EU15, the growth between 2004 and 2008 was 4.6%:

- All New Member States-countries show high positive growth figures, except in Hungary and Slovenia. Highest growth can be noticed in Bulgaria, the Baltic states, Poland and Slovakia.

- For EU15, highest growth figures are in the southern countries (Spain, Italy, Greece, Portugal), Sweden and Ireland.

One can therefore conclude that, broadly speaking, the tourism sector is in EU15 more developed in the rural economy, but the growth potential for touristic activities seems to be higher in New Member States as it is yet to be fully exploited.

Figure 3.46   Average number of bed places EU15 vs NMS[68] per rural NUTS3 regions, 2001-2008
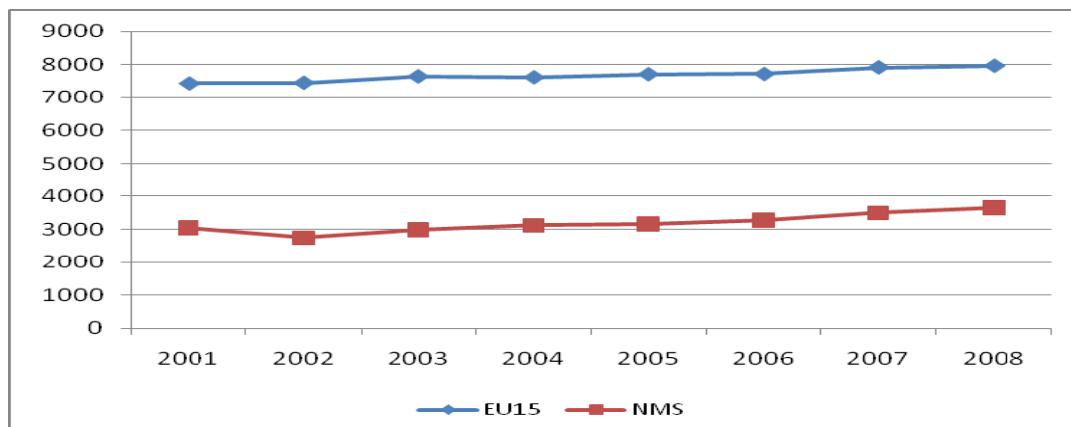
Source: IDEA Consult / ECORYS based on Rural Development Indicators (Eurostat)

Table 3.36   Average number of bed places in rural NUTS3 regions, 2004-2008

EU15	Average number of bed places 2004	Average number of bed places 2008	Change 2004-2008 (abs)	Change 2004-2008 (%)	NMS	Average number of bed places 2004	Average number of bed places 2008	Change 2004-2008 (abs)	Change 2004-2008 (%)
AT	16 701	16 740	39	0.2	BG	1 503	3 319	1 816	120.9
BE	1 104	1 123	19	1.7	CZ	11 743	13 503	1 760	15.0
DE	3 450	3 067	-384	-11.1	EE	3 651	4 668	1 017	27.9
DK	5 259	5 050	-209	-3.9	HU	6 754	6 466	-288	-4.3
ES	8 127	9 873	1 746	21.5	LT	646	793	147	22.7
FI	6 563	6 459	-104	-1.6	LV	1 072	1 464	392	36.6
FR	6 852	6 775	-77	-1.1	PL	1 478	1 845	367	24.8
GR	10 744	11 527	784	7.3	RO	2 270	2 593	323	14.2
IE	15 959	18 015	2 055	12.9	SI	2 305	1 730	-576	-24.9
IT	14 248	15 443	1 196	8.4	SK	8 381	10 150	1 769	21.1
NL	2 386	2 102	-284	-11.9					
PT	7 232	7 663	431	5.9					
SE	5 796	6 327	531	9.2					
EU15	**7 617**	**7 967**	**351**	**4.6**	**NMS**	**3 121**	**3 658**	**537**	**17.2**
EU27	**6 591**	**6 968**	**377**	**5.7**					

Source: IDEA Consult / ECORYS based on Rural Development Indicators (Eurostat)

Green: Above EU27 average -level

Note: estimates for NL are only based on one rural region and should therefore be treated with caution. For DE, data are available for 114 regions in 2004 and for 106 regions in 2008

68 Serious lack of data before 2001, especially for NMS: 1996: only PL and RO. From 1997: only PL, RO and LV. From 2000: only PL, RO, LV and CZ. From 2001: PL, RO, LV, CZ, BG, HU, SI and SK.

Figure 3.47   Average number of bed places in rural NUTS3 regions in 2008
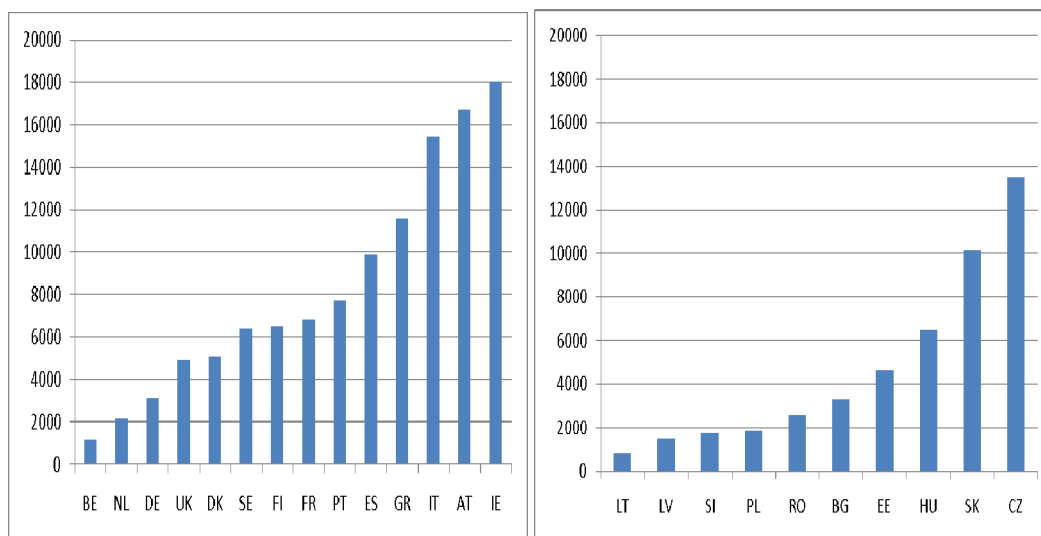
Source: IDEA Consult / ECORYS based on Rural Development Indicators (Eurostat)

3.3.6   Social capital: Accessibility

Figure 3.48   Road accessibility index (EU27=100) by region typology (NUTS3), 2006
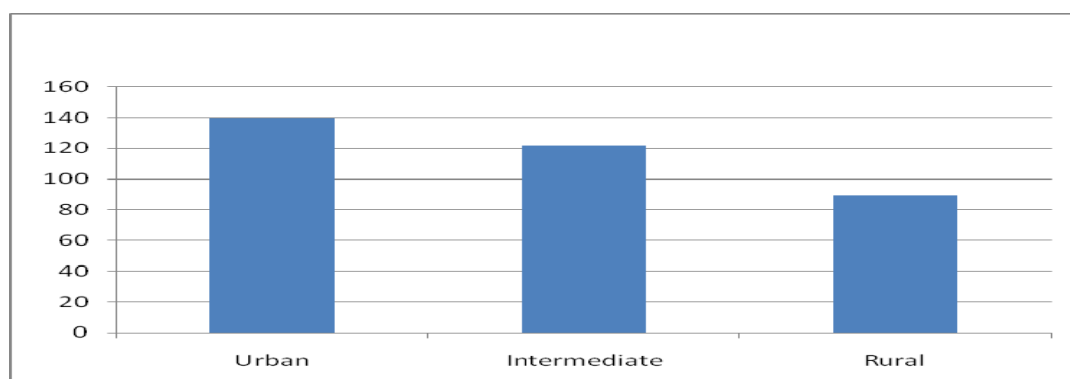
Source: IDEA Consult / ECORYS based on ESPON

The road-bound accessibility index[69] for the EU27 shows that most NUTS3 regions in New Member States and Northern Europe (Sweden and Finland) have very low accessibility rates, whereas Belgium, Germany, The Netherlands and Austria show very high accessibility rates. A second and more interesting indicator is the evolution (2001-2006) of road-bound accessibility in regions.

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69 On the basis of 2006 ESPON data. The same delimitation of region type is used as for the indicators before.

3.3.7   Human capital: Demography

Demography is an important supply-side determinant of economic activity and employment trends, in particular when viewed as the amount and quality of human capital in a region. For much of the twentieth century the regional pattern of population change in most European countries was characterized by a "rural exodus", and increasing urbanisation. From the 1950s to the 1970s the urban core of North West Europe saw a process of rapid urban growth. Rural population declined in number as young people left to seek better education and employment opportunities in urban regions and major cities.

From the 1970s onwards, a process of 'counter-urbanisation' - or accumulation - has been evident in many western European countries as people seek a higher quality of life in rural regions, sometimes setting up their own enterprises and sometimes commuting from accessible rural locations to jobs in urban centres (Copus et al. 2006). This has resulted in a declining population number in many metropolitan cores and an increasing rural population in many European countries. However, in some countries and regions (particularly more remote rural locations, such as mountainous regions of central and northern Europe and much of southern Europe), the rural population continued to decline as a result of a number of reasons, including the lack of sufficient access to (high-level) education and (off-farm) employment opportunities[70].

In what follows, some key- indicators of demography available at NUTS3 level are analysed, such as population growth, birth and death rate, net migration rate and population density.

In any case, as it is illustrated in the analysis of a range of demographic variables below, important differences exist between the New Member States and EU15.

Population growth

Population in EU27 is increasing in general. As one can see in Figure 3.49, this growth is especially located in urban regions and to a lesser extent in intermediate regions. Population growth in rural regions is limited. The growth was 7.8 million more in urban areas, 5.5 million in intermediate areas and only 0.9 million more in rural areas.

Table 3.37   Total population (in '000 people) by regional typology (NUTS3), 2004-2007

Typology	Total population 2000	Total population 2004	Total population 2008	Average annual change 2000-2004 (%)	Average annual change 2004-2007 (%)
Urban	195 004	199 113	202 876	0.5	0.6
Intermediate	170 465	173 701	176 015	0.5	0.4
Rural	116 742	117 188	117 614	0.1	0.1
Total	**482 211**	**490 002**	**496 505**	**0.4**	**0.4**

Source: IDEA Consult / ECORYS based on Eurostat data

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70 Champion, A.G., 'Counter-urbanisation: The Changing Pace and Nature of Population Deconcentration'. Edward Arnold (Hodder & Stoughton) London. See also. ESPON 1.1.4 "Spatial effects of demographic trends and migration", www.espon.lu

Figure 3.49   Average annual change of population by regional typology (NUTS3), 2000-2004 and 2004-2007[71][72]
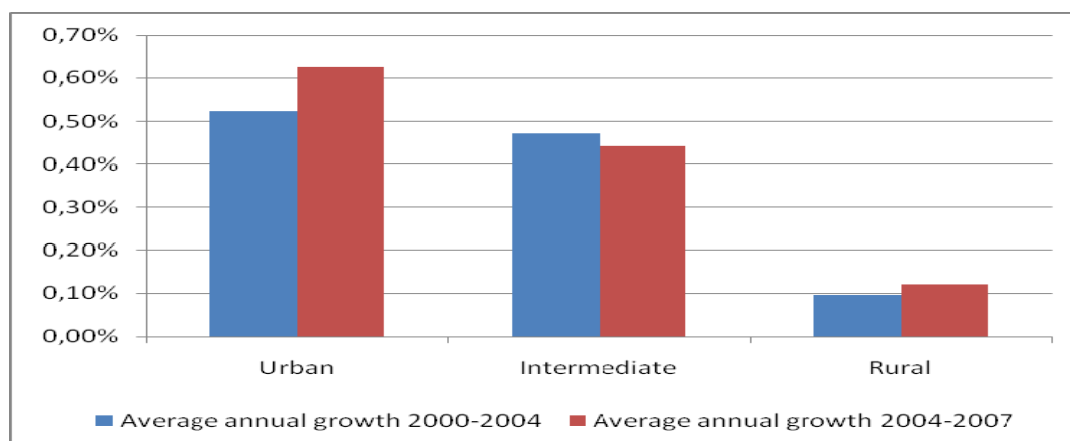
Source: IDEA Consult / ECORYS based on Eurostat data

While population in rural regions in EU15 has grown from 2000 to 2007, rural population has decreased in most of the New Member States. Europe's overall population growth occurred in the 15 old Member States, and in particularly in Ireland and Spain, followed by Belgium, France, UK, Italy and Austria. Population decline is a general trend for New Member States-rural regions, and especially in Bulgaria, Romania, Hungary and the three Baltic States.

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71 Year 2008 was not included because of lack of too many data. The dataset is almost complete for 2000 – 2007 for all region types. Only data for DK is missing.

72 Figure 3.49 shows the compound annual average increase or reduction of the population as a percentage from the base year, calculated by the formula: exponential growth= (exp (ln (variable final year/variable initial year)/number of years)-1)*100.

Table 3.38   Total population (in 1000 persons) & average annual change of population in rural NUTS3 regions[73], 2000-2007

Country	Total population 2000	Total population 2004	Total population 2007	Average annual change 2000 -2004 (%)	Average annual change 2004-2007 (%)
AT	3 234	3 262	3 275	0.2	0.1
BE	881	899	920	0.5	0.8
DE	14 627	14 585	14 397	-0.1	-0.4
DK	2332.5	2332.5	2 341		
ES	5 599	5 769	5 964	0.8	1.1
FI	2 295	2 282	2 285	-0.1	0.1
FR	17 457	17 937	18 305	0.7	0.7
GR	4 830	4 842	4 834	0.1	-0.1
IE	2 677	2 920	3 149	2.2	2.6
IT	11 905	12 048	12 181	0.3	0.4
NL	107	108	108	0.1	-0.1
PT	3 775	3 844	3 856	0.5	0.1
SE	2 090	2 075	2 076	-0.2	0.0
UK	1 719	1 760	1 792	0.6	0.6
EU15	**73528.1**	**74663.8**	**75 482**	**0.4**	**0.4**
BG	3 314	3 080	2 985	-1.8	-1.0
CZ	3 440	3 418	3 443	-0.2	0.2
EE	664	654	648	-0.4	-0.3
HU	4 852	4 845	4 776	-0.0	-0.5
LT	1 554	1 516	1 473	-0.6	-0.9
LV	933	903	875	-0.8	-1.0
PL	14 555	14 512	14 448	-0.1	-0.2
RO	10 307	10 001	9 882	-0.8	-0.4
SI	881	879	884	-0.1	0.2
SK	2 715	2 717	2 720	0.0	0.0
NMS	**43 214**	**42 524**	**42 132**	**-0.4**	**-0.3**
EU27	**116742.1**	**117187.5**	**117 614**	**0.1**	**0.1**

Source: IDEA Consult / ECORYS based on Eurostat data

Green: above EU27 level

Red: Own estimates based on available data at NUTS3 level in 2005 (or 2006 for some NUTS3's).

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73 Table 3.38 shows the compound annual average increase or reduction of the population as a percentage from the base year, calculated by the formula: exponential growth= (exp (ln (variable final year/variable initial year)/number of years)-1)*100.

Figure 3.50 Average annual change of population by Member State in rural NUTS3 regions, 2000-2007
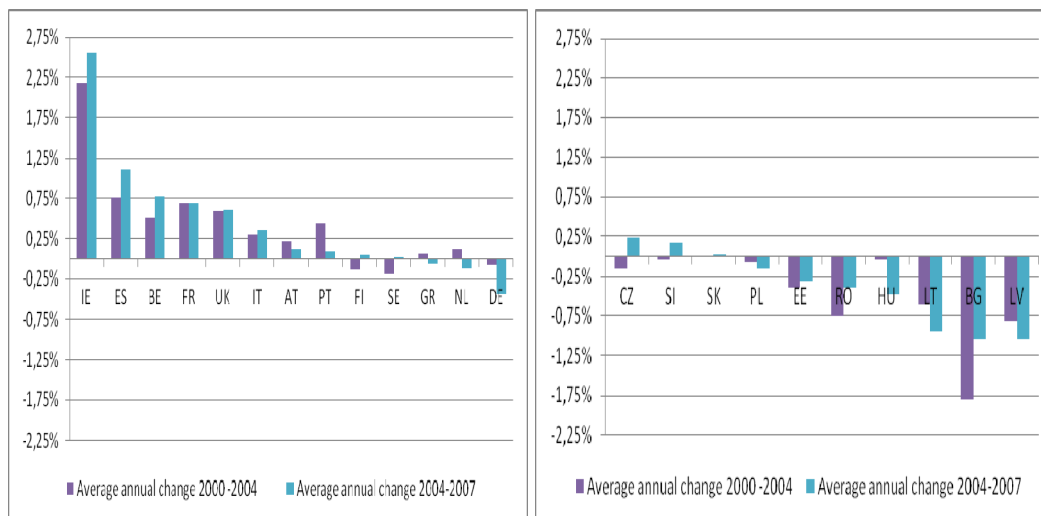
Source: IDEA Consult / ECORYS based on Eurostat data

This population growth can be explained by natural growth, on the one hand, or by net migration, on the other hand. These two indicators are examined more in depth in the next sub-sections.

Birth and death rate[74]

When looking at demographic evolutions, two major components need to be considered; (i) Natural increase (the balance between births and deaths) (ii) Migration - which accounts for the majority of regional change in population, and also has important feed-back effects upon natural increase. From previous research it is known that net-migration had a dominant and positive effect on total population change[75].

Natural population change is simply the difference between number of births and number of deaths during a specified period. Comparison of the birth and death rates by regional typology reveals that on average the birth rate is the highest in urban regions, whereas the death rate is the highest in rural regions (Figure 3.51). The difference between rural and urban regions in terms of birth rates is narrower than in terms of death rates, and both birth and death rates were at a lower level in 2007 than in 1996 for all types of regions. For rural regions, the birth rate declined from 10% in 1996 to 9.2% in 2007, while the death rate was 11% in 2007, declining slightly from 11.5% in 1996.

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74 Crude birth rate is the number of childbirths per 1 000 people per year; Crude death rate is the number of deaths per 1.000 people per year.

75 Study on Employment in Rural Areas (SERA) (2006).

Figure 3.51   Crude birth rate (number of childbirths per 1 000 people) by regional typology (NUTS3)[76], 1996-2007
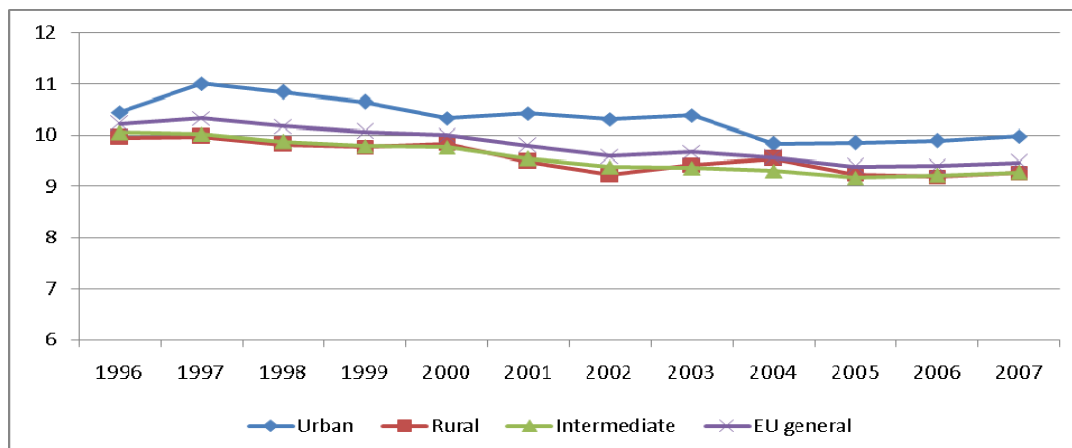
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.52   Crude death rate (number of deaths per 1.000 people) by regional typology (NUTS3)[77], 1996-2007
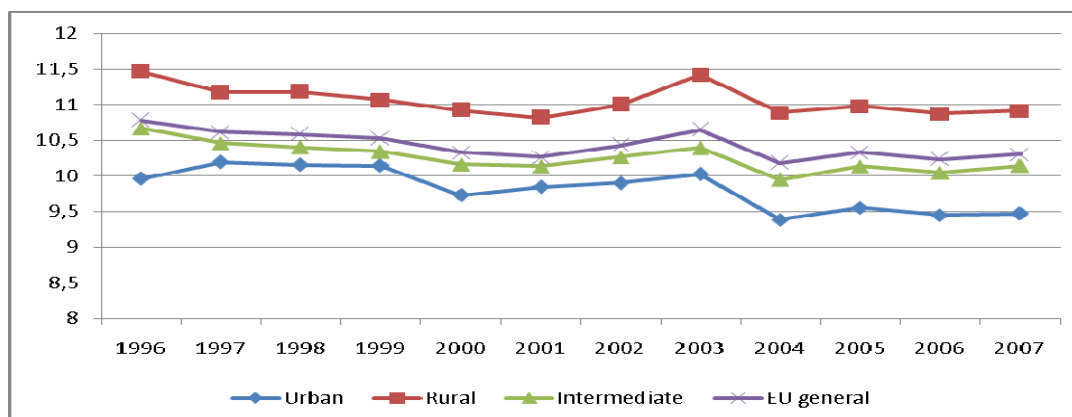
Source: IDEA Consult / ECORYS based on Eurostat data

Net migration[78]

Net migration in EU27 is positive, which literally means that migration contributes to population growth in a positive way. Net migration, however, is more positive in EU15 than in the New Member States (Figure 3.53). Since 2000, a diverging trend can be observed between EU15 and New Member States where the net migration rate has increased in EU15 but decreased in New Member States.

Although net migration remains positive in the New Member States, net contribution to population growth is very limited. For EU15 net migration contributed substantially to population growth in the period 2000-2005.

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76 Missing data for DK, IE (data for 2002 and 2003 are missing), UK (data from 2004 on are missing)
77 Missing data for DK, IE (data for 2002 and 2003 are missing), UK (data from 2004 on are missing)
78 Net migration rate is the difference of immigrants and emigrants, divided per 1 000 inhabitants (considered on midterm population). A positive value represents more people entering the country than leaving it, while a negative value means more people leaving than entering it.

Figure 3.53   Average net migration rate in EU15 and NMS NUTS2-regions [79], 2000-2005
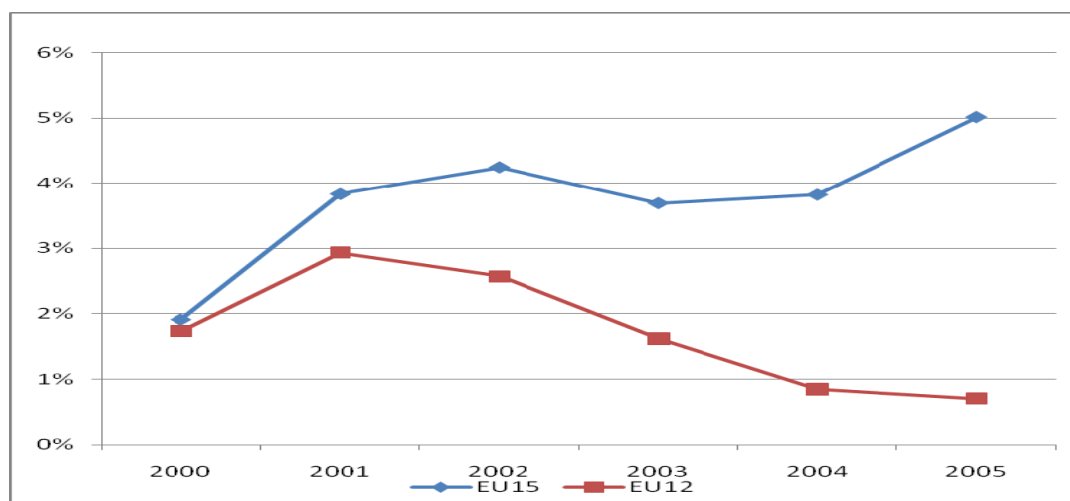
Source: IDEA Consult / ECORYS based on Eurostat data

Net migration rates differs substantially between Member States. With exception of the Netherlands, all EU15-countries show a positive net migration rate in the years 2004-2005, with especially high figures for Spain, Ireland and Luxemburg. On the other hand, five (Bulgaria, Lithuania, Latvia, Poland and Romania) out of 12 New Member States faced a negative net migration rate. Strongly positive figures in New Member States were in Cyprus (very high), Czech republic, Malta, Slovenia and Slovakia.

Table 3.39   Average net migration rate per NUTS2 region, in 2004 and 2005

EU15	Net migration rate 2004 (%)	Net migration rate 2005 (%)	NMS	Net migration rate 2004 (%)	Net migration rate 2005 (%)
AT	6.2	5.7	BG	-1.1	-1.0
BE	3.8	5.0	CY	21.2	19.1
DE	0.9	0.7	CZ	2.0	3.8
ES	11.3	11.1	EE	0.2	0.1
FI	1.8	2.1	HU	0.8	0.6
FR	1.8	5.9	LT	-2.8	-2.6
GR	2.7	3.0	LV	-0.5	-0.2
IE	13.1	16.8	MT	5.2	2.2
IT	8.7	5.7	PL	-0.6	-0.8
LU	9.5	13.0	RO	-0.3	-0.1
NL	0.1	-0.9	SI	1.1	3.3
PT	5.5	4.4	SK	0.8	1.1
SE	2.7	2.4			
EU15	**4.1**	**4.4**	**NMS**	**0.6**	**0.8**
EU27	**3.3**	**3.5**	**EU27**	**3.3**	**3.5**

Source: IDEA Consult / ECORYS based on Eurostat data

Green: Above EU27 average level

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79 Dataset is almost complete from 2000-2005. Only data for DK (all years) and UK (2000, 2004 and 2005) are missing.

Since there are no migration-data available on NUTS3-level, net migration rates have been calculated for urban, intermediate and urban regions using the formula:

Net migration 2001-2006 = Growth of total population (2001-2006) – (sum of births (2001-2005) – sum of deaths (2001-2005))

On average the net migration rate over 2001-2006 in all types of EU15 regions is very positive and is responsible for most of population growth in all type of EU15-regions in this period. Total population growth in EU15 regions is thus caused by positive net migration. In the New Member States only the net migration rate in urban regions is positive. Rural and intermediate regions face a negative migration rate. Since natural growth is also negative in these type regions, total population growth is strongly negative in intermediate and rural regions in the New Member States.

Figure 3.54   Average net migration rate & natural growth rate by regional typology (NUTS3) (for EU15 and NMS), 2001-2006
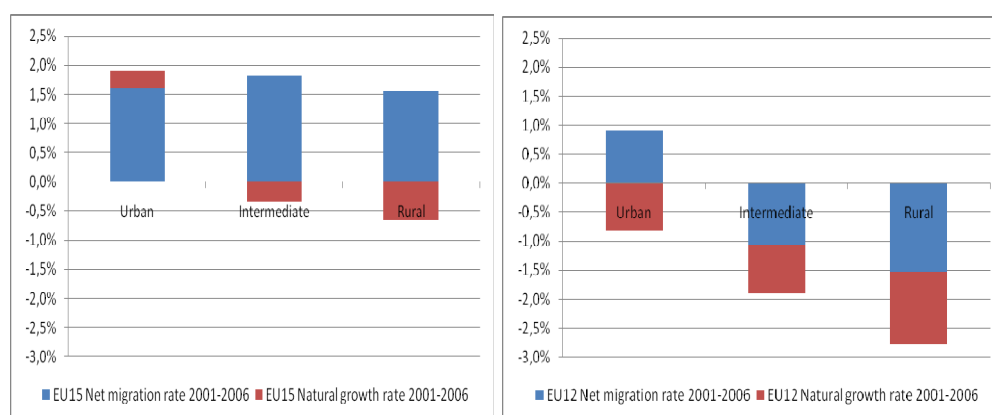
Source: IDEA Consult / ECORYS based on Eurostat data

Table 3.40 and Figure 3.54 show that the average net migration rate for rural regions over the period 2001-2006 has been positive in all EU15 Member States (except for Finland). Net migration rates contibuted most to population growth in rural regions in southern European countries, Ireland, France and Belgium. For NMS rural regions the average net migration rate is negative. Only SK, SI, CZ, EE, HU show a slightly positive value. Highest negative migration figures can be noticed in rural regions of Romania, Lithuania, Latvia and especially Bulgaria.

ECORYS   Study on Employment, Growth and Innovation in Rural Areas (SEGIRA)

Table 3.40   Average net migration rate, natural growth rate and total population growth rate per NUTS3 region, 2001-2006

Country	Net migration rate 2001-2006 (%)	Natural growth rate 2001-2006 (%)	Population growth rate 2001-2006 (%)
IE	5.6	3.9	9.5
ES	6.3	-1.2	5.1
FR	3.2	0.3	3.5
BE	2.5	0.5	3.0
IT	2.6	-1.0	1.6
PT	2.9	-2.3	0.6
AT	0.3	0.1	0.5
GR	1.1	-1.0	0.1
NL	0.7	-0.6	0.0
FI	-0.7	0.2	-0.4
SE	0.8	-1.2	-0.4
DE	0.0	-1.1	-1.1
EU15	**1.6**	**-0.7**	**0.90%**
SK	0.3	-0.2	0.1
SI	0.7	-0.9	-0.2
PL	-0.8	0.3	-0.5
CZ	0.1	-0.6	-0.5
EE	0.1	-2.0	-1.9
HU	0.0	-2.1	-2.1
RO	-2.2	-1.3	-3.5
LT	-1.5	-2.0	-3.5
LV	-1.2	-3.0	-4.2
BG	-5.9	-3.2	-9.1
NMS	**-1.5**	**-1.3**	**-2.8**
EU 27 average	**0.8**	**-0.8**	**0.0**

Source: IDEA Consult / ECORYS based on Eurostat data

Green: Above EU27 average level

Figure 3.55   Average net migration rate & natural growth rate (for EU15 & NMS) per rural NUTS3 region, 2001-2006
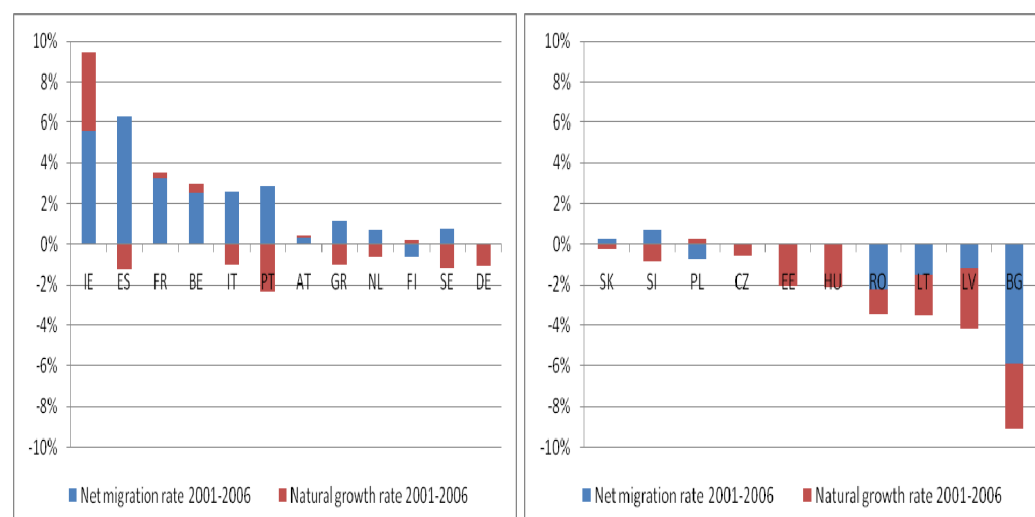
Source: IDEA Consult / ECORYS based on Eurostat data

Population density

Population density, as measured by the ratio between (total) population and surface area (land in km²), has been relatively stable over time in all types of EU27 regions. Since its lowest level in the years at the start of the 21st century, there has been a small increase in the population density of the three types of regions since 2003/4, with the highest increase in the urban regions.

Between the different types of regions there is a wide spread in population density, ranging from 90 inhabitants per km² in EU27 rural regions to over 300 in intermediate regions to 1400 in urban regions. Population density in rural regions is higher in EU15 than in New Member States. The change over time is limited, fluctuating around 97 inhabitants per km² in EU15 and 65 inhabitants per km² in the New Member States. A sharper increase can be observed in population density in EU15 from 2006 and 2007 but data from more recent years is required to see if this is a trend which will continue.

Figure 3.56   Evolution of population density (inhabitants / km²) in EU27 NUTS3 regions, 1997-2007
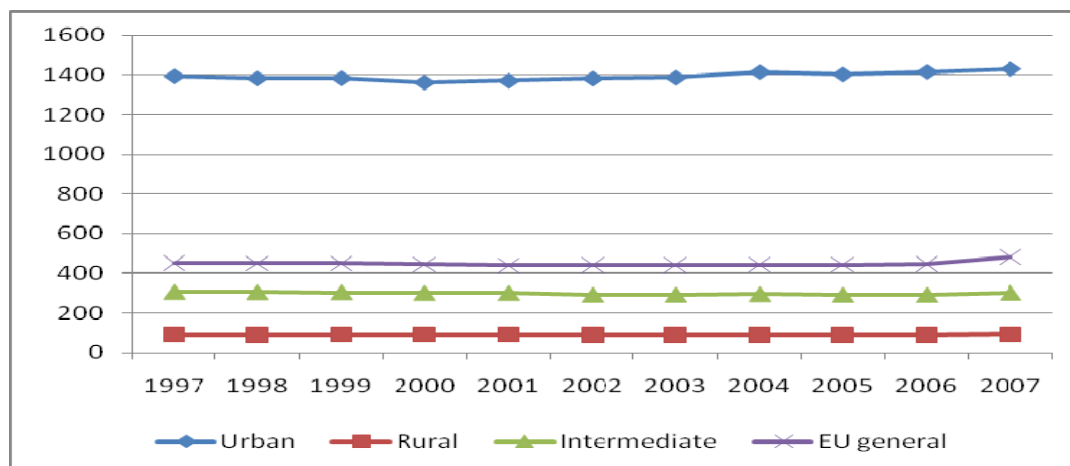
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.57   Evolution of population density (inhabitants / km²) in rural NUTS3 regions – EU15 and NMS, 1997-2007
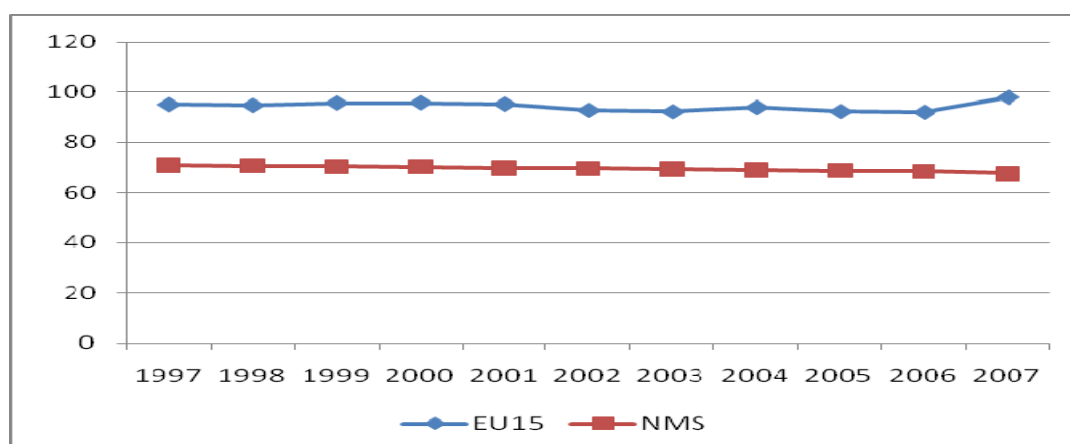
Source: IDEA Consult / ECORYS based on Eurostat data

Age

Figure 3.58 illustrates that the share of young people (< 15 years) does not differ much between of the three region types. On average the share of young people has been smaller in rural regions than in urban or intermediate regions since 2007[80]. This may partly reflect the attractiveness of urban regions for younger people in terms of education and employment opportunities. Another explanation can be found in the slightly higher birth rate in urban regions.

Figure 3.58   Share of young people <15 years (as % of total population) by regional typology (NUTS3)[81], 2002-2009
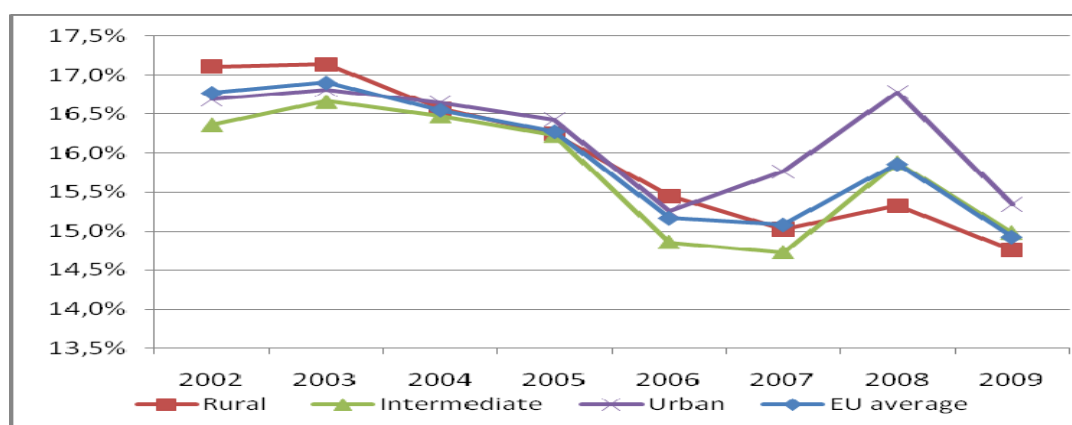
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.59   Share of young people <15 years (as % of total population) by regional typology(NUTS3) - Without DE and UK, 2002-2009
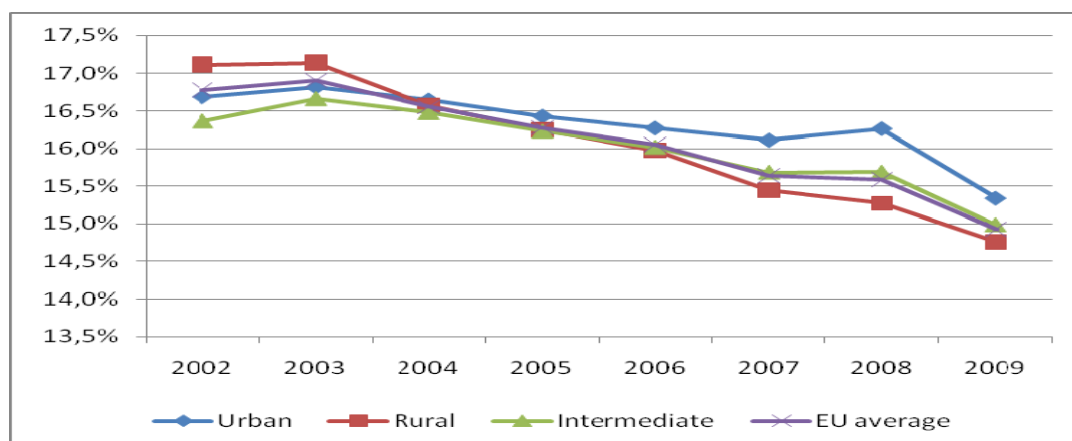
Source: IDEA Consult / ECORYS based on Eurostat data

Figure 3.60 shows the ageing population trend in EU27. In general, the share of older people in total population has increased from 2002 until 2009 by 0.5pp.

Ageing is more pronounced in rural regions, where 18.6% of the population is more than 65 years old compared to 16.5% in urban regions.

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80 Due to missing data from 2001 to 2005 and 2009 (only 200 à 600 NUTS3 regions out of 1303) and 2008 (864 NUTS3 regions), only 2006 to 2007 are representative (1006 and 1254 NUTS3's respectively). No data available for Ireland.
81 Due to missing data from 2001 to 2005 and 2009 (only 200 à 600 NUTS3 regions out of 1303) and 2008 (864 NUTS3 regions), only 2006 to 2007 are representative (1006 and 1254 NUTS3's respectively). No data available for Ireland.

The atypical figures for 2006 and 2007 can be explained by additional data available for German and UK regions. Therefore, the same indicator has been calculated without German and UK regions. The result is shown in Figure 3.59. It can be concluded that on EU-level the share of young people declines substantially and continuously in all type of regions.

The share of young people in EU27-rural regions fluctuates around 15% of total population. In EU15, this share is below average in the southern countries (Spain, Greece, Italy and Portugal). In New Member States, this is the case in Latvia, Bulgaria, Czech Republic and Slovenia.

Table 3.40   Average share of young people <15 years in rural NUTS3 regions [82], 2006-2007

EU15	2006 (%)	2007 (%)	Change 2006-2007 (pp)	NMS	2006 (%)	2007 (%)	Change 2006-2007 (pp)
AT	16.5	16.2	-0.4	BG	14.1	13.8	-0.3
BE	18.5	18.3	-0.2	CZ	14.9	14.6	-0.3
DE	14.3	13.6	-0.7	EE		15.8	
DK		18.3		HU	15.5	15.2	-0.3
ES		13.5		LT	17.4	16.8	-0.7
FI		17.1		LV	15.0	14.5	-0.5
FR	17.5	17.4	-0.0	PL	17.8	17.2	-0.6
GR		14.1		RO	16.3	16.2	-0.2
IT	13.4	13.2	-0.2	SI	14.1	13.9	-0.2
NL	16.8	16.6	-0.2	SK	16.6	16.2	-0.5
PT	13.4	13.2	-0.1				
SE	16.3	16.0	-0.3				
UK		17.6					
EU15	**15.2**	**14.8**	**-0.3**	**NMS**	**16.1**	**15.7**	**-0.4**
EU27	**15.5**	**15.0**	**-0.4**				

Source: IDEA Consult / ECORYS based on Eurostat data

Green: Based on EU27 average level

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82 Due to missing data from 2001 to 2005 and 2009 (only 200 à 600 NUTS3 regions out of 1303) and 2008 (864 NUTS3 regions), only 2006 to 2007 are representative (1006 and 1254 NUTS3's respectively). No data available for Ireland.

Figure 3.60 Share of older people (>65 years old, as % of total population) by regional typology (NUTS3)[83], 2002-2009
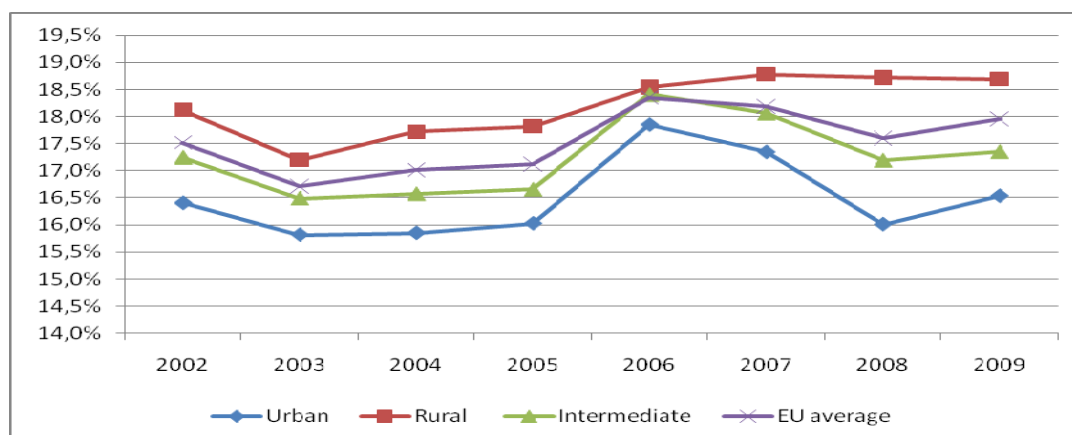
Source: IDEA Consult / ECORYS based on Eurostat data

The share of population of working age (15-64 years) as a % of total population shows in general an increasing trend in all types of regions during the period 2002-2009. This evolution means that – given the stabilization of population growth for EU27- the potential labour supply has grown at EU27 level.

For all type of regions, the share of working age population has grown by 2pp. The highest level can be noticed in urban regions and the lowest in rural regions. The difference between the two was approximately 2pp in 2009.

More thorough discussion on the issue of ageing could be found in the next section on clustering of EU regions.

Figure 3.61   Average share population at working age (between 15-64 years) by regional typology (NUTS3)[84], 2002-2009
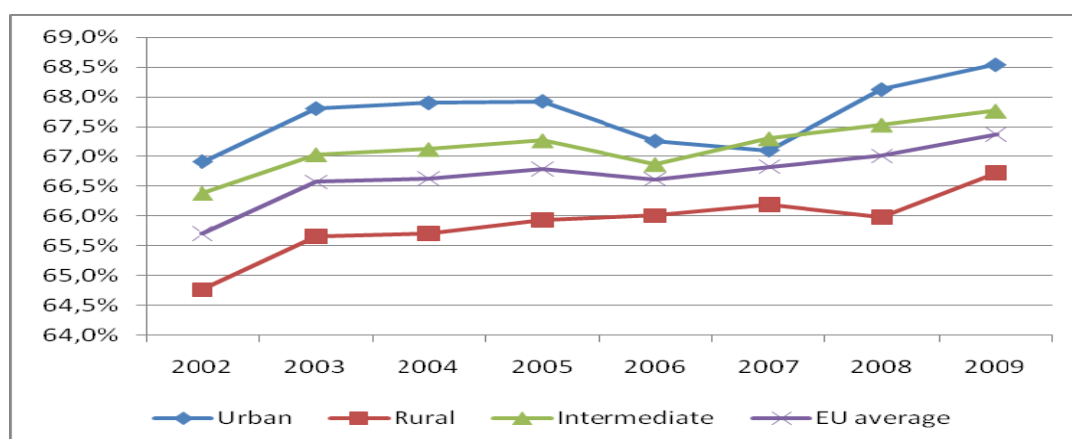
Source: IDEA Consult / ECORYS based on Eurostat data

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83 For the years 2002-2005 and 2009 only data for 380 à 600 out of 1303 NUTS3 regions are available. The shown trends for those years should be looked at with caution. For 2006, 2007 and 2008 data of 860 à 1260 NUTS3 regions are available.
84 For the years 2002-2005 and 2009 only data for 380 à 600 out of 1303 NUTS3 regions are available. The shown trends for those years should be looked at with caution. For 2005, 2006 and 2007 data of 860 à 1260 NUTS3 regions are available.

Gender

Regional variations in the gender structure of the population tend to have complex inter-relationships with the age structure of the population. Both are very much influenced by past and ongoing patterns of (selective) migration. The EU average share of women in the population fluctuates at around 51%. Figure 3.62 also illustrates that at the EU27 level the share of women in rural regions is lower than in urban or intermediate regions. It also has a different trend since 2007-2008 as it increases in urban areas, but goes down in rural and intermediate areas. In 2009 the share of women in urban regions is at 51.5%, and in rural regions at 50.8%. This may reflect the greater likelihood for women to leave rural regions than men as a result of the lower employment and higher unemployment rates amongst rural women (Copus et al. 2006; Mauthner and Hay 2003).

Figure 3.62   Share of women in population by regional typology (NUTS3), 2000-2009
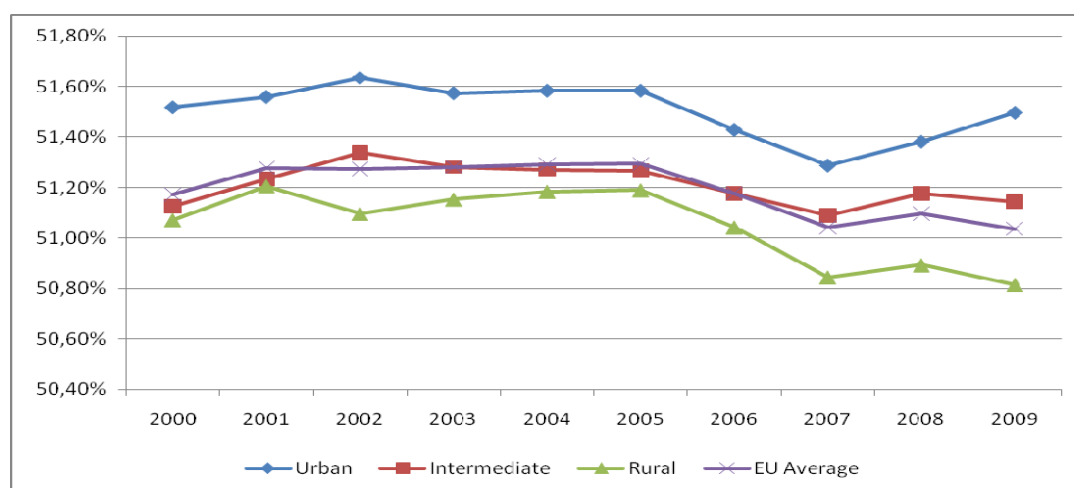
Source: IDEA Consult / ECORYS based on Eurostat data

3.3.8   A few trends summarised

A few trends can be seen from looking at the growth rate which has also been discussed in the previous sections:

- *Tourism/diversification (general/farms):* The number of bed-places and other collective accommodation in rural regions has grown by slightly more than 2% and nearly 1% respectively between 2002 and 2007. The share of farm holders with another gainful activity has grown slightly between 2005 and 2007 (nearly a half percentage growth on average per year). Receipts from tourism specifically have decreased however by nearly one percent on average.

- *Farm structure:* Also the percentage of small farms has decreased (which was around 54% on average in 2005 and 53% in 2007) while the share of medium-sized farms and especially the share of large farms increased by approximately 1 and 6% respectively. This can be a sign of the amalgamation process discussed in the literature review.

- *Farm investment and subsidies (FADN data):* Farm net investment grew on average by as much as 18% while total farm subsidies grew by 5% annually.

- *Infrastructure:* Infrastructure is only available for one year (2006) so conclusions on improvements are not possible but what is striking is the large differences that exist in rural regions with road infrastructure indices going from 1.3 to 216.3.

- *Skills:* The share of the population between 25 and 64 years old with high education has increased by on average nearly 3% annually. The percentage of managers with basic or full agricultural training is only available for 2005 and is around 26% with large variation between the rural regions.

- *Demography:* The demographic variables are more or less stable. However, there is a positive growth of the shares of the active population and the older population. The share of the population which is older than 64 grew in some regions up to 3% annually between 2002 and 2005.

- *Environment:* Growth rates for the environmental capital variables cannot be calculated as there is only one observation point. On average 37% is categorised as non-LFA utilised agricultural area (in 2005) with some regions having all UAA categorised as non-LFA and others having all categorised as LFA. On average 13% is categorised as nature ranging from nearly nothing (0.01%) to nearly everything (91%).

- *Regional differences:* When the means of the variables are compared over different types of regions (Table 3.41), the average decrease of the share of the primary sector (in employment) was more or less equal in rural and intermediate regions but much smaller than the decrease in urban regions where the primary sector has nearly disappeared with around 1.8% of employment in 2007. The increase of the share of tertiary sector was highest in the rural regions. The self-employment rate was decreasing in rural regions but increasing in intermediate and urban regions.

- *Rural tourism*: There was a similar growth in bed-places in rural, intermediate and urban regions. The opposite was the case for the other type of collective accommodation, with a much stronger growth in intermediate and urban regions compared to the rural regions.

- *Farm size:* The share of the largest farms (50 hectares or more) is increasing most rapidly in the rural regions. While farm net investment is moving more or less at the same rate in all three regions, the total farm subsidies are growing much faster in intermediate and urban regions (at around 10%) than in rural regions (at around 5%) (but when looking at levels, on average in 2007 the total farm subsidies were nearly double as high in rural than in urban regions).

- *Education:* The percentage of managers with basic or full agricultural training was lowest in rural regions while the share of the 25 to 64 year old population is slightly higher in rural regions.

- *Utilised Agricultural Area:* The percentage of land categorised as nature is highest in rural regions and the percentage of utilised agricultural area categorised as non-LFA land is lowest in rural regions.

Table 3.41   Comparison of variable growth per regional typology (NUTS3)

Variable	Rural	Intermediate	Urban
Growth in share of primary sector in employment (2002-2007)	-2.24	-2.07	-5.19
Growth in share of secondary sector in employment (2002-2007)	-0.04	-0.83	-1.61
Growth in share of tertiary sector in employment (2002-2007)	0.82	0.66	0.67
Growth in self-employment rate (2002-2007)	-0.03	0.84	1.07
Growth in number of bed places (2002-2007)	2.19	2.04	2.88
Growth in number of other collective accommodation (2002-2007)	0.88	4.05	6.21
Growth in % holders with other gainful activity (2005-2007)	0.33	0.59	-1.62
Growth in % of farms smaller than 5 ha (2005-2007)	-0.61	-0.50	-0.74
Growth in % of farms between 5 and 50 ha (2005-2007)	0.90	1.63	1.76
Growth in % of farms of 50 ha and more (2005-2007)	6.34	2.85	1.49
Growth in farms' receipts from tourism (2002-2007)	-0.72	-0.19	0.24
Growth in net farm investment (2002-2007)	18.41	18.89	14.90
Growth in total farm subsidies (2002-2007)	4.94	10.17	10.27
Road index (only available for 2006)	89.11	121.97	139.84
Growth in % of adults (25-64) with high education (2005-2007)	2.62	1.80	1.71
% of managers with basic or full agricultural training - 2005	26.38	29.97	34.49
Avg population density (2002-2007)	0.02	0.20	0.44
% of population between 15 and 64 years (2002-2007)	0.14	0.01	-0.09
% of population of 64 years or more (2002-2007)	0.81	1.01	0.85
% UAA categorized as non-Less Favoured Area 2005	37.40	61.71	76.31
% nature (land cover)	13.12	7.14	6.81

Source: IDEA Consult / ECORYS

3.4   Conclusions & recommendations

In the tables below all key indicators were brought together on the employment and growth in rural regions. The tables function as a strategic overview of the SEGIRA-indicators, structured around four main topics/factors:

- General economic indicators such as GDP/capita and employment rate.

- Economic capital: share in primary and tertiary sector, agriculture, diversification of rural regions and tourism.

- Social capital: accessibility.

- Human capital: demography.

On the horizontal axis, the table gives us information on:

- The performance of EU27 rural regions (level and evolution).

- The relative position of EU27 rural regions vis-à-vis all EU27 regions, including the urban and intermediate regions.

- The relative position of the rural regions in the New Member States (NMS) vis-à-vis the EU15 rural regions, with specific attention to the performance of the New Member States after 2004-integration.

Legend of the tables:

Interpretation index	Interpretation of evolution
+ = index >105 and <140	 = positive evolution
++ = index > 140	0 = no evolution (indicator stays on the same level)
- = index <95 and >60	 = negatieve evolution
-- = index <60	
0 = index >95 and <95	

The **main conclusions** of this trend analysis can be summarized as follows:

General economic variables: growth and employment

- Both GDP/capita and the employment rate in rural regions have shown a positive trend from the mid 90s onwards. In the period 2000-2007 the employment rate in the rural areas grew with 3.5 pp[85]. Despite this positive evolution, rural regions still face a substantial gap compared to all EU27-regions, which means that *GDP/capita and employment rate are higher in urban and intermediate regions.*

- In the rural regions of the EU27 the evolution of GDP per capita was equal to 4.5% in the period 1995-2007. The level of GDP per capita was equal to 20.000 euro in 2007.

- The GDP per capita of the rural areas in New Member States is equal to 45% of the GDP per capita of the EU15 rural regions.

- When the rural areas of the EU27 are compared to all EU27 regions, the index of GDP per capita for the rural regions is 84, which means that the GDP per capita of the rural regions is equal to 84% of the GDP per capita of all EU27 regions.

- *The growth of GDP/capita in rural regions is higher* than all EU27 regions since 2001, due to a strong growth in New Member States especially from 2006 onwards. However this higher than average growth in rural regions has been insufficient to bring about substantial catching-up effects and close the gap with EU27 GDP/capita-level.

- Catching up of GDP/capita in rural regions is not reflected in employment rates: the growth in the employment rate in rural regions for the period 2005-2007 remains on average lower than the growth in all EU27-regions (employment rate in rural areas is 95% of employment rate in all EU27-regions, although the employment rate in 2007 in rural regions is much higher than in the period 1995-2004. This means that the *rural jobs gap has widened from 2005-2007*, so that rural regions still need a significant effort to catch-up with the rest of the EU27-territories.

- A striking and very positive trend is the *decline of unemployment rates in rural regions* in the period 1999-2008 (before the economic crisis of 2008-2010):

  o For men, the gap between rural and urban regions is closing, whereas for women, the gap remains significant (10.9% in rural regions and 7.4% in urban regions) . Within urban regions, men and women have fairly equal chances to be employed. Within rural regions, the unemployment of women is significantly higher (approximately 4%). This may suggest that more effort and tools should be directed towards boosting female employment, especially in rural regions.

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85 Pp = percentage point. For example an evolution of 60% to 61% is an evolution of +1pp.

o Youth unemployment in rural regions has improved. By 2004 the difference between unemployment for those aged 15+ on the one hand, and those aged above 25 years on the other hand, has closed in rural regions. Since then however, both rates have declined simultaneously, but for those aged 15 and above the unemployment rate stays still 0.5% above the unemployment rate 25+. The latter may suggest that young people (15-25 years) may from then on face greater difficulty in finding a job, and because of the subsequent economic crisis, it is likely that this negative trend has been strengthened.

- *There is a higher growth of GDP/capita in New Member States-rural regions than in EU15-rural regions*, but the GDP/capita level of New Member States is only at 45% of that of EU15. Especially in the years from 2004 GDP/capita has grown faster in New Member States, suggesting that EU-accession has contributed positively to economic development in the New Member States.

- *The employment rate is lower in rural New Member States* (59%) than in rural EU15 (64%), and there is not really a catching up by New Member States, even after 2004-integration.

Table 3.42 Overview of the analysis for general variables

Indicator	Period	Rural regions EU27		Rural EU27 vs. all EU27 regions		NMS rural regions vs. EU15 rural regions		
		Level (2007)	Evolution[86]	EU27=100	Evolution[87]	EU15=100	Evolution[88]	Evol post 2004[89]
General (Economic variables for growth and employment)								
GDP/capita	1995-2007	20.000		-		--		
Employment rate	2000-2007	63%		0		-		
Unemployment rate 15+	1999-2008	8.5% (2008)		-		-		
Unemployment rate 15+ men	1999-2008	7.5% (2008)		0		0		
Unemployment rate 15+ women	1999-2008	11% (2008)		-		-		

Source: IDEA Consult / ECORYS

Economic capital: structure, agriculture & diversification

- The *share of primary sector employment in rural regions is more than twice the share of primary sector gross value added*, which indicates the labour intensiveness of the primary sector in rural regions. The contribution of the primary sector as job creator in rural regions has declined, as the share in total employment falls back from nearly 18% in 2000 to 12% in 2006.

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86 The evolution concerns the development over the years that have been studied per indicator. The number of years differs per indicator. Eg. Employment rate concerns 2000-2007, the share of primary sector in GVA concerns 2004-2006, etc.

87 Positive or negative evolution in rural EU27 regions compared to all EU27 regions.

88 Positive or negative evolution in rural NMS regions compared to rural EU15 regions.

89 Positive or negative evolution in rural NMS regions compared to rural EU15 regions, from 2005 on.

- The share of the primary sector in GVA in the rural regions of EU27 declined with 2.5 pp to 6% in 2006. This share is still higher than the share of the primary sector in all EU27 regions (169%). Comparing the NMS with EU15 shows that the share of the primary sector in GVA in NMS is 248 times higher than that share in the EU15.

- Importance of the *primary sector*: primary sector activities (agriculture, forestry and fishing) remain important rural activities. Primary sector activities however also act as a platform for many kinds of diversification activities.

- *The tertiary sector has become a more important job creator in rural regions*, but the employment performance of the tertiary sector in rural regions is lagging behind urban and intermediate EU27-regions.

- The share of the tertiary sector in the rural areas grew in the period 1999-2006 with 1.6 pp but is still 5% lower than in all EU27 regions.

- The *economic structure of rural regions is in transformation*: the share of the primary sector in GVA declines continuously, while the share of the tertiary sector grows. This is a general trend in all regions, but it is more pronounced in rural regions:

  o The decline of the share of the primary sector in GVA in rural regions is higher than in all EU27-regions. This relatively stronger negative trend strengthens after the New Member States-integration in 2004 and could lead to the suggestion that the restructuring of the agricultural sectors in the New Member States combined with the economic development of their rural regions in general have pushed down the importance of the primary sector in EU27 rural regions.

  o Comparing the importance of the primary sector and tertiary sector for rural regions for the period 1999-2006, it can be concluded that most of the decline experienced by the primary sector has been substituted by growth in the tertiary sector.

- *The share of the primary sector* in GVA in rural regions of New Member States (9.3%) more than doubles the share in rural EU15 (4.7%). This pattern is confirmed by employment figures: the share of the primary sector in employment in rural regions of New Member States (16.5%) exceeds by far the share in rural EU15 (9.8%).

- It was shown already that the tertiary sector with a share of nearly 60% of total employment in 2006, is also by far the largest of the three sectors in terms of employment in rural regions, but there is a *substantial difference between the share of tertiary employment in EU15 (64%) compared with the New Member States* (50%).

Table 3.43 Overview of the analysis for economic capital – structure and dynamics

Indicator	Period	Rural regions EU27		Rural EU27 vs. all EU27 regions		NMS rural regions vs. EU15 rural regions		
		Level (2007)	Evolution*	EU27=100	Evolution*	EU15=100	Evolution*	Evol post 2004*
Economic capital - structure & dynamics								
Share primary sector in GVA	1999-2006	6% (2006)		++		++		
Share tertiary sector in GVA	1999-2006	63% (2006)		-		-		
Share primary sector in employment	2000-2006	12% (2006)		+		++		
Share tertiary sector in employment	2000-2006	59% (2006)		-		-		

Source: IDEA Consult / ECORYS

* See footnotes Table 3.42

Economic capital – Agriculture and Tourism

- Also interesting *dynamics within the agricultural sector* were identified:

  o The average number of people employed in agriculture and the number of farms per NUTS3-region have declined (-4.8 pp per 2 years), but are still substantially higher than in other regions (21% higher). Agriculture remains a basic pillar in the EU27-rural economy.

  o *Despite a small decline in total utilized area for agriculture, the size of farms is growing*, as well in terms of global farm size (+10% per 2 years) as in terms of economic farm size (+7% in 2 years). A special point of attention is the relationship between economic and global farm size, which is much lower in rural regions, and especially in the New Member States-rural regions.

  o *Diversification:* 1/3 of farmers hold *other gainful employment activity* in rural regions. This is comparable with intermediate regions.

  o The *agricultural sector is ageing* and this trend is more prominent in rural regions. Being attractive for young agro-entrepreneurs is a real challenge for the agricultural sector in rural regions.

  o Approximately a quarter of farm managers in rural regions have participated in training, which is 10% lower than in all EU27-regions. Sufficient training opportunities for farm managers especially in a fast changing sector are a real challenge. Training levels differ markedly between Member States and in some instances farmers do not have the skills necessary to take advantage of new economic opportunities.

- There are strong input-output-interrelations in the food chain between the agricultural sector and the food industry. Based on an analysis of the performance of the food sector it can be concluded that the food sector in EU15 seems to have been a rather stable industrial sector: there is a small positive growth in number of people employed as well in the share of the food sector in total manufacturing employment.

On the contrary, available data suggests that the food sector in New Member States decreased in terms of employment and number of units.

- *There is still a divide in agricultural dynamics and structure between New Member States and EU15*: agriculture in the New Member States typically employs more people, on a higher number of farms, which are on average smaller in size (in area size and economically). Semi-subsistence farming is much more a feature of the New Member States (60% of farms are between 1 and 8 ESU) compared to EU15 (24%). The percentage of trained managers is smaller and more farmers have another gainful economic activity next to agricultural activities.

- *The evolution of unemployment in New Member States-rural regions is positive*: unemployment rates have fallen in general, for men and women, and for youth, to levels below those of EU15 rural regions. The pace of this positive evolution has accelerated since 2004. This may suggest that thanks to positive economic growth until 2008 new job opportunities have been created, but at the same time it may also suggest that there has been an exodus of people from rural regions.

- As expected, the *number of bed places* per NUTS3-region in rural regions is lower than for EU27-regions in general (46% lower), and the trend in rural regions is lagging behind compared with the EU27 regions. There is a catching-up effect of number of bed places in New Member States-rural regions post 2004. So it is reasonable to suggest that the tourism sector in EU15 today is well developed in the rural economy, but that the growth potential for tourism activities seems to be higher in New Member States. Tourism (expressed by the number of bed places) is one of the main drivers for economic growth in rural (and other) regions.

Table 3.44 Overview of the analysis for economic capital – agriculture

Indicator	Period	Rural regions EU27		Rural EU27 vs. all EU27 regions		NMS rural regions vs. EU15 rural regions		
		Level (2007)	Evolution*	EU27= 100	Evolution*	EU15 =100	Evolution*	Evol post 2004*
Economic capital – Agriculture								
Average people employed in agriculture	2005-2007	17.666		+		++		
Average number of farms	2005-2007	21.165		+		++		
Average farm size	2005-2007	30 ha		0		--		
Average economic farm size	2005-2007	21 ha		-		--		
% semi subsistence farming	2005-2007	40%		+		++		
Average utilized area for agriculture	2005-2007	246 000 ha		+		+		
% managers with training	/	26 (2005)		-		-		
Ageing of farm population (< 35/>55)	2005-2007	18%		-		+		
Holders other gainful activity	2005-2007	33%		0		++		
Economic capital – Tourism								
Number of bed places	2001-2008	7000 (2008)		--		--		

Source: IDEA Consult / ECORYS

* See footnotes Table 3.42

Social capital: infrastructure and Human capital: demography

- The accessibility of the EU27 rural regions is, compared with all EU27 regions, 15% lower.

- Population growth in rural regions is limited, and falls below the growth of population of urban and intermediate regions. This trend can partly be explained by a smaller natural growth of population in rural regions. *Birth rates in rural regions are lower than in more urbanized regions*, and the decline of death rate in rural regions is slower than in all EU27-regions. In terms of the contribution of net migration to population growth in different types of regions, there is no evidence since no data is available on net migration on a NUTS3-region level. Based on an analysis on available data at NUTS2-level it can be concluded that migration contributes to population growth in a positive way. Net migration is more positive in EU15 than in New Member States. Since 2000, a diverging trend can be observed between EU15 and New Member States where the net migration rate has increased in EU15 but decreased in New Member States.

- While *population density is relatively stable* in all types of EU27 regions, a wide spread is noticed in density figures between the different types of regions, with – not surprisingly- the lowest % for the rural regions (population density in rural areas is 21% of population density in other EU27 regions). Population density in rural regions is higher in EU15 compared to the New Member States (15% higher). There are small fluctuations over time in both groups of Member States.

- The population of rural regions is older and ageing: the share of people more than 65 years old increases in rural regions and exceeds the share in urban and intermediate regions (the share of older people is 3% higher in rural regions). As a consequence, the share of young people and people between 15 and 64 years old is lower in rural regions than the EU27-average (approximately 1% lower). A smaller share of economically active population is an important barrier for economic growth.

Table 3.45 Overview of the analysis for human capital – demography

Indicator	Period	Rural regions EU27		Rural EU27 vs. all EU27 regions		NMS rural regions vs. EU15 rural regions		
		Level (2007)	Evolution*	EU27=100	Evolution*	EU15=100	Evolution*	Evol post 2004*
Social capital - Infrastructure								
Accessibility	/			-				
Human capital - Demography								
Population growth	2000-2007							
Population density (inhabitants per km²)	1997-2007	90	0	--		-		
Birth rate	1996-2007	9.2%	-	0				
Death rate	1996-2007	11%	-	+				
Population at working age (% of population)	2002-2009	67%		0				
Share of young people (minus 15 years)	2002-2009	15%	-	0				
Share of older people (more than 65 years)	2002-2009	18%		+				
Share of women	2000-2009	50.8%		0				

Source: IDEA Consult / ECORYS

* See footnotes Table 3.42

ECORYS Study on Employment, Growth and Innovation in Rural Areas (SEGIRA)

4 Clustering of rural areas

4.1 Objective of clustering rural areas

The objective of the clustering exercise is to "*cluster rural areas based on the evolution of socio-economic indicators linked to employment and growth and the rural development policy targeting*".

The underlying aim is to find regions with similar attributes according to the development of socio-economic indicator picturing to employment and growth, in order to analyse their characteristics, and potentially to assist the work on the future of the EU rural development policy (EAFRD).

Based on the output of the analysis, a number of clusters of rural areas were developed and examined. For the developed clustering of rural area an assessment of trends and developments found within the clusters is described and furthermore the clusters have been mapped subject to the analysis. At the same time, the clustering has been enriched by incorporating the CAP expenditure data in the clustering approach followed by a detailed analysis of/between the clusters. In addition, a stand-alone analysis and mapping of CAP expenditure for the two latest programming periods was produced.

This chapter explains the methodology for developing a good clustering (section 4.2), it presents the clustering itself, the analysis of the territorial distribution of EU funding (section 4.4) and some conclusions (section 4.5).

4.2 Methodology for the clustering

4.2.1 Structuring and observing for the clustering

First of all an overview was made of all needed and available data. After that a data request was prepared for DG AGRI and other DGs. Next step was to identify which variables could be used for the cluster analysis

The variables used for the cluster analysis are diversified and cover all aspects within the topics of employment, innovation and growth. The variables can be classified in the following groups:

- Reference indicators
- General socio-economic situation
- Situation of agriculture
- Diversified and other gainful activities
- Importance of secondary and tertiary activities in agricultural supply chains
- Competition and/or cooperation between different sectors and actors
- Environmental conditions.

The requirement for the clustering exercise is that clustering should be based upon a sufficient number of indicators allowing for the differentiation of EU regions (NUTS3) along the research questions of this project (i.e. differentiating along employment and growth factors of regions) on the one hand. On the other hand the differentiation should be simple enough to meet the problem of data availability on this low territorial scale.

A first cursory look at the data bases available at NUTS3 level (EUROSTAT, EEA, etc.) has shown that there will be the need to think about methods which will allow for an estimation of data in those cases, where territorial information is only available at higher NUTS levels. To overcome some limited data gaps at NUTS3 level, NUTS2 data has been "downscaled"– keeping in mind that this method is only applied when crucial information is missing in the clustering exercise.

What has been done when insufficient data was available at NUTS3 level

The cluster analysis has been computed with data on a small scale level to guarantee also the comparability to the DG AGRI/DG REGIO classification of EU areas. In general, it can be argued that only an analysis based on indicators at NUTS3 level can bring good and sufficiently meaningful results. However, it cannot be ignored that sometimes data needed for a clustering exercise could not be available at NUTS3 level.

In principle, if the data required is not available on NUTS3 level for a certain variable, data on the next higher level [NUTS2] could be used in order to keep the set of variables diversified. In such a situation, for keeping the cluster analysis at the lower level (NUTS3), a downscaling of NUTS2 data to NUTS3 level would be needed.

All in all and taking into account a first assessment of the availability of data on NUTS3 level an indicative list of possible and relevant indicators to be used for setting up the clusters was compiled. Not all of those variables were available for every NUTS3 unit. Therefore, a small amount of values had to be estimated by down-scaling the corresponding NUTS2 values with linear regression calculations.

The cluster analysis

The cluster analysis is a statistical method that is used to identify regions with similar patterns in terms of employment and growth. By means of cluster analysis, the regions will be classified in several cluster-groups which on the one hand should be in itself as similar as possible (homogeneous) and which on the other hand should be as different as possible (heterogeneous) among each other.

Starting with employment and growth indicators for initial clusters, additional indicators, as e.g. presence and degree of development of basic infrastructure, social services, and other socio-economic indicators, degree of specialization of regions into agri-food industry and agriculture are used to elaborate a more focused picture of the different types of regions taking into account the overall goal of the study. Furthermore the various correlations and inter-linkages between the clustering indicators and the employment and growth trends are described.[90]

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90 Previous work carried out for the Commission such as the "Review of rural development instruments" (2009) and the "Synthesis of ex-ante evaluations of rural development programmes 2007-2013" (2008) was taken into account.

Correlation

In a first analytical step the correlation between indicators is calculated in order to depict the linkages between the clustering indicators, to avoid overlaps and to get an overall balanced picture. Furthermore the correlation analysis serves to show existing correlations and inter-linkages between the clustering indicators and the employment and growth trends.

Hierarchical algorithm to form groups (clusters)

As the clustering started from the point that no groups (clusters) of regions were given, a hierarchical algorithm was chosen.[91] It calculates as follows:

- First each element builds a separate cluster (finest partition – no object belongs to more than one cluster).

- The two clusters which are closest (according to the chosen distance) respectively which merging causes the lowest increase in intra-class variance get merged.

- The distance matrix gets modified respectively the intra-class variances get re-calculated.

- The algorithm can be (theoretically) continued until just one cluster remains.

- Clustering gets stopped either when the clusters are too far apart to be merged (distance criterion) or when there is a sufficiently small number of clusters (number criterion).

Figure 4.1   Hierarchical algorithm process of calculation
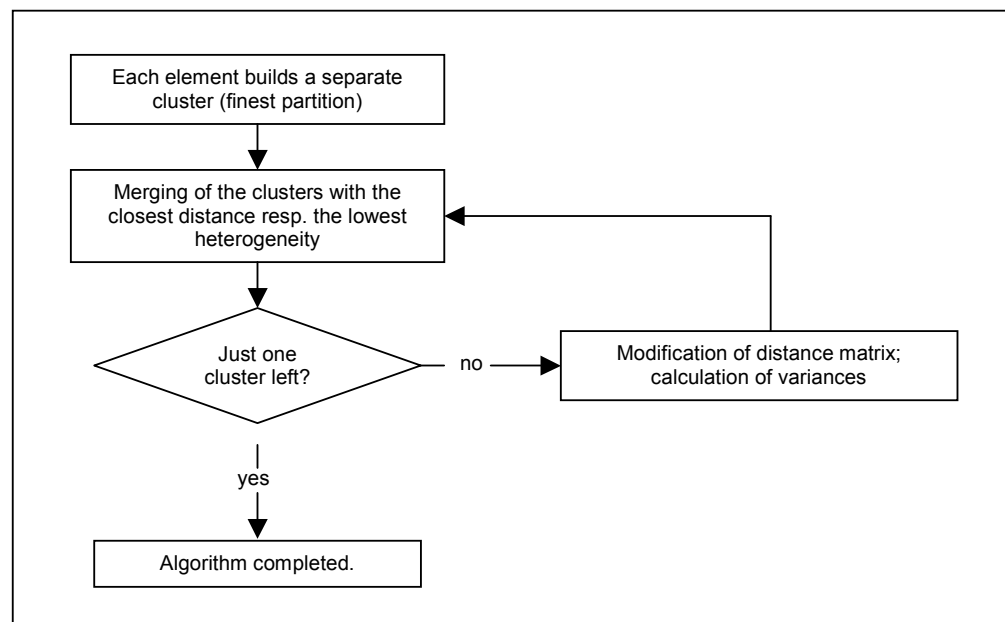
Source: ÖIR

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91   See Hans-Friedrich Eckey, Multivariate Statistik; unpublished script.

Ward's method to unify cluster groups

To get groups in clusters which are as homogeneous as possible, the Ward method was used. The aim of the Ward method is to unify groups in such way that the variation inside these groups does not increase too drastically.

When variance-oriented algorithms are used, the squared Euclidean distance must be used as distance function. Thereby the Euclidean distance – the "ordinary" distance between two points in the two-dimensional space – gets squared.

When the Ward linkage method is used for clustering, all variables have to be measured on a metric scale. All used variables meet this condition.

The clusters should be as homogeneous as possible, i.e. the variance within the clusters should be as small as possible. Using Ward's method two clusters get merged if the fusion causes the smallest increase of the variance within the clusters and for this reason causes a growth of heterogeneity within the clusters which is as small as possible.

Result: A clear clustering of rural areas

The results are a developed and examined set of clusters of rural areas for which various correlations and inter-linkages between the clustering indicators and the employment and growth trends are described.

The selection of indicators

The cluster analysis was computed with data on a small scale level (NUTS3). It also guarantees the comparability with the DG AGRI/DG REGIO classification. Data on NUTS3 is detailed enough to show differences between urban and rural areas but is on the other side large enough and the amount of units [approx. 1300] is still possible to handle.

The aim of this cluster analysis was to find regions with similar socio-economic indicators picturing employment and growth attributes. Therefore, the variables used for the cluster analysis had to be able to depict important aspects within the topics of employment and growth, taking into account the data availability issue. This means that the selection has been guided by finding appropriate indicators in the following groups:

- Reference indicators (i.e. classification of the topographic situation of the region)
- General socio-economic situation
- Situation of agriculture
- Diversified and other gainful activities of farmers
- Importance of secondary and tertiary activities.

It has to be noted that – as for every quantitative analysis – the quality of the result depends on the quality of the input data. This means, if the input data is only an average value for the whole unit, the cluster analysis cannot produce a result that differentiates within this unit. This leads to another problem, the so called "MAUP" [**M**odified **A**reas **U**nit **P**roblem] which describes the phenomenon that the quality of the result is depending on the spatial level of the input data. For the cluster analysis, this means that an area could be classified as urban on a very low level, but if this urban area would be

aggregated with its rural surroundings to form a higher level unit, this higher level unit could be classified as rural. In the cluster analysis the MAUP appears for example when comparing German and French NUTS3 units. The German NUTS3 units are on a lower level as the French - most of the German medium sized cities are independent NUTS3 units and their surroundings are different NUTS3 units. The French NUTS3 regions, on the other side, are larger and most medium size cities are aggregated to one unit with their surroundings. MAUP may not be solved as long as NUTS classifications are oriented to some extent upon administrational borders and are not only reflecting an entirely statistical approach. Furthermore, the hierarchic cluster analysis is a statistical method which classifies certain cases to certain clusters depending on input variables. Thus, the classification of individual cases has not been influenced manually.

Within the analysis, a dataset of variables was created which functioned as a basis to the cluster analysis. To cover all aspects listed above, additional variables have been added from various sources such as EUROSTAT, DG Agriculture and Rural Development or OECD as well as databases from prior studies carried out for the Commission such as "Teresa" (2009). The final dataset included the following 24 variables covering in a very balanced way all aspects of the study:

Table 4.1   Overview of variables used for the clustering exercise

Indicators	Type of information provided	Source	Year
New urban/intermediate/rural classification	Reference indicator	DG AGRI/DG REGIO	2010
GDP(in pps)/capita (EU-27=100)	Objective 1 – Economic Development	Eurostat	Avg '04-'06
Change in GDP(in pps)/capita (EU-27=100)	Change in Economic Development	Eurostat	Avg '98–'00 / Avg '04-'06
Unemployment rate (% active population)	Objective 3 – Unemployment	Eurostat	2007
Change in Unemployment (% active population)	Change in Unemployment	Eurostat	2000-2007
% managers with basic or full agricultural training	Objective 4 – Training and Education in Agriculture	Eurostat	2005
Employment of primary sector (=A_B), absolute figures	Objective 8 - Employment of Primary Sector	Eurostat	2006
Average annual growth rate of primary sector (=A_B) in %	Objective 8 – Employment Development of Primary Sector	Eurostat	2006
% holders with other gainful activity	Objective 27 – Farmers with Other Gainful Activity	Eurostat	2007
Total number of bed places	Objective 31 – Tourism Infrastructure in Rural Areas	Eurostat	2007
Change of total number of bed places	Change in Tourism Infrastructure in Rural Areas	Eurostat	2000-2007
% area by category of land cover natural	Context 7 – Land Cover	EEA	2000
% area by category of land cover artificial	Context 7 – Land Cover	EEA	2000
Inhabitants per km²	Population Density	Eurostat RS	2007
Change in Population Density	Reference indicator – dynamics	Eurostat RS	2006
Share of population 65+ on total population	Reference indicator – static	Eurostat RS	2007
Change on [Share of population 65+ on total population]	Reference indicator – dynamics	Eurostat	2001-2007
% GVA in Primary sector	Change in Structure of the Economy	Eurostat	2001-2007
% GVA in Secondary sector	Change in Structure of the Economy	Eurostat	2000-2006
% GVA in Tertiary sector	Change in Structure of the Economy	Eurostat	2000-2006
Change of Employment in Secondary sector in %	Change in Structure of Employment	Eurostat	2000-2006
Change of Employment in Tertiary sector in %	Change in Structure of Employment	Eurostat EA	2000-2006
% Employment in Secondary sector	Context 20 – Structure of Employment	Eurostat EA	2006
% Employment in Tertiary sector	Context 20 – Structure of Employment	Eurostat EA	2006
Total	**24 Indicators**		

Source: ÖIR

EEA = European Environmental Agency, RS = Regional Statistics, EA = Economic Accounts. Avg = Average

4.3 Cluster analysis 1 (24 variables)

Map 4.2 shows a good representation of the separation of urban and rural areas in the different clusters.

The results of the first clustering exercise at NUTS3 level for which 24 variables were used
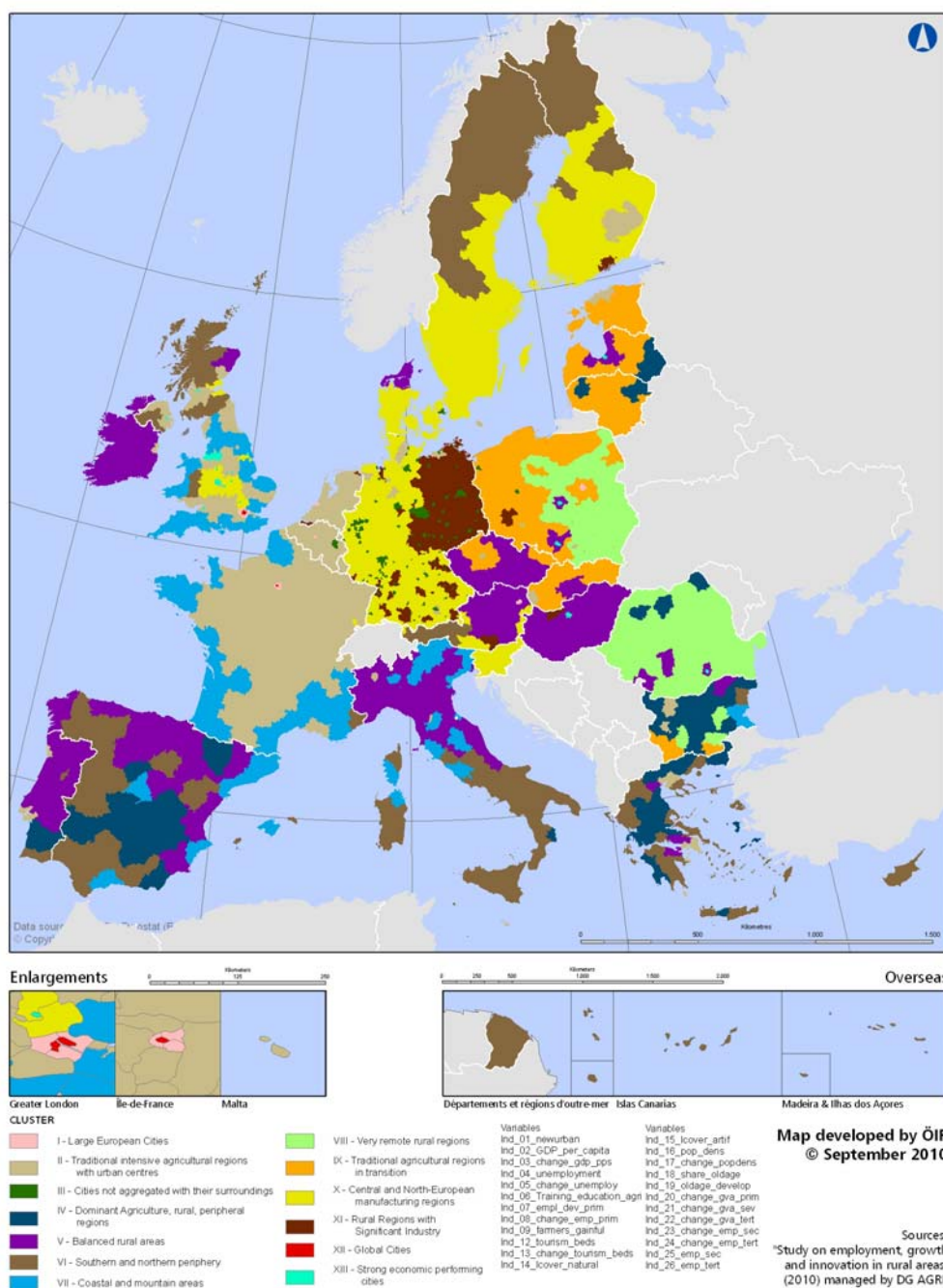
The mostly "rural" regions are to be found in clusters 4, 5, 6, 8, 9 and 11 (as depicted by the urban-rural classification in indicator 1 of the cluster analysis). As for the rural areas Map 4.2 provides a far better differentiation of the conditions of rural areas than "classical" approaches using only socio-economic indicators could provide. The typical

North-South, East-West divide of European regions, which normally characterizes many research studies is no longer the case. Instead, the approach shows a more differentiated picture of regions along their prevailing character in terms of economic sector-mix and employment conditions. For example, some topographic specifics become quite determining, although they were not specifically included in the clustering indicators. The Western EU coastal areas as well as mountain areas seem to show similar characteristics, as they are found within one cluster (no. 7). The urban regions are differentiated along their character mostly into four clusters (Cluster 1, 3, 12 and 13). What becomes clear as well is that European rural areas are quite heterogeneous and the "traditional", often rather simplistic, classification of "centre"/"periphery" or developed vs. regions lagging behind does not prove to be a "demarcation" result.

The 13 clusters can be characterised as:

Cluster 1 "Large European Cities"

The cluster categorises the largest European Cities such as Vienna, the suburban regions of London and Paris, Brussels and some British cities. It does not include the two "global cities" of Inner London and Inner Paris, which are located in cluster 12. All regions within this cluster have a very low share of employment in primary sector. A relatively high economic performance is achieved by all other sectors apart from agriculture, which shows low employment and contribution to GDP.

Cluster 2 "Traditional intensive agricultural regions with urban centres":

The cluster categorises regions in France, the Benelux countries and some parts of Greece, Bulgaria, the UK and Finland representing the "traditional" and strong agricultural regions. These are to a large extent (except for the few regions in Bulgaria and Greece) the regions with the highest economic farm size in the EU. However in France and the Benelux countries the traditional rural region always includes a traditional urban centre. Within this set of 13 clusters this cluster is one of the more heterogeneous ones (in terms of non-congruent variable performances over all regions in the cluster and vis-à-vis the EU average).

This is to be explained by the size of the cluster (second largest in the sample) and the heterogeneity of the cluster objects in them (due to the MAUP problem as described above).

The most homogeneous variable in this cluster is employment development in the agricultural sector, which is slightly above the EU average [-1.0 average in cluster 2 regions; -2.1 average within all EU regions[92]] – pointing at a stable agricultural basis in these regions. However the pressure from settlements and competition for land is increasing as population density has increased well above the EU average [+13.7% average in cluster 2 regions, compared to +5.2% average in EU regions].

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92 N.B.: The value is the average calculated over the development values of all EU NUTS3 regions. It is not the average development of the EU. This is the case for all "average" values within this Session.

Cluster 3 "Cities not aggregated with their surroundings"

This cluster comprises mostly German cities of all sizes that form separate NUTS3 units and are not aggregated with their agriculturally dominated surroundings.

As described, Cluster 2 categorised traditional agricultural regions with a traditional urban centre, which means that centre and surroundings form one unit [most of the regions in France, northern Italy, Finland and the Benelux]. The urban centres of this cluster are not aggregated with their surroundings but form a separate unit and are therefore categorised in this cluster [most of them in Germany, and additionally two Polish cities and Liege]. They all have a very low share of employment in primary sector [on average only 700 employees in primary sector per region whereas EU average is 11512]. As in cluster 1 the economic performance is relatively high, although GDP has declined above the EU average over the last years [-8.1% "average" in Cluster 3 region, -1.8% "average" in all NUTS regions[92]].

Cluster 4 "Dominant Agriculture, rural, peripheral regions"

This cluster categorises rural, agriculturally dominated regions with special challenges due to their peripheral exposure in the South and North of Europe [Spain, Portugal, Greece, Danube-Bulgaria, Bulgarian mountains, and some Baltic regions]. They all have a very stable agricultural sector (as expressed by the change of employment in the primary sector [only -0.9% as compared to the EU average of -2.2% annual change rate]) at a comparably high level in common. However the change of GVA from the primary sector 2000 – 2006 has on average been very large (-6.7% vs. 1.3% on EU average). They show a very low economic performance and relatively high unemployment rates. The secondary and tertiary sectors are undeveloped and are only slowly catching up. In terms of education and training these regions show a significantly lower level (8.7%) of managers with basic or full agricultural training than the EU average (42.4%).

Cluster 5: "Balanced rural areas"

The cluster comprises regions in Spain, Northern Italy [the economically better performing Italian regions], Central Europe [Austria, Czech Republic and Hungary] North Western Europe [Ireland and parts of Scotland]. Some parts of Denmark and the Baltics as well as Romania, Bulgaria and Greece are also part of this cluster.

In their character these regions are predominantly rural (with a mean value of 2.3 on a scale between 1 "completely urban" and 3 "completely rural") with low population density [149 inhabitants/km² on "average"[92] within cluster 5 regions, 465 on "average within all regions] and low artificial surface ["average" of 4.9% of total area within cluster 5 regions, 12.5% within all regions[92]]. The socio-economic situation may be characterized by a stable sectoral split up [primary sector – with an "average"[92] of 18100 employees per regions above the total "average" of 11512; secondary – with an "average" share of 33% of the total employees – and tertiary sectors – with an "average" share of 57.3% – relatively well developed) as well as a relatively high proportion of tourism [the "average" for cluster 5 regions is 22423 tourist beds per region, the total "average" within the EU is 20985beds per region[92]]. All in all the cluster regions show average economic performance [Within the GDP ranking, the cluster 5 "average"[92] lies at almost 90 points, with 94 points being the average of all EU regions].

Cluster 6: "Southern and Northern periphery"

This cluster covers regions in the Southern and Northern periphery – i.e. parts of Spain, Southern Italy [Mezzogiorno] parts of Greece, Scotland, Sweden, Bulgaria and Finland as well as the Austrian Alps.

The regions show climatic and topographic specifics (Northern periphery and Alps) as well as climatic specifics extreme South and North, and Alpine Climate.

The regions here are mostly rural areas (with a mean value of 2.5 on a scale between 1 "completely urban" and 3 "completely rural") with low population density [the "average"[92] is 117 inhabitants/km² for the cluster 6 regions whereas the "average" over all regions is 465pop/km²]. In terms of socio-economic conditions they show below average economic performance [GDP Index of "average"[92] 81 points where the average is 94 points] with relatively stable split up of sectors [change rate of the percentage of employees working in the secondary sector is +0.3% on "average"[92] within cluster 6 regions, for the tertiary it is +3.8%]. Another attribute of this cluster is the highly developed tourism – expressed by a strong tertiary sector [on "average"[92] 67% of the employees are working within the tertiary sector in cluster 6 regions]. In agriculture the relatively low skilled farmers are to be mentioned [only 12.8 % of the cluster 6 agricultural-mangers have basic or full agricultural training whereas the "average"[92] within all EU regions is at 42.4%].

Cluster 7: "Western coastal and mountain areas":

This cluster comprises coastal regions in Spain, France, Italy, Bulgaria and Great Britain as well as parts of the Alpine arc, the Pyrenees and Apennines The common character for all these regions is obviously their topographic conditions either by the sea or in mountain areas.

They show one significant common characteristic, which is tourism – i.e. outstanding tourism infrastructure and high increase rates [number of tourist beds in cluster 7 region is on "average"[92] 120750 whereas the total "average" of all EU regions is at 20985 beds per region]. This leads to a strong role of the tertiary sector. Agriculture plays an average role with no significant sign of switches from the primary to the tertiary sector [share of employees in tertiary sector has- on "average"[92] – a growth rate of 2.3%]. However the pressure on land increases with significant increases of population density that has risen by 16.7% on "average"[92] within cluster 7 regions.

Cluster 8: "Very remote rural regions"

This cluster categorises very remote rural areas at the eastern boarder of the European Union. It comprises regions in Eastern Poland and almost whole of Romania and some parts of Bulgaria.

Due to their exposure and their economic situation [very low economic performance with 32.9 points the lowest "average"[92] index-value of all clusters – however relatively high GDP growth rates of +4.8%] which is very depending on agriculture [cluster 8 has an average of 68000 employees in the primary sector per region, the EU average is 11512 per region], those are the regions facing most challenges. Another common element is the low skilled agricultural actors [only 19.6 % of the cluster 8 agricultural-mangers have

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basic or full agricultural training whereas the "average"[92] within all EU regions is at 42.4%]. There is a high shift from primary to other sectors to be observed [where the share of people employed in primary sector declined for -10% on "average"[92]] – especially towards the tertiary sector or moving out of the regions. Another attribute is their underdeveloped tourism with only 6541 tourism beds per cluster 8 region.

Cluster 9: "Traditional agricultural regions in transition"

The cluster categorises traditionally agricultural regions in West-Poland, the Baltics, some Southern regions in Bulgaria, and parts of the Czech Republic and Slovakia. They are intermediate regions also including some cities.

Their character could be described by a high growth level in terms of economic growth [on "average"[92] +4.6% within the cluster 9 regions]– however starting from a comparably low level [on "average"[92] only 45 points in the GDP index]. They show a relatively high share of agriculture [cluster 9 has an average of 20000 employees in the primary sector per region, the EU average is 11512 per region] with equally high share of people moving out of agriculture [change rate of the percentage of employees working in the primary sector is -8.1% on "average"[92] within cluster 9 regions, average is -2.1%]. These people are moving into the both, tertiary and secondary sectors. Cluster 9 shows underdeveloped tourism [only 11167 tourism beds per cluster 9 region on "average"[92]] with even shrinking importance. After all, these regions could be characterized as "shrinking" regions with loss of population. The level of managers with basic or full agricultural training in these regions is slightly below the EU average (34% as compared to 42.4% on EU average), but still much better than the one in the previous clusters.

Cluster 10: "Central and North-European manufacturing regions":

This cluster comprises Western Germany (except cities), Southern Scandinavia and Central England as well as Slovenia and parts of Austria.

They are mostly intermediate regions with urban elements. The socio-economic situation shows an average economic performance [on "average"[92] 100.3 points for cluster 10 regions in the GDP index where 94 is the EU average]. The regions are furthermore characterized by relatively low shares of agriculture in employment [cluster 10 has an average of 3700 employees in the primary sector per region, the EU average is 11512 per region] and economic performance. However the agricultural workforce is highly skilled [where 59.5% of the cluster 10 agricultural-mangers have basic or full agricultural training whereas the "average"[92] within all EU regions is at 42.4%]. The areas contain a strong tertiary and secondary sector with relatively high growth rates[growth rate of the tertiary sector in cluster 10 regions on "average"[92] +3.6%] leading to the title of this cluster. This is however not achieved at the expense of agriculture. Still there is probably an increasing pressure on land due to shift in economic activity (as expressed by a rather low share of natural land cover [2.9% as compared to 9.4% EU average], which will allow only for limited substitution and thus increasing the pressure on agricultural land).

Cluster 11: "Rural Regions with significant Industry"

The cluster categorises traditional Industrial regions in east-middle Europe [Eastern Germany without the cities], which are peripheral regions facing transition.

Overall, the cluster shows a below average economic performance [on "average"[92] 86.7 points for cluster 11 regions in the GDP index where 94 is the EU average]. The German East-West divide with relatively slow but steady development is depicted accurately; mostly this development is accounted by industry and services ["average"[92].development of GDP in cluster 11 regions is +2.3%]. Still the regions show a relatively high unemployment rate ["average"[92] unemployment rate of 13.4% whereas the "average"[92] of all regions is at 7.7%]. The agricultural sector is at a comparably low level [cluster 11 has an average of 2300 employees in the primary sector per region, the EU average is 11512 per region] and still shrinking [on "average"[92] -3.1% for cluster 11 regions]. On the other side, the few farmers are well trained [71 % of the cluster 10 agricultural-mangers have basic or full agricultural training whereas the "average"[92] within all EU regions is at 42.4%] – leading to relatively high share of other gainful activities on farms [44.1% of cluster 11 farms whereas only 38.8% on "average"[92] of all farms within the EU]. However this is definitely not tourism, as this sector is rather underdeveloped [only 7000 tourism beds per cluster 11 region on "average"[92]]. As for the population development these regions are clearly signified as "shrinking" regions [population density shrinking by -7.1% on "average"[92]] within Germany (showing a more negative migratory balance than the rest of Germany).

Cluster 12: "Global Cities"

This cluster categorises the two largest EU-cities London and Paris. They are of high importance in global business and therefore entitled as "global cities".

Their character is clearly determined by their economic performance [on "average"[92] 361.3 points for cluster 12 regions in the GDP index where 94 is the EU average] and the dominance of the tertiary sector [with a share of 88.3% of the employees working in the tertiary sector on "average"[92]]. An unemployment rate ["average"[92] unemployment rate of 8.2% whereas the "average"[92] of all regions is at 7.7%] that is slightly above average and high population density [on "average"[92] 13218 inhabitants/km²] characterize the two cities. It has to be noted however that the last two years of the economic crisis have hit these regions the most.

Cluster 13: "Strong economic performing cities"

This cluster comprises most of the British cities and some Eastern European ones [e.g. Riga, Budapest].

This cluster is characterized by an above average economic performance [on "average"[92] 110.6 points for cluster 12 regions in the GDP index where 94 is the EU average] and growth rates [+3.6% on "average"[92]]. The employment situation is exactly average ["average"[92] unemployment rate of 7.7%] and even improving compared to the rest of Europe [inclining by 1.1% on "average"[92]]. Agriculture does not play a role [on "average"[92] 98.7% of the employees working in non agricultural business]. Instead wealth is created through manufacturing and services.

4.4 Cluster analysis 2 (27 variables)

As described above the starting point for data collection has been a balanced set of indicators representing the full variety of aspects as called forward by the scope of the study:

"The study will develop a clustering of rural areas based on the evolution of a number of socio-economic indicators linked to employment and growth. Special attention will be paid to the identification of rural areas where agricultural development is under pressure, such as areas with a mountain character, those affected by some degree of remoteness to the food-chain, consumers and labour markets, and those with environmental constraints."

Together with a data set provided by the analysis the information has been enlarged to arrive at a more balanced and wider picture of EU regions as basis for clustering. The starting point has been the 24 indicators as outlined above. These indicators have been used as basis for a first clustering of all EU NUTS3 regions. This first clustering served as basis for selecting the case studies.

4.4.1 Analysis: the final results

This section shows the results of the clustering approach as described above with the information available on employment and growth. The results of the clustering process are displayed in Map 4.3.

This analysis was conducted on the basis of the information included and computed in the clustering[93]. It covers both the situations within the clusters (by specifying the character of the single cluster and which indicators contributed most to the homogeneity the single cluster) and the differences between the clusters (by pointing out the character of the single clusters thus establishing an inherent comparison between the clusters).

It has to be noted that by clustering elements were grouped according to their average similarity with each other – i.e. the traits of the elements determine in which cluster the single element ends up. Specific characters are more determining than others and these characteristics are pointed out when describing the single clusters. Clusters are therefore depicting groups of NUTS3 with a maximum of similarities in the criteria applied – however some of these criteria are more determining for the grouping and clustering than others.

The variables which determined this clustering approach most were;

- Employment in primary sector
- Population density and change in population density
- Natural and artificial land cover.

This does not come as a surprise as most of these are indicators which are territorially based and therefore determine the clustering of NUTS3 regions most.

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93 No additional indicators from those 24 displayed in table 3.1 were considered.
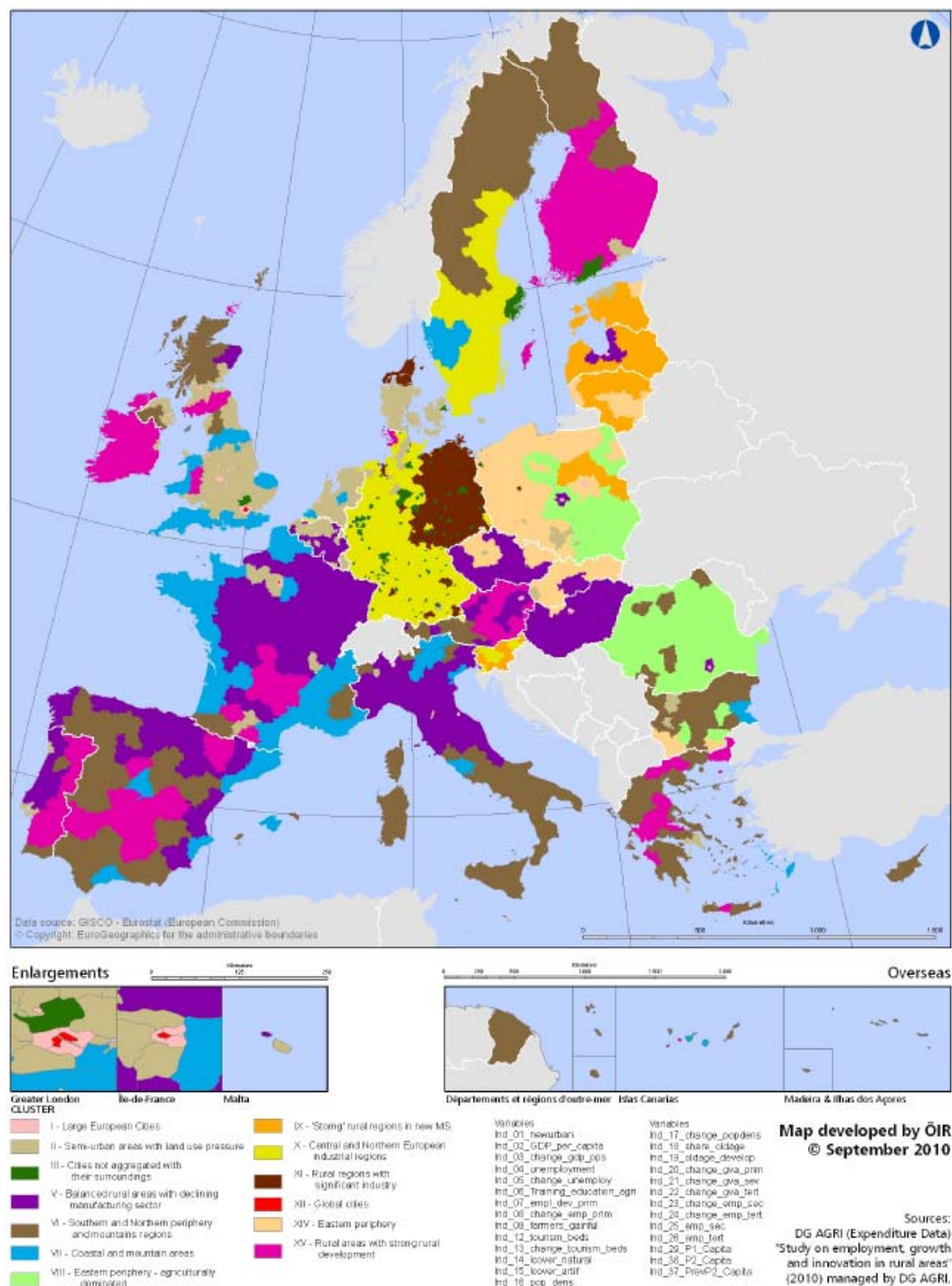
4.4.2   Clustering of EU NUTS3 regions including CAP expenditure data

After this first clustering exercise a thorough discussion with the Steering group has lead to requests for enlarging the scope of the clustering by adding the policy expenditure data for the CAP, on the one hand, and for conducting a robustness analysis by eliminating the most determining variables from the clustering, on the other hand.

The expenditure data has been included in the clustering with the rationale that if support measures are included in the differentiation of the regions, their character in terms of support by agricultural policy (both Pillar 1 and Pillar 2 of the CAP) will give a more precise categorisation of rural areas.

For the purpose of improving the clustering three additional indicators have been included to the existing 24 variables already described above. These covered:

- Pillar 1 expenditure per economic farm size as average per year (2004 – 2008).

- Pillar 2/EAGGF and TRDI expenditure per capita as average per year (2000 – 2009) [related to the programming period 2000 – 2006].

- Pillar 2/EAFRD (rural development) expenditure per capita as average per year (2007 – 2009).

The reason for this comparably low number of additional variables was to avoid unnecessary inherent weights on the indicators. This means that the more indicators of a certain type (e.g. funding data) are included, the more emphasis will be put on this aspect and the more the clustering will reflect this aspect. In order to stick to the research question – depicting the regional situation of employment, growth and innovation in rural areas and a possible interference of CAP expenditures in these fields, the relative weight of 1/9 of the variables connected to funding/policy support seemed appropriate keeping in mind that all the other aspects/objectives of the analysis are roughly equally weighted as well. In other words by adding three additional indicators depicting the support by the policy there was not interference with the equal weighting of all the aspects of the analysis.

The same open approach has been applied for the clustering – i.e. the number of clusters has not been manually fixed from the outset, but the clustering results were tested for the best balance of homogeneity of the single clusters and an equal distribution of the elements among the clusters. It did not come as surprise, that again a number of 13 clusters offered the best results.

The result of this clustering exercise is depicted below. The CAP expenditure has increased the stability of the clusters as the newly introduced variables are to be considered as variables, which have determined the homogeneity of clusters and have to be treated as reference indicators, rather than structural variables.

What becomes apparent – comparing the results of the clustering with 24 variables and this one, is the overall similarity of the split up of clusters (except for some differentiations in France and Italy). So, a first conclusion is that apparently the CAP funding did not change significantly the character of the single clusters. This might be interpreted as a good sign implying that appropriate policy answers to specific needs of the different types of regions have been adopted. But at the same time, it might be interpreted in a negative way in the sense that policy has no "creative" power to change the character of regions significantly.

Once more the urban – rural divide become quite clear. The national character of regions is only quite visible for Germany and Ireland apart from that all EU countries show a remarkable regional differentiation.

The 13 clusters can now be characterised as:

Cluster 1: "Large European Cities"

The cluster categorises the largest European Cities such as Vienna, the suburban regions of London and Paris, Brussels and some British cities. It does not include the two "global cities" of Inner London and Inner Paris, which are in cluster 12. All regions within this cluster have a very low share of employment in primary sector. A relatively high economic performance is achieved by all other sectors apart from agriculture, which shows low employment and contribution to GDP. Overall they are the economic "growth poles" of Europe (together with the other urban regions) with a highly above GDP growth rate.

Cluster 2: "Semi-urban areas with land use pressure"

The cluster comprises large parts of the Benelux countries and Great Britain, and a limited number of regions in France, Greece and Bulgaria. The regions are characterized by their predominant urban character (in terms of population density) with comparably high economic performance. One significant character is the increase of population in recent years signifying an increase of the pressure on land use – at the expense of agricultural land. This tendency is also underlined by the above average increase of the tertiary sector in these regions. The CAP expenditure in these regions is comparably low (in the sense of amounts of funding – i.e. 384.2 € per UAA as compared to 751.3 € per UAA on EU average for Pillar 1 and 3.6 €/0.3 €[94] per capita as compared to 14.2 €/2.7 € on EU average for Pillar 2).

Cluster 3: "Cities not aggregated with their surroundings"

This cluster comprises mostly German cities of all sizes that form separate NUTS3 units and are not aggregated with their agriculturally dominated surroundings [most of them in Germany; additionally: cities in Denmark, Sweden, Finland and Great Britain].

They all have a very low share of employment in primary sector. As in cluster 1, the economic performance is relatively high, although GDP has declined above the EU average. However, these regions are facing a "shrinking" population development that could be linked to de-urbanisation.

In accordance with these findings the CAP expenditure did not concentrate a demand in these regions [both for Pillar 1 and Pillar 2 in the sense of a low funding – 65 thousand € per ESU for Pillar 1 compared to 1.8 mio € per ESU on EU average; and 2.2 €/0.2 € per capita for Pillar 2 vs. 14.2 €/2.7 € on EU average].

Cluster 5: "Balanced rural areas with declining manufacturing sector"

This cluster is derived from the cluster "balanced rural areas" of the former clustering exercise. However the character "balanced" has to be reconsidered in terms of the trends of the performance of the secondary sector.

The cluster is consisting of predominantly rural areas (low population density and low artificial surface) in France and Northern Italy [the economically better performing Italian

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94   The two figures refer to payments in the Programming periods 2000-2006 resp. 2007-2013. For the current programming period 2007-2013, the data only reflects the start of the period as the study was performed in 2010.

regions], as well as Spain and Portugal. Central Europe [parts of Austria, Hungary and the Czech Republic as well as Slovakia].

It showed an average economic performance with a stable split up of the three economic sectors. However in the last years the regions were confronted with significant economic decline. Especially the secondary sector showed decline - in terms of performance, however, not employment - with the rest of the economic sectors staying stable. The tourism sector is better performing than the EU average. In terms of support the regions show an average EU funding expenditure for Rural Development (10.8 €/3.4 € per capita as compared to 14.2 €/2.7 € on EU average for Pillar 2) with only Pillar 1 funding spent above the EU average (2.7 mio € per ESU as compared to 1.8 mio € per ESU on EU average).

Cluster 6: "Southern and Northern periphery and Mountains"

This cluster covers regions in the Southern and Northern EU periphery – i.e. parts of Spain, Southern Italy [Mezzogiorno] parts of Greece, Scotland, Sweden and Finland as well as the Austrian Alps.

The regions show climatic and topographic specifics (Northern periphery and Alps) as well as climatic specifics extreme South and North, and Alpine Climate.

They are all rural areas with low population density. In terms of socio-economic conditions they show below average economic performance with relatively stable split up of sectors. The unemployment rates decreased significantly compared to the EU average. Another attribute of this cluster is the highly developed tourism – expressed by a strong tertiary sector. In agriculture the relatively low skilled farmers are to be mentioned. In terms of policy support the CAP Pillar 1 expenditure showed more than twice higher performance compared to the average one (3.9 mio € per ESU as compared to 1.8 mio € per ESU on EU average), while the Rural Development expenditure stayed close to the EU average (16.5 €/1.7 € per capita as compared to 14.2 €/2.7 € on EU average).

Cluster 7: "Western coastal and mountain areas"

This cluster comprises coastal regions in Spain, France, Italy Bulgaria and Great Britain as well as parts of the Alpine arc, and the Pyrenees. The common character for all these regions is obviously their topographic conditions either by the sea or in mountain areas. Although the structural character of the regions points at an overall rural character (natural land cover and population density), the regions include quite some urban agglomerations.

They show one significant common characteristic, which is tourism – i.e. outstanding tourism infrastructure and high increase rates. This leads to a strong role of the tertiary sector. Agriculture plays an average role with no significant sign of switches from the primary to the tertiary sector. However the pressure on land increases with significant increases of population density.

The support from the CAP is 2 116 454.5 € per ESU as compared to 1 843 070.5 € per ESU on EU average for Pillar 1. The support from CAP for Pillar 2 is very low for both funding periods (5.9 €/0.6 € per capita as compared to 14.2 €/2.7 € on EU average).

Cluster 8: "Eastern periphery – agriculturally dominated"

This cluster categorises very remote rural areas at the eastern boarder of the European Union. It comprises regions in Poland, Romania and some parts of Bulgaria.

Due to their exposure and their economic situation [very low economic performance in the lowest third of the EU regions – however relatively high growth rates] which is very depending on agriculture, those are the regions facing most challenges. Another common element is the low skilled agricultural actors. There is a high shift from primary to other sectors to be observed – especially towards the tertiary sector or moving out of the regions. Another attribute is their underdeveloped tourism. Due to these unfavourable conditions these are the regions with the comparably highest share of outmigration in Europe leading to a considerable brain drain.

For these regions it would have been especially interesting to see the intensity of CAP expenditure [Pillar 1]; however these are exactly the regions, where the change of NUTS3 delimitations has caused the rapture of expenditure data, so that no clear attribution of funding to the respective NUTS3 regions over time has been possible. As for the Pillar 2 expenditure the regions have attracted below the average funding for the ongoing period (0.4 € per capita as compared to 2.7 € on EU average) and an average funding for the previous programming period [14.2 € per capita as compared to 14.2 € on EU average].

Cluster 9: "Strong" rural regions in new Member States

This cluster is the Eastern European equivalent to Cluster 15, discussed a bit further: it is a new differentiation of Eastern European regions as a result of the taking into account of the EU agricultural policy support.[95]

It covers large parts of the Baltic countries, parts of Eastern Poland and parts of Slovenia. The common features of these regions are a low economic performance with comparably large growth rates in the last years. Agriculture plays a decreasing role, however, starting from a comparably high level. On the other hand, especially the secondary sector shows a growing trend. The tertiary sector, including tourism, does not yet account significantly to the regional economic performance.

The similarity to cluster 15 is to be seen when analysing the contributions of CAP support to these regions: CAP Pillar 2 funding is above the EU average [in the previous programming period more than 3 times higher – 43.8 € per capita as compared to 14.2 € on EU average)]. Rural Development funding therefore played quite an important role in these regions. In the future, it would be worthwhile to take a closer look at this cluster (respectively regions belonging to it) to see whether this support have remained so high and stable, and whether it has helped them sufficiently to achieve a sustainable, balanced rural development.

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95 It comprises parts of cluster 9 from the first clustering exercise (24 variables).

Cluster 10: "Central and North European industrial (manufacturing) regions"

This cluster comprises Western Germany (except the cities), Southern Sweden and parts of Slovenia.

They are intermediate regions with urban elements. The socio-economic situation shows an average economic performance. The regions are furthermore characterized by relatively low shares of agriculture in employment and economic performance. However the agricultural workforce is highly skilled. The areas share a strong tertiary and secondary sector with relatively high growth rates. This is however not achieved at the expense of agriculture. Still there is probably an increasing pressure on land due to shift in economic activity. Farmers try to respond to these trends by diversifying their income [above average share of other gainful activities by farmers].

The CAP support in this cluster is for all Pillars and funding periods below the EU average. The expenditures for Pillar 1 were equal to 507 934 € per ESU (average in the EU is 1 843 070 € per ESU). For Pillar 2 expenditures were 10 € per capita while the EU average is equal to 14.2 € per capita. In the previous period Pillar 2 expenditures were equal to 1.5 € per capita while the EU average was then 2.7 € per capita.

Cluster 11: "Rural Regions with significant Industry"

The cluster covers intermediate regions in Germany with the bulk located in Eastern Germany and the Northern part of Denmark.

Overall, the cluster shows a below the EU average economic performance. The German East-West divide with relatively slow but steady development is depicted accurately; mostly this development is accounted for by industry and services. Still the regions show a relatively high unemployment rate. There are stable conditions for agriculture at a comparably low level [in terms of employment]. This may be explained by a good proportion of well trained farmers – leading to relatively high share of other gainful activities on farms. However this is definitely not tourism, as this sector is rather underdeveloped. All in all they are "shrinking" regions in terms of population, and as a result there could be observed an accelerated ageing of the population.

As to be expected the amount of agricultural policy support – from Pillar 2 has been above the EU average (22.2 € per capita as compared to 14.2 € per capita on EU average for the previous Programming Period). However Pillar 1 support (196970 € per ESU as compared to 1 843 070.5 € per ESU on EU average) as well as Pillar 2 support in the ongoing programming is much lower than the EU average (1.4 € per capita as compared to 2.7 € on EU average).

Cluster 12: "Global Cities"

This cluster categorises the two largest EU-cities London and Paris, which are of high importance in the global business.

Their character is clearly determined by their economic performance and the dominance of the tertiary sector. Low unemployment and high population density with high growth rates characterize the two cities. It has to be noted, however, that the last two years of the economic crisis have hit these regions the most.

It does not come as a surprise that in these regions rural development funding did not have a large share (6.7 €0.3 €per capita as compared to 14.2 €2.7 €on EU average), keeping also in mind that part of the EAFRD supports is directed only towards rural areas, which excludes these cities per se. It is quite remarkable however that Pillar 1 expenditure did show some significance, which is due to the headquarter functions of these regions and the direct payments flowing to these companies stemming from agricultural market measures (e.g. export refunds).

Cluster 14: "Eastern periphery – industrialized"

The cluster categorises regions in West-Poland, in the Czech Republic and Slovakia, as well as in Bulgaria. It is similar to cluster 1 from the 1st clustering exercise (24 variables).

These are mostly intermediate regions also including some cities. Their character could be described by a high growth level in terms of economic growth and a tremendous decrease in unemployment rates compared to the EU average – however starting from a comparably low level. They show a relatively high share of agriculture with equally high share of people moving out of agriculture, mainly into the secondary sector. They clearly have build up industrial and manufacturing importance in the recent years. Cluster 14 shows underdeveloped tourism with even declining importance. After all, these regions could be characterized as "shrinking" regions with loss of population.

In terms of EU agricultural policy support the same problem as for Cluster 8 arises (change of delimitation of NUTS3 regions in Poland). However as for the Pillar 2 expenditures the regions have generated significantly more support than the EU average (17.2 €7.9 €per capita as compared to 14.2 €2.7 €on EU average). The latter shows an extreme absorption potential in the beginning of the current programming period (almost three times higher than the average).

Cluster 15: "Rural areas with strong rural development"

Unlike some of the clusters described above this cluster has turned out to be genuinely new.[96] Geographically it comprises an – at first sight – heterogeneous set of regions ranging from Eastern Portugal, Central Spain and Central France over Ireland, parts of Scotland and large parts of Finland to reach Austria and Greece.

They are overall rural areas with an average economic performance (average GDP per capita and employment situation). The general trend of sectoral shift from agriculture to other economic sectors is observable, however, not to such an extent as in other EU regions. This means that farming/forestry still plays an important role in these regions, although a slight decrease is already notable [as expressed in a below average share of primary sector's share in regional GVA]. However, farmers are comparably well trained.

The special conditions of these regions is best depicted by their share of CAP funding, which is above average for Pillar 1 support [about 3 times of the EU average], but has been significantly higher for Rural Development as well (63.6 €5.3 € per capita as compared to 14.2 €2.7 € on EU average). It might be concluded, that the stable conditions with respect to rural development have been triggered by this CAP support.

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96 It comprises regions that in the first clustering exercise (24 variables) were part of clusters 4, 5, and to certain extent of clusters 2 and 10.

Notes concerning the quality of data

To perform the task related to the enlargement of the clustering by adding the CAP expenditure data, data from DG Agriculture and Rural Development has been obtained, on the basis of the territorial distribution of funds at the time of inclusion of the data into the data base. The latter remark is important due to the fact that the linking of data to the corresponding NUTS3 regions over the full period (i.e. from 2000 – 2009) has not been possible in all the cases. Due to changes of NUTS3 region delimitations within this period (e.g. in Poland, Denmark, Romania, Bulgaria) the attribution of data to the corresponding territorial unit has not been possible. In due course this has also lead to biases in the cluster variables. In order to compute the data it has been necessary to fill all cells of the performance matrix with corresponding variable values. In those regions, which have changed their borders within the period this value had to be set 0, which does not correspond to the real funding in these regions and has decreased the overall average of the regional funding figures. This is certainly a second best approach, but estimation for all NUTS3 regions, correcting the funding data to the new territorial borders would have been even more biased.

Robustness and sensitivity analysis

In a final step of the clustering exercise, the robustness and sensitivity of the first two clustering approaches has been tested, by a third clustering analysis. The structural and reference indicators (such as land cover and population density) were deliberately omitted from the calculation. The idea behind this approach was to test whether only the socio-economic situation of the regions could be determining the clustering and to see also what was the influence of the omitted variables on the outcomes of the clustering in general.

The results of this test confirmed quite a number of the results from the previous ones – i.e. in principle more than half of the clusters showed good similarity with the previous two calculations. When looking at the statistical robustness of the new clusters it has to be noted that the overall homogeneity of the clusters has declined. There were hardly any variables "gluing" the single clusters together, so that the deviations within the clusters and variables were sometimes rather large. Still the exercise is worthwhile even though some members of certain clusters seem rather erratic. The overall split up of regions within Europe seems to be robust and depict the underlying socio-economic conditions.

Excursus: the question of ageing and "shrinking" regions within the clustering analysis

The regional analysis has focused on straight indicators depicting growth and employment in rural areas (see also see clustering and thematic analysis and the thematic maps above). However the European Commission regards demographic changes and populationally "shrinking" regions as one of the big challenges for Europe in the future (see e.g. the EU 2020 strategy):

"Demographic ageing is accelerating. As the baby-boom generation retires, the EU's active population will start to shrink as from 2013/2014. The number of people aged over 60 is now increasing twice as fast as it did before 2007 – by about two million every year compared to one million previously. The combination of a smaller working population

and a higher share of retired people will place additional strains on our welfare systems."[97]

The process of demographic change to a large extent is determined for the next decades and for many regions. The population stock has a distinctive 'inertia', its speed is determined by the interval of generations (about thirty years) and the average length of a human life time (about seventy-five to eighty years). Basic determinant of the demographic change is the level of fertility. If it has to be used as a regulator for pro-natalistic policies it has to be considered the long run character of such strategies. Only after one generation a significant effect of the growing number of births on the population stock could be expected.

More rapid, flexible and influenceable 'components of change' are the migratory flows, which cause a redistribution of the population. Migration affects both the population dynamics and the ageing process rather immediately. Redistribution of population by migration initiates opposing processes in the regions of origin and the regions of destination. Regions with net migration gains force up their population dynamics, and prevent the ageing process. In regions with net migration loss the ageing is accelerated, which diminishes population growth, respectively intensifies the population decline.

This means that when depicting the situation of rural areas it is not only the problem of an ageing population which strikes, but its combination with the depopulation of the regions (migration). This is therefore of special interest when analysing the socio-economic situation in rural areas. The potential of growth, employment and innovation in rural areas is depending strongly on their capacity to attract young people and to "keep" them there, and to sustain a balanced population development and work force. However, analysis of rural areas will show, that although the age composition in some rural areas is still quite favourable (in terms of balance between active and supported population) the migratory flows out of these regions lead to substantial problems in the future.

Map 4.4 and Map 4.5 clarify these statements. Map 4.4 illustrates the share of people aged 65+ in the EU in 2007 (NUTS3 level). It draws a picture of an ageing population in the southern parts of Europe, especially in Portugal, Spain, Northern Italy and Greece as well as in some parts of Eastern Germany. This demographic transition in terms of an increasing share of pensioners in total population entails high financial burdens on the government finances. The work force as potential taxpayers has to support the costs the social support systems have (pensions, health and elderly care) for a rising number of retirees.

Map 4.4 also depicts those regions, which can be considered as being inhabited by a comparably young population. Ireland, Northern Ireland, Poland, Slovakia and Cyprus stick out as those countries, with a very low share of people in retirement age, closely followed by great parts of the Netherlands, Czech Republic, Romania, southern Spain and north-central France. In most of the cases these are peripheral to the EU regions.

Map 4.5 shows the change of 65+ population in the period 2001-2007. Map 4.6 shows the components of population development.

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97 See EU Commission (2010): EUROPE 2020 – A strategy for smart, sustainable and inclusive growth; COM(2010) 2020; Brussels.

Map 4.4   Share of population aged 65+ (NUTS3) in the year 2007

Population aged 65 years or older in percentage of the total population - 2007

Map developed by ÖIR
© October 2010

- ≤ 12,5
- 12,6 - 15,0
- 15,1 - 20,0
- 20,1 - 22,5
- > 22,5
- no data
- no EU member

Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.
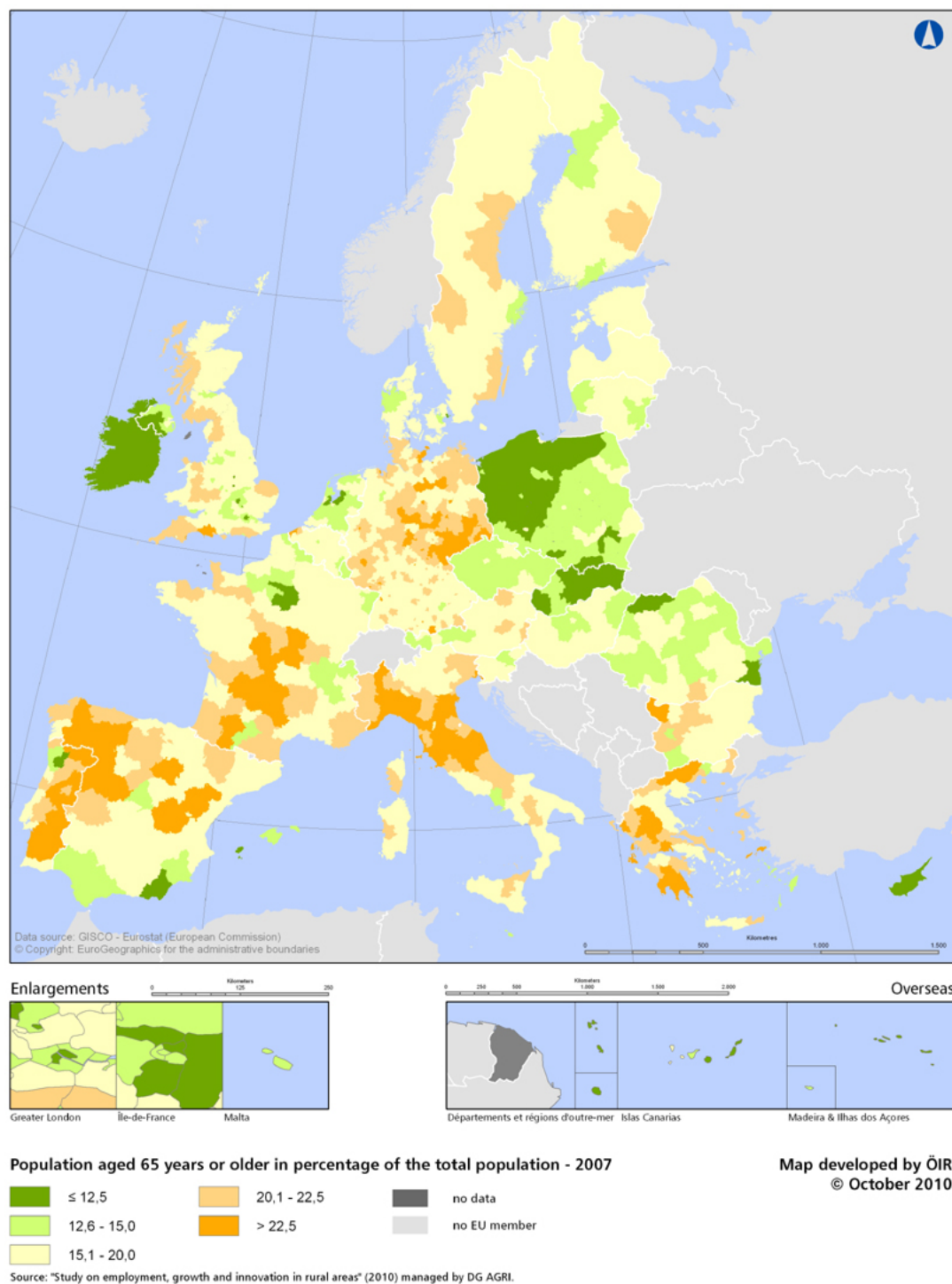
Map 4.5   Change of Population 65+ (NUTS3), 2001-2007
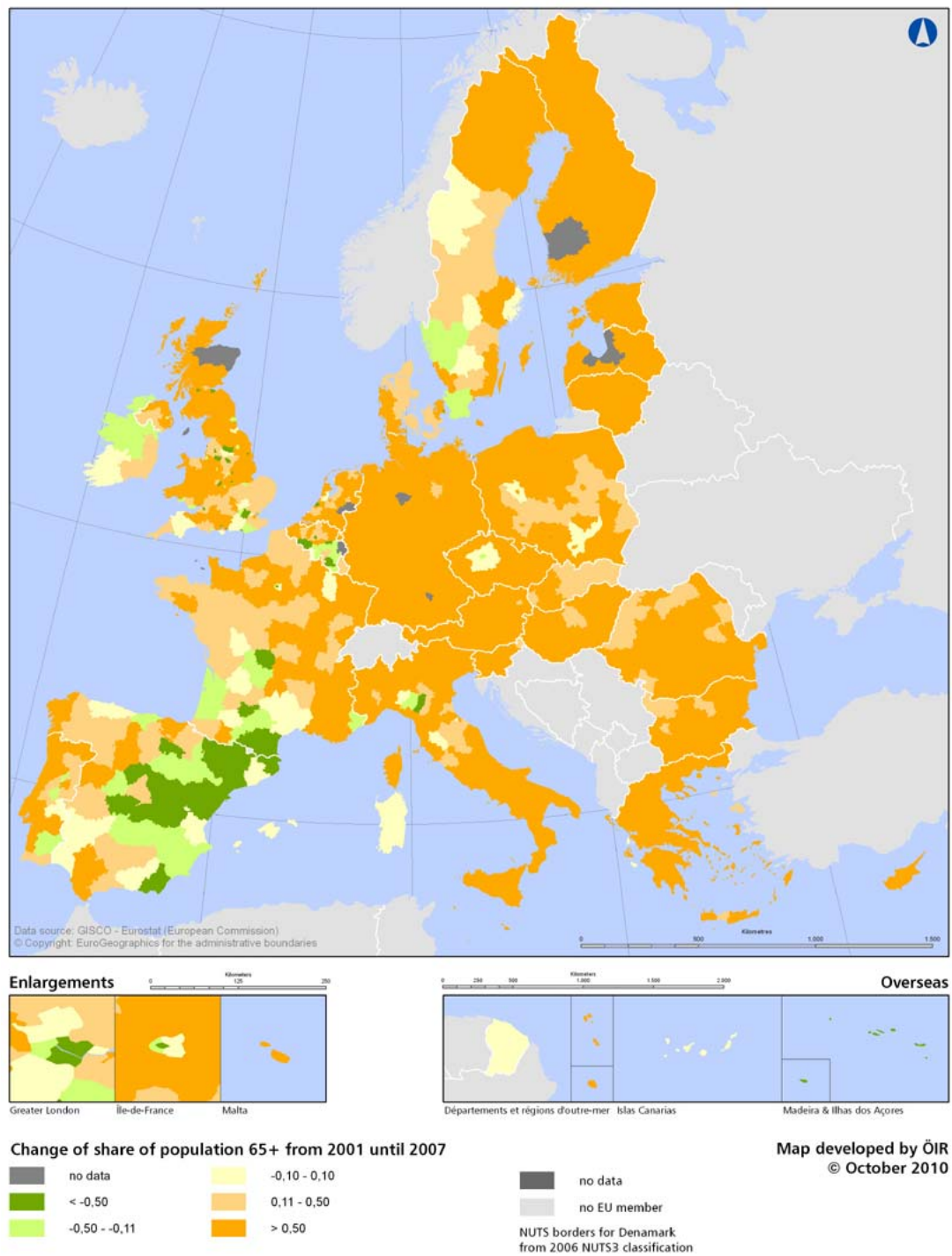
Change of share of population 65+ from 2001 until 2007

no data		-0,10 - 0,10	
< -0,50		0,11 - 0,50	
-0,50 - -0,11		> 0,50	

no data

no EU member

NUTS borders for Denmark
from 2006 NUTS3 classification

Map developed by ÖIR
© October 2010

Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

Map 4.6   Components of population development (Webb-Classification)

Components of population development

Components of population develoment
1998 - 2008* (Webb-Classification)

Growing populations

- ◼ Birth surplus > migration gain
- ◼ Migration gain > birth surplus
- ◼ Birth surplus > migration loss
- ◼ Migration gain > deaths surplus

Shrinking populations

- ◼ Deaths surplus > migration loss
- ◼ Migration loss> deaths surplus
- ◼ Deaths surplus > migration gain
- ◼ Migration loss > birth surplus

* Neigbouring countries 2000-2010

© BBR Bonn 2010
Origin of data: Eurostat, National Statistical Offices;
United Nations; own calculation
Administrative boundaries: GFK GeoMarketing, regions NUTS 2

Map 4.6 depicts the population development, classifying Europeans NUTS2 regions and neighbouring countries in shrinking respectively growing regions.

The *Webb classification* examines the underlying mechanisms in population change and concentrates on the relationship between the natural growth and net internal migration. Within eight classes based on the relationships between absolute values of natural change and net migration it is possible to detect the direction of population change and identify the driving force of the changes, either natural change or net migration. Many of the Eastern European regions have already reached this stage of population dynamics. With

"shrinking" population in total, the migration gains are superimposed by a death surplus. And even regions with a birth surplus turn into "shrinking" regions, with a decreasing population stock because of migration losses. It becomes quite obvious, that capital regions like Warsaw, Budapest or Prague base their population growth on migration gain.

When comparing these results with the developed clusters it becomes obvious, that peripheral regions, though "shrinking" the most, show the least problem of ageing. A youthful demographic structure still countervails the deaths surplus and migration loss.

Another interesting result is the positive population development in those regions, characterised as coastal and mountainous areas. The majority of Western rural regions are still growing. This is also true for the periphery. Special cases are the regions classified as strong performers in rural development. While the western EU regions of this kind can be considered as growing regions, although only moderately, in the East the comparison reveals a heterogeneous picture: Romania is unambiguously a "shrinking" region, whereas in Poland no clear trend is recognisable.

4.4.3 Analysis of the territorial distribution of EU agricultural policy support

As a final step this sub-section analyses the spatial distribution of CAP expenditures on the NUTS3 level. This exercise allows to match the clustering results with the territorial coverage of the funds and facilitate the analysis of the policy targeting of funds and expected impacts under the rural development policy.

The following set of maps (Map 4.7-Map 4.19) show the spatial distribution of the EU CAP support split up by Pillars and programming periods based on data delivered by the European Commission. In addition, for the ongoing programming period of the Rural Development programmes, a split up by Axes was also done.

Map 4.7   EAGGF and TRDI, 2000-2006

Pillar 2 expenditure [€ (sum 2000 - 2006)]

0 - 10.000.000	30.000.001 - 40.000.000
10.000.001 - 20.000.000	40.000.001 - 50.000.000
20.000.001 - 30.000.000	> 50.000.000

no data
no EU member
NUTS for
Poland and Denmark as 2005

Map developed by ÖIR
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Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.
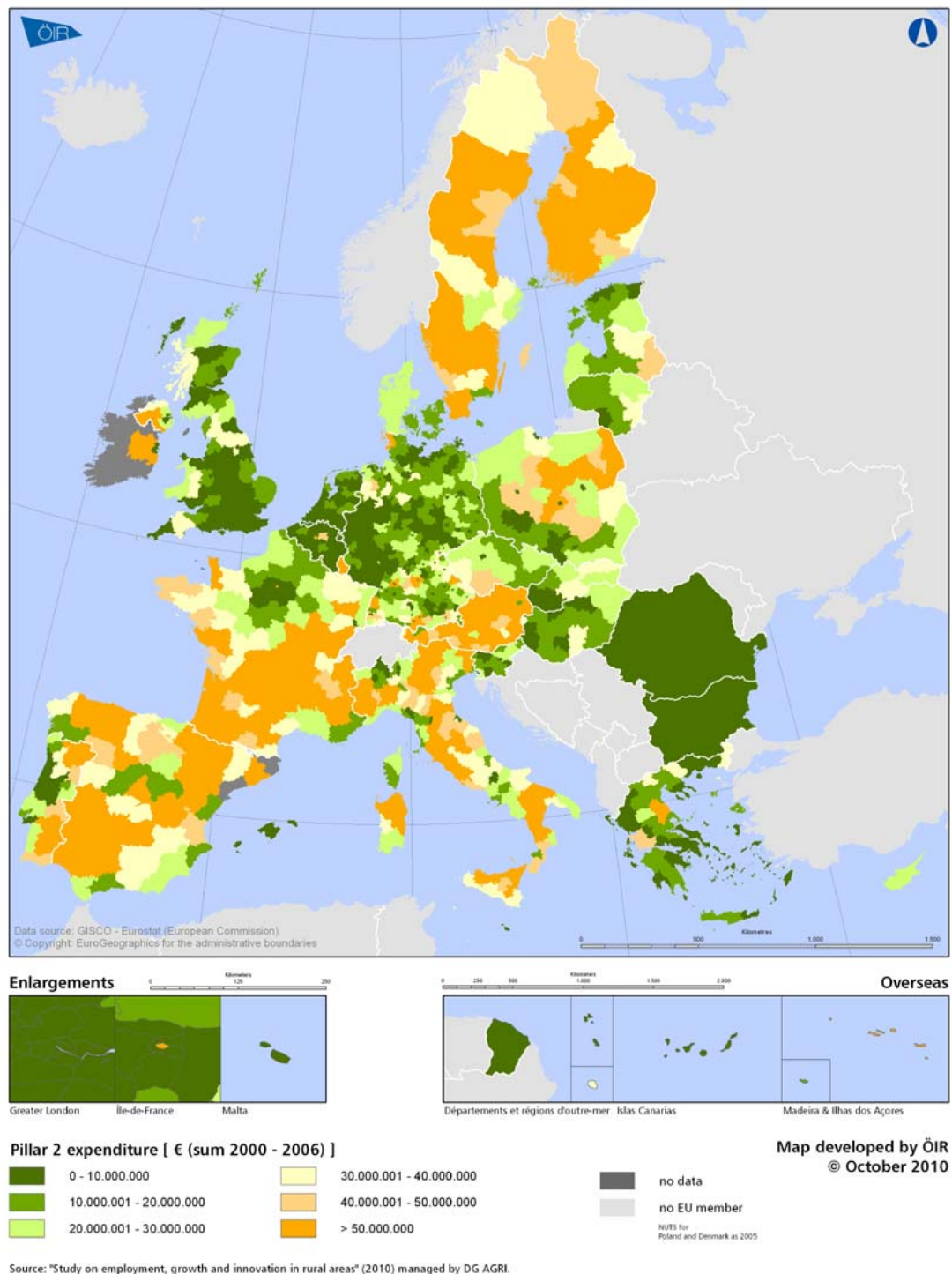
Map 4.7 shows the regional distribution (NUTS3 level) of the Rural Development funds for the previous programming period (2000-2006). Since Romania and Bulgaria joined the EU in 2007, they did not receive EAGGF or TRDI funds under the programme period 2000-2006.

The overall conclusion from this Map 4.7 is that the CAP rural development policy (measured as EAGGF and TRDI expenditures per capita) apparently followed the EU policy principle of territorial cohesion strengthening the Eastern peripheral regions by increased funding support. This corresponds with the rural development funds' distribution key, which favours structurally weaker Member States.

As for the EU15, Austria and Ireland as well as parts of central France have been the main recipients of the rural development funding. The rest of EU15 such as the Great Britain, Western Germany, Northern France, Benelux countries as well as some coastal regions in the south of Spain, and some scattered regions throughout Greece, Italy, France and Portugal, have received the least proportions from rural development policy support per capita, including cities.

After all, this Map 4.7 corresponds to the character of clusters in the European periphery and Central European rural regions as described in the previous sub-sections. Notwithstanding the general rural character of the European core (covering Great Britain, parts of France, the Benelux countries and Germany) their highly industrialised agglomerations with a strong service industry orientation are also taken into account. The rural development funds' focus on rural areas is clearly noticeable in this Map 4.7.

Map 4.8 shows the corresponding regional distribution of rural development funds for the ongoing programming period. The limitations of such an analysis have to be noted, as data covers only the beginning of the current programming period (2007-2009), that rural development programmes were approved mostly in 2007 (which equals low levels of expenditure for 2007) as well as that rural development programmes are relatively sluggish in their initial uptake (which is also induced by time delays caused by some of the major implementation principles such as measures' accreditation, evaluation of received applications combined with administrative capacity issues, etc.) – and therefore the Map 4.8 represents a snapshot of those regions which have been fast in the uptake of the ongoing rural development programme (as a consequence of good administrative and implementation management).

Map 4.8 shows a continuity of the distribution of funds from the previous programming period with rather the inner parts of the EU together with the North-eastern regions being the initial major absorbers of the CAP rural development funding (than its coastal and southern regions). This covers, for example, Ireland, the inner regions of Portugal, Spain, France, and the North-East peripheral regions. Austria, Greece, the Eastern part of Germany, Finland and the Baltic countries are once again well supported (most probably because of a quick uptake of the funding under their rural development programmes combined with a higher demand for rural development support).

The Central European regions around the urbanised areas of Great Britain, Northern France, the Benelux countries and Germany are relatively sluggish in their uptake of rural development funds, respectively have received lower amounts of funding. Noteworthy is the extremely small uptake of EAFRD funds in Italy and the Mediterranean coastal regions of Spain (compared to its population). Extremely low remains also the uptake in Bulgaria and Romania, which is of no surprise given the administrative difficulties linked with the implementation of the EU funding programmes (including rural development) and the difficulties in finding enough absorption capacities.

Pillar 2 [€ (annual average 2007 - 2009)] / Capita 2007

■	> 125,0	■	50,1 - 75,0	■ no data
■	100,1 - 125,0	■	25,1 - 50,0	■ no EU member
■	75,1 - 100,0	■	0,0 - 25,0	

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Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.
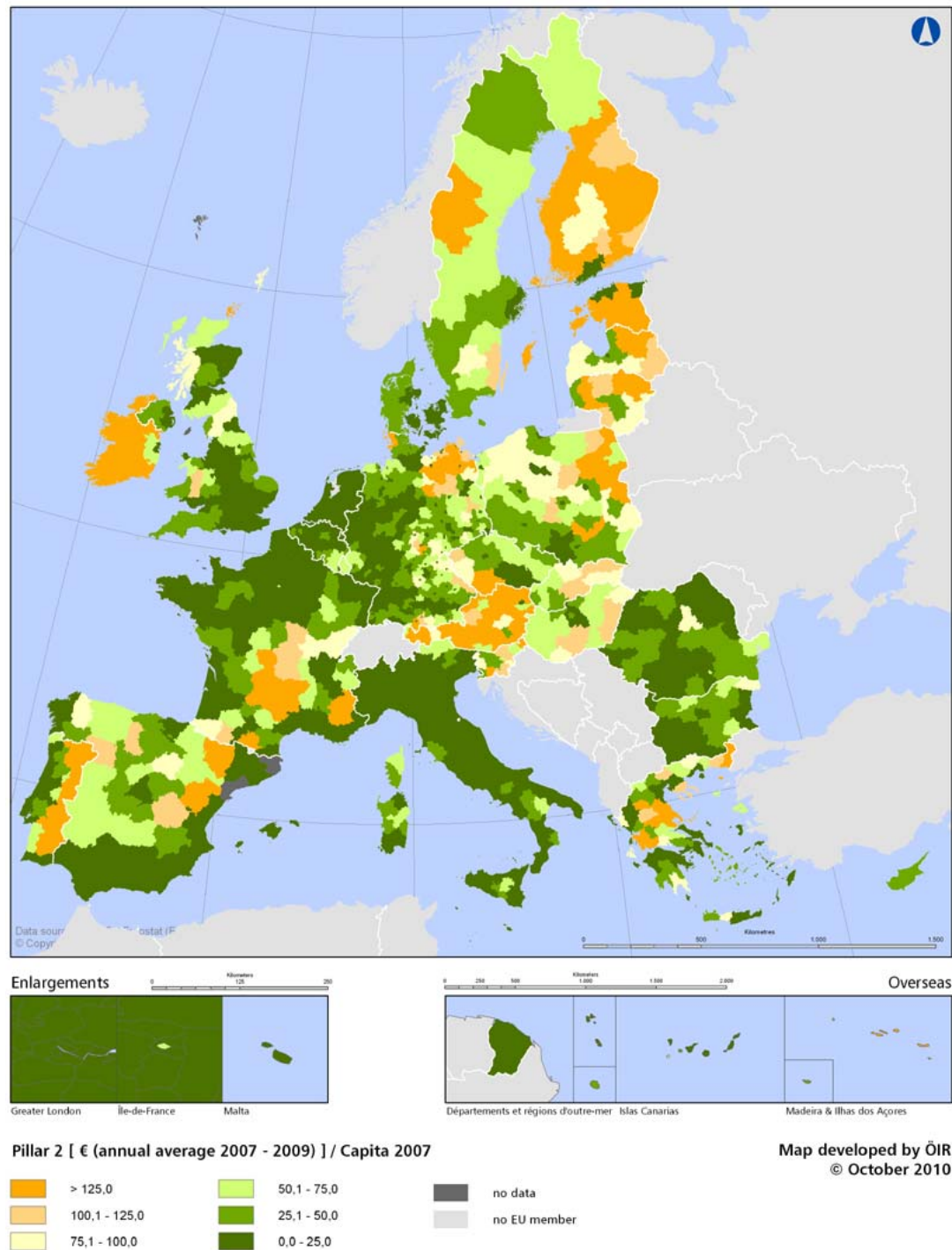
The following maps show the territorial distribution of Common Agricultural Policy support under Pillar 1 (direct payments):

- CAP Pillar 1 expenditures per ESU (period 2000-2006) – Map 4.9

- CAP Pillar 1 expenditures per ESU (period 2007-2009) – Map 4.10

- CAP Pillar 1 expenditures per UAA (period 2000-2006) – Map 4.11

- CAP Pillar 1 expenditures per UAA (period 2007-2009) – Map 4.12

Pillar 1 is not devoted to Rural Development in a strict meaning, however, it may contribute to the overall situation of employment and growth in rural areas and therefore it is worthwhile analysing. This time, however, the data was not normalised over the people living in the area, but paid tribute to the character of the policy and normalized the expenditures over the economic farm size. As in the map depicting the EAGGF and TRDI expenditure (Map 4.7), Romania and Bulgaria did not receive Pillar 1 in the programme period 2000-2006, because they did not join the EU until 2007.

At first sight the maps show similar territorial distribution as for Pillar 2 funding. This is rather remarkable as agricultural direct payments are not *prima facie* following the overall principle of cohesion policy. Still the peripheral regions in the South [parts of Spain, Italy and Greece], the peripheral regions in the East [Poland, and regions of Hungary and the Baltic countries bordering neighbouring countries] and especially Ireland were the main beneficiaries of Pillar 1 funding. Germany, the Benelux countries and the Czech Republic as well as large parts of Scandinavia, Great Britain and the south of France received the least support relative to the farm size. This is even more strengthened in the 2007-2009 period (Map 4.10).

Looking at the CAP Pillar 1 support normalized through the Utilised Agricultural Area (UAA) in the NUTS3 regions, a relatively similar situation can be seen in both programming periods depicted by maps 5.10 and 5.11. Despite the fact that the analysis per ESU remains the most valid as it concerns the economic strength and competitiveness of the EU farms, which are also direct beneficiaries of the Pillar 1 support, these two maps show a progressive trend towards cohesion, smoothly passed from the 2000-2006 period to 2007-2013 period. While in 2000-2006 EU10 were in a process of phasing-in (i.e. the level of direct payments in EU10 was at a starting point of 25% of the EU15 average, annually progressing to reach full equalisation in 2013), and Bulgaria and Romania were not yet EU members, central Europe - from Italy and Greece to the UK and Sweden/Finland - remained the major beneficiaries of direct payments per UAA. The north part of the UK, together with Spain, Portugal and Austria did not gain much, for Austria also because of the Alps. However, in the period 2007-2009 this has already changed with the situation improving overall in Germany, Austria, Greece and the EU10 countries (especially Hungary, the Czech Republic and Slovakia). In Italy and Spain the number of contrasting regions has increased, while in France the southern regions continued to enjoy smaller payments than the north ones. Romania and Bulgaria, which started in 2007 from a very low level, continue to be in the lowest group, with only the region of Sofia being different reflecting rather the headquarters of a number of land-owning companies. The latter also holds for Budapest, Prague and Warsaw.

The absolute distribution of the Pillar 1 support in 2000-2006 depicted on Map 4.13 further show the diversity of the support, and more specifically, the contrast between the Eastern and Western parts of EU15, the latter being the ones concentrating the support.

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This continued to be the case in 2007-2009, but the progressing support in EU10 has already diversified the distribution and strongly supported regions are now easily to be found also in Hungary, the Czech Republic and Slovakia (see Map 4.14). In Poland, the map is rather surprising, with the inner and the southern regions still not catching-up. Relatively low remains the support in the Baltic countries, north half of Portugal, the islands in the Mediterranean see (except Cyprus and Malta), and in Germany. The latter, however, could be explained with the relatively huge number of NUTS3 regions in Germany, which as a result leads to bigger split per region of the received funding, and respectively a lower categorisation.[98] In any case, the analysis and mapping results create sufficiently high interest towards the results of the whole 2007-2013 period as regards the distribution of the CAP Pillar 1 support in the EU.

In terms of matching this Map 4.14 to the cluster results, again the support of peripheral regions seems to be appropriate. However the much more differentiated situation of the regions with respect to growth and employment is not fully reflected in the rather rough distribution of policy support. This is valid for all maps showing the territorial distribution of CAP funding.

The differentiated situations and regional specifics of the EU regions as depicted in the clustering approaches with rather individual challenges would ask for more differentiated and coordinated policy responses.

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[98] It has to be noted that NUTS3 regions vary significantly in size. Due to their small size, for example German or Portuguese regions can allocate a quite small amount of funding where as very large regions in France and southern Spain receive very high amounts in absolute figures. This inevitably impacts the analysis to a certain extent. What can be seen is also is that regions in Ireland and a few cities in southern Europe such as Barcelona, Athens, Iraklion, allocate high amounts of Pillar 1 funding.

Map 4.9 CAP Pillar 1 Expenditure in € (sum 2000-2006) per ESU (average Economic Farm Size 2007)
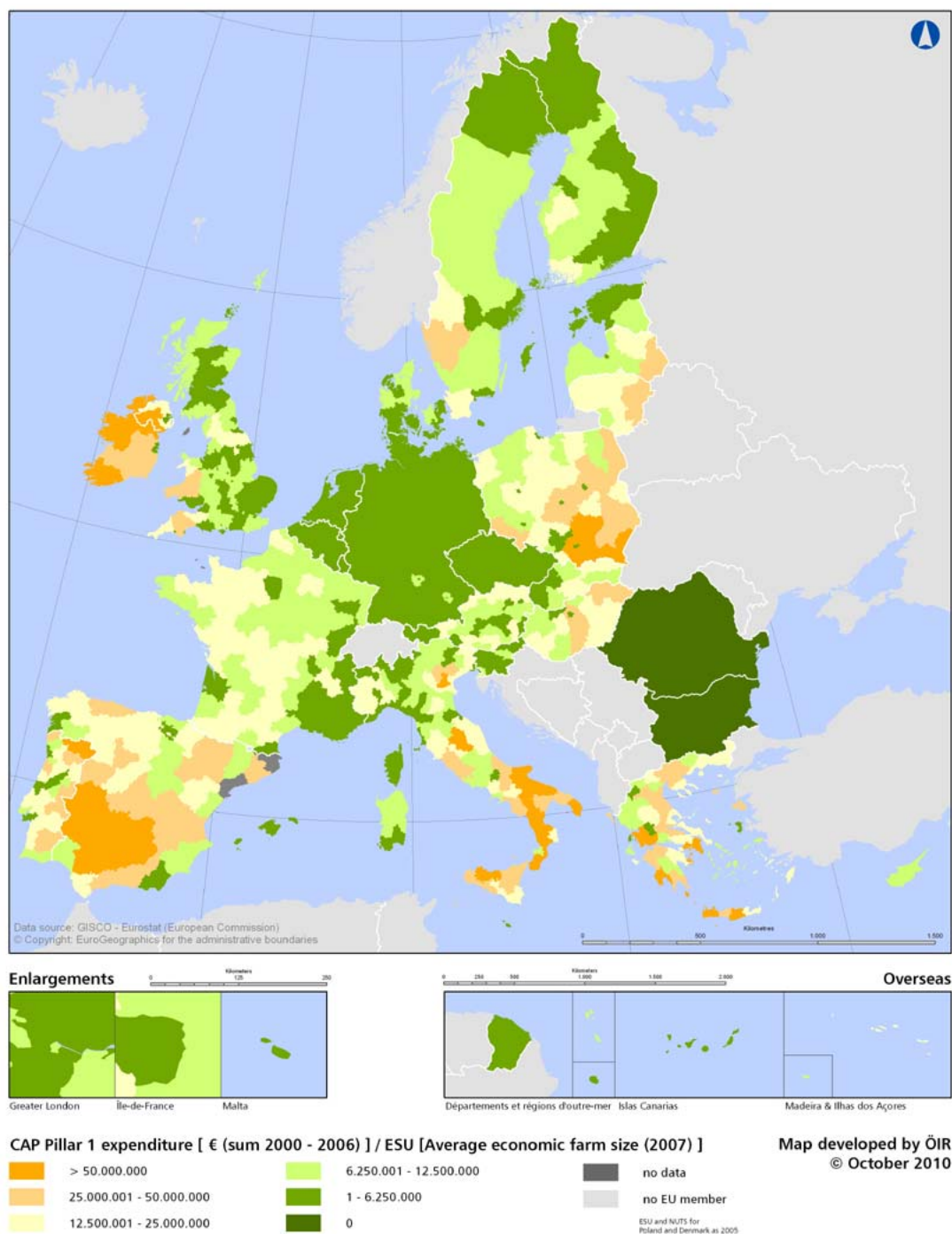
Enlargements

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CAP Pillar 1 expenditure [€ (sum 2000 - 2006)] / ESU [Average economic farm size (2007)]

■ > 50.000.000	■ 6.250.001 - 12.500.000
■ 25.000.001 - 50.000.000	■ 1 - 6.250.000
■ 12.500.001 - 25.000.000	■ 0

■ no data
■ no EU member

ESU and NUTS for
Poland and Denmark as 2005

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Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

Map 4.10   CAP Pillar 1 Expenditure (sum 2007-2008) per ESU (average economic farm size), 2007-2009
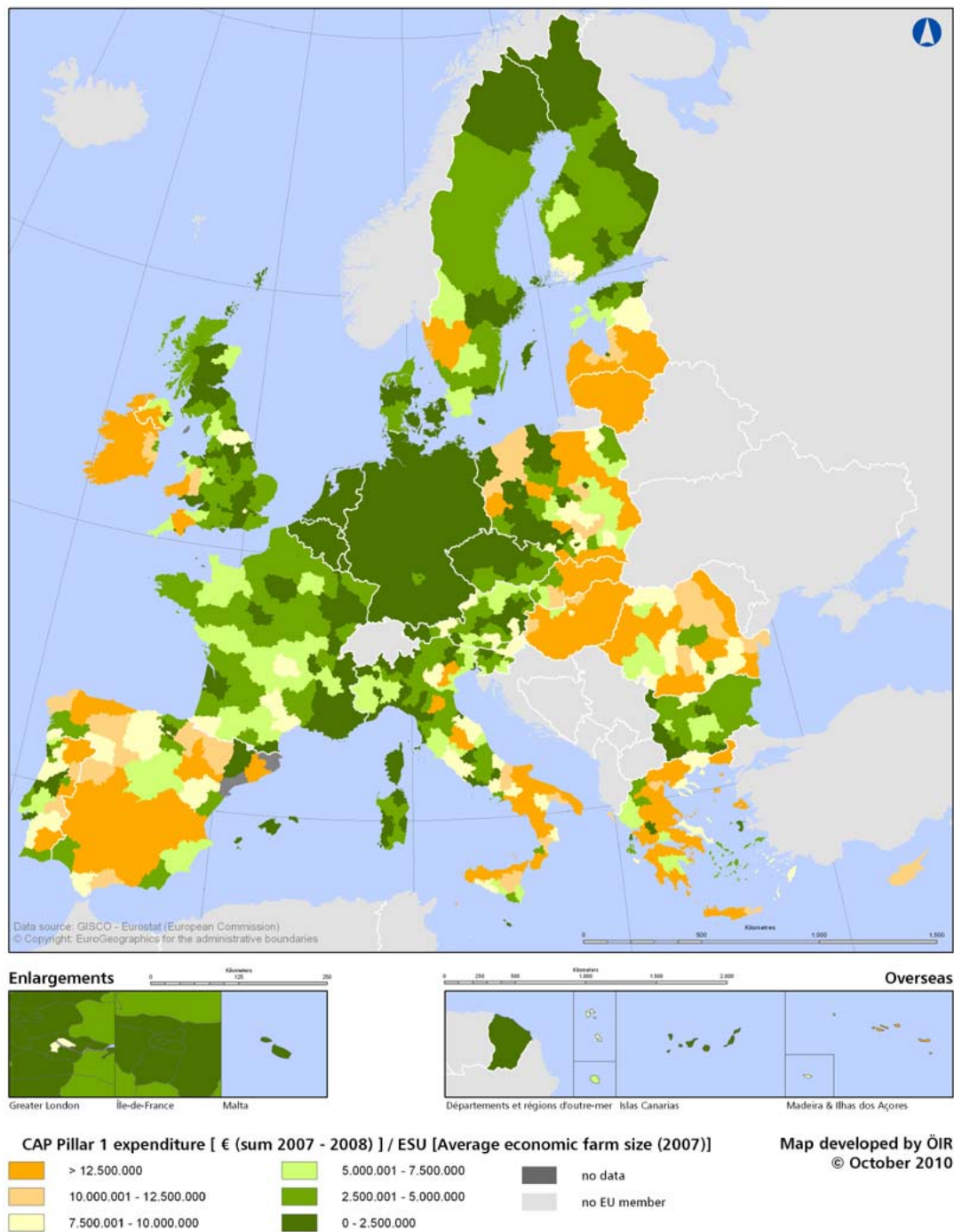
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Overseas

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CAP Pillar 1 expenditure [€ (sum 2007 - 2008)] / ESU [Average economic farm size (2007)]

> 12.500.000	5.000.001 - 7.500.000
10.000.001 - 12.500.000	2.500.001 - 5.000.000
7.500.001 - 10.000.000	0 - 2.500.000

no data
no EU member

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Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

Map 4.11   CAP Pillar 1 Expenditure per UAA 2000-2006

CAP Pillar 1 expenditure [€ (sum 2000 - 2006)] / UAA [Utilized agricultural area in ha] (2007)]

> 3.000
2.001 - 3.000
1.001 - 2.000
501 - 1.000
1 - 500
0
no data
no EU member

UAA and NUTS for
Poland and Denmark as 2005

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Data source: GISCO - Eurostat (European Commission)
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Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

Map 4.12   CAP Pillar 1 Expenditure per UAA 2007-2009
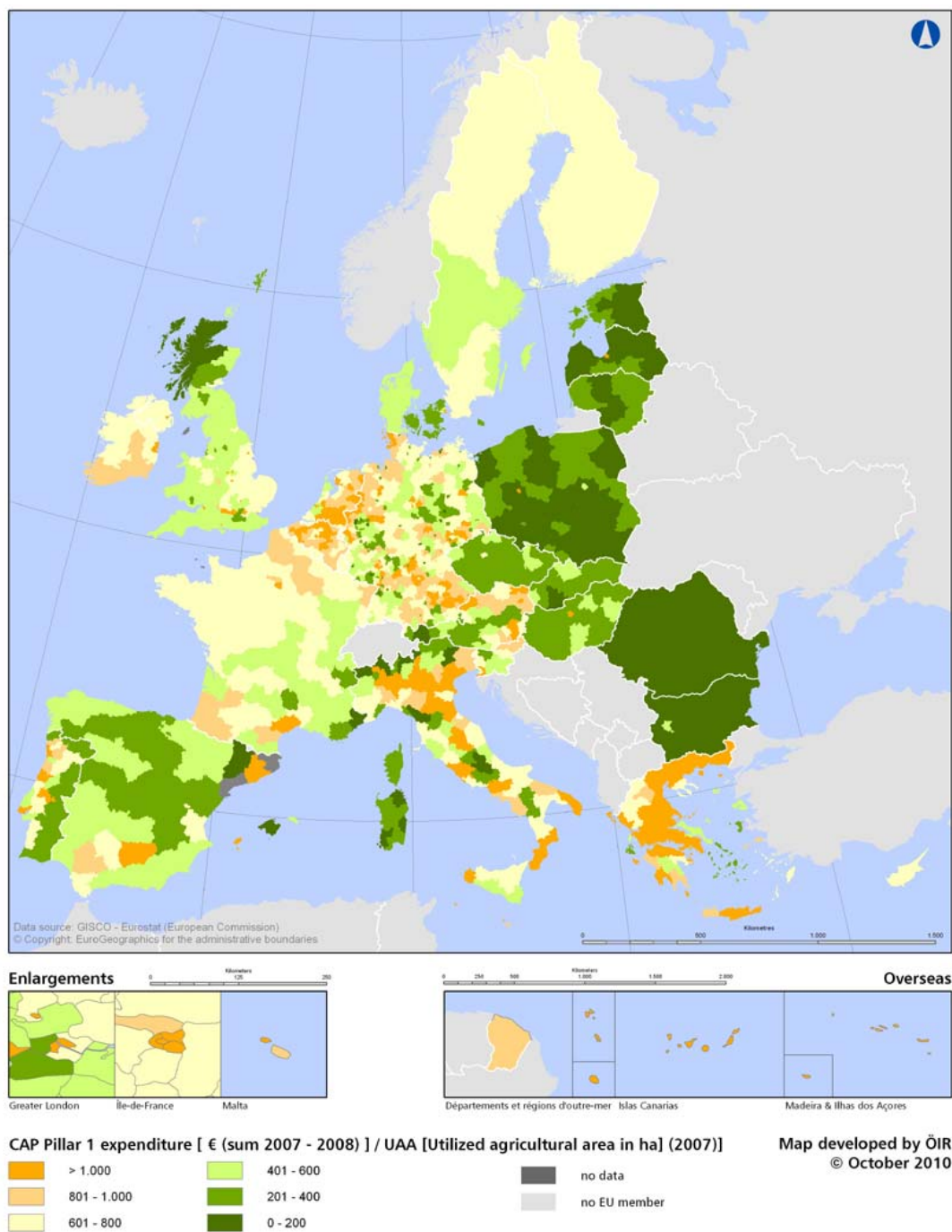
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CAP Pillar 1 expenditure [€ (sum 2007 - 2008)] / UAA [Utilized agricultural area in ha] (2007)]

- > 1.000
- 801 - 1.000
- 601 - 800
- 401 - 600
- 201 - 400
- 0 - 200
- no data
- no EU member

Map developed by ÖIR
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Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

Map 4.13   CAP Pillar 1 Expenditure absolute 2000-2006
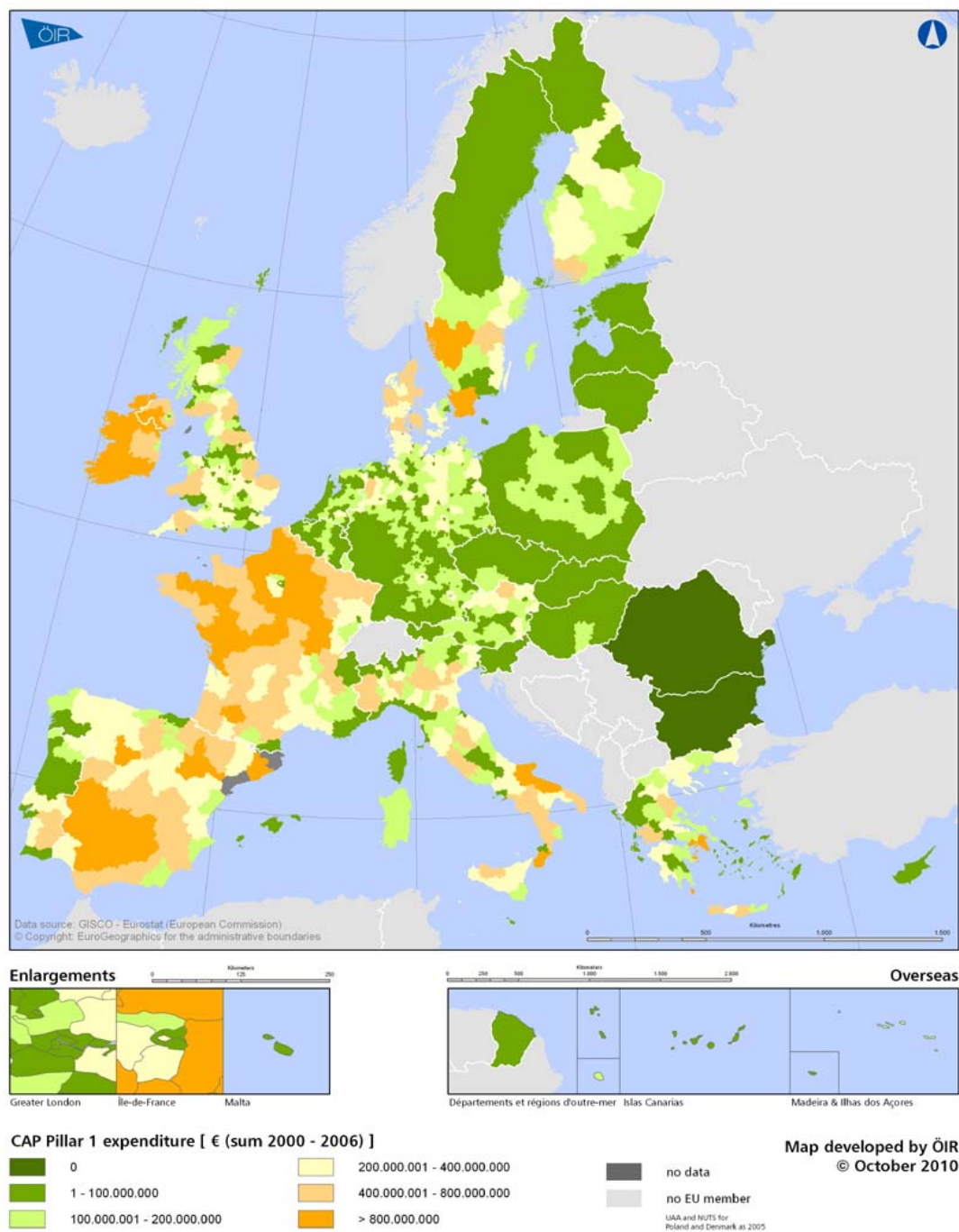
CAP Pillar 1 expenditure [€ (sum 2000 - 2006)]

- 0
- 1 - 100.000.000
- 100.000.001 - 200.000.000
- 200.000.001 - 400.000.000
- 400.000.001 - 800.000.000
- > 800.000.000
- no data
- no EU member
- UAA and NUTS for Poland and Denmark as 2005

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Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

Map 4.14   CAP Pillar 1 Expenditure absolute 2007-2009

Data source: GISCO - Eurostat (European Commission)
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CAP Pillar 1 expenditure [€ (sum 2007 - 2008)]

> 100.000.000	40.000.001 - 60.000.000	no data
80.000.001 - 100.000.000	20.000.001 - 40.000.000	no EU member
60.000.001 - 80.000.000	0 - 20.000.000	

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Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

4.4.4 Results of the territorial analysis of distribution of EU rural development policy

Some methodological and policy explanations

In order to see whether a regional differentiation is to be expected from the CAP Pillar 2 (EAFRD) support in the ongoing rural development programming period 2007-2013, also the territorial distribution of the support was analysed, including its split by Axes. These are merely analyses of the uptake of the rural development programmes in the regions, however it also depicts that the four Axes of the rural development programmes are addressing different regional needs.

Before starting the analyses, several elements should be taken into account:

- Contrary to the support under Pillar 1 (direct payments), Pillar 2 support is in its most demand driven – the uptake of the funds depends on the needs of the areas for funding, combined with the approach selected by the Managing Authorities for implementing and promoting the rural development policy.

- Similarly to Pillar 1, rural development programming areas are characterised by budget envelopes. However, in the case of the EAFRD Managing authorities have a significant independency in selecting the targeting of the support and its distribution between axes.

- While Pillar 1 expenditure is a typical annual payment which has no transfer character over the next years, the EAFRD supports investments projects, which expenditure does not follow this annuality – thus, the uptake and expenditure claims depends on how investment projects advance. The only annually and territorially based payments in rural development could be seen in the support for the Less Favoured Areas and areas with other handicaps.

- Part of the EAFRD support is targeted only towards rural areas, thus territorially limited (Axis 3 and Axis 4, the latter oriented towards the so-called Leader territories).

- The strength and the experience of the Local Action Groups (LAGs) to great extent determine the uptake of the funds under Axis 4 (LEADER).

- The EU regulation[99] sets certain minimum expenditure rates for each axis (10% for Axes 1 and 3.25% for Axis 2 and 5% / 2.5% for Axis 4), which ensures a minimum share of expenditure on all EU rural development priorities (competitiveness, environment and land management, quality of life and income diversification, and local development). However, Managing authorities remain fully responsible as regards the emphasis to be given on each of these priorities, respectively expenditure.

- Often, axis 3 and axis 4 support is provided only after the activation of the rather classical agricultural and agri-environmental support under Axes 1 and 2.

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99 See Council Regulation (EC) No 1698/2005.

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The first Map 4.15 shows the absolute distribution of the EAFRD funding in the EU (at NUTS3 level). It clearly shows the cohesion element that EAFRD brings, with significant amounts per region characterising the Eastern part of the EU (except Bulgaria and Romania), and the inner regions of Spain, France, Austria and the Czech Republic. Ireland also belongs to those having higher uptake at present. This shows that the overall demand is mostly focused in the rural areas of the EU and in the majority in regions where the socio-economic state is not that high (compared to the EU average or to the leading countries).

For the CAP Pillar 2 expenditure, the distortion caused by the different size of the NUTS3 regions is not that strong (except for Germany). Highest amounts of funding (in total) were allocated in Ireland, in the rural parts of Poland (in the Northeast), in the western part of the Czech Republic (Bohemia), in Slovakia, partly in the Baltic states, Finnish coastal areas, Austria's regions with extensive agriculture, regions in Northern Spain and the French Massif Central.

On the other side, especially the UK, the Benelux countries, Italy, Greece, Portugal, Denmark, Northern France and several Spanish regions allocated the lowest amount of funding. Generally its the old EU Member States (besides Ireland, Austria and Finland) that have demanded by end of 2009 the least funding.

Map 4.16 analyses the regional distribution of current (2007-2009) rural development programme expenditure under Axis 1 per economic farm size unit. What becomes apparent is the early uptake and intensive absorption of funds under this title in the Eastern European regions, including Bulgaria and Romania. This fact corresponds quite consistently to the observations in the clusters with a significant need of these regions to modernize agriculture and catch up in terms of classical investments (such as in machinery, food processing, marketing, etc.). It should be noted that expenditure per measures (within each axis, and here in the context of Axis 1) will definitely have a different character and distribution, with some measures more advancing than others, but the overall territorial concentration of Axis 1 funds will more or less stay the same.[100]

Map 4.17 depicts the territorial distribution of rural development expenditures under Axis 2, per utilized agricultural area. The distribution once again depicts quite accurately the attempt of rural development policy to answer to regional needs and specific situations. The concentration of funds in the Alpine arc as well as in the uppermost Northern regions reflects the LFA payments within this Axis. This corresponds quite accurately to the cluster needs as described above. The good differentiation of Axis 2 funding along the regional needs is also to be seen by the relatively good coverage of various rural areas ranging from Portugal over central France and parts of Ireland to regions in Greece and Slovakia. All of them are, in one way or the other, represented in clusters depicting rural remoteness.

Map 4.18 shows the territorial distribution of rural development programme funds under Axis 3 per capita. Axis 3 is supposed to be rather slow in its uptake and activation of

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100 An analysis per measure will be more relevant at the end of the programming period when most of the expenditure is spent. It should also be noted that such analysis is not part of the objectives of this study and therefore it has not been developed.

absorption capacity. This is also caused by the generally existing preferences of governments towards the agricultural and agri-environmental support, and as a result Axis 3 starts running only after the activation of Axis 1 and Axis 2 support. The Map 4.18 shows, however, that some European regions already have developed quite a good distribution rate. This especially holds for Germany, the northern EU members (Sweden, Finland, Denmark, the Baltic countries and the UK), as well as some regions in Portugal, Spain, southern France (around the Alps), Hungary, Austria and the Czech Republic. In general, all European southern countries, together with Poland, France and Slovakia, show almost no uptake of Axis 3 funds per capita in the first years of implementation, which should not be neglected.

Axis 3 builds the core of community related rural development embracing the rural society as whole. It covers support provided to local authorities for boosting their local infrastructure, services and cultural/natural heritage, and at the same time invests in rural tourism, farmers non-agricultural businesses and micro-business in rural areas. Therefore it is of special interest to see a bit deeper where these funds have been targeted to.

Like aforementioned, central Europe [Eastern Germany, Austria and the Czech Republic] received the most funds under this axis so far. This distribution corresponds (at least for Eastern Germany and the Czech Republic) to the needs in terms of a balanced rural development answering to the challenge of increased pressure on land integrating the increased secondary and tertiary sectors in a rural setting. Apart from the central European regions, Northern [Scotland, Finland and Estonia] and Southern [Eastern parts of Spain and Galicia] peripheral regions demanded Axis 3 funding in the first years of the 2007-2013 programming period. The demand for support in diversifying the rural economy was decisive for the allocation of funding into the Northern peripheral regions. Adding to that need, the Southern peripheral regions are facing low levels of provision of rural infrastructure and villages in need for renewal. For these regions the same willingness to safeguard integrated rural development may be reflected by this demand for rural development support, but most likely its pick will appear in the second half of the programming period.

Map 4.19 shows the regional distribution of rural development programme funds under LEADER (Axis 4) per capita. This Axis is traditionally the slowest in terms of uptake, as the Local Action Groups (LAGs) as carriers of this policy support scheme need time to build up momentum on local level. Experienced LAGs (e.g. because they have already existed in previous programme periods and have learned on how to better respond to local needs) however, were able to attain significant expenditures under Axis 4. Especially parts of Austria, North-Eastern Germany and Eastern Spain profited from comparatively high expenditures per capita. Still, this Axis is with the least disbursements to be observed over Europe.

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Pillar 2 expenditure [€ (sum 2007 - 2009)]

0 - 10.000.000	30.000.001 - 40.000.000	no data
10.000.001 - 20.000.000	40.000.001 - 50.000.000	no EU member
20.000.001 - 30.000.000	> 50.000.000	UAA and NUTS for Poland and Denmark as 2005

Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI. The project is still on-going and the publication of final results is expected to be done in course of 2011 on the following website: http://ec.europa.eu/agriculture/analysis/external/index_en.htm

Map 4.16   Rural Development Funds expenditures per capita Programming period 2007–2013: Axis 1 expenditure (2007-2009) per Economic farm Size Unit (ESU) (2007)

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Axis 2 [€ (annual average 2007 - 2009)] / UAA [Utilized agricultural area in ha 2007]

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☐	> 120,00	☐	15,01 - 30,00	☐ no data
☐	60,01 - 120,00	☐	7,51 - 15,00	☐ no EU member
☐	30,01 - 60,00	☐	0,00 - 7,50	

Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

Axis 3 [€ (annual average 2007 - 2009)] / Capita 2007

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> 4,00	0,51 - 1,00	no data	
2,01 - 4,00	0,26 - 0,50	no EU member	
1,01 - 2,00	0,00 - 0,25		

Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

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Axis 4 [€ (annual average 2007 - 2009)] / Capita 2007

> 2,00	0,26 - 0,50	no data
1,01 - 2,00	0,01 - 0,25	no EU member
0,51 - 1,00	0,00	

Source: "Study on employment, growth and innovation in rural areas" (2010) managed by DG AGRI.

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4.4.5 The classification of rural and urban areas by DG AGRI/DG REGIO – some notes

The classification of rural and urban areas according to the methodology of DG AGRI/DG REGIO shows a mixed map (Map 3.1), with rural, urban and intermediate regions scattered throughout Europe. The European periphery can generally be titled as rural, especially Ireland, Portugal, Greece, great parts of Scandinavia and the Baltic States (excluding capital agglomerations). Predominantly rural are also great parts of Eastern and South-Eastern European countries. In contrast most urban areas can be found in the United Kingdom and the Benelux countries.

When comparing this territorial classification with the clustering approach it becomes apparent that apart from the purely urban clusters like *"Global Cities"*, *"German cities"* or *"Large European Cities"* all other clusters are covering all types of regions (from predominantly urban to predominantly rural). The only clusters with a rather high share of rural regions are clusters *"Dominant Agriculture, rural, peripheral regions"/"Rural areas with strong rural development"* (cluster 4 first clustering, cluster 15 second clustering), *"Balanced rural areas"/"Balanced rural areas with declining manufacturing sector"* (clusters 5 in the both clusterings), *"Southern and Northern periphery"/"Southern and Northern periphery and Mountains"* (clusters 6 in the both clusterings), *"Eastern peripheral rural regions"/"Eastern periphery – agriculturally dominated"* (clusters 8 in the both clusterings), *"Traditional agricultural regions in transition"/"Strong" rural regions in new Member States* (clusters 9 in the both clusterings), *"Rural Regions with significant Industry"* (clusters 11 in the both clusterings).

This heterogeneity of types of regions within the single clusters underlines, on the one hand, the concentration of certain types of areas within a single group, if a correct methodology is applied, but at the same time shows that the rural/urban realms are flowing concepts and human interventions and living conditions will probably not allow for a clear distinction between both. Employment and economic growth remain two phenomena rather determined along a continuum of territorially based conditions, which are shown by land use and socio-economic activities in a territory without clear (statistical/administrative) borders.

4.4.6 SEGIRA clustering compared to other clustering exercises

SEGIRA is not the first study which has developed clustering of EU27 regions for the purpose of its analyses and objectives[101]. However, the clustering of the SEGIRA has a few new elements compared to previous clustering exercises, which makes it rather unique in its kind:

- SEGIRA is the first study to use the newly developed delimitation of urban/intermediate/rural areas developed by the European Commission (DG AGRI/DG REGIO).

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[101] The RUFUS project, for example, has also done a clustering exercise at NUTS3 level, but only for a limited number of countries, with much a more limited set of indicators (9 indicators), and representing the situation in a given year (thus not reflecting important dynamic changes that have appeared within certain periods of time).

- SEGIRA is the first study that introduces the complete set of CAP policy funding data (Pillar 1 and Pillar 2, i.e. direct payments and rural development funding) into the clustering approach, thus producing for the first time a picture that combines socio-economic realms with policy realms.

- The completeness of the clustering and its analysis is ensured by the development of two separate clustering exercises - one based solely on socio-economic data, and another one using also the CAP expenditure data, with both being analysed and compared.

- Furthermore the clustering of SEGIRA includes all EU27 regions and is based on 27 indicators, including the dynamics (change within a period of time) of a number of important socio-economic indicators have been used.

- SEGIRA clustering is done at NUTS3 level.

4.5   Conclusions

No "typical rural region" but "rurality"

The results of the clustering have shown that there is no "typical rural region" in terms of employment and growth, but a different type of "rurality" as depicted in the different clusters of regions - see e.g. the clusters with a high share of "rural" regions "Eastern periphery – agriculturally dominated", "Rural Regions with significant Industry", "Periphery – industrialized", etc. There is, in general, an intriguing continuum of socio-economic "facts" about regional development:

"Rural" regions are structurally not lagging behind

"Rural" regions are structurally not lagging behind: it may not be univocally said that rural areas are defined by structural deficits – like poor infrastructure equipment and accessibility. A significant amount of "rural regions" showed a quite satisfactory structural condition as expressed by: development of population, share of employment of women, development of economically active population (in primary, secondary and tertiary sector), share of commuters, share of nights spent in relation to resident population, tax quota of resident population. All of these indicators (as represented in the cluster analysis) show that many of the "rural" regions are performing better than "urban" ones. Especially the clusters "Balanced rural areas with declining manufacturing sector", "Central and North European industrial regions" and "Rural areas with strong rural development" showed a comparably favorable performance in this respect. In other words the analysis of rural regions calls for more concentration on territorial circumstances.

Higher diversity of economic activities in all regions

Economic activities are spatially more and more equally distributed – leading to a higher diversity of economic activities in all regions: this situation is important in several ways:

(a) Higher resilience of regions through better buffer capacities (adaptive capacities) against shocks. The more economic sectors are represented in a region, the better the social safety net if one of these sectors is affected by an economic downturn.

(b) The territorial conditions are thus becoming a regional finger-print and will lead to better competitiveness and specialisation of regions (Porter hypothesis) – with a concentration on regional strengths.

(c) Synergies between sectors (e.g. agriculture, crafts and services) may lead to more growth and employment than a monopolistic concentration in one sector. Thus policy support has to take these horizontal/ cross-sectoral growth aspects into account.

"Rurality" is rather determined by functions of spaces than economic

"Rurality" is rather determined by functions of spaces than economic activity within: all regions are determined by their multi-functionality, which defines their development paths and character. Examples of such spatial functions are: production and procurement, economic function (creating employment and income), education and culture, settlement and housing, social services, recreational function, deposit function, eco-services. Thus – once again – regions are characterized rather by this mix of functions than a single economic activity.

The "rurality" of the mixed types of regions is determined by urbanisation and sub-urbanisation. This implies that these regions are confronted with competition for land and movement of the production factors in those economic sectors with the highest returns/profits – thus agricultural land, and especially agricultural labour is more diminishing than in other areas. It has to be kept in mind that a reversal of this situation in times when the marginal returns of agricultural production may increase (shortage of natural resources – e.g. bio-fuels, food), will not be so easily accomplished, than the other way round. One of the reasons are the comparably longer production cycles in agriculture, which lead to time lags when reversing land use from one sector to another.

What has been visualised by the clustering analysis and the "facts" pointed out above is the need to differentiate far more regional development by the regional contexts. Growth and employment in rural areas is based upon a wide variety of economic activities and the main lesson to be learned is that those regions are likely to perform better, which succeed in taping on the synergies between economic sectors the most. It goes without saying that urban areas are still the motors and poles of growth and employment – however rural areas are apparently playing a far more differentiated role than just agricultural production pools and natural residual of cities, which build the counterbalance to their negative externalities. The analysis shows that the spectrum of functions of rural areas together with their potential for growth and employment has increased significantly,

which could support an orientation towards a *place-based policy (e.g. see* the Barca report[102]).

These findings lead to different "needs" of regions, like populationally "shrinking" regions vs. regions with high pressure on land, which will call for differentiated responses from regional policy – not only in rural areas. It has to be pointed out that the EU rural development policy (EAFRD) is applying already this approach by putting (regional, local) "needs" on the centre stage of the development of the rural development programmes[103].

Still the effect of rural development policy is not visible through the analysis alone as clear cause effect relations between rural development or CAP policy interventions and employment and growth in rural areas may not be established without taking into account intended and unintended effects. However this holds true for any policy intervention in rural areas. The disentangling of policy effects is not possible by using only the methodology at hand alone. The evaluation of effects on regional development through Structural Funds as conducted within WP 9 of the ex-post evaluation of EU Structural Funds in Rural Areas[104] showed for instance that apart from the main emphasis of supporting transport infrastructure and investment in environmental infrastructure in rural areas, some ERDF programmes supported to a certain extent diversification of agricultural activities, development of tourism[105] and crafts, which clearly overlaps with the major activities supported by the rural development policy (EAFRD). This leads to the problem of netting out effects of the single programmes operating in a programme area – let alone of existing other national/ regional policy measures in place at the same time.

Thirteen clusters were identified on the basis of 27 indicators

The clustering exercise on basis of 27 indicators provided a very concise and detailed specification of EU NUTS3 regions. The most determining indicators were:

- Socio-economic situation of the regions (in terms of employment, growth).

- Growth patterns of socio-economic situations (employment, unemployment, demography).

- Sectoral structure of the regions (in terms of primary, secondary and tertiary sectors as well as their development).

- Territorial specifics of the regions (in terms of built up areas vs. natural land).

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102 In principle, territorial cohesion is dependent on two objectives: efficiency and equity with *"efficiency, is about realising the full utilisation of the potential of every place or region; the other (equity) is about ensuring equal opportunities for individuals irrespective of where they live. In the context of a place-based integrated strategy, there is a need for clear-cut distinction between these two objectives and a need to pursue them through distinct interventions.*", see Barca F. (2009): An Agenda for a reformed Cohesion Policy: A place-based approach to meeting European Union challenges and expectations; Report prepared at the request of Danuta Hübner, Commissioner for Regional Policy; Brussels; p. 32f

103 "The new rural development regulation puts in place a significantly simpler and more strategic (i.e. objective rather than measure led) approach to rural development through the definition of three core objectives and a reorganisation of sub-objectives and measure objectives." (Handbook on common monitoring and evaluation framework Guidance document; DG Agriculture and Rural Development, European Commission, 2006)

104 see METIS/ OIR (2009): Ex post evaluation of Cohesion policy programmes 2000-2006 co-financed by the European Fund for Regional Development (Objective 1 and 2): Work Package 9: Rural Development; study commissioned by DG Regional Policy

105 ERDF supports tourism only in Objective 1 regions.

- Funding situation of the CAP in these regions (included only in exercise with 27 variables).

Map 4.20   Result of the clustering exercise

ECORYS   Study on Employment, Growth and Innovation in Rural Areas (SEGIRA)
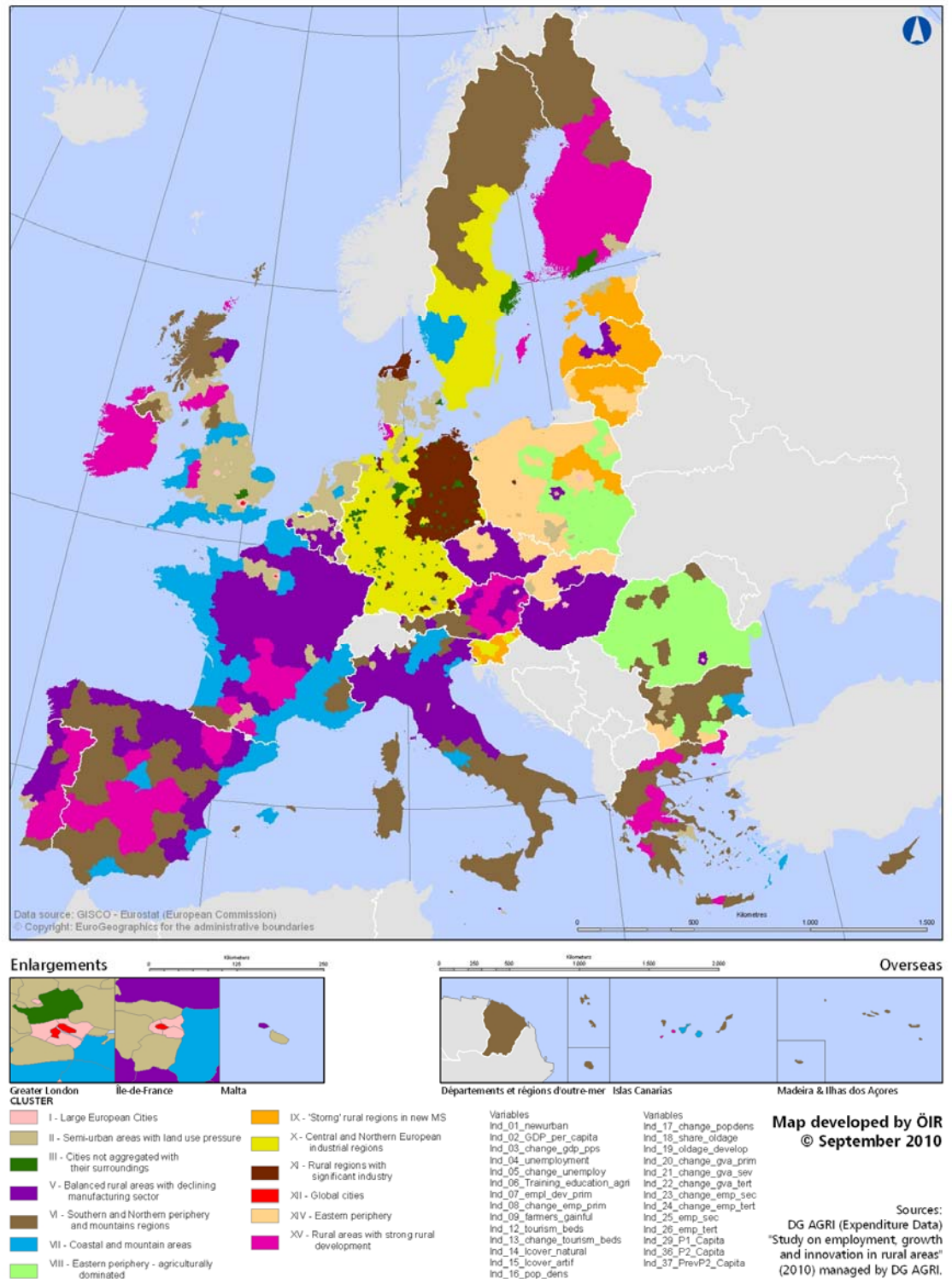
When looking at the clustering results it becomes quite clear that the territorial character in terms of urban/ rural regions is determining the clustering significantly: three clusters (Clusters 1, 3, 12) are essentially "urban" in character with the global cities London and Paris building an own group and the German cities to be easily identified due to the NUTS area delimitation in Germany.

From the 13 clusters ten clusters have rural characteristics. When looking at the predominantly "rural areas" it becomes visible, that some of them are characterized by a balanced mix of economic sectors with some specialisation in either way (i.e. either industrialized or more agricultural dominated). Apart from this sectoral division of EU NUTS3 regions the location of the regions played a role when grouping the regions. This is remarkable as accessibility has not been depicted in the indicator set for clustering. Still the "remoteness" of regions (e.g. mountain areas, Eastern and Southern periphery) determined some of the clusters.

The classification of rural and urban areas according to the methodology of DG AGRI/DG REGIO shows a mixed map, with rural, urban and intermediate regions scattered throughout Europe. The European periphery can generally be titled as rural, especially Ireland, Portugal, Greece, great parts of Scandinavia and the Baltic States (excluding capital agglomerations). Predominantly rural are also great parts of Eastern and South-Eastern European countries. In contrast most urban areas can be found in the United Kingdom and the Benelux countries.

When comparing the territorial classification with the clustering approach it becomes apparent that all ten rural clusters are covering all types of regions (from predominantly urban to predominantly rural). The only clusters with a rather high share of rural regions are clusters 15, 5, 6, 8, 9 and 11.

Cluster 1: "Large European Cities" - The cluster categorises the largest European Cities such as Vienna, the suburban regions of London and Paris, Brussels and some British cities.

Cluster 2: "Semi-urban areas with land use pressure"- The cluster comprises large parts of the Benelux countries and Great Britain and some "islands" in France, Greece and Bulgaria. The regions are characterized by their predominant urban character (in terms of population density).

Cluster 3: "Cities not aggregated with their surroundings" - This cluster comprises mostly German cities of all sizes that form separate NUTS3 units and are not aggregated with their agriculturally dominated surroundings [most of them in Germany; additionally: cities in Denmark, Sweden, Finland and Great Britain].

Cluster 5: "Balanced rural areas with declining manufacturing sector" -The cluster consists of predominantly rural areas (low population density and low artificial surface) in France and Northern Italy, as well as Spain and Portugal and parts of Central Europe.

Cluster 6: "Southern and Northern periphery and Mountains" - This cluster covers regions in the Southern and Northern periphery – i.e. parts of Spain, Southern Italy [Mezzogiorno] parts of Greece, Scotland, Sweden and Finland as well as the Austrian Alps.

Cluster 7: "Coastal and mountain areas" - This cluster comprises coastal regions in Spain, France, Italy Bulgaria and Great Britain as well as parts of the Alpine arc, and the

Pyrenees. The common character for all these regions is obviously their topographic conditions either by the sea or in mountain areas.

Cluster 8: "Eastern periphery – agriculturally dominated" - This cluster categorises very remote rural areas at the eastern boarder of the European Union. It comprises regions in Poland, Romania and some parts of Bulgaria.

Cluster 9: "Strong" rural regions in new Member States - This cluster is the Eastern European equivalent to Cluster 11: it is a differentiation of Eastern European regions by taking into account the EU agricultural policy support and covers large parts of the Baltic countries, parts of Eastern Poland and parts of Slovenia.

Cluster 10: "Central and North European industrial regions" - This cluster comprises Western Germany (except the cities), Southern Sweden and parts of Slovenia.They are intermediate regions with urban elements.

Cluster 11: "Rural Regions with significant Industry" - The cluster covers intermediate regions in Germany with the bulk located in Eastern Germany and the Northern part of Denmark.

Cluster 12: "Global Cities" - This cluster categorises the two largest EU-cities London and Paris. They are of high importance in global business and therefore entitled as "global cities".

Cluster 14: "Eastern periphery – industrialized" - The cluster categorises regions in West-Poland and parts of the Czech Republic and Slovakia as well as Bulgaria. They are intermediate regions also including some cities.

Cluster 15: "Rural areas with strong rural development" - Geographically this cluster comprises an – at first sight – heterogeneous set of regions ranging from Eastern Portugal, Central Spain and Central France over Ireland and parts of Scotland and large parts of Finland to parts of Austria and Greece.

Heterogeneous regions within clusters

The heterogeneity of types of regions within the clusters underlines, on the one hand, the concentration of certain types of areas within a single group, if a correct methodology is applied, but at the same time shows that the rural/urban realms are flowing concepts and human interventions and living conditions will probably not allow for a clear distinction between both. Employment and economic growth remain two phenomena rather determined along a continuum of territorially based conditions, which are shown by land use and socio-economic activities in a territory without clear (statistical/administrative) borders.

Influence of Rural development policy in the clusters

In terms of Rural Development Policy especially two clusters are of importance: Cluster 15 "Rural areas with strong rural development" and Cluster 9 "Strong" rural regions in New Member States. These two clusters comprise regions in Western and Eastern Europe, which could possibly be seen as good practices for a sustainable rural development with the following characteristics:

- Strong and steady growth in economic terms.

- Still a quite significant and stable agricultural sector with well trained farmers.

- On the other hand a balanced mix of economic sectors with no monopolistic tendencies.

This situation is combined with a steady and above average support of rural development policy in these regions. It would be too bold an assumption that this development is entirely triggered by this policy support alone – However it seem s worthwhile to analyse the influence of rural development policy in these cases more thoroughly in order to find some evidence for the cause-effect chain between rural development policy and the actual favourable conditions in these areas.

Ageing and 'shrinking' population in the clustering analysis

When depicting the situation of rural areas it is not only the problem of an ageing population which strikes, but its combination with the depopulation of the regions (migration). The potential of growth, employment and innovation in rural areas is depending strongly on their capacity to attract young people and to "keep" them there, and to sustain a balanced population development and work force. However, analysis of rural areas shows, that although the age composition in some rural areas is still quite favourable (in terms of balance between active and supported population) the migratory flows out of these regions lead to substantial problems in the future.

Another interesting result is the positive population development in coastal and mountainous areas. The majority of Western rural regions are still growing. This is also true for the periphery. Special cases are the regions classified as strong performers in rural development. While the western EU regions of this kind can be considered as growing regions, although only moderately, in the East the comparison reveals a heterogeneous picture: Romania is unambiguously a "shrinking" region, whereas in Poland no clear trend is recognisable.

Territorial distribution of EU agricultural policy support

The analysis of the territorial distribution of EU CAP expenditures at NUTS3 level shows that the CAP rural development policy followed the EU policy principle of territorial cohesion strengthening the Eastern peripheral regions by increased funding support. Interestingly enough this holds both true for Pillar 1 and 2, which is surprising as Pillar 1 (direct payments) does not follow the principle of cohesion policy.

As for the EU15, Austria and Ireland as well as parts of France and Czech Republic have been the main recipients of the rural development funding. The rest of EU15 such as the Great Britain, Western Germany, Northern France, Benelux countries as well as some coastal regions in the south of Spain, and some scattered regions throughout Greece, Italy, France and Portugal, have received the least proportions from rural development policy support per capita, including cities. Also in 2007-2009 this division continued.

The differentiated situations and regional specifics of the EU regions as depicted in the clustering approaches with rather individual challenges would ask for more differentiated and coordinated policy responses.

Table 4.2 provides an overview of the results of the clustering exercises picturing only the clusters with a significant share of rural regions. The table provides an overview of the regions included in the clusters, their characteristics and some major findings:

Table 4.2   Overview of clusters (regions included in clusters, characteristics and major findings)

Cluster	Regions	Cluster characteristics	Thematic maps	Fundings
2 - Semi-urban areas with land use pressure	The cluster comprises large parts of the Benelux countries and Great Britain and some "islands" in France, Greece and Bulgaria.	Predominant urban character (in terms of population density) with comparably high economic performance. One significant character is the increase of population in recent years signifying an increase of the pressure on land use – at the expense of agricultural land. This tendency is also underlined by the above average increase of the tertiary sector in these regions.	GDP in PPP is the highest amongst non urban clusters (with the highest maximum but also the highest variance). Average Unemployment rare is lowest of all non urban clusters. Population is relativley young. The thematic maps show that this cluster is amongst the economically best performing.	CAP support played a comparably low role (in the sense of comparably low funding – i.e. 384.2 € per UAA as compared to 751.3 € per UAA on EU average for Pillar 1 and 3.6 €/0.3 € per capita as compared to 14.2 €/2.7 € on EU average for Pillar 2).
5 - Balanced rural areas with declining manufacturing sector:	The cluster is consisting of predominantly rural areas in France and Northern Italy (the economically better performing Italian regions), as well as Spain and Portugal. Central Europe (parts of Austria, Hungary and the Czech Republic as well as Slovakia).	Not very well balanced in terms of performance trends of the secondary sector. Average economic performance with stable split up of the three economic sectors. Regions were confronted with significant economic shrinking in the last years. Especially the secondary sector showed decline (in terms of performance however not employment) with the rest of the economic sectors staying stable. The tourism sector is better performing than the EU average.	GDP in PPP quite high on average, though several regions within the cluster with low GDP. Unemployment rate also amongst the lowest within the non urban clusters. Share of people over 65+ is under the EU average. The thematic maps show that this cluster is amongst the economically best performing.	In terms of support the regions show an average EU funding expenditure for Rural Development (10.8 €/3.4 € per capita as compared to 14.2 €/2.7 € on EU average for Pillar 2) with only Pillar 1 funding spent above the EU average (2.7 mio € per ESU as compared to 1.8 mio € per ESU on EU average).
6 - Southern and Northern periphery	This cluster covers regions in the Southern and	Regions show climatic and topographic specifics (Northern periphery and Alps) . All	GDP in PPP quite low, below average but by far	In terms of policy responses the CAP did not respond to these

Cluster	Regions	Cluster characteristics	Thematic maps	Fundings
and Mountains	Northern periphery – i.e. parts of Spain, Southern Italy (Mezzogiorno) parts of Greece, Scotland, Sweden and Finland as well as the Austrian Alps.	regions rural with low population density. In terms of socio-economic conditions they show below average economic performance with relatively stable split up of sectors. Unemployment rates decreased significantly compared to the EU average. Highly developed tourism – expressed by a strong tertiary sector. Relatively low skilled farmers.	not the lowest, though some regions within this cluster are amongst the lowest within EU. Unemployment rate third highest within non urban clusters. Share of population 65+ on average. Regions will face difficult economic challenges.	conditions. While Pillar 1 expenditures showed above the average performance (3.9 mio € per ESU as compared to 1.8 mio € per ESU on EU average), the Rural Development expenditures stayed on the EU average (16.5 €/1.7 € per capita as compared to 14.2 €/2.7 € on EU average) (for both funding periods).
7 – Western coastal and mountain areas	This cluster comprises coastal regions in Spain, France, Italy Bulgaria and Great Britain as well as parts of the Alpine arc, and the Pyrenees.	Common topographic conditions either by the sea or in mountain areas. Although the structural character of the regions points at an overall rural character (natural land cover and population density), regions include some urban agglomerations. Outstanding tourism infrastructure and high increase rates as common characteristic. Leads to a strong role of the tertiary sector. Agriculture plays an average role with no significant sign of switches from the primary to the tertiary sector. However the pressure on land increases with significant increases of population density.	GDP in PPP is on average, with low deviations within the cluster. Unemployment rate clearly below average with very low top values. Share of population above 65 is slightly below average. Quite well balanced economy.	The support from the CAP is low (335.3 € per UAA as compared to 751.3 € per UAA on EU average for Pillar 1) and for Pillar 2 very low for both funding periods (5.9 €/0.6 € per capita as compared to 14.2 €/2.7 € on EU average).
8 - Eastern periphery – agriculturally dominated	Comprises regions in Poland, Romania and some parts of Bulgaria.	Very remote rural areas at the eastern boarder of the EU. Regions facing most challenges. Very low economic performance (in the lowest third of the EU regions – however relatively high growth rates) which is very depending on agriculture. Low skilled agricultural actors. High shift from primary to other sectors	Lowest GDP in PPP average, regions GDP only a third of EU average. Unemployment rate also above average but not this critical. Very low share of population above	Pillar 1 expenditures amongst the lowest in Europe. As for the Pillar 2 expenditures the regions have received below average funding for the ongoing period (0.4 € per capita as compared to 2.7 € on EU average) and average funding for the

Cluster	Regions	Cluster characteristics	Thematic maps	Fundings
		to be observed – especially towards the tertiary sector or moving out of the regions. Underdeveloped tourism. Due to unfavourable conditions these are the regions with the comparably highest share of outmigration in Europe leading to a considerable brain drain.	65+. Regions face serious economic challenges, though could benefit from a relatively young population in the near future. Long time development also problematic due to low fertility rate.	previous programming period [14.2 € per capita as compared to 14.2 on EU average – estimated data].
9 - "Strong" rural regions in new MS	It covers large parts of the Baltic countries, parts of Eastern Poland and parts of Slovenia.	Eastern European equivalent to Cluster 11: it is a new differentiation of Eastern European regions by taking into account the EU agricultural policy support. The common features of these regions are a low economic performance with comparably large growth rates in the last years. Agriculture plays a decreasing role however starting from a comparably high level. On the other hand, especially the secondary sector gains. The tertiary sector – and with it tourism – does not yet account significantly to the regional economic performance.	Very low GDP performance but also very low unemployment rates. Share of population 65+ below average. High potential for strong future development..	The similarity to cluster 11 is to be seen when analysing the contributions of CAP support to these regions: especially Pillar 2 funding is above EU average [in the previous programming period more than 3 times higher – 43.8 € per capita as compared to 14.2 € on EU average)]. Rural Development funding therefore played quite an important role in these regions. It would be worthwhile to take a closer look whether this support will be helping along to achieve a sustainable, balanced rural development..

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Cluster	Regions	Cluster characteristics	Thematic maps	Fundings
10 - Central and North European industrial (manufacturing) regions	This cluster comprises Western Germany (except the cities), Southern Sweden and parts of Slovenia.	Intermediate regions with urban elements. The socio-economic situation shows average economic performance. Regions are furthermore characterized by relatively low shares of agriculture in employment and economic performance. However the agricultural workforce is highly skilled. Strong tertiary and secondary sector with relatively high growth rates. Not achieved at the expense of agriculture. Still increasing pressure on land due to shift in economic activity. Farmers try to respond to these trends by diversifying their income [above average share of other gainful activities by farmers].	Second highest GDP in PPP within non urban clusters, with highest minimum values. Unemployment rate amongst the lowest of all. Share of population 65+ is on average. One of the prosperous non urbann clusters.	The CAP support in this cluster is for all Pillars and funding periods below the EU average.
11 - Rural Regions with significant Industry	The cluster covers intermediate regions in Germany with the bulk located in Eastern Germany and the Northern part of Denmark.	Economic performance below average . The German East-West divide with relatively slow but steady development is depicted accurately; development mostly accounted by industry and services. Still the regions show a relatively high unemployment rate. Stable conditions for agriculture at a comparably low level [in terms of employment]. Good proportion of well trained farmers – leading to relatively high share of other gainful activities on farms. Tourism rather underdeveloped. "Shrinking regions" in terms of population, which leads to an accelerated ageing of the population.	GDP performance is below average but not within the lowest. Unemployment rate by far the highest in non urban areas (with huge gap to second highest), twice as high as EU average. Share of population 65+ is highest amongst non urban clusters. Faces serious challenges due to unemployment.	As to be expected the amount of agricultural policy support – from Pillar 2 has been above the EU average (22.2 € per capita as compared to 14.2 € per capita on EU average for the previous Programming Period). However Pillar 1 support (338.6 € per UAA as compared to 751.3 € per UAA on EU average) as well as Pillar 2 support in the ongoing programming did not reach the EU average (1.4 € per capita as compared to 2.7 € on EU average).
14 – Eastern periphery – industrialized	The cluster categorises regions in West-Poland and parts of the Czech	Intermediate regions including some cities. High economic growth level and tremendous decrease in unemployment	Very low GDP in PPP, clusters average is only half of total EU	Pillar 1 expenditures amongst the lowest. However as for the Pillar 2 expenditures the

Cluster	Regions	Cluster characteristics	Thematic maps	Fundings
	Republic and Slovakia as well as Bulgaria.	rates compared to the EU average – however starting from a comparably low level. Relatively high share of agriculture with equally high share of people moving out of agriculture. These people are moving mainly into the secondary sector. Regions clearly build up industrial and manufacturing importance in the recent years. Underdeveloped tourism with even shrinking importance. Regions could be characterized as "shrinking" regions with loss of population.	average. Includes some of the worst performing regions. Unemployment rate second highest within non urban clusters, though top values are not that high. The clusters regions have the lowest share of old population.	regions have received significantly more support than the EU average (17.2 €/7.9 € per capita as compared to 14.2 €/2.7 € on EU average).
15 - Rural areas with strong rural development	Geographically it comprises an – at first sight – heterogeneous set of regions ranging from Eastern Portugal, Central Spain and Central France over Ireland and parts of Scotland and large parts of Finland to parts of Austria and Greece.	Overall rural areas with an average economic performance (GDP per capita and employment situation are slightly below average). The general trend of sectoral shift from agriculture to other economic sectors is observable however not to such an extent as in other EU regions. This means that farming/forestry still plays an important role in these regions, although a slight decrease is already notable [as expressed in a below average share of primary sector share in regional GVA]. However, farmers are comparably well trained.	GDP in PPP slightly below average but stille quite well performing. Unemployment rates amongst the lowest. Share of population slightliy above average. Almost as well developing as Cluster 10.	The special conditions of these regions is best depicted by their share of CAP funding, which is above average for Pillar 1 support [about 3 times of the EU average], but has been significantly higher for Rural Development as well (63.6 €/5.3 € per capita as compared to 14.2 €/2.7 € on EU average). It might be concluded, that the stable conditions with respect to rural development have been triggered by this support.

Source: ÖIR / ECORYS

5 Regional case studies

5.1 Objective of the regional case studies

The objectives of the case studies is to*"identify key conditions for economic growth in rural areas and classification of the major drivers of employment and socio-economic development in rural areas"*.

The case study approach allows the full and best use of information that is only available at the local and regional levels 'in country'. They enable access to more detailed data on drivers, conditions, trends and policy to contribute significantly to the understanding of employment and growth in rural areas. The 15 case studies analyse how rural development policy is targeted towards local needs and identifying what the effects of policy have been on key sectors in the areas concerned. The 15 case studies also provide data to confirm the identified conditions and drivers for employment and growth in rural areas. The purpose of undertaking regional case studies is therefore twofold:

- First, to complete the data analysis through the provision of specific regional level and qualitative in-depth information.

- Secondly, to provide regional level data for investigation, the purpose of which is to understand how regions and their rural areas are affected regional drivers in particular and the extent to which these drivers contribute to successful sectoral development.

The case studies include an analysis of:

- The demand for rural development measures that contribute to job creation and how the distribution of rural development funds has corresponded to this demand (and needs).

- The key factors and conditions for the stimulation of employment and growth, including synergies between the application of national and EU policies.

- Identification of market failures and their causes.

- Identification of factors that have contributed to the successful development of key sectors in the case study areas, the policy measures that have supported them and the way in which these have been implemented.

- The impact of the economic crisis on employment and growth in rural areas and measures taken to address this.

5.2 Methodology for the case studies

The following approach has been used for the case study research:

1. Defining approach and methodology

2. Selecting case studies

3. Collecting information per case study

4. Analysing information.

5.2.1 Define approach and methodology

Firstly, a selection framework has been developed for identifying and selecting case study regions. This selection framework consisted of the following criteria:

- The case studies should have a geographical division over North West, Baltic, East and Mediterranean.

- The case studies should have a division over old and New Member States: EU15 – NMS.

- The case studies should be divided over the classification (predominantly rural, intermediate and remote regions).

- The case studies should have a variety of characteristics of regions: coastal, island, inland, lowland, upland, mountainous, afforested, protected/designated.

- The case studies should be spread over the clusters resulting from the cluster exercise.

To achieve a list of 15 case studies that meet the above criteria and ensure a good spread, first 30 possible regions were selected for investigation, followed by a rigorous process of identifying the final 15.

5.2.2 The selection of case studies

Secondly, the 15 case studies were selected which show a variety of rural regions throughout Europe with different characteristics and covering the different clusters. In Table 5.1 the final selection of the 15 case studies can be found.

As can be seen there is at least 1 case study per 'rural' cluster (there are 13 clusters but 4 of them are urban clusters).

Map 5.1 visualizes the spread of the 15 selected case studies over the EU27 and clusters.

Table 5.1 The selected 15 Case Study Regions, criteria used and characteristics

Area	NUTS3	Nuts3 Region Name	Cluster*	DG AGRI/DG REGIO methodology**	Key characteristics
North West	BE257 (BE)	Arr. Tielt	2	Intermediate	Inland - Lowland
	DE80E (DE	Nordwestmecklenburg	9	Predominantly rural Close to city	Coastal - Lowland – Afforested
	IE025 (IE)	South West	11	Predominantly rural Close to city	Coastal - Mountainous
	UKM62 (UK)	Inverness & Nairn and Moray, Badenoch & Strathspey	4	Intermediate	Coastal - Upland - Designated
Baltic	EE006 (EE)	Kesk – Eesti	12	Predominantly rural Remote region	Coastal - Lowland & Upland - Afforested - Protected/designated landscape
	FI1A3 (FI)	Lappi	4	Predominantly rural Remote region	Inland – Lowland & Upland - Afforested – Protected
	SE321 (SE)	Vasternorrlands Ian	10	Predominantly rural Close to city	Coastal – Mountainous - Afforested
East	AT212 (AT)	Oberkärnten	3	Predominantly rural Remote region	Inland - Mountainous
	BG332 (BG)	Dobrich	4	Intermediate	Coastal - Lowland & Upland
	CZ063 (CZ)	Vysocina	3	Predominantly rural Close to city	Inland - Mountainous & Upland - Protected/designated landscape
	HU 212 (HU)	Komarom-Esztergom	7	Intermediate	Inland - Lowland
	PL315 (PL)	Pulawski	6	Predominantly rural Close to city	Inland - Upland - Protected/designated
Mediterranean	FR724 (FR)	Puy De Dome	3	Intermediate	Inland – Mountainous – Protected
	ITG29 (IT)	Olbia-Tempio	4	Predominantly rural Remote region	Coastal - Island - Mountainous
	ES425 (ES)	Toledo	5	Predominantly rural Close to city	Inland - Mountainous

Source: ECORYS

* This refers to the clusters that have been developed in this study

** Intermediate: Rural population between 20% and 50% of total population

   Predominantly rural: Rural population 50% or more of total population

Map 5.1   Overview of the location of the selected case study regions (clustering with 27 variables)

Data source: GISCO - Eurostat (European Commission)
© Copyright: EuroGeographics for the administrative boundaries

Enlargements

Greater London   Île-de-France   Malta
CLUSTER

Départements et régions d'outre mer   Islas Canarias

Overseas

Madeira & Ilhas dos Açores

Map developed by ÖIR
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CLUSTER

I - Large European Cities
II - Semi-urban areas with land use pressure
III - Cities not aggregated with their surroundings
V - Balanced rural areas with declining manufacturing sector
VI - Southern and Northern periphery and mountains regions
VII - Coastal and mountain areas
VIII - Eastern periphery - agriculturally dominated

IX - "Storng" rural regions in new MS
X - Central and Northern European industrial regions
XI - Rural regions with significant industry
XII - Global cities
XIV - Eastern periphery
XV - Rural areas with strong rural development

Variables
Ind_01_newurban
Ind_02_GDP_per_capita
Ind_03_change_gdp_pps
Ind_04_unemployment
Ind_05_change_unemploy
Ind_06_Training_education_agri
Ind_07_empl_dev_prim
Ind_08_change_emp_prim
Ind_09_farmers_gainful
Ind_12_tourism_beds
Ind_13_change_tourism_beds
Ind_14_lcover_natural
Ind_15_lcover_artif
Ind_16_pop_dens

Variables
Ind_17_change_popdens
Ind_18_share_oldage
Ind_19_oldage_develop
Ind_20_change_gva_prim
Ind_21_change_gva_sec
Ind_22_change_gva_tert
Ind_23_change_emp_sec
Ind_24_change_emp_tert
Ind_25_emp_sec
Ind_26_emp_tert
Ind_29_P1_Capita
Ind_30_P2_Capita
Ind_37_PrevP2_Capita

Sources:
DG AGRI (Expenditure Data)
"Study on employment, growth
and innovation in rural areas"
(2010) managed by DG AGRI.

Criteria 1: Spread over clusters

Potential regions at a NUTS3 level were selected by a process of ensuring a good cross section across each of the 13 clusters, excluding those which deal with urban/city areas (cluster 1, 2, 8, 10 and13) as the study focuses on rural areas.

Each potential Case Study within a country was selected, as far as is practicable, to be dispersed within the country and to show differing characteristics, as described in Table 5.2.

The selection shows that there is a good distribution across the clusters, as well as across the DG AGRI/DG REGIO typology (new methodology classification) which has been used to ensure a representative cross section at a basic level of remote, accessible and peri-urban areas. This analysis is shown in Table 5.2.

Table 5.2   Distribution of selected case study regions by clusters

Cluster nr	Number of case studies	Member State(s)
1 Large European Cities	0	
2 Semi-urban areas with land use pressure	1	BE
3 Balanced rural areas with declining manufacturing sector	3	AT, CZ, FR
4 Southern and Northern periphery and mountains	4	UK, FI, BG, IT
5 Coastal and mountain areas	1	ES
6 Eastern periphery – agriculturally dominated	1	PL
7 Eastern periphery – industrialized	1	HU
8 German cities	0	
9 Rural regions with significant industry	1	DE
10 Central and north European industrial regions	1	SE
11 Rural areas with strong rural development	1	IE
12 Strong rural regions in New Member States	1	EE
13 Global cities	0	
Total	**15**	

Source: ECORYS

Criteria 2: Spread over DG AGRI/DG REGIO typology

Following on from the division across the clusters, the selection of the case studies also ensures a balanced spread across typologies based on the DG AGRI/DG REGIO typology.

Table 5.3   Division of selected case study regions over the DG AGRI / DG REGIO Classification

DG AGRI/DG REGIO classification	Selected regions
Predominantly Urban	0
Intermediate	5
Predominantly Rural Regions, Close to city	6
Prodominantly Rural Regions, Remote regions	4

Source: ECORYS

Criteria 3 and 4: spread over geographical areas and old and New Member States

Member States have been clustered in a manner that allows selecting an appropriate number of case studies dispersed across the EU27, with an emphasis on ensuring that case studies are selected from new as well as old Member States.

Table 5.4   Division of selected case study regions over geographical areas and EU15 and NMS

Criteria 3	Criteria 4		Selection
Geographical area	**EU15**	**NMS**	**EU15/NMS split**
North West	**BE**, **DE**, **IE**, LU, NL, **UK**		4 x EU15
Baltic	DK, **FI**, **SE**	**EE**, LT, LV	2 x EU15; 1 x NMS
East	**AT**	**BG**, **CZ**, **HU**, **PL**, RO, SK, SI	1 x EU15; 4 x NMS
Mediterranean	EL, **ES**, **IT**, PT, **FR**	CY, MT	3 x EU15

Source: ECORYS   In **bold** are the countries from where case studies were selected.

Criteria 5: Division over characteristics of regions

Next to the above mentioned criteria, a division of the characteristics of regions has been made. This ensures that all kind of rural regions have been selected in the case study research.

Table 5.5   Division of selected case study regions over the characteristics of regions

Key characteristics	Number of Regions displaying characteristics
Coastal - Inland	
Coastal	7
Inland	8
Other	
Island	1
Lowland	6
Upland	6
Mountainous	7
Afforested	4
Protected/Designated landscape	6

Source: ECORYS

5.2.3   Collection of information

Thirdly for each case study information has been collected on the context of the region, drivers and barriers for employment and growth in the region, the key sectors, the policy and the economic and financial crisis in the region. In cooperation with DG AGRI a questionnaire has been developed.

Country experts were briefed and provided with a set of topic guides for conducting interviews and for undertaking policy and literature reviews for their case studies. The role of the country expert was therefore to undertake desk research and interview stakeholders.

5.2.4 Analysis of results

Based on the results of the case studies an analysis has been made which enabled to deepen the results of the analysis and the clustering exercise.

The key focus for the analysis of the case studies was as follows:

- Identification of measures (on all policy levels – community, national, regional) operational in rural areas which contribute directly to employment and growth, cross referenced with the Major Drivers identified by the literature review.

- Identification and analysis of the alignment between the demand for Rural Development measures, Major Drivers and the distribution of Rural Development funds.

- Identifying supportive policy environments, their relationship with Key Conditions and Major Drivers and their outcomes and impacts.

- Identifying successful programme interventions, their outcomes and impacts.

- Identifying any market failures and the reasons behind these.

- Identifying and describing the impact of the economic crisis on employment and growth in rural areas for the case study region.

Figure 5.2   Overview of the crucial factors for the employment and growth of rural areas
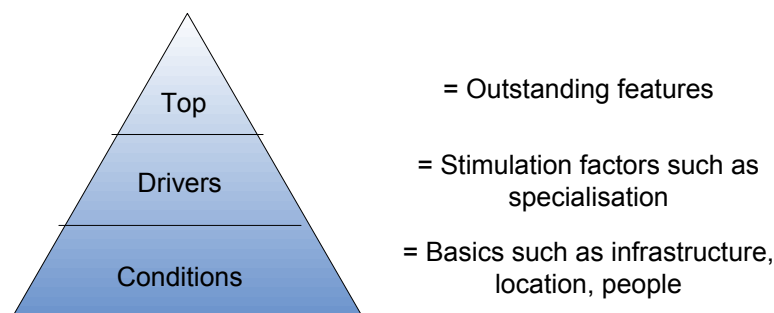
Source: ECORYS

5.3 Analysis of conditions and drivers

The analysis of the case studies follows the structure of the case studies with its division into five subsections (1) Description of the region, (2) Key sectors and drivers for employment & growth in rural areas, (3) Economic and financial crisis, (4) (EU) policy and (5) Summary and conclusions.

5.3.1 Description of the region

Main business / economic sectors

The analysis in this subsection focuses on the **main business / economic sectors** in the rural areas in the region. The main sectors of the regions can be seen in Table 5.3 where the most important sectors (in terms of employment and growth) are listed.

Table 5.3 Overview important sectors and key characteristics

Sector	Important in the regions of…		
	Country	DG AGRI / DG REGIO typology	Key characteristics
Agriculture	AT, BE, BG, CZ, DE, EE, ES, FR, IE, IT, PL, SE	Intermediate: 3 Rural – Close to city: 6 Rural – Remote: 3	Inland: 6 Upland: 4 Coastal: 6 Mountainous: 7 Island: 1 Afforested: 3 Lowland: 4 Protected: 4
Tourism	AT, BG, DE, FI, FR, IE, IT, PL, UK	Intermediate: 3 Rural – Close to city: 3 Rural – Remote: 3	Inland: 4 Upland: 4 Coastal: 5 Mountainous: 4 Island: 1 Afforested: 2 Lowland: 3 Protected: 4
Food industry	BE, BG, DE, ES, IE, UK	Intermediate: 3 Rural – Close to city: 3 Rural – Remote: 0	Inland: 2 Upland: 2 Coastal: 4 Mountainous: 2 Island: - Afforested: 1 Lowland: 3 Protected: 1
Construction	BE, BG, EE, ES, HU	Intermediate: 3 Rural – Close to city: 1 Rural – Remote: 1	Inland: 3 Upland: 2 Coastal: 2 Mountainous: 1 Island: - Afforested: 1 Lowland: 4 Protected: 1
Textile industry	BE, EE	Intermediate: 1 Rural – Close to city: 0 Rural – Remote: 1	Inland: 1 Upland: 1 Coastal: 1 Mountainous: - Island: - Afforested: 1 Lowland: 2 Protected: 1
Forestry	FR, UK	Intermediate: 2 Rural – Close to city: 0 Rural – Remote: 0	Inland: 1 Upland: 1 Coastal: 1 Mountainous: 1 Island: - Afforested: - Lowland: - Protected: 2
Mining	FI	Intermediate: 0 Rural – Close to city: 0 Rural – Remote: 1	Inland: 1 Upland: 1 Coastal: 0 Mountainous: - Island: - Afforested: 1 Lowland: 1 Protected: 1
Fishery	UK	Intermediate: 1 Rural – Close to city: 0 Rural – Remote: 0	Inland: 0 Upland: 1 Coastal: 1 Mountainous: - Island: - Afforested: - Lowland: - Protected: 1

Source: ECORYS

The numbers in the table represent the number of case studies. E.g. there are 3 regions that are intermediate which have indicated that agriculture is important sector.

For many case study regions (12 of 15 regions), agriculture is an important sector. Some regions however, have almost no agriculture, these are the regions of Finland and Hungary. In Finland, the climate does not allow agriculture. In the Hungarian region, agriculture is not dominant and investments in agriculture are far below the national average.

Not surprisingly then, agriculture is regarded as a key sector in all *types* of rural area and across all *characters* of rural area. For example, in Poland the case study region (Pulawski – predominantly rural area with good access to cities; inland with protected upland areas) is highly dependent on agriculture. The share of arable land is 62% and approximately 33% of the population works in the agricultural industry. In Oberkärnten (AT), agriculture is important but the shrinking number of jobs in the region has lead to a decrease of employment in agriculture from 7.4% in 1991 to 5.9% in 2001.

Tourism is one of the key sectors in the rural areas, and one that is again prevalent across all types of rural area (9 out of the 15 regions studied note it is an important driver) but particularly important in those areas characterised as either coastal or upland/mountainous and where there is a form of protective land use designation in place, for example National Parks. The sector has developed substantially over the last decade - for example, the region of Lappi, Finland (remote rural with protected upland areas) has experienced a growth of 5% in the sector over the last decade and is now providing employment for about 13% of the regional population. Oberkärnten (AT) deals with the seasonal character of tourism, which causes challenges in offering full time employment for the workforce. The tourism sector is important here because of the high number of cultural events.

Another important sector to note is the food (and drink) industry (6 of 15 regions). Clearly this is strongly associated with agricultural production in the regions but differs in regional type in that it is seen to be far more dominant in intermediate areas and those close to cities (markets). It is also seen to be less prevalent in those regions characterised as upland/mountainous/afforested/protected. So, for example, in Germany, the case study region of Nordwestmecklenburg (predominantly rural region, close to cities) has a well developed food processing industry mainly involving bakeries, milk processing and meat products as well as fruits and vegetables. In 2009 about 1,400 persons were employed by the food industry here. In Puy de Dome (FR) the food industry has the second place in the industrial sector, with 15% share in 2002, which has reduced to only 8.6% in 2007. The negative trend of the change of share in the food industry in the sector has more widened. The production capacity in the branch has also fallen with 40% in 2007.

In Olbia-Tempio (IT) the cork processing and manufacturing sector is important. After an extremely positive trend of production and turnover, since 2001 the sector has started to decline and is now enduring a strong crisis. The main structural problems which characterise the sector are linked both to environmental and industrial problems. From the environmental point of view, the territory is suffering a massive anthropization. From the industrial point of view, the main problems derive from:

- A strong competition from non-natural corks, which are resulting in the progressive decline in the use of natural-cork stoppers.

- Difficulties for small operators in finding the raw material.

- High costs of immobilization of the stocks.

- Limited business capacity, especially in the case of small operators.

- Poor aggregation between operators (especially the little ones) to undertake joint procurement of raw materials and marketing of products.

5.3.2 Key sectors and drivers for employment & growth in rural areas

The analysis in this subsection focuses on the following subjects;

- Why are the **key sectors** successful in the region?
- In what way are the key **sectors stimulated** through local, regional, national and EU policy?
- What has been the **effect of the policy on the performance of the key sectors** in the rural area?
- Are there rural development projects / initiatives of measures, especially focused on the employment of **women and young people**?
- Are the projects / initiatives **successful** in their aim of employment for women and young people?
- Which factors mostly affect growth and employment in rural areas in **a positive way** (drivers)?
- Which factors mostly affect growth and employment in rural areas in **a negative way** (barriers)?

Key sectors

In order to find out why the key sectors in rural areas are successful, a distinction is made between three success factors;

- Natural capital (soils, landscape, high-nature value sites).
- Human potential (age structure, entrepreneurship, education).
- Business economic environment.

Table 5.4 gives, per region, an overview of the key sectors and the reasons for their success.

Table 5.4   Overview key sectors and reason for success per country

Country	Key sector	Reason for success		
		Natural capital	Human potential	Business economic environment
Oberkärnten (AT)	Agriculture, tourism	√	√	
Tielt (BE)	Agriculture, food industry, construction, textile industry		√	√
Dobrich (BG)	Agriculture, food industry, construction, tourism	√	√	
Vysocina (CZ)	Agriculture	√	√	
Nordwestmecklenburg (DE)	Agriculture, food industry, tourism	√		
Kesk (EE)	Agriculture, construction, textile industry	√		√
Toledo (ES)	Agriculture, food industry, construction	√		
Lappi (FI)	Tourism, mining	√		
Puy De Dome (FR)	Agriculture, forestry, tourism	√		
Komarom-Esztergom (HU)	Construction		√	
South West (IE)	Agriculture, food industry, tourism	√		√
Olbia-Tempio (IT)	Agriculture, tourism	√		
Pulawski (PL)	Agriculture, tourism	√		
Vasternorrlands lan (SE)	Agriculture	√		
Inverness & Nairn and Moray, Badenoch & Strathspey (UK)	Tourism, food industry, forestry, fishery	√		
Total case studies who mentioned this reason		**13**	**5**	**3**

Source: ECORYS

For all rural areas examined through case studies, there was a strong recognition of the high value attached to their *natural capital* above all else, linking back to their strong heritage in almost all instances in agricultural production. In a more contemporary sense, tourism has also been constructed upon the value of the landscapes and heritage of the regions' natural capital with a strong theme of 'green' tourism running through many case studies, for example in relation to protected landscapes attracting visitors to Puy de Dome, France (Parc Regional des Volcans) and Inverness and Nairn, Scotland (Cairngorms National Park).

The relatively low value given to *human potential* recognizes issues relating to depopulation, ageing populations, lower educational aspirations and attainment levels. However, there is a strong theme running through case studies of diversification in rural economies from the land based sector which is perhaps under recognized here. Stimulated by EU funding and falling incomes from primary production, there has been a steep rise in entrepreneurship in the farming sector, from agro-tourism and other on-farm diversification, through to added value produce and innovative land use.

Finally, the lowest value is attached to the business *and economic environment*, reflecting issues relating to, for example, access to skilled workers, poor availability of broadband, planning restrictions on land and building use (for example in protected areas in particular) and access to markets.

Table 5.5   Reason for success per type of region

DG AGRI / DG REGIO typology	Reason for success		
	Natural capital	Human potential	Business economic environment
Intermediate	√ √ √	√ √ √	√
Rural – Close to city	√ √ √ √ √	√	√
Rural - Remote	√ √ √ √	√	√

Source: ECORYS

The number of √ indicates the number of case studies

Furthermore, when considering the relative importance attached to the three forms of 'capital' considered, it can be observed that the *business economic environment* is considered to be weak in all three types of region considered, but that 'rural-remote' and 'rural-close to city' regions attach highest importance to their *natural capital*. Examples here include Toledo (ES) where the agri-food industry, forestry and local crafts are all based upon local land based resources; and Oberkarnten (AT) with its strong focus upon land-based tourism including skiing, hiking, water sports, alongside permanent pasture land for livestock. The *human potential* of rural areas is most prominently illustrated in intermediate regions such as Tielt (BE) where there is a high degree of accessibility to urban areas, a positive net migration rate (2.84 per 1000 inhabitants in 2007) and where the net migration rate in the age category 20 to 34, was averagely positive (23 per 1000 inhabitants) in the period 1997-2007, which means more young people are entering than leaving the region.

Table 5.6   Reason for success by key characteristics region

Key characteristics region	Reason for success		
	Natural capital	Human potential	Business economic environment
Inland	√ √ √ √ √	√ √ √	√
Coastal	√ √ √ √ √ √	√	√ √
Island	√		
Lowland	√ √ √	√ √	√ √
Upland	√ √ √ √ √	√ √	√
Mountainous	√ √ √ √ √ √	√ √	√
Afforested	√ √ √		√
Protected / Designated landscape	√ √ √ √ √	√	√

Source: ECORYS

The number of √ indicates the number of case studies

When considering the three types of 'capital' according to their topographical/geographical character a less clear picture emerges from the analysis of case studies. Once again it is perceived to be *natural capital* which is the dominant force in driving success in almost all types of region. However, *human potential* emerges as a key force in both inland and lowland regions, reflecting the predominance of intermediate and accessible regions in these types of regions; and *business economic environment* is only considered to be relatively important in coastal and lowland regions.

Stimulation of key sectors

Case study regions were investigated from the perspective of the extent to which key sectors identified were stimulated through policy intervention generally and specifically through rural development policy:

Figure 5.3   Left figure: Are key sectors stimulated through local, regional, national and EU policy?
Right figure: What was the effect of rural development policy on the performance of key sectors in rural areas?
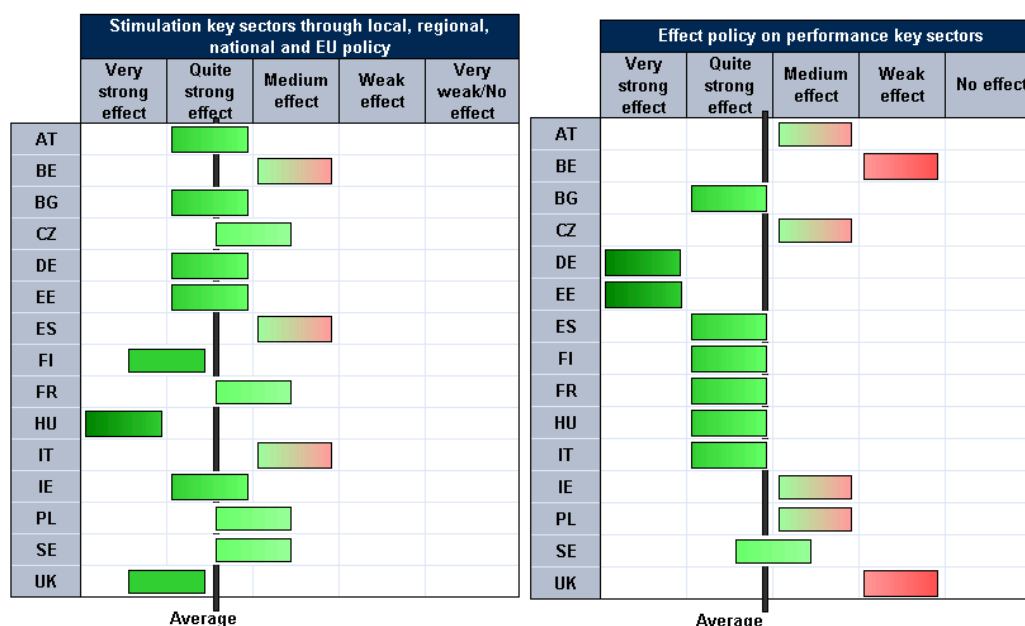
Source: ECORYS

Most case study regions are quite positive about the effect of the different policies on the key sectors of the region. However, in Vysocina (CZ) and Pulawski (PL), there are large differences between sectors. In the Czech Republic policy is said to have a large effect on agriculture and municipalities, but a weak effect on small and medium sized companies. In Poland, rural development policies had a strong effect on tourism, a medium effect on agriculture and industry and a weak effect on the infrastructure in the region. In Hungary (Komárom-Esztergom region) by contrast, local, regional, national and EU policies have a strong stimulating effect across all key sectors. Regional policies are based on local needs, while harmonised with national and EU policies.

Where a weak effect is particularly noted against the impact of rural development policy on key sectors - in the UK (Inverness & Nairn and Moray, Badenoch & Strathspey region) and Belgium (Tielt region), this may be partly explained at least by the strength of key sectors of the regional economies which have been maintained without recourse to considerable intervention from policy – for example, the textile industry in Belgium and the Scotch Whisky industry in Scotland – alongside the relative accessibility of the regions concerned to markets.

In Nordwestmecklenburg (DE), the companies in the food industry in received from 1990 to 2008 approximately € 366 million funding under the Joint Agreement for the Improvement of Regional Economic Structures. In 2008, in the context of the market structure policy eight projects with an investment volume of 27.2 million Euros have been supported through the provision of € 9.5 million of funding provided by EU, the

German Government and the local government. Next to support from the government, there have been other factors that support the key sectors. These factors are spill-overs from industries in neighbouring districts, the agricultural investment promotion programme (AFP) and renewable energy development.

Rural tourism

Rural tourism is in some case-study regions an area of focus. High-mountain farming is very cost-intensive and needs support to be maintained but is vital for the regions identity and tourism concept (for example in Oberkärnten (AT)). Rural tourism is stimulated through funding small eco- and agro tourism projects and indirectly stimulating tourism by supporting agriculture through maintaining the high scenic value of landscapes in the region.

Rural tourism is growing and a number of farmers who, besides agricultural production, started focusing on complementary activities, such as agricultural tourism (e.g. set up of an ostrich farm or farms that offer horse riding). The growing tourism also has a positive effect on the food-sector and led to the opening of farm-shops (for example in Nordwestmecklenburg(DE)).

In some regions rural tourism grows because of excellent environmental conditions and the cultural heritage in the province. Smart local, regional and national planning is necessary to preserve this heritage and ensure future attractiveness for tourism (this is the case in Toledo (ES), Lappi (FI) and Komárom-Esztergom (HU)). Natural (and cultural) conditions are an impetus for stimulating rural tourism. Natural and cultural tourism is a part of the hospitality industry which has a very clear link to the countryside and its natural and cultural environments.

Population and migration effect on rural areas

Ageing and migration is recognised as a factor of concern for the development of the regions and their rural areas. Young people migrate to cities and the percentage of elderly people in rural areas is increasing. This results in a lower share of working people. The main challenge is to reverse this migration trend and create a chance for an influx of new ideas and concepts. The challenge hereby lies in strengthening the tolerance towards an open, multi-ethnic society. Rural areas often do not have a history of openness to migrants. Inclusion into the local society and labour market asks for a need of tolerance and cultural understanding for the people employed in the non-stable/seasonal jobs.

In Oberkärnten still a trend to urbanisation is visible: the cities of Villach and Klagenfurt function as magnets. Population projections forecast an aging population and a decline in population development for the state of Carinthia and especially for the mountain areas.

Within all three districts, the share of people under 20 years is declining from 1971 until now (Feldkichen from 34.2% of the population under 20 years in 1971 to only 22.2% of the population under 20 years in 2008; Spittal from 33.4% to 21.4%, Hermagor from 32.5% to 20.7%). On the other side, the percentage of elderly people was increasing in all three districts in the same period (Feldkirchen from 11.9% of the population aged 65+ in 1971 to 17.9% in 2008; Spittal from 12.4% to 19.1%; Hermagor from 14.5 to 21.7%). The percentage of people age 85+ rose even more within this period (Feldkirchen: from 0.8% of the population aged 85+ in 1971 to 2.3% in 2008; Spittal from 0.7% to 2.2%; Hermagor from 0.8% to 3.0%).

In general the problem of migration is, especially with young people, it affects all industries in the region, since places for apprentices can not be filled, which further leads to qualified and skilled workers being not available for the local industries.

Young people and women

A particular focus of SEGIRA has been with regard to the effect of policy upon young people and women. The case study investigations have revealed the following:

Figure 5.4   Focus of projects/initiatives on the employment of young people and women
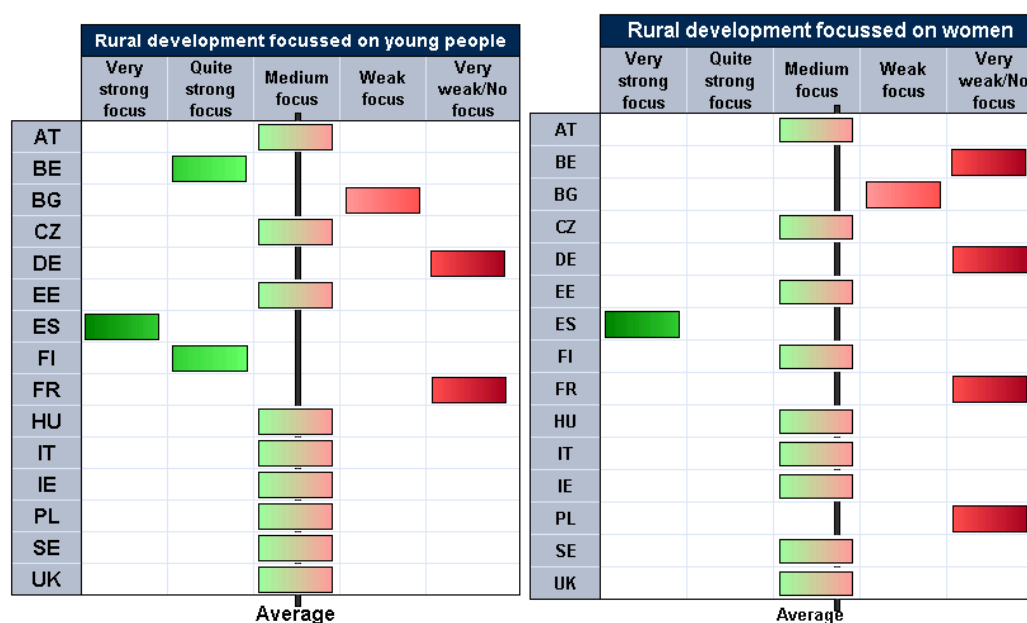
Source: ECORYS

The focus of projects on target groups young people and women is mixed. Concerning young people, seven case studies indicate that there is a good or quite good focus on this group. Only two countries (Germany and France) say that there is no focus on this group. Generally, there is less focus on women than on young people: only two regions (Toledo (ES) and Olbia-Tempio (IT)) say that projects have a good / quite good focus, with four regions (Tielt (BE), Nordwestmecklenburg (DE), Puy de Dome (FR) and Pulawski (PL)l) saying there is no overt focus on women at all.

The average focus on young people is equal to 2.7 which is between quite good focus (2) and medium focus (3). The average focus on women is equal to 3.2 which is between medium focus (3) and weak focus (4).

The case study of Spain (Toledo region) is the only case study that indicates both a good focus on young people and on women. Spain has the PRODER[106] programme that has a strong focus on the employment of both young people and women and which improves integration of women in the manufacturing of agricultural products, agri-food industry, childcare services and services for other dependent people. On a national / regional level, Spain has several programmes and initiatives (such as the Law of Sustainable

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106 Development and Economic Diversification Operation Programme for Rural Areas

Development in Rural Areas[107] and the Strategic Plan for Sustainable Development of Rural Areas[108]. It can also be noticed that all three good practices from Spain are focussed on the employment of women.

In Bulgaria (Dobrich region), there is an average focus reported on women in rural development initiatives as there is a national funded programme (Programme for motherhood support) aimed to support young mothers to get access to the labour market and to decrease the difference in unemployment levels between the genders. Programme objectives are to create conditions for a smooth transition and return to work after the use of women leave because of pregnancy, childbirth or adoption, to promote their employment and career development, while creating employment for unemployed job seekers and those involved in growing children.

Tielt (BE) has several measures focussed on young people. There is a network for rural SME's in the region, there is guidance for young entrepreneurs and there is the Rural Entrepreneurial Activity for Disadvantaged Youth. This programme helps young people who want to start their own business in a rural area. For women there are also special programmes. For example, a LEADER project in LAG Tielts Plateau provides support to after school child care services and infrastructure.

In Kesk (EE) projects involving women and young people focus mainly on the provision of temporary involvement, popularizing traditional handicraft among youngsters, communication between generations (involving young people). Also, female entrepreneurs unions are created in the region and elsewhere in Estonia to promote mentoring among social networks.

Drivers

In the case studies, drivers for rural growth and employment were investigated and identified. Drivers are defined here as factors that affect growth and employment in rural areas in a positive way. Table 5.7 shows the different drivers and the times they were mentioned in a case study.

Table 5.7   Drivers (Factors that effect rural growth and employment in a positive way)

Drivers	Positive effect*
Natural resources and environmental quality	+ + + + + **+ + + +**
The sectoral structure of the economy	+ + **+ + + + +**
Quality of life and cultural capital	+ + + + + **+ +**
Infrastructure and accessibility	+ + + + + + **+**
Social and institutional capital	+ + + + **+**
Skills, knowledge, entrepreneurship, innovation and education	+ + **+ +**
Demographic evolutions and migration	+ + +
Integrated models	+
Broadband quality	

Source: ECORYS

107 Approved in 2007, the law focuses on developing the so called "priority groups", for instance women and young people.
108 Active in the period 2008-2013, the plan includes women and Young people as horizontal axis of intervention.

* **+** The factor is mentioned as 3rd most important driver,

+ The factor is mentioned as 2nd most important driver,

+ The factor is mentioned as most important driver.

For example: 4 case studies indicated natural resources as the most important driver, 1 case study as 2nd most important driver and 3 case studies indicated natural resources as the 3rd most important driver. In total 9 case studies indicated natural resources as an important driver

The table shows that the most important drivers are in relation to the *natural resources and environmental quality* of rural areas and the *sectoral structure of the economy.*

For many rural areas, *natural resources and environmental quality* is considered to be of particular importance in relation to the tourism and visitor economy sector where environmental quality is held as paramount in attracting visitors and persuading them to stay and contribute to local economies. Maintenance of this environmental quality is regarded as a key factor for the future prosperity of those regions with a developed or developing tourism sector. Furthermore, natural resources of other kinds provide the basis for industrial activity, from water extraction and bottling(for example in Puy de Dome region, France where the Volvic water company is a major local employer), through to extractive industries (mining, stone quarrying) and commercial fishing (although this was only noted as a strong sector in the Scottish case study).

 The importance attached to the *sectoral structure* of rural economies is reflective of both the diversity of rural economies today and resultant from the scale of diversification from and within the land based sector which has been a feature of rural development over recent decades. As a result, many rural economies examined demonstrated a strong range of sectors present at the regional level, with tourism, agriculture, food and drink not surprisingly dominating for the most part, but with additional sectors in construction, energy and services all showing as significant economic drivers in many regions. Here, a good example is provided by Ireland (South West Ireland region case study) where a strong traditional dairy agricultural sector is supported by international processing companies, alongside new emerging industries in the new rural economy sectors of Information Technology and renewable energy. However, as will be noted later in this section, the sectoral structure of many rural economies remains limited beyond 'the farm gate' and this remains a significant cause for concern in relation to the future competitiveness and viability of rural areas.

A strong perception from case studies is that the *quality of life* offered by rural areas and the *cultural capital* often associated with 'rural life' is a key attraction for footloose entrepreneurs and industry, as well as a strong motivational factor for people staying in their rural communities. For the majority, this quality of life is not enough to keep young people from moving on, or from resisting the advancement of an ageing population structure. Indeed, this driver may be seen in many rural areas to be more of an inhibitor of growth through attracting more retirees of non-economic 'value' than it does retain/attract younger people contributing to economic growth. Accessible rural regions such as Belgium's Tielt region are examples where it is possible to drive economic growth through populations attracted and retained in rural communities who are able to add value to economies. However, more remote rural areas, such as in mountainous and remote regions (for example, Kesk in Estonia where key sectors are all land-based and heavily biased towards primary sectors) the population is observed to be in continual decline.

In relation to *infrastructure and accessibility,* for those regions which are relatively accessible to markets through road, rail and airport infrastructure, the combination of rural quality of life allied to ease of access to urban areas/markets, constructs a double benefit. Many intermediate rural areas (for example those studied in Ireland, Hungary, Belgium) do indeed enjoy this form of accessibility. However, many more and perhaps the majority of rural areas find this accessibility centralised in local capitals with peripheral areas still marginalised through relatively poor access. Interestingly, this question does not seem to account for the generally low standard of broadband availability for rural areas.

Barriers

Barriers (factors that affect growth and employment in rural areas in a negative way) were also identified in the case studies. Table 5.8 shows the result of this.

Table 5.8   Barriers (Factors that effect rural growth and employment in a negative way)

Barriers	Negative effect*
Demographic evolutions and migration	▪ ▪ ■ ■ ■ ■ ■ ■ ■
Infrastructure and accessibility	▪ ▪ ▪ ■ ■ ■ ■
The sectoral structure of the economy	▪ ▪ ▪ ▪ ▪ ■ ■ ■
Skills, knowledge, entrepreneurship, innovation and education	▪ ▪ ▪ ▪ ▪
Social and institutional capital	▪ ▪ ▪
Quality of life and cultural capital	▪ ▪ ■
Broadband quality	▪ ■
Natural resources and environmental quality	
Integrated models	

Source: ECORYS

* ▪ The factor is mentioned as 3rd most important barrier,

▪ The factor is mentioned as 2nd most important barrier,

■ The factor is mentioned as most important barrier.

For example: 8 case studies indicated demographic evolutions as the most important barrier and 2 case study indicated the demographic evolutions and migration as 2nd most important barrier. In total 10 case studies indicated demographic evolutions and migration as an important barrier.

The most important barriers to growth and employment in rural areas are observed to be in relation to *demographic evolutions and migration* (mainly in relation to flight of young people and an ageing population), *poor infrastructure and accessibility* and limits to the *sectoral structure* of the economy (in opposition to that noted above in the section on Drivers).

In respect of *demographic evolutions and migration,* the flight of young people from rural areas, allied to a generally ageing population, exacerbated by retirement to the countryside for higher quality of life, all indicates a continuing and potentially worsening

demographic picture for rural areas and their economies. For some rural regions in the west, inward migration from New Member States has somewhat balanced the loss of young working people, particularly for poorly paid and seasonal employment in the agriculture and processing sectors. This is particularly observable in UK and Ireland case studies and of course the converse is noted in the case of Poland, albeit some (anecdotal) evidence is noted that a reversal of this trend may be now occurring since 2009. However, this may simply mask a longer term problem yet to fully emerge in relation to the viability of rural communities as young people and families are lost. Conversely, an ageing population presents new issues in relation to service delivery and accessibility.

In opposition seemingly to the answer provided in the previous section where the sectoral *structure of the economy* is regarded as a driver for rural areas, the relatively slow pace of change in rural economies may still be seen as a barrier to growth. In particular, sectoral development which may be regarded as part of the New Rural Economy, is slow in many regions and hindered by lack and loss of skilled workers, particularly young people leaving for education and jobs and not returning to home communities. In addition, relative slow speeds of broadband, although only noted as a considerable barrier in the case studies from the British Isles (UK and Ireland) may also be a contributory factor to the slow pace of change for rural economies in diversification to the "NRE".

Similarly, for some accessible rural regions *infrastructure and accessibility* may be regarded as a positive driver of economies. However, for many, if not the majority, of rural regions - those which are remote and those peripheral areas within otherwise accessible regions - infrastructure is a major barrier to growth, both in terms of accessing markets and in terms of being accessible for employment.

It is interesting to note then that two of the barriers (the sectoral structure of the economy and infrastructure and accessibility) are also mentioned as drivers for economic employment and growth, illustrating the diversity again of rural regions and the fact that even within regions, homogeneity may not be taken for granted. An example which may be quoted here is that of Puy de Dome in the Auvergne department of France where communities connected to the main urban economic centres of Clermont Ferrand in the south, Montlucon in the north and Vichy in the east, are considered to benefit from drivers relating to accessibility and quality of life and environmental quality, while more remote areas within the same region but located in the uplands of the Massif Central, suffer from the very opposite with poor accessibility being key to hindering growth.

Restructuring of agriculture

The development of the agricultural sector is one of decline. For example in the Toledo-region the agricultural and farming sectors have gone through a progressive decline in parallel to a continuous increase of service sector and industries. The agricultural and farming sector have experienced a more dramatic restructuring process than those undergone in the industrial and mining industries in the 80s in northern Spain, though a much slower pace and over a lengthier period of time. The restructuring process has gone almost unnoticed and has had it effects in spheres of cultural, political, economic and social life's in rural areas. Due to the slow and almost unnoticed process of decline policies and policy-makers are not taking this process and its serious effects properly into account.

The share of employment and number of farms is declining and the average size of farms has increased. Though there are fewer farms, the number is stable at the moment and even increasing their agricultural production in almost all the regions. Further more a trend of farm diversification is apparent. New concepts are being developed to find new income possibilities, especially for the small-scale farms.

As an example of the restructuring of the agricultural sector, the Kesk region (EE) has experienced decreasing employment in agriculture. In 2004, 5.8 % of the population was engaged in agriculture, forestry and fishing and in 2009 the indicator was down to 4%. In Lappi (FI) the number of farms has decreased alarmingly, but the size of the farms has grown significantly. In Västernorrland (SE), the sector of land-based industries and agriculture has changed character in Västernorrland during the last 20 years. The number of companies halved between 1990 and 2010, and the share of agricultural employment has declined by two thirds. Agriculture is however still seen as an important sector in the region, especially as the surrounding industries are taken into account as an important source of work. When factors such as an open countryside, environment, tourism and living conditions are included, the importance of safeguarding agriculture and the special conditions in the county is emphasized. The number of dairy companies has decreased by over 80% during the past 20 year period from the early 1990s forward. However, by a far-reaching streamlining and rationalization processes, the actual milk production has overall been largely unchanged until now. However, in recent years the breakpoint has been reached and the milk production has fallen.

5.3.3   Economic and financial crisis

In recent years, many developments have affected the rural regions in Europe. This subsection discusses the consequences of the economic crisis for the regions and their most important sectors. This section also goes deeper into the role of rural development in coping with economic difficulties.

The analysis in this subsection focuses on the following subjects;

- What is the **impact of the economic crisis** on employment and growth in the region & its rural areas?

- What **national, regional and local actions** have been undertaken for coping with the current economic difficulties?

- What **role does rural development play** in coping with the current economic difficulties?

- What **market failures** can be identified in relation to rural employment and growth?

- What are the **reasons** for these market failures?

Economic crisis

It is interesting to see if the rural areas have been (or consider they have been) affected by the economic crisis. Figure 5.5 shows the impact of the economic crisis on employment and growth in the regions and actions that have been undertaken in order to cope with economic difficulties.

Figure 5.5

Figure 5.5 Left figure: The impact of the economic crisis on employment growth in the region
Right figure: National, regional and local actions that have been undertaken to cope with economic difficulties
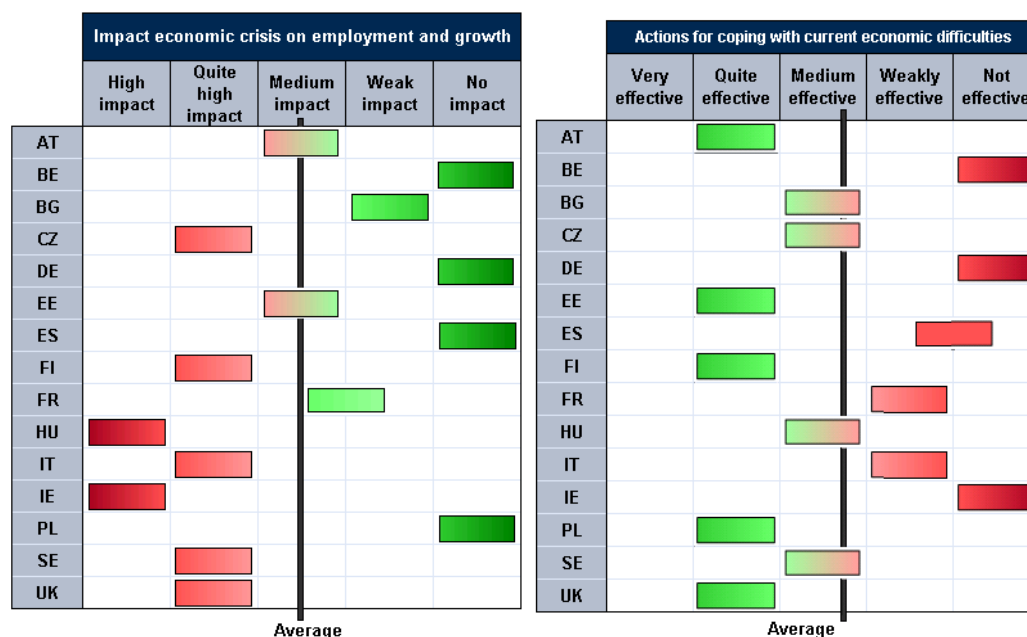
Source: ECORYS

The impact of the economic crisis on the rural regions is mixed. Six regions indicate that they were weakly or not affected by the crisis. Eight regions indicate a strong or quite strong impact and three countries experienced a medium impact. The average impact of the economic crisis is 2.8 which is between quite high impact (2) and medium impact (3).

According to the rural regions studied, the actions that were taken in order to cope with economic difficulties were of medium effectiveness. It is interesting to see that all regions that indicated that the measures were weakly or not effective are in EU15 countries. Actions in the New Member States were quite effective to medium effective.

In Tielt (BE), Nordwestmecklenburg (DE), Pulawski (PL) and Toledo (ES), the economic crisis upon the regions studied was considered to have had had no impact and also few measures were taken to cope with any economic difficulties, except in Pulawski. In South West Ireland however, the crisis was observed to have had a large impact but no significant measures were taken here. The unemployment in South West Ireland increased by 10% points since the economic turndown. This unemployment has a particular impact upon the construction industry which traditionally supported many jobs in the region. In Toledo (ES) the "Mancha Toledana" and the mountainous areas within the province have been most affected by the economic crisis. Following the start of the global financial and economic crisis, the construction sector has endured very difficult conditions forcing many businesses to close down and to make people redundant. The number of unemployed people in the province of Toledo amounts to 70 100 people, which represents an unemployment rate of 21.2%.

In Vysocina (CZ) the problems of the processing industry enterprises in towns have the most severe consequence on the unemployment growth at the countryside. In Kesk (EE), several enterprises have gone bankrupt. Among other a factory producing picture frames in Raplamaa, which resulted in 150 jobs lost; a paper factory in Raplamaa (nearly 200 people laid off) and a Itiplast industrial producer in Järvamaa (30 jobs lost).

Role of rural development

The role of rural development in coping with economic difficulties (Figure 5.6) is considered very / quite important by seven regions. Six regions consider it to be not (very) important.

Figure 5.6   The role of rural development in coping with economic difficulties

	Strong role	Quite strong role	Medium role	Weak role	No role
AT				■	
BE					■
BG		■			
CZ			■		
DE					■
EE	■				
ES	■				
FI			■		
FR		■			
HU				■	
IT				■	
IE					■
PL					■
SE		■			
UK		■			

Average

Source: ECORYS

Kesk (EE) and Toledo (ES) see an important role for rural development in coping with current economic trends. Toledo sees also a role for rural development in reversing depopulation and the ageing population trend. In general, the role played by EU funds in promoting rural development to counteract the negative effects of the financial and economic crisis has been highlighted. In Toledo, the EU funds have filled in a gap at national and regional policy levels (it was reported that there was little direct/specific attention to rural development before the EU rural development policy was set up). In Kesk, rural development also played an enormous role. LEADER strategies have the most liberty to adapt to economic changes and were generally reported as having a key positive role in relation to local strategies and responses.

Tielt (BE) mentions there is no role for rural development in coping with the crisis. The province of West-Flanders made use of the Flemish measures to avoid redundancies during the crisis. Some measures to deal with the crisis were (1) flexible careers (companies with difficulties can suggest to the individual fulltime employees to start working part-time, the company will get government support to pay a part of the salary) and (2) temporary suspension during the crisis (companies with difficulties can temporarily suspend their employees during the crisis).

Market failures

The case studies identified a significant range of different market failures with a relation to rural employment and growth. The most important market failures are listed in Table 5.9.

Table 5.9   Overview market failures

Market failure	Important in the case study region of…
Unemployment / Overcapacity due to economic crisis	EE, ES, FI, IE, IT, UK
Brain drain / Low population density	BE, DE, FR, PL, SE
Monopoly of several large firms	BG, CZ, DE
Lack of broadband	IE, UK
Production homogeneity	BG
Infrastructure	AT
Lack of transparency (information provision etc.)	HU

Source: ECORYS

Many of the mentioned market failures are consequences of the economic crisis. Examples are the lack of capital to finance investments (Kesk (EE), Lappi (FI)) and increased unemployment (Toledo (ES), Lappi (FI), South West (IE), Inverness & Nairn and Moray, Badenoch & Strathspey (UK)). These issues were discussed earlier.

A market failure that is seen in Dobrich (BU), Vysocina (CZ) and Nordwestmecklenburg (DE) is the dependence of the region on one or several large farm companies. In Vysocina (CZ) there are some powerful foreign supermarket chains[109] dictating the purchasing prices of agricultural products as potatoes, milk and meat. These prices are often lower than the actual production costs and bring farmers in financial difficulties. As a consequence of this, small agricultural firms close down or are bought up by their main creditor.

Several regions face the problems of a 'brain drain' (5 of 15 regions). Young and high educated people leave the region, due primarily to lack of employment opportunities and because of this there are not enough skilled workers available for local industries who do seek labour in higher skilled sectors.

The rural regions of Ireland and the UK suffer from lack of broadband quality. It is seen as a barrier to growth outside of the main urban area. In South West Ireland several large firms have moved out of the region because of this. This phenomena may seem *prima facie* to be one unique to the British Isles: however, it is more likely that, in fact, lower broadband speeds are not yet recognised as a significant barrier to growth in many rural regions of Europe, while in the UK and Ireland the drive for ultra fast broadband speeds are seen to hinder rural areas remote from public telephone exchanges or not yet reached by fibre-optic networks delivered by the private sector.

In Vysocina (CZ) different market failures were mentioned. A lot of small agricultural farms are bought by their main creditor. This buyer usually liquidates animal production

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109 Kaufland, Tesco, Penymarket, Interspar.

and lays off employees working in that area, with only vegetable production remaining. Also, there is limited availability of jobs in smaller towns and villages of the region.

5.3.4 (EU) policy and local initiatives

The analysis in this subsection focuses on the following subjects;

- How is EU rural policy targeted towards the **local needs**?

- Is there a well-based local / regional **integrated approach** for an effective utilisation of funds from different sources?

- Has **complementarity and synergy** between policies and funds contributed to successful development of the region?

- What is the **demand** for rural development measures across the region?

Local needs

The case studies looked into the fact of whether or not the EU rural policy is targeted towards local needs. Figure 5.7 shows the results of the case studies.

Figure 5.7   EU rural development policy targeted towards local needs

EU rural development policy targeted towards local needs				
Very effective	Quite effective	Medium effective	Weakly effective	Not effective
AT				
BE				
BG				
CZ				
DE				
EE				
ES				
FI				
FR				
HU				
IT				
IE				
PL				
SE				
UK				

Source: ECORYS

The results show that all regions have the opinion that the EU rural policy targets local needs medium to good. Lappi (FI) and Inverness & Nairn and Moray, Badenoch & Strathspey (UK) are most positive. In the UK, the EU rural development policy is seen to be central in the delivery of specifically rural policy, as within the national government rural policy is 'mainstreamed' – in other words, it is integrated across all policy. LEADER is at the heart of these efforts at the local level for rural communities and for encouraging micro sector economic activity.

Several regions have local initiatives that are worth mentioning in this analysis. Below, examples of local initiatives are mentioned from the regions Olbia-Tempio (IT), Tielt (BE) and Vysocina (CZ).

In Olbia-Tempio (IT) for example, The LAG model has been adapted to the priorities and will soon launch some calls and tenders focusing on women and young people's employment. The Local Development Plan states as general objective of the LAG the "diversification of the economy of rural areas and the creation of new sources of income and employment (especially for women / youth and disadvantaged people) by enhancing the multifunctional role of farmers to counter the strong decreasing competitiveness of the (agricultural) sector and the consequent abandonment of the activity".

In Belgium, the region Tielt did not receive a lot of support from the Belgian, Flemish or provincial government in the past. Since the foundation of the regional platform Roeselare-Tielt in 1996, local actors are working together to attract more funds to the region. Since 2008 the arrondissement Tielt is a Leader area (Tielts Plateau) which activates the local actors. One example of a local action is the Regional Economic and Social Consultation Committee (RESOC) which stimulates entrepreneurship of young people through different kind of projects.

In Vysocina (CZ), the Fund of Vysocina provides resoures to maintain work places in the current economic circumstancesto support small and medium sized enterpresis at a local level.

Integrated approach

Case studies were studied with regard to the extent to which policy at all levels could demonstrate integration and synergy in order to deliver a consistent approach and maximise positive outcomes for regional economies. Figure 5.8 illustrates results of this investigation:

Figure 5.8   Integrated approach for effective utilization of funds from different sources

Source: ECORYS

A well-based local / regional integrated approach is important for an effective utilisation of funds from different sources. According to the case studies, there is a quite good / medium integrated approach. Vysocina (CZ), Toledo (ES), Lappi (FI) and Pulawski (PL), however, find the integrated approach weak.

In Vysocina (CZ) it was observed that funds from different sources are utilised separately rather than based on an integrated approach. Despite this separate approach, most applicants have found their way to cope with it and combine different funding for realisation of their plans. In Spain, it was noted that each institution develop their own priorities and plans with little integrated approach. The existing coordination mechanisms do not show acceptable effectiveness levels. Furthermore, the regional policy on land use and spatial planning is under development so that there are important gaps in development and implementation that cannot create the conditions for putting an integrated approach in place.

Complementarity and synergy

Complementarity and synergy between policies and funds should have an effect that leads to the successful economic development of regions. The case studies confirmed this. The average score is 2.8 (between quite large and medium effect). Toledo (BE) and Komarom-Esztergom (HU) both think complementarity and synergy has a large effect. In South West Ireland and Lappi (FI), complementarity and synergy has little effect.

Figure 5.9   Complementarity and synergy between policies and funds contributed to success of region
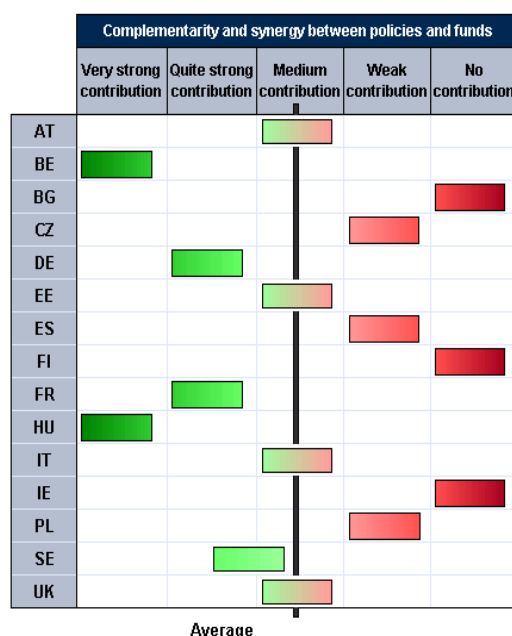
Source: ECORYS

For regions which have had a tradition of coordinated action on policies and funding, for example Tielt in Belgium, a strong experience of synergy and complementarity is observed as stakeholders work together to achieve the best outcomes. Similarly, although perhaps surprisingly given its more recent entry to the EU, strong synergy is reported in Komarom-Esztergom (HU), with the key factor being identified as well developed regional development agency operations. However, it is also interesting to note that in

other regions with a similar heritage of regional agency operations, such as South West Ireland, such synergy is not reported, or recognised.

Demand

Most regions face a high demand for rural development measures. In Vysocina (CZ) there is a medium demand and Toledo (BE) and Pulawski (PL) have a weak demand. The average score is 1.8 (between high demand and quite high demand).

Figure 5.10   Demand for rural development measures across the region
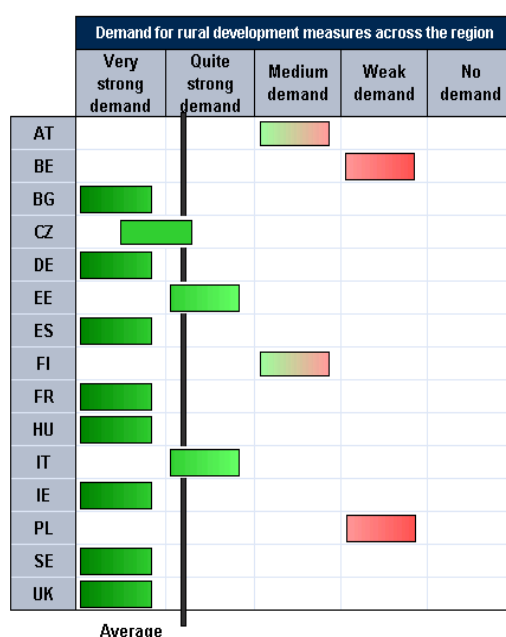
Source: ECORYS

Strong demand for rural development measures is noted in all regions, with the exceptions of Toledo (BE) and Pulawski (PL), both of which were reportedly relatively unaffected by the recent economic crisis. It is likely that there is a correlation between the economic crisis and these levels of demand as funding and financing from the public and private sectors diminished and economic vitality was threatened. For example, in South West Ireland, the downturn in the construction industry which provided a valuable income stream for many working primarily in the agricultural sector resulted in considerable loss of income - which has been off-set to some extent by LEADER led initiatives to find new part-time employment in supporting service delivery locally (the Rural Social Scheme).

Oberkärnten (AT) indicates that (high) mountain farming is demanding support, since it is very cost-intensive but vital to the regions identity and tourism concept. The scenic value of the landscape is the main tourist attraction and largely maintained by farmers. This is especially true when it comes to mountain pastures which are one of the main destinations for hiking tourists. This sector could be further supported by assisting farmers to develop a marketing strategy for high quality products, like special alpine cheese.

In Lappi (FI) there is a strong demand for cooperation and partnership. The local community in Levi is a good example, where they have established a winter centre and

their success is partly due to successful cooperation between entrepreneurs. There is a big need for more efforts on cooperation and also within education and ICT development.

Effect of stimulation of key sectors

The effect of stimulation of the key sectors through rural development funds divides opinions across different countries studied. Toledo (BE), Komarom-Esztergom (HU), Pulawski (PL) and Inverness & Nairn and Moray, Badenoch & Strathspey (UK) say there is little effect. While seven other regions indicate there is a large or quite large effect.

Figure 5.11   Effect of stimulation of key sectors through rural development funds
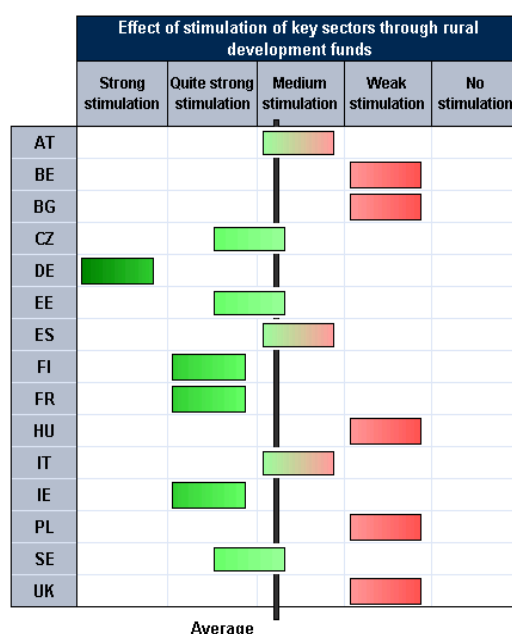
Source: ECORYS

Rural development funding is generally seen to have had a positive effect on stimulating growth in key sectors with particularly high impact reported from Nordwestmecklenburg (DE) with key support given to agriculture, tourism and the food industry. Toledo (BE), Komarom-Esztergom (HU), Pulawski (PL) and Inverness & Nairn and Moray, Badenoch & Strathspey (UK) reported generally weak impact in this area and in the case of Pulawski (PL), for example, this lack of impact is considered generally to be due to an overly centralised structure for distribution of funding and lack of cooperation resulting in a policy which is not sensstive enough to the needs of key sectors. This may too be the case in the UK where the decline of the (important) commercial fishing industry has not been averted by effective use of funding mechanisms.

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5.4 Conclusions & recommendations

Despite the obvious and expected disparities observed across the 15 regions studied, a number of clear conclusions can be drawn in summary:

Key Sectors

The current key economic sectors for rural Europe as described through the case studies, are:

- Agriculture (main sector 12 of the 15 regions)

- Tourism (main sector in 9 of 15 regions)

- Food and drink (main sector in 6 of 15 regions)

- Construction (main sector in 5 of 15 regions).

For key sectors identified, with the exception of construction, the key factor supporting these is the **natural capital** of the regions. This underlines the key role of issues such as landscape quality, sustainable use of natural resources and image branding based upon environmental quality for rural economic development. It also underscores the conclusion that, whilst for all rural regions, direct employment in agriculture has vastly reduced over recent decades, it is the land – most of which is still in direct agricultural production – which is the critical asset base for rural economies.

However, strongly supporting this natural capital, it can also be concluded that there is a significant importance to be placed upon **human capital** of rural communities too. Entrepreneurialism is demonstrated through a strong base in SME and micro business, and through a farming industry which has recognised the need for diversification which in turn has been well supported by policy at all levels. A skilled workforce is apparent too both in traditional economic areas such as agricultural production and processing but also in the service industry particularly relating to the growth of tourism.

It can also be concluded from the case studies that these key sectors have generally been well supported through co-ordinated local, regional, national and EU policy – and that this policy intervention has lead towards increasing effectiveness in key sectors.

However, on a note of caution, from a number of case studies it can be inferred that the economic base of rural areas, whilst diverse within key sectors (many activities comprise agriculture, food and drink production and the tourism/visitor economy), is still relatively narrow and therefore fragile. This may be apparent in the area referred to in the theoretical framework as the New Rural Economy and in particular in relation to eco-system services. For most of the case study regions, there was little emphasis placed upon the emergence of a new economy based on, for example, Olbia-Tempio (IT) or sustainable energy production (Scotland was one notable exception in this regard). Similarly, little emphasis was placed on lack of high speed broadband availability (outside of the UK and Ireland case studies) as a barrier to new economic growth, although it surely can be concluded that slow or even non existent terrestrial broadband availability can only disadvantage rural economic growth.

Young People and Women

The case studies have investigated the extent to which policy has supported the engagement with and involvement of both young people and women in securing economic success for rural areas. The case studies produce mixed conclusions for this report.

- A relatively strong focus of policy upon young people, across both EU15 and New Member States.

- A less strong focus upon women, although again with no particular disparity acrossthe regions in old and New Member States.

- Toledo (ES) is notable in pursuing active polices in relation to both young people and women.

The key conclusion from this set of results must be to underline the diversity of rural areas and the diversity of approaches enabled through policy in developing specific approaches which are sensitive to local needs. However, it is also true to conclude that the flight of young people from rural areas is a factor at play across all regions studied. The loss of young people and young families may be characterised as a serious structural weakness and threat to the ongoing vitality of rural economies and rural communities. Hence, those regions where prioritisation has not been given to supporting young people to stay in their communities are potentially failing to address a key aspect of sustainability and supporting an ageing demography for rural areas, undermining both employment and growth targets.

Drivers of growth

The case studies conclude the following as key drivers for rural economies today

1. Natural resources and environmental quality

2. The sectoral structure of the economy

3. Quality of life and cultural capital

4. Infrastructure and accessibility.

Once again, it can be concluded that these results illustrate both the homogeneity of rural areas on the one hand, and their disparity on the other: Quality of life, natural capital, natural resources and environmental quality are highlighted to a varying extent by all case studies as key to their economy, whereas the sectoral structure of economies and infrastructure /accessibility are highlighted as much as being barriers to growth (see following section) as drivers. With regard to infrastructure and accessibility, this is clearly correlated with accessible rural regions, where markets and nearby urban areas are well connected to rural hinterlands (for example, Dobrich in Hungary, or Toledo, Spain). However, even in well connected regions it is likely that infrastructure becomes increasingly dispersed the further away from main population centres one travels. So, for a region such Puy de Dome (FR), it is stated that the south of the region is highly accessible to the major population centre of Clermont Ferrand (and the region generally considers itself well connected) but the northern half the region (Les Combrailles) is characterized by dispersed settlements across valleys and high plateaus with long travel journeys necessary to reach secondary service centres.

In terms of sectoral structure, the case studies have demonstrated that that rural economies can display an astonishing variety of enterprise but that these are, sectorally speaking, restricted to the key sectors of agriculture, food and drink, tourism, construction - and to a much lesser extent forestry, energy, land management etc. Industrially, there is more limited diversity, particularly with regard to the "New Rural Economy". Little or no recognition is given to emerging sectors in relation to 'ecosystem services', although this economy does undoubtedly exist already, for example in relation to the provision of biodiversity services in land management practices (particularly where these are encouraged by policy interventions through CAP).

Interestingly, the public service and 'third' or voluntary sectors are not cited as a driver of growth (or indeed as a key sector) despite the fact that public services in, for example, education, health, transport, local government/administration are often cited by case studies as being integral parts of the local economic structure. Equally, the wider service sector in the private sector beyond that associated with the visitor economy is also notable by its absence – for example, retail, banking.

Barriers to growth

The case studies have concluded the following as key barriers to growth in rural areas:

1. Demographic evolutions and migration

2. Infrastructure and accessibility

3. The sectoral structure of the economy.

It can be concluded that the loss of young people, and the corresponding replacement by an ageing population provides a critical threat for rural economies. This threat applies across sectors but may be particularly important in agriculture where the average age of farmers increases relentlessly, and for new emerging industry based in information technology or other high skilled professions. Equally, retirees to the countryside force up house prices and restrict the available stock for young people, further exacerbating the problem of retaining young people.

An ageing population also brings new challenges to rural areas (but in fact new economic opportunities) relating to service delivery (health, social services) and accessibility for older and less mobile people.

Few regions reported a significant replacement of young indigenous people with in migrants, although it is clearly a present factor in some EU15 countries where an influx of young workers from some New Member States have provided a degree of replacement for the loss of local workers, particularly for the farming and food processing sectors (e.g. South West Ireland).

The further barriers of sectoral structure and infrastructure have been previously discussed. For those regions experiencing a narrow economic base and poor infrastructure, this double disadvantage is often interrelated – poor economic development resulting from remoteness from markets. Without significant infrastructure development then, economies may remain limited in scope, although again the potential lies within the "new rural economy" where investment in other infrastructure (supporting ICT and renewable energy, for example) provide a potential diversified roadmap to economic growth.

Impact of and responses to the economic crisis

The case studies provide a somewhat limited perspective in this regard, possibly due to the continuing threat from the economic crisis and the need to properly evaluate impact before lessons can be properly drawn. However, at this stage and with the limited learning available, the following conclusions may be drawn:

- The impact of the economic crisis has been extremely mixed across the rural regions of the EU. Toledo, the Spanish region, reports no impact, although clearly Spain has and continues to experience significant economic difficulties as a result of the current crisis. Conversely, South West Ireland reports a huge impact, largely resulting from the virtual cessation of activity in the construction sector and because of massive cutbacks in public sector expenditure and employment.

- There is some indication that some sectors have been more susceptible to the crisis than others – for example organic farming, added value processed food and drink. However, there is limited evidence to substantiate this presently.

- Access to finance again is a potential barrier to growth for both start ups and businesses seeking to expand. However, no direct evidence is offered to suggest this is any more a problem for rural business as compared to urban ones.

- Policy responses to the crisis have generally been regarded as sub optimal, with some very poor responses noted in, for example, Ireland and Germany.

Effect of rural development policy

Most regions studied were generally positive about the *effect of rural development policy* upon growth and employment, but with many regional variations of course observed. Tourism, agriculture and tertiary industry were all sectors noted as having been stimulated by policy intervention.

A well-based local / regional *integrated approach* is important for an effective utilisation of funds from different sources.

Complementarity and synergy between policies and funds should have an effect that leads to the successful economic development of regions, which as confirmed by the case studies.

6 80 Good practices on employment & growth

6.1 Objective of the good practices

The objective of the good practices is to *"establish a comprehensive set of good practices supported by the EU rural development funds and their thorough analysis"*.

To respond to the objective, a database with 80 good practices on stimulating employment, growth and innovation in rural areas has been developed covering agricultural and non-agricultural investments in rural areas has been developed.

This chapter starts with a theoretical framework on case studies (section 6.2), after which the methodology is described that has been used for selecting the good practices and completing clear fiches (section 6.3). The analysis (section 6.4) provides a summary of the information that can be found in the 80 good practices. Lastly some conclusions are drawn (section 6.5).

6.2 Theoretical framework for selection of good practices

There can be no simple answer to the question "what constitutes good practice?" For example, good practice for a rural area has few lessons to offer projects at the heart of a major city. Similarly, good practice in an area of economic decline and a slack labour market has different messages compared to a generally buoyant area where the problem is access for minority groups.

From another perspective, some good practices can be identified from looking closely at locally based actions on the ground. More complex forms of good practice come from the ways actors interact with each other at regional and local levels to be mutually supportive (partnership working and good governance).

It is crucial that the identification of good practice requires:

- A realistic view of context.
- Consideration of the dynamics between projects and their environment.
- Consideration of the policy environment in which activity takes place.
- Consideration of the quality of the action itself.

Literature review on good practices

The examples and references referred to below are drawn from EU research studies; academic literature; the RDP websites and networks of Member States; and various publications promoting good practice in rural development.

A **Study on Access to Computer Networks in Rural Areas (SAANCRA)** carried out in 2007 is of special relevance because it involved the selection and presentation of some 66

case studies (1) 58 of which were drawn from across the Member States. With the focus on ICT this study was clearly more limited in scope than SEGIRA and a large majority of the projects were community driven and therefore funded under Axis 3 of the RDP.

However the case studies were intended to provide a representative coverage based on geography, sector and users with agri-businesses, farm diversification projects and tourism enterprises identified as target groups. The resultant database was assembled by the research team first 'consulting their extensive networks of rural broadband contacts'; 'further information on each best practice case example was then collected by desk research and phone interviews with the key people directly involved.' Each case was analysed with the principle aim 'to isolate the factors that made projects successful, or alternatively, the problems that had reduced their effectiveness.' The use of interviews was thought to be especially valuable in exposing the 'more qualitative and sometimes intangible effects of ICT upon organisations and communities.'

An examination of the fiches for Axis 2 projects indicates that the information that was able to be assembled is somewhat variable in quality and usefulness, and not least the qualitative material. The assessments about sustainability and transferability are generally not developed in detail. The information on success factors is rather fuller and appears to have been assisted by respondents referring to a prescribed list.

The subsequent analysis of the case studies is translated into six major contributing success factors which are outlined in the main study report (2). In this regard the availability of EU funds is considered vital because of higher infrastructure costs in rural areas. Most of the case studies however 'did not show a big contribution to job creation' and 'consistent reasons for projects to fail were not found.' The results of the study and benefits of ICT investment for the farming sector and wider rural economy were summarized in a Commission Staff Working Document (3) which draws heavily on the case studies for practical illustration.

A research project financed under the 7th Framework Programme: ***European Knowledge Based Bio-Economy*** is currently examining the delivery of CAP Pillar 2 measures. (4). This study is essentially examining the process of rural development; specifically the many different governance arrangements for the delivery of policies across the great diversity of Europe's rural areas, to establish best practices in these procedures and to provide guidance on how best to assess the impacts of policy. The research has been divided into a sequence of packages and case studies (WP8) represent a critical phase of the work. To ensure that the case studies provide comprehensive and consistent material the preceding WP7 sets out the methodological framework. Particular emphasis is placed on the need to 'capture the softer, but nonetheless valued, outputs and impacts of policy, such as capacity building, empowerment and innovation (which are not yet reflected in the formal evaluation processes of rural development policies).'

A total of 20 case studies in six thematic clusters are being prepared and these are distributed across 14 Member States. The project website sets out the individual research questions that are being explored for each study area and the research methodology. This invariably involves the use of semi-structured interviews with government agencies and other stakeholders. For some this is to be supplemented by focus groups and in one case (Leader groups in Eire) by week long field visits. The lessons drawn from the case studies are being considered by an Expert Group in February 2010 and the conclusions and recommendations of the study are to be presented in the following June.

The ***CARERA project (5)*** funded under the 6th Framework examined the impacts of Pillar 2 funding on rural employment in the 2000 to 2006 programme period. This again involved the use of case studies and the rationale for adopting this technique, as a complement to formal evaluation procedures, has been critically appraised and endorsed in the academic literature (6).

Midmore (2008) argues that 'evaluation requires a broader approach than generalization based on replicated observation of a large number of cases; in depth interpretive investigation, if conducted rigorously, can provide new insights to a debate on the direction and pace of CAP reform, particularly with the aim of making Pillar 2 policies more efficient and more effective.' His paper supports the appropriateness of qualitative methods as a necessary complement to traditional rural policy evaluation and demonstrates how such investigations can be effectively conducted, citing evidence from the six CARERA case studies. The approach is characterised as the examination of many variables, in detail, in a small number of cases rather than that of few variables across many cases. This also enables phenomena to be examined in separate contexts where different factors influence its expression and impacts. Interestingly the CARERA project focussed on the impact of Pillar 2 impacts on improving the employment potential of young people and women.

The research methodology commenced with the choice of case study areas across Europe which exhibited diversity in terms of economic performance, population density, governance, natural resources and availability of statistical information etc. Guidelines for evidence gathering were prepared for the two activity phases of desk research and fieldwork. Importantly a semi-structured interview guide was developed for interviews with key stakeholders and 106 interviews were subsequently recorded and transcribed on this basis. Key findings from this work included an apparent dislocation between Pillar 2 and other rural development policies; the importance of farm diversification and tourism in providing employment for women; that employment impacts in food processing and marketing are undermined due to Pillar 1 decoupling with little evidence of innovative responses to the latter; and evidence of polarisation in farm structures, with some becoming larger and some fragmenting into very small holdings.

As a result the case is made for more of the Pillar resources to be devoted to supporting employment outside of agriculture. Integrated solutions to rural problems are advocated, such as in the Leader method, despite the high overhead costs of local implementation. For those localities which experience poor levels of engagement and participation there should be better approaches to dissemination of good practice.

Case studies feature in two ways in the recently concluded ***FP6 FARO project: Foresight Analysis of Rural Areas of Europe (7)***. This study set out to investigate the major trends and driving forces affecting rural regions, to determine which of these processes could be influenced through rural development policies and how should policy making adapt to these changes. A set of scenarios has been produced and then tested in nine case study areas selected to cover five distinct geographical regions of the EU across seven Member States.

Work Package 3 of the FARO study also involved the production of a database containing 191 ICT related projects in rural areas. The accompanying report provides a definition of a case study: 'Case studies' is a term that is used for a variety of purposes, such as in depth studies, area studies, or good practice examples. The focus of SEGIRA

has been on studies that would provide good practice examples in specific (rural) areas. These projects might be practical and very local, or more strategic and regional. Although not necessarily led or funded by the public sector, they should show signs of being planned ICT projects rather than just the day to day development of individual people or businesses. The report provides information on the approach and method used in creating the database and lists a large number of potential sources including newsletters and conference proceedings. The format of the database allows the information to be sorted alphabetically by project title, project type and country. What is perhaps absent is any evidence or commentary on the practical utility of the database in terms of knowledge transfer and wider application of the projects listed.

The European Network for Rural Development has established three Thematic Working Groups (TWG) of experts to provide in depth analyses of the implementation of EU Rural development policy. TWG2 has been specifically tasked to examine Agriculture and the Wider Rural Economy (8) and this has potential for overlap with SEGIRA. The activity has been divided into two phases and is timetabled for 2009/2010. The overall scope of the programme is to identify linkages between farm diversification and the rural economy; to identify drivers in this relationship; to assess the influence of rural development policy and delivery arrangements; and establish the conditions which favour the diversification of income sources for farmers. In the first phase a typology of regions is to be constructed based on the degree of linkages between the agri and non agri sectors. Eighteen case studies are then proposed, at least one within each major typology element per selected region. These are intended to 'demonstrate the degree of multi-functionality of rural businesses' and to 'highlight opportunities and obstacles for income diversification.' The final phase of the work is expected to draw up guidelines for developing the synergies between agriculture and the wider rural economy, with examples of good practice.

Birdlife International has recently carried out a detailed assessment of the impacts of rural development measures with particular reference to bio-diversity and with extensive use of case study examples (9). The case studies are necessarily brief and serve mainly to contrast and draw attention to the differences in approach in the application of the rural development measures in 18 Member States and the consequential implications this has, both positive and negative, for wildlife conservation. The research findings are based on responses to a standard questionnaire and to some extent involve the judgements of expert contributors. Methodological guidelines were therefore developed by the Birdlife Secretariat in order to reduce subjectivity and ensure an even treatment of programmes across the EU.

By contrast with reports which incorporate case studies to assist in the evaluation of programmes, there are many publications across the wide spectrum of rural development where case studies are presented solely for the purpose of knowledge transfer and promotion of good practice. A report for the *Scottish Government on Service Delivery methods in rural areas* is a good example (10). The report is aimed at a variety of organisations in the public and private sectors, rural community groups and those already providing services and commences from the assumption that a variety of joined up approaches to service delivery are required to match the diverse range of needs in rural Scotland. Twenty two case studies are outlined in the report and although not all 'could be described as truly innovative they do represent examples of good practice, as many of the projects have proved to be sustainable over the course of time. All of the case studies

have significant physical, social and information facets; many utilizing mixed methods to deliver services.'

The case studies were identified by a working group of the Scottish National Rural Partnership and through consultation with local government. They were selected as a cross section which would illustrate different types of service, in different locations and with a different mix of service providers and delivery mechanisms. Information was obtained from web searches, interviews and in some instances field visits. In the report the case studies are grouped thematically based on methods of service delivery - shared premises, mobile facilities, new technology and community run services – with the material presented in a structured and consistent way to capture the key messages.

Another good example where case studies feature strongly concerns *web based advice on the retention of village pubs (11)*. The illustrations presented here are again well structured with succinct and standardised information on background; a project summary; outcomes; lessons to learn; and costs. There is similar advice for businesses wishing to increase their green credentials (12) where information is presented under the three simple headings of economic, environmental and social. Advice for community groups wishing to establish or redevelop a community centre or other such facilities is available in a series of good practice toolkits (13) via the Devon Rural Network. The Arts Council have also presented a series of case studies in good practice in arts development in rural areas of NW England (14). These highlight the contribution of rurally based artists and arts organisations to local culture, economic development and community well being.

Each Member State is required to establish a Rural Development Network in order to support the delivery of the RDP and specifically to facilitate the exchange of information, experience and practice. The creation of a projects database which can be continually updated would appear to be critical to the successful achievement of the mission. It also provides an obvious starting point for the identification of case studies for SEGIRA.

Experience from the UK is however rather mixed. In England there is a projects database which can be searched by region (15). Project sponsors or recipients of grant are invited to complete a project submission form providing a basic description, details of funding and any links to relevant websites to obtain more information. The case studies cannot be said to represent good practice because they are self selecting. In Wales a similar database has been established but at the present time this has not been populated with any projects. Scotland has not created a database. The delivery bodies for the RDPE (Regional Development Agencies in respect of Axis 1, 3 and 4) and some Leader LAGs typically produce newsletters which highlight prominent projects.

More progress appears to have been in Northern Ireland (16). Here a concerted effort has been made to showcase projects in an attractive way, with more information supplied about the scope and purpose of projects, profiles of the businesses and individuals involved and what has been achieved.

6.3   Methodology for good practices

To achieve a new database of 80 good practices on employment and growth in rural areas, several steps have been followed.

Approach used

After the above theoretical framework/literature review a typology for obtaining a long list of good practices and a project fiche were developed. In order to test the project fiche, a pilot was carried out in the UK. After adjusting the project fiche according to the findings of the UK-test, a long list of good practices was developed. From the long list, 80 good practices were selected to complete the project fiche. After completing all good practice fiches, an analysis of the good practices is conducted.

Selection criteria for good practices

For the selection of the good practices the following criteria were used:

- The good practice should have a substantial impact on the employment and growth development of the area where the investment has taken place, and/or on the socio-economic situation of the projects' developer.

- The good practices cover the areas of intervention and objectives identified in the rural development regulation[110] (axes 1, 2 and 3).

- The good practices reflect adequately the priorities identified in the strategic guidelines for rural development.

- The good practices provide a balance between type of beneficiaries (public authorities and services, non-farm businesses, farmers, associations) and type of actions.

- The good practices provide a good geographical balance between Member States and the differing characteristics of rural areas in the EU (peri-urban/remote, high/low income, high/low employment growth, agricultural and/or environmental characteristics, etc.).

- The good practice has a detailed fiche covering the key characteristics (description of the example and its initial conditions, reasons for starting the project, location, finance, outputs, impacts, success factors for its development, problems and difficulties encountered during the project's implementation, contact address, photos/logos, etc.).

- The good practice is a project co-financed with EU rural development funds in the periods 2000-2006 and/or 2007-2013.

- The selected good practices are not part of databases of good practices previously developed for the Commission (e.g., Leader + good practices, ICT good practice case-studies, etc.).

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110 Council regulation (EC) No. 1698/2005.

The 80 good practices that have been selected are included in the below table. They are presented per country and in alphabetical order.

Table 6.1   Overview of the 80 good practices on employment, growth and innovation in rural areas

Country	Name of Good Practice	Agricultural	Producer groups	Organic	Agri-food industry	Renewable energy	Farm diversification	Agri tourism	Basic services	Village renewal	ICT	Training/skills	Mountainous	Coastal	Peri urban	Remote rural	RDP 2000-2006	RDP 2007-2013	Women	Young people
AT	Steirisches Almenland	√		√	√		√	√					√				√	√		
AT	KäseStrasse Bregenzerwald		√	√	√		√	√					√			√	√	√		
AT	EnergieVision Murau					√						√	√			√	√	√		
BE	Support to agricultural diversification		√				√	√				√			√					
BE	Monitoring of HACCP actions	√			√		√					√			√			√		√
BE	Setting up of young farmers	√										√			√		√	√		√
BG	Greenhouse production	√	√	√	√								√		√			√	√	√
BG	Farm development	√						√							√			√		√
BG	Agricultural farming	√										√			√			√		√
CZ	Reconstructing cow-house for free moving cows		√											√				√		
CZ	Reconstruction of an animal waste-storage	√												√				√		
CZ	Construction of bio-gas station					√								√				√		
DE	Competence workshop for women in rural regions											√			√		√		√	
DE	Economic Initiative Diepholzer Moorniederung											√			√		√			√
DE	VulkanBike Trailpark							√					√							
DE	Bio-Energy Village Jühnde					√									√					
DK	Establishment of downhill skifield						√									√	√			
DK	Meeting point Idestrup								√							√		√		
DK	Establishment of Aarø vineyard'	√						√						√			√			
EE	Development of ostrich breeding farm	√														√		√		√
EE	Local food project "UMA MEKK" (*own taste*)				√										√			√		
EE	Construction of bioethanol plant					√									√			√		
EL	Organic livestock production	√		√				√					√					√		√
EL	Innovation in olive production			√				√					√					√		√
EL	Bakery-Pastry							√								√		√		
ES	Bottom-up Equality											√	√					√	√	
ES	Set-up servicing enterprise for automotive sector							√						√				√	√	
ES	Training strategy for services to people's needs.											√						√	√	
FI	Entrepreneurship-network for young people							√								√		√		√
FI	Smart village of the future - Ruhtinansalmi							√		√	√					√		√	√	
FI	Agro Living Lab	√						√				√				√		√		√
FR	Welcome & accompany newcomers in Séronais	√	√															√		
FR	Development of short food supply chains								√						√			√		
FR	Residences for entrepreneurs								√				√					√		
HU	Model farm for rural development	√				√		√								√	√		√	
HU	Implementation of rural development plan	√			√								√				√			
HU	Production of solar cell roof tiles					√							√						√	
HU	Procurement of sires for launching new business	√														√	√		√	√
IE	Developing digital skills of Young People										√	√			√		√			√

Country	Name of Good Practice	Agricultural	Producer groups	Organic	Agri-food industry	Renewable energy	Farm diversification	Agri tourism	Basic services	Village renewal	ICT	Training/skills	Mountainous	Coastal	Peri urban	Remote rural	RDP 2000-2006	RDP 2007-2013	Women	Young people
		Type of Good Practice											**Rural area typology**				**Period**		**Group**	
IE	Foodskool - Promoting Healthy Eating											√				√	√			√
IT	Telecottages & bundled services for teleworking										√		√				√		√	√
IT	Integrated project cultural & environmental goods														√		√		√	√
IT	Ecological village for environmental education											√				√	√			√
IT	Strengthening the local production chain		√													√	√			√
LT	Establishing organic agricultural enterprise		√	√												√		√	√	
LT	Young farmer establishment	√		√												√		√		√
LT	Further development of flower farm						√									√	√			
LV	Farm "Vecsiljani"	√			√		√									√		√		
LV	Industrial Trainings	√	√	√	√		√					√			√	√		√		√
LV	Farm development	√	√													√		√		
MT	Setting up of new Greenhouses	√						√								√	√			
MT	Rabbit Slaughtering & Processing Plant	√			√			√	√							√	√			
NL	Foxheerd Housing and care facility								√	√						√		√		√
NL	Introduction of biomass in horticulture					√										√		√		
NL	Tierelier' Child daycare on farm						√		√							√		√		√
NL	Farm Spa Nutter						√									√		√		
PL	Building of farm tourism centre in Wielgie Milickie						√	√		√						√	√			
PL	Strategy for Lake District: integrate 9 communities												√	√			√			
PL	Building of sport/recreation center in Chmielów									√					√		√			√
PL	Centre for rural initiatives in Scinawce Gorne									√			√				√			
PT	Ecolignum - Madeiras Nobres de Vinhais															√	√			
PT	Diversification of the production chain						√							√			√			
PT	Bonduelle - AgroIndústria, S.A.						√						√				√			
RO	Vegetable farm modernisation	√														√		√	√	√
RO	Animal farm modernisation				√		√									√		√		√
RO	Poultry farm modernisation				√											√		√		√
SE	Eldrimner		√		√											√	√			
SE	Fiber till byn									√	√		√	√	√	√		√		
SE	Grogrund	√	√		√			√				√						√	√	
SE	Biogas Brålanda					√			√							√		√		
SK	Continuing modernisation of Kolarovo Mill				√											√		√		
SK	Sustainable forest management												√					√		
SK	Construction of agro-tourism 'Sunny farm'							√								√		√		
SL	Greenhouses fo orchids	√			√											√		√		
SL	Eco story "Vrečkica" (bag)															√		√		√
SL	Installing rooftop solar power plant on organic farm					√												√		
UK	The Barn at Beal						√	√	√					√			√			
UK	Overwater Marina							√	√							√	√			
UK	Plumgarths Farm Shop & Food Services Company		√		√											√	√			
UK	Genetic Improvement in Sheep & Beef Sectors	√	√		√											√	√			
80	Total	26	12	8	17	10	24	13	10	5	7	13	16	11	32	26	43	39	13	28

Source: ECORYS

ECORYS ▲ Study on Employment, Growth and Innovation in Rural Areas (SEGIRA)

6.4 Analysis of the SEGIRA good practices

The analysis of the 80 good practices that were collected in the context of this study has been undertaken under a number of subject headings in order to highlight similarities and differences among countries, new and old Member States, geographical areas and sectors:

1. Project sectors
2. Focus on young people and women
3. Focus on technological innovation
4. Focus on partnerships / networking
5. Focus on innovation in rural service provision
6. Project size (as defined by total budget and EAFRD contribution)
7. Application process
8. Business plan development
9. Success factors
10. Lessons learned
11. Transferability
12. Employment situation
13. Other key points

In the sections hereafter an overview is provided of the results of the 80 good practices per subject.

6.4.1 Project sectors

The projects are divided into 11 broad sectors, namely;

- Agricultural
- Producer groups
- Organic
- Agri-food industry
- Renewable energy
- Farm diversification
- Agri tourism
- Basic services
- Village renewal
- ICT
- Training/Skills.

Many projects are actually cross-sectoral and cover several areas.

Table 6.2 shows the distribution of the projects among the different sectors and by country. Almost two thirds are focussed on skills, training, community services and infrastructure together with primary sector production improvements / modernization. This is not a surprise given the growth and jobs' orientation of the set of good practices.

Table 6.2   Overview of good practices by sector and country

Country	Sector											Rural area typology			
	Agricultural	Producer groups	Organic	Agri-food industry	Renewable energy	Farm diversification	Agri tourism	Basic serviced	Village renewal	ICT	Training / Skills	Mountainous	Coastal	Peri urban	Remote rural
AT (3)	√	√	√√	√√	√	√√	√√			√		√√√			√
BE (3)	√	√		√		√√		√			√√			√√√	
BG (3)	√√	√	√	√		√				√		√		√√√	
CZ (3)	√		√		√								√√√		
DE (4)					√		√				√√	√		√√√	
DK (3)	√					√	√	√					√		√√
EE (3)	√			√	√									√√	√
EL (3)	√		√	√		√	√√					√√			√
ES (3)						√					√√	√	√		
FI (3)	√					√√	√		√	√√					√√√
FR (3)	√	√						√√				√	√		
HU (4)	√√√			√	√	√	√					√√			√√
IE (2)										√	√√			√	√
IT (4)		√								√	√	√	√		√√
LT (3)	√	√	√√			√									√√
LV (3)	√√√	√√	√	√√		√√					√			√√	√√
MT (2)	√√			√		√		√√						√√	
NL (4)					√	√√		√√	√					√√√√	
PL (4)						√	√		√√√		√	√	√	√√	
PT (3)						√√						√	√		√
RO (3)	√			√√		√								√√√	
SE (4)	√	√√		√√	√	√	√	√√		√	√	√	√	√√	√√√√
SK (3)				√			√					√		√√	
SL (3)	√			√√											√√√
UK (4)	√	√√		√√	√	√√	√√						√	√√√	
Total	26	12	8	17	10	24	13	10	5	7	13	16	11	32	28

Source: ECORYS

√√ refers to the appearance of 2 projects in the same category (√√√ = 3 projects, √√√√ = 4 projects, etc.).

Sectors and rural area typology

Table 6.3 shows the projects per sector and rural area typology. For example, there are 15 projects in mountainous areas that have an agricultural focus.

Table 6.3   Overview projects per sector and rural area typology

Sector	Mountainous	Coastal	Peri urban	Remote rural
Agricultural	15	7	33	25
Producer groups	8	6	28	9
Organic	9	3	5	9
Agri-food industry	14	2	40	10
Renewable energy	7	6	18	10
Farm diversification	16	8	40	21
Agri tourism	16	5	27	11
Basic services	4	4	23	2
Village renewal	3	3	6	3
ICT	6	2	10	10
Training/skills	7	5	24	6
Total projects*	**16**	**11**	**32**	**26**

Source: ECORYS

* The total number of projects does not correspond with the number of projects mentioned in the table since some projects have more than one focus sector.

6.4.2   Young people and women

Projects with a special focus on young people and women

Several projects (8 on young people and 5 on women) are especially focussed on young people and women. The geographical distribution of these projects is shown in Table 6.4. Most of these projects are in EU15. Table 6.5 shows the same projects per sector and Table 6.6 connects the projects with a focus on young people and women to the characteristics of the regions.

Table 6.4   Projects with a specific focus on young people or women

Country	Focus on young People	Focus on women
BE	√	
DE	√	√
IE	√√	
NL	√√	
SE		√
SL	√	
LT	√	
ES		√√√
Total projects	**8**	**5**

Source: ECORYS   √ = 1 project

Focus on young people

Both the Netherlands and Ireland have two good practices that focus on young people. The projects in the Netherlands consist of a child day-care facility on a dairy cattle farm and a housing and care facility (Foxheerd) for mentally disabled residents. The projects in Ireland 'Creative use of digital media' and 'Promoting healthy eating' have enabled participants in a rural locality to express themselves creatively in a digital medium and encouraged children to develop healthy eating habits.

Focus on women

Three projects from Spain target women in rural areas. The project 'Training strategy in services linked to people's needs' enables women to acquire formal recognition for personal services activities (for example cleaning) that are often undertaken outside of conventional employment. Project 'Equality from the base' aims to provide local women with greater resources to access the labour market and has stimulated the establishment and strengthening of networks of organisations working with women. The third project relates to the creation of an enterprise providing pre-installation of automotive parts in which the job places are predominantly occupied by women. Table 6.5 shows the projects with a focus on young people and women per sector.

Table 6.5   Projects with a focus on young people and women per sector

Sector	Focus on young people	Focus on women
Agricultural	√	√
Producer groups		√
Organic	√	
Agri-food industry		√
Renewable energy		
Farm diversification	√√	√√
Agri tourism		√
Basic services	√√	
Village renewal	√	
ICT	√	
Training/skills	√√	√√√√
Total projects*	**8**	**5**

Source: ECORYS   √ = 1 project

* The total number of projects does not correspond with the number of projects mentioned in the table since some projects have more than one focus sector.

All projects that focus on women, have something to do with the development of training and skills for women. The projects that focus on young people are more diverse and focus, among others, on farm diversification, basic services and training / skills.

Table 6.6 shows the projects with a focus on young people and women divided to the characteristics of the regions.

The projects with a focus on young people are all in peri urban or remote rural areas. There are no projects on this topic in mountainous and coastal regions. The projects with a focus on women are more divided among the different regions.

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Table 6.6   Projects with a focus on young people and women and characteristics of the regions.

Sector	Focus on young people	Focus on women
Mountainous		√
Coastal		√√
Peri urban	√√√√	√
Remote rural	√√√	√
Total projects*	**8**	**5**

Source: ECORYS   √ = 1 project

Projects with young people and women as beneficiaries

There are more projects that have women or young people (below 40 years) as beneficiaries. Table 6.7 shows these projects per sector.

Table 6.7   Projects with young people or women as beneficiaries (per sector)

Sector	Focus on young people	Focus on women
Agricultural	√√√√√√√√√√ : 11	√√√√
Producer groups	√√	√√
Organic	√√√	√√
Agri-food industry	√√√√√	√√
Renewable energy		
Farm diversification	√√√√√√	√√
Agri tourism	√√√	√√
Basic services	√√	
Village renewal	√√√	√
ICT	√√√√√	√√
Training/skills	√√√√√√	√√√
Total projects*	**13**	**28**

Source: ECORYS   √ = 1 project.

* The total number of projects does not correspond with the number of projects mentioned in the table since some projects have more than one focus sector.

The table shows that 28 projects have young people as beneficiaries and 13 projects have women as beneficiaries. The sectors agricultural, agri-food industry, farm diversification and training/skills have most young people as beneficiaries. For women, these are the sectors agricultural and training/skills.

6.4.3   Technological innovation

Eight projects focus on technological innovation. The table below identifies the sectors that are accommodating these technological investments in which these projects have been implemented. These projects include major capital investments such as in grain storage / processing facilities (Slovakia), as well as renewable energy installations for farm buildings and villages (Slovenia, Austria & Germany). It is interesting to see that especially projects on renewable energy are considered innovative.

Sector	Focus on technological innovation*
Agricultural	√
Producer groups	
Organic	
Agri-food industry	
Renewable energy	√√√√√
Farm diversification	√
Agri tourism	
Basic services	
Village renewal	
ICT	√√
Training/skills	
Total projects*	**8**

Source: ECORYS   √ = 1 project.

* The total number of projects does not correspond with the number of projects mentioned in the table since some projects have more than one focus sector.

Processing facilities

The main objective of the project in the Slovak Republic was to build a state-of-the-art grain storage and processing plant in the heart of the grain producing area in order to be more competitive in the European milling market and to produce healthy, clean and safe products.

Renewable energy installations

In Slovenia, greenhouses and solar energy facilities have been installed in order to make the production of orchids and beef cattle more energy efficient and thereby lowering the environmental impact and costs of production. In Austria, a regional sustainable energy network has been developed to encourage greater self-sufficiency and local responsibility in heat and power generation. In Göttingen, Germany, the village of Jühnde now supplies all its own power for electricity and heating using locally grown bio fuel and plant material. It is Germany's first eco-village.

6.4.4   Partnerships / networking

Table 6.12 shows the projects that focus on partnerships or networking divided per sector. Most projects are in the sectors producer groups, agri-food industry and farm diversification.

Sector	Focus on partnership / networking
Agricultural	√
Producer groups	√√√√√
Organic	√√
Agri-food industry	√√√√
Renewable energy	
Farm diversification	√√√√
Agri tourism	√√
Basic services	
Village renewal	
ICT	√
Training/skills	√√√

Source: ECORYS   √ = 1 project.

6.4.5   Innovation in rural service provision

Eight good practices have a focus on innovation in rural service provision. These projects include examples which focus on disabled people (the Netherlands) and broadband infrastructure for remote communities (Sweden and Italy). The project in the Netherlands, Foxheerd housing and care facility, aims to reinforce the social structure of the village by bringing in new young (mostly) residents who work and live in the local community. In Italy (Telecottages and bundled services for teleworking), the project aims at spreading teleworking in order to solve problems of isolation and depopulation. Project "Fiber to the village" in Sweden has, generally, the same goal.

Table 6.10   Projects with a focus on innovation in rural service provision

Sector	Focus on innovation in rural service provision
Agricultural	√
Producer groups	√√√√√
Organic	√√
Agri-food industry	√√√√
Renewable energy	
Farm diversification	√√√√
Agri tourism	√√
Basic services	
Village renewal	
ICT	√
Training/skills	√√√
Total projects*	**8**

Source: ECORYS   √ = 1 project.

* The total number of projects does not correspond with the number of projects mentioned in the table since some projects have more than one focus sector.

Focus on elderly people

Elderly locals in South Jutland (Denmark) established a centre for activities which connects young and elderly people. The outcomes of the project play an important role in attracting newcomers to the local community, whilst also establishing a long needed meeting point for people in the area.

Focus on disabled people

In the Netherlands, the Foxheerd housing and care facility has been developed. The facility has room for 12 mentally disabled residents, mainly younger inhabitants of the local rural community. The inhabitants are supported in running their own households and participate actively in the community.

Broadband infrastructure for remote communities

The good practise from Italy employs teleworking to solve the problems of isolation and depopulation in rural areas. This especially affects young people, who typically leave to search for better job opportunities. The actions seek, through the use of new technologies, to produce a significant improvement in the living conditions of local families by (1) helping to reduce the need for commuting and overcoming logistic problems (2) facilitating the matching between labour demand and supply, contributing also to the creation of new businesses and (3) encouraging, experimentation and practical knowledge of new methods of teleworking.

6.4.6   Project size

In order to analyse the different project sized, the projects are divided among sectors considering their budgets. The analysis also investigates the relation between project budget and the application process and goes into EAFRD co-financing rates and whether there are differences in this between sector or between New Member States and EU15.

Budgets per sector

The projects have been differentiated according to their total budget size in Table 6.11 below. The majority of the projects have costs in excess of 100.000 Euro. Only 2 projects have a budget smaller than 25.000 Euro. The projects with the largest budgets are mainly focussed on agriculture, agri-food industry and farm diversification.

Table 6.11   Overview of the size of projects - budgets per sector

Sector	<=25.000	>25.000 <=50.000	>50.000 <=100.000	>100.000 <=250.000	>250.000 <=1.000.000	>1.000.000
Agricultural		√√	√√√	√√√	√√√√√√	√√√√√√
Producer groups			√√	√√√	√√	√√√
Organic			√√	√√√		√√√
Agri-food industry			√√√	√	√√√√	√√√√√√√√
Renewable energy				√√	√√	√√√√√
Farm diversification		√	√	√√√√√	√√√√√√√	√√√√√√√√√
Agri tourism			√√	√√√	√√√√	√√√
Basic services		√	√√	√√√	√√	√
Village renewal				√	√√√√	
ICT		√√		√√√√	√√	
Training/skills	√√		√√	√√	√√	√√√
Total projects *	**2**	**6**	**17**	**31**	**41**	**43**

Source: ECORYS   √ = 1 project. For one project of France, the budget is unknown.

* The total number of projects does not correspond with the number of projects mentioned in the table since some projects have more than one focus sector.

EAFRD co-financing rates

The EAFRD co-financing rates are presented per sector, per different rural area typology and for EU15 and New Member States.

Table 6.12 shows the EAFRD co-financing rates per sector. The EAFRD co-financing rates are categorized into:

- Smaller than or equal to 25%
- Larger than 25% and smaller than 50%
- Equal to 50%
- Larger than 50% and smaller than or equal to 75%
- Larger than 75% and smaller than 100%
- Equal to 100%.

Six of the good practices did not fill in an EAFRD co-financing rate.

Table 6.12   EAFRD co-financing rates per sector

Sector	<=25% EAFRD	>25% <50% EAFRD	=50% EAFRD	>50% <=75% EAFRD	>75% <100% EAFRD	=100% EAFRD
Agricultural	√√	√√√√√√√	√√	√√√√√	√√	√
Producer groups	√√	√√	√√	√√		
Organic	√	√√√√		√√		
Agri-food industry	√	√√√	√√√√√√	√√√√	√	
Renewable energy	√√	√√√√	√	√		
Farm diversification	√√√	√√√√√√√√√√	√√	√√√	√	
Agri tourism	√	√√√√	√√	√		
Basic services	√√√√	√	√	√√	√	
Village renewal	√	√√		√		
ICT	√	√√		√	√√√	
Training/skills	√	√√	√√	√√	√√	√
Total projects*	**20**	**50**	**22**	**31**	**11**	**2**

Source: ECORYS   √ = 1 project

* The total number of projects does not correspond with the number of projects mentioned in the table since some projects have more than one focus sector.

Only two projects have an EAFRD co-financing rate of 100%. These are the projects 'Procurement of sires for launching of new business' (Hungary) and 'Foodskool: Promoting Healthy Eating' (Ireland). Most project in the area of farm diversification have an EAFRD co-financing rate between 25% and 50%. These same holds for projects in the areas of agriculture, organic, renewable energy, agri-tourism, village renewal and ICT.

EAFRD co-financing rates per rural area typology

Table 6.13 shows the EAFRD co-financing rates per rural area typology.

Table 6.13   EAFRD co-financing rates and rural area typology

Sector	<=25% EAFRD	>25% <50% EAFRD	=50% EAFRD	>50% <=75% EAFRD	>75% <100% EAFRD	=100% EAFRD
Mountainous	2	4	2	5	1	0
Coastal	0	6	0	1	11	0
Peri urban	8	7	6	6	5	0
Remote rural	2	11	2	3	3	2
Total*	**12**	**28**	**10**	**15**	**20**	**2**

Source: ECORYS

*The total number of projects does not represent the number of good practices, since the areas of some good practices have more than one rural area typology

EAFRD co-financing rates and EU15/New Member States

The table below shows the EAFRD co-financing rates divided among the EU15 countries and the New Member States.

Sector	<=25%	>25% <50%	=50%	>50% <=75%	>75% <100%	=100%
EU15	9	16	5	6	3	1
NMS	2	13	6	8	4	1
Total*	**11**	**28**	**11**	**14**	**7**	**2**

Source: ECORYS

*The total numbers count up to 74. Of the total of 80 good practices, 6 could not provide the EAFRD co-financing rate. These are all EU15 projects

6.4.7   Application process

Less than one third (24%) of the project managers are critical about the application process. The majority of the project mangers (56%) are either neutral or positive. The main criticisms seem to be directed at the national level (Payment Agencies) in relation to excessive bureaucracy, remoteness of officials and late settlement of grant claims. There is no discernible distinction between EU15 and New Member States regarding criticism of or support for the RDP process.

Budget & Application process

None of the projects with a budget below €50.000 used external consultants for writing the Business Plan or for the application process. For the remainder, there is an equal split between projects that used or did not use external consultants. Considerable support has been provided in the application process by local authorities, development agencies and LAGs.

6.4.8   Business plan development

44 of the good practices graded the process of writing a business plan for their project. The good practices that did not grade this process, either did not write a business plan or did not gave a rating to the process of developing the business plan. Table 6.15 shows the grading of business plan development divided over the different sectors.

Table 6.15 Rating of business plan development process**

Sector Score	Very good	Good	Average	Poor	Very poor
Agricultural	√√	√√√	√√√√√	√√	
Producer groups		√√√	√√√	√	√
Organic	√	√√	√	√√	√
Agri-food industry	√	√√√	√√√√	√√	
Renewable energy		√√√	√√√	√√	
Farm diversification		√√√	√√√√	√√√	
Agri tourism	√√√	√√	√√	√√√	
Basic services			√√	√	
Village renewal			√√	√	√
ICT		√√		√	
Training/skills	√√	√	√√√	√√	
Total projects*	**5**	**11**	**16**	**10**	**2**

Source: ECORYS   √ = 1 project

* The total number of projects does not correspond with the number of projects mentioned in the table since some projects have more than one focus sector.

** The table contains all projects that have given a rating.

Most good practices rated the business plan development process as average. Most of the projects that gave a grading (16 of 44) indicated the support given during the development of the business plan was 'average'.

Two projects gave the business plan development a poor review. These were the projects 'Establishment of organic agricultural enterprise' (Lithuania) and 'Building of a sport/recreation centre in Chmielów'(Poland). Both good practices indicated that they did not get any support. However, projects from five countries were very satisfied with the business plan development. Good practice 'Sunny Farm' (Slovak), for example, indicated that they needed much support in the process of writing a business plan and the Agency gave them this support; the staffs in the regional offices of the Paying Agency were assisting in the preparation.

6.4.9   Success factors

The success factors as mentioned by the good practices are included per category and per sector. In the final report, the success factors mentioned by projects that focus on young people and women will also be analysed.

Success factors per category

A total of 125 success factors were identified in the good practices. In order to get a comprehensive overview the success factors have been summarized into 13 categories. The table below shows the categories and the number of times this factor was mentioned.

Table 6.16

Table 6.16   Success factors of the good practices (number of projects that have indicated it as a success factor)

Category	Success factors included	
	Number	Percentage of total
Professional management of the project	21	17%
Regional support for the project	17	14%
Cooperation between different stakeholders	17	14%
Enthusiasm / Effort / Belief / Commitment	15	11%
Good business development plan	12	9%
Good / creative idea for a project	10	7%
Experience	7	6%
Network of stakeholders	7	6%
Competent specialists / organizations	7	6%
Characteristics of concerned farm / business / city / region	7	6%
Financial situation	5	4%

Source: ECORYS

The analysis reveals that the most important success factors are (1) professional management, (2) regional support, (3) cooperation, (4) enthusiasm / effort / belief / commitment and (5) a good business development plan. Further explanation and amplification of these different success factors is presented below.

Success factor 1: Professional management

Professional project management is clearly critical to successful implementation. The examples highlighted here refer to the use of steering groups, the importance of self-conception, and value of having transparency and good communication etc. The project VulkanBike Trailpark (Germany) has as goal to develop an infrastructure to develop a mountain bike trail in a biking tourism region. A success factor in the project is that through the creation of intra-communal communication networks, processes for approvals were facilitated and each project partner could get updated information on project development. In addition, the cooperation with local stakeholders had created synergies, which were of benefit to the overall project but also in regard to special problems encountered during project implementation. The Swedish project (Grogrund) which promotes female entrepreneurship in rural areas, mentioned that it is necessary to find a competent project leader. It is important that this person is dedicated to his task. Also, a steering committee has given the project valuable expertise and local legitimacy. The steering committee comprises experienced entrepreneurs from different industries and parts of the country which gives insight into the needs and prerequisites of the target group, as well as legitimacy at grass root level.

Success factor 2: Regional support

A large number (17 projects) of good practices indicated that regional support of inhabitants and organizations played an important part in their success.

For the project 'Bio-energy village Jühnde' (Germany) project, the most important success factor was the involvement of the village inhabitants. The project idea of a

cooperative as a suitable mechanism to run the bio energy system was developed by the inhabitants themselves. The inhabitants considered the project as their own and can identify themselves with the project; therefore the potential of the community could be activated and mobilized in the best possible way. In Ireland, the community used their own resources in order to host the Première. To meet the high demand to see the Première, live video links were installed into local pubs. People were invited to an interview booth to record their own memories and reactions to the archival film. This was managed by the local young people who also carried out and filmed the interviews.

Success factor 3: Cooperation

A similar number of good practices (17 projects) attributed their success to the level of cooperation with organizations, experts or other actors involved in the project.

In Austria and Sweden, there are some examples of cooperation. The project Almenland (Austria), which aims to develop joint branding and offer a regional kitchen for tourism, states that incorporation of existing marketing and media partnerships were very important, as well as building of new joint ventures with institutions such as tourism associations, slow food international, Greenpeace etc. The project Eldrimmer (Sweden) mentioned as a success factor that there has to be a constant dialogue among the actors involved in order to ensure that the project works with the right things and stays on the right track. The project focuses on giving business tools in he form of specialized knowledge, so that entrepreneurs in the field of food craftsmanship, can developed new products.

Success factor 4: Enthusiasm / effort / belief / commitment

The enthusiasm and commitment of actors and project participants is also vital and 15 of the good practices referred to factors associated with these themes.

In Spain, the project that focuses on setting-up an enterprise providing services to the automotive sector, shows that the beneficiaries were very important. They were very determined to make the project to a success and this has positively benefited the project realization. In Slovenia (purchase and installation of greenhouses and corresponding equipment for growing and sale of orchids), highly motivated employees supportive for changes and new ideas in the company. The project "Creative use of Digital Media" (Ireland) mentioned that ensuring that young people themselves had full control over the work they undertook, individual capacities and life skills were also developed – team work, taking responsibility, taking on leadership roles, building confidence, respecting and considering alternative views and opinions were all integral to the project and this made.

Success factor 5: Good business development plan

Twelve of the projects referred to good business development as a key ingredient for success. Good business development is defined as 'thorough attention to the development of the business plan in order to avoid problems in a later stage of the project'.

Some good business development practices specifically mentioned by the good practices are mentioned in Hungary and Latvia. The beneficiary in Hungary (Model farm for rural

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development) has a business development plan that covers several years. The planning contained step by step how the farm should be developed. This plan helped with realizing the project. The aim of the project was technical upgrading and increasing the capacity of the poultry farm. A project in Latvia (Cattle farm development) stated that the risk level has been reduced because of detailed attention given to research, accurate business plan development, project planning and management. This project aimed to achieve it's objectives of increasing labour efficiency and improving working conditions by building a farm with new milking systems.

Success factors per sector

The table below shows the division of success factors per sector. The total number of factors mentioned does not represent the total amount of success factors mentioned since a lot of the projects represent more than one sector.

Table 6.17   Success factors divided among sectors (number of projects that have mentioned the success factor)

Category	Success factors included										
	Agricultural	Producer groups	Organic	Agri-food industry	Renewable energy	Farm diversification	Agri tourism	Basis services	Village renewal	ICT	Training / skills
Professional management of the project	7	4	5	8	2	4	5	4	1	6	2
Regional support for the project	4	2	2	3	5	2	1	1	3	4	3
Cooperation between different stakeholders	7	4	4	6	3	8	3	1	1	2	2
Enthusiasm / Effort / Belief / Commitment	2	3	3	1	1	5	1	2	1	2	2
Good business development plan	5	2	3	3	1	4	2	1	2	1	1
Good / creative idea for a project	2	2	1	0	1	1	0	2	0	3	2
Experience	2	1	1	4	0	4	2	0	0	0	0
Network of stakeholders	1	3	1	3	1	3	2	1	0	1	4
Competent specialists / organizations	3	3	2	3	0	4	1	0	2	1	5
Characteristics of concerned farm / business / city / region	0	0	0	2	1	1	2	1	0	0	0
Financial situation	0	1	1	1	1	1	0	0	0	0	1

Source: ECORYS

Professional management of the project is most important for projects in the field of agri-food industry, agricultural and ICT. In the sector of renewable energy, the success factor that was mentioned the most is regional support for the project. Furthermore, for training/skills, the presence and cooperation of competent specialists and organisations is most important. Enthusiasm is mostly seen as an important success factor for a project in the field of farm diversification.

6.4.10 Lessons learned

The lessons learned as mentioned by the good practices are included per category and per sector.

Lessons learned per category

A total of 129 lessons learned were mentioned by the good practices. In order to get a better overview, the lessons learned were summarized into 13 categories. The table below shows the categories of lessons learned and the number of times each factor was mentioned. In many respects the lessons learned echo the success factors identified above.

Table 6.18   Overview lessons learned (number of projects that mentioned the lesson)

Category	Lessons learned	
	Number	Percentage of total
Good partnerships / professionals / experts are important	37	29%
Preparation before application is needed	21	16%
Clear project content is important	16	12%
Commitment of actors is important	15	12%
The organisational structure of the project should be clear	11	9%
Experience from good practices (gained experience) is useful	9	7%
Good overview of finances is important for good project management	8	6%
It is important to take local / regional characteristics into account	7	5%
Marketing of the project is important	2	2%
Time frame of the project should be clear	2	2%
Evaluation and project control by experts	1	0%

Source: ECORYS

The most important lessons learned relate to (1) good partnerships / professionals / experts, (2) preparation before application, (3) project content, (4) enthusiasm / commitment of actors and (5) organization structure. Further explanation of these different factors is presented below.

Lesson 1: Good partnerships / professionals / experts

Mentioned by far the most (by 37 of the 80 good practices) is the observation that it is very important for a project to have good partnerships and to secure the involvement of appropriate professionals and experts. This can make or break a project. The involvement of experts can be important during the application process as well as during the implementation of the project.

In Italy for example, (Telecottages and bundled services for teleworking), the exchange of experiences and good practices is seen a very useful tool. A project in Latvia had external project managers with long experience responsible for various parts - financial

and analytical, who knew the conditions of the project well and took part in preparing a business plan. Farm spa & wellness centre (the Netherlands), advices other projects to search for external support as it keeps you from 'unpleasant surprises' and delays in project design and implementation.

Lesson 2: Preparation before application

Good preparation before entering the application process is seen as a very important lesson learned by the good practices which can prevent problems in later stages of the project.

In the Czech Republic (Construction of free housing cow-shed) the project learned that early and careful planning is fundamental for efficient use of resources and effective implementation. A project in Greece mentioned as a key lesson that it is important to set clear priorities instead of trying to fit everything in. Another important factor is to enter the application process well prepared. The application process of the project "Set-up servicing enterprise for automotive sector" (Spain) was positively influenced by the development of a very precise feasibility study carried out before applying for the subsidy. A lesson learned in Latvia (Cattle farm development) is that it is most important for a capital building project to prepare a thorough and detailed business plan and not to underestimate the considerable time and commitment that has to be devoted to project management.

Lesson 3: Project content

16 of the good practices mentioned that lessons learned concern the specific contents of the project and knowledge acquisition.

Relevant examples include projects in Greece and Italy. In Greece (Innovation in olive oil production), the applicant learnt more about the process of growing vegetables, the plant protection as well as the legislation and rules regarding land and land cultivation. A project in Italy, where a plant was developed, stated that a very important point was to realize that technological knowledge to develop and operate the plant is of key importance. To be able to get this relevant knowledge, language skills had to be developed for a number of employees, which provided access to knowledge, support and networking.

Lesson 4: Enthusiasm / commitment of actors

The need to generate the enthusiasm and genuine commitment of actors and participants is also mentioned as an important lesson learned.

Examples of projects in Italy and Portugal show why this is important. In Italy the experience from the inspirational seminars has been very positive as it stimulated a lot of interest among those living in rural areas who have received a picture of the broadband market and the opportunities for "self help" available. In the opinion of the project manager in Poland, the most important lesson learned on project development is the awareness of the role of collaboration of various actors (the city of Barlinek, local civil society entities and local business). Also strong, sometimes informal relations with organizations such as of The Polish Rural Forum were crucial in the preparatory phase of

the project. Last but not least, a strong perseverance of people engaged in the project was very important for its success.

Lesson 5: Organization structure

Factors relating to the organisational structure of the projects were also mentioned by 11 good practices as a lesson learned.

In Germany (Bio-energy village Jühnde), the chosen structure of working groups and coordination implied a high commitment of time from the people involved, which should be reduced. A project in Denmark stated that one needs a broad based organizational structure also with clear financial responsibility (communities, associations etc.). Project Eldrimmer (Sweden) shows that with a good organizational structure problems can be avoided. The project organization has solid experience of conducting the activities which the projects is based on, hence no major obstacles have been met. Even though the carrying out of an EU funded project brings a certain administrative burden, this has not halted the project which probably depends on the generated knowledge and experience.

Lessons learned per sector

The table below shows the lessons learned per sector. The total number of factors mentioned does not represent the total amount of lessons learned mentioned, since many of the projects represent more than one sector.

Table 6.19   Lessons learned per sector (number of projects that have mentioned the success factor)

Category	Agricultural	Producer groups	Organic	Agri-food industry	Renewable energy	Farm diversification	Agri tourism	Basis services	Village renewal	ICT	Training / skills
	Success factors included										
Good partnerships / professionals / experts are important	5	2	3	2	6	8	8	6	4	8	9
Preparation before application is needed	7	3	1	4	2	4	3	2	0	2	1
Clear project content	1	1	0	3	4	3	0	4	0	3	0
Commitment of actors	0	0	0	0	3	2	1	4	3	3	1
Organization structure of the project	2	1	1	2	4	2	3	0	0	0	2
Experience from good practices (gained experience)	2	0	1	2	0	3	1	3	0	0	1
Good overview of finances	4	0	3	4	2	6	4	0	0	0	0
It is important to take local / regional characteristics into account	3	0	3	3	0	5	3	1	1	0	0
Marketing of the project is important	2	0	2	2	0	2	2	0	0	0	0
Time frame of the project	1	0	1	1	0	2	1	0	0	0	0
Evaluation and project control by experts	1	0	1	1	0	1	1	0	0	0	0

Source: ECORYS

The table shows that the presence of good partnerships, professionals and experts are important for all sectors. This factor was mentioned the most in the sectors training/skills, ICT, agri-tourism and farm diversification. Also, good preparation before application is seen as an important factor in most of the sectors. Projects with an agricultural focus mentioned this lesson the most.

6.4.11 Transferability

The good practices were asked whether or not their project is transferable to other parts of the EU. Since answers to this question are very diverse, analysis of the answers is not possible here. However, Table 6.20 gives an overview of the transferability of a few good practices.

Table 6.20   Transferability of the good practices

Case study & *sector*	Short project description	Transferability
Fur Play Rabbit Farm (MT) *Agricultural*	The project introduced vertical production by investing further in the processing and marketing of rabbits produced on farms. The actions proposed consisted in the construction of a state of the art slaughter house and a processing plant to process rabbits bred on farms.	This project is a good model for promoting vertical production which will enable small scale family farming enterprises to diversify their activities and improve the economic performance and stability. This model can be easily adopted to other sectors as it is simply a way to add value to primary production that will result in a better return on investment.
Establishment of micro enterprise for processing organic products (LT) *Producer groups*	Provide vocational education and employment for young women, to encourage business development and cooperation among the village inhabitants. A community micro enterprise is established, which is processing products form surrounding organic farmers.	LAGs from Lithuania, Latvia and Estonia have been visiting and learning about the project. The project can be replicated anywhere.
Reconstruction of free housing cow-shed (CZ) *Organic*	The project aims at the reconstruction of sow-shed from stanchion housing to free housing. The reconstruction resulted in the creation of capacity for 148 cows and 133 calves.	Gained experience in keeping cattle in a reconstructed shelter are transferable to other mountain areas. It is possible to transfer dimension of shelter, technology and breeding to other regions.
Käsestrasse Bregenzerwald (AT) *Agri-food industry*	Käsestrasse Bregenzerwald wants to showcase the cheese products of the region and developed a joint identity by providing a platform for presentations, tasting, etc.	Representatives of different sectors of the region have to bethink themselves of a distinguishing feature of the region. This can be a product or a cultural heritage.
Installing rooftop solar power plants on organic farm (SI) *Renewable energy*	The installation of a solar power plant on an organic farm. The project produces enough energy for 23 households.	The project can be transferred to other countries and regions very well.

Case study & *sector*	Short project description	Transferability
Entrepreneurship networks for young people (FI) *Farm diversification*	Activate young people to start up new businesses in rural development.	This project can be replicated in other rural areas that experience a lack of involvement of young people in the rural development of the region.
Construction of agro-tourism Sunny Farm (SK) *Agri tourism*	The project consists of the construction of agro-tourism accommodation facilities, including health, environment and rehabilitation facilities serving the development of tourist activities.	The project has many elements that are capable of transfer. Critical to success is the location of the project.
Meeting point Idestrup (DK) *Basic services*	The establishment of a centre for activities which connects the local city centre, both young and old people.	This project has elements of transferability. Essentially, every region can establish such a centre. Active inhabitants are necessary.
Smart village of the future (FI) *Village renewal*	The overall aim of the project is to vitalize the region. The methods to achieve this include many elements, but one interesting element is to try to attract people from other parts of Finland and Europe to move in to the area b offering attractive places for living and work.	The project fits in remote rural areas that want to vitalize the region and attract new inhabitants by improving their connections and marketing activity.
Developing digital skills of young people (IE) *ICT*	The project sought to enable participants to trainings to express themselves creatively in a digital medium. The central process in the project was the production of short films.	The project is highly transferable and relies upon enthusiasm and facilitation from community animateurs and young people willing to become involved. There is a cost in capital set up which relies upon investment being available and there are clear benefits in having some form of technical support in the area. Otherwise there are no reasons why the project could not be replicated in other areas.
Strategy for Lake District: Integrate 9 communities (UK) *Training / skills*	The project helped in the establishment of a local action group and the preparation of the local integrated strategy for rural development. The LAG was created within the boundaries of nine counties.	The idea of the project and its main aspects (bottom-up and collaborative approach) can be easily transferable elsewhere. This project can form a framework for capacity building of future LAGs.

Source: ECORYS

6.4.12 Current employment situation

In the good practices insights were given about the current employment situation of the good practice regions. Again, answers to this question were very diverse, so Table 6.21 gives an overview of the employment situation of a few good practices.

Table 6.21   Current employment situation of the good practices

Case study & *sector*	Short project description	Current employment situation
Setting up of young farmers (BE) *Agricultural*	The project helps young farmers setting up their business.	The kind of employment on Flemish farms is mainly family related (farmer, husband, wife, helper). An increasing number of company's exploiting large farms (in particular in horticultural sector) use paid laborers. Only a few hundred of Flemish agricultural businesses have more than 5 paid laborers. In a situation where the dimension of the farms increase constantly and the familial labourers decrease, a growing number of farmers bring in seasonal workers mainly coming from Eastern Europe. In this circumstances housing and accommodations for these labourers are provided.
Greenhouse production (BG) *Producer groups*	The main objective of the project is to develop the vegetable farm, to support the growing of different vegetables, thus enlarge its size and to orient it more towards the market.	Regarding the employment conditions, it should be outlined that the unemployment is high in the region and such projects stimulate employment by hiring workers for the gathering of the harvest. Concerning this project, two women have been hired to take care of the vegetables.
Establishing organic agricultural enterprise (LT) *Organic*	Strategic aim of the farm is to establish an organic cattle farm that would match EU standards, to assure good quality organic cattle produce, to reduce production costs and to work profitably.	Due to expansion of the farm, 2 people were employed. Labour is available in the area. Quality of labour is sufficient.
Innovation in olive production (EL) *Agri-food industry*	The objective of the project was to invest in agricultural holdings in order to improve competitiveness. Funding under the first investment plan covered the renewal of mechanical equipment for the olive production.	• Six employment posts for unskilled seasonal workers were created. • The agricultural holding employs mainly seasonal workers and needs are adequately covered by the current labour supply. • There are no serious unemployment problems in the area as a result of the economic crisis. It is expected that tourism may be affected by the current crisis but the effects of this are yet to come.
Introduction of biomass in horticulture (NL) *Renewable energy*	The company consists of a rose farm greenhouse and related shop. The rose farm greenhouse is heated with a wood-burning stove, which is a new application of the technique for horticulture. Fuel used consists of regionally produced biomass like scattered loppings or sawdust. This way use is made of cheaper, environment-	The project does not have issues in attracting qualified staff for the company. The corporate social responsibility has created goodwill in the local community and the project is therefore considered as an attractive employer. Other agricultural companies in the region hire relatively more eastern European employees.

Case study & *sector*	Short project description	Current employment situation
	friendly and CO^2 reducing, sustainable, energy sources. Less trucks are needed to transport the biomass elsewhere in the country.	
Animal farm modernisation (RO) *Farm diversification*	The project is about the modernisation of an existing farm, consisting of two new stables, of 380 cows each. Milking and related activities will integrate new technologies. There will be new technologies introduced for the first time for producing and using energy from alternative resources (solar panels for hot water and photovoltaic panels for illumination).	The level of training of employees in very low, and usually there are problems with fluctuation of personnel in the farm. There is no possibility to choose personnel with higher level of qualification. The specialist chef has a high qualification and was rather hard to find. With the new milking process we face the need for qualified employees to manage it. The project intends to give both men and women the same chances to upgrade the level of knowledge, but there are usually more men who are willing to work at a farm. There will be training for those working with the new technologies. Although the employees' average age is not high, there is a low interest for young people to work on farms in general terms
VulkanBike Trailpark (DE) *Agri tourism*	The project goal was the development and creation of an infrastructure to develop the Eifel in a biking-tourism region with a mountain bike trail net (MTB) and MTB-typical offers. The MTB range should not be an isolated measure, but rather integrate into existing structures and cycling tourism offers.	Especially the opportunities for training of MTB guides and the possibility to earn additional income through this training was well received. Also the certified partner businesses have recognised the potential of the MTB tourism. A further positive development of the sector is expected.
Fiber till byn (SE) *Basic services*	The direct aim of the project is to inspire the residents in rural village communities to start projects and through collaboration build their own open broadband infrastructure up to a handover point where the network owners can connect the residents. The purpose of this is to create conditions for service providers to offer their broadband services in rural areas.	This project did not have employment as an aim. The project has been lead by a consultant procured by SSNf. LRF has supported the project by providing free staff. SkåNet have also freely provided its own staff and consultant assistance in addition to the attendance of inspirational seminar. A team of the project manager and representatives of the project partners have held lectures and developed the educational and information material.
Centre for rural initiatives in Scinawce Gorne (PL) *Village renewal*	The result of the project was the construction of the Centre for Rural Initiatives, the place where such activities are organized as, e.g., e-learning courses, support programs for local NGOs, seminars, conferences, etc. The main beneficiaries are the inhabitants of the region.	In general, employing competent, well educated people in the area of Radkow Klodzki is difficult (they migrated to bigger cities), however, in the case of the Centre for Rural Initiatives no difficulties in finding good workers were noticed.

Case study & *sector*	Short project description	Current employment situation
Telecottages & bundled services or teleworking (IT) *ICT*	Innovative approach which spreads teleworking to solve the problems of isolation and depopulation in rural areas, which especially affects young people, who leave to search better job opportunities.	Apart from the actions promoted by the project, the general employment conditions of the territory have not improved, because of the crisis. The depopulation and ageing population are increasing. Considering the availability of the labour force in the territory, it has to be stressed that it is principally low-skilled and often cannot use ITC. The education needs are quite strong. This aspect is worsening, because people are not aware of the opportunity to invest in specific areas and sectors. Rurality is seen by young people like an obstacle instead of a resource.
Bottom-up equality (ES) *Training / skills*	The project aimed to provide local women with greater resources for insertion in the labour market taking into account dynamic work features, advice, information and training. Main beneficiaries were female residents of the rural areas of Jerez de la Frontera and El Puerto de Santa Maria of the province of Cadiz (Andalucía).	Andalucía has been one of the Autonomous regions in Spain most badly hit by the crisis. Unemployment levels have skyrocketed. Nonetheless the beneficiary observed an improvement in the situation of female employment in the two towns that were included in the project.

Source: ECORYS

6.4.13   Other key points

During the analysis of the good practices, a number of key points were observed that could not be placed under any of the sub-sectors used in the above analysis. These 'key points' fall into the following categories and are briefly discussed here:

- Ageing population structure
- Unemployment rates in New Member States
- Employment in the primary sector
- Environmental quality and tourism vs. adding value to primary products
- Health as a growth sector
- Renewable energy as growth sector
- Broadband infrastructure
- Sectoral development vs. territorial development and localisation vs. centralisation.

Ageing population structure

The ageing population structure and out migration of young people to find suitable employment is almost universal. Many of the good practices are designed to address this

issue. An example is project 'Meeting Point Idestrup' in Denmark. A local centre was established that connects the local city centre. The centre now plays an important role in attracting newcomers to the local community.

Unemployment rates in New Member States

Unemployment rates are especially high in New Member States (particularly among women) and this is despite the fact that rural areas tend to export their unemployment. Projects that address this issue include for example the projects "Establishment of micro enterprise for processing organic products (Lithuania) and "Grogrund" (Sweden).

Employment in primary sector

Employment in the primary sector remains higher in the New Member States and remoter parts of the EU15 although productivity and farm structure are much weaker. There is a resistance to producer cooperation in traditional farming areas (for example the Sardinia case study good practice "Strengthening the local production chain" (Italy).

Environmental quality and tourism vs. adding value to primary products

Considerable emphasis is placed on the connections between environmental quality and tourism, and the scope for adding value to primary products. These are regarded as areas with scope for innovation and having growth potential but possible doubts are expressed about the impact of the current recession on consumer spending on higher priced products in the short term.

Health care as growth sector

Healthcare has been identified as a potential growth sector and an expanding source of female employment in rural areas. Some interesting good practices considering this topic are, for example, "Child day-care facility Tierelier", "Foxheerd Housing and case facility" (both in the Netherlands) and "Bottom-up equality" (Spain).

Renewable energy as growth sector

Renewable energy is regarded as a growth sector and some highly imaginative projects illustrate the potential. Some good practices considering this topic are "Biogas Bralanda" (Sweden) and "Bioenergy Village Jühnde" (Germany).

Broadband infrastructure

Adequate broadband infrastructure is regarded as essential for the economic and social sustainability of communities in more remote rural areas. Some good practices illustrate the action which can be taken by communities "Fiber to the village" (Sweden), "Telecottages and bundled services for the spread of teleworking" (Italy) and Entrepreneurship-network for young people (Finland).

Sectoral development vs. territorial development and localisation vs. centralisation

There is some apparent tension between sectoral (agricultural) development vs. territorial development and between localisation vs. centralisation. Leader is often regarded as the essential mechanism for initiating local action and building capacity in rural communities. An example of such a good practice is the good practice "Strategy for the Lake District, the integration of 9 rural communities" in Poland.

6.5 Conclusions & recommendations

For SEGIRA a comprehensive set of 80 good practices on employment and growth in rural areas has been established. The good practices have emerged from a rigorous selection process. They are widely spread geographically (two to four good practices per Member States) and across the four axes of the EAFRD. They essentially perform a dual function of a) illustrating the effectiveness of rural development interventions and support and b) furthering the exchange of information and providing inspiration and a source of new ideas for practitioners in rural development across EU.

The projects are divided into 11 broad sectors, namely 1) Agricultural; 2) Producer groups; 3) Organic; 4) Agri-food industry; 5) Renewable energy; 6) Farm diversification; 7) Agri tourism; 8) Basic services; 9) Village renewal; 10) ICT; and 11) Training/Skills. Many projects are actually cross-sectoral and cover several areas.

An overview of the 80 good practices has been provided in this chapter on the following topics in order to highlight similarities and differences among countries, new and old Member States, geographical areas and sectors:

1. Project sectors
2. Focus on young people and women
3. Focus on technological innovation
4. Focus on partnerships / networking
5. Focus on innovation in rural service provision
6. Project size (as defined by total budget and EAFRD contribution)
7. Application process
8. Business plan development
9. Success factors
10. Lessons learned
11. Transferability
12. Employment situation
13. Other key points

Some quantified analysis of the projects is possible but the commentaries which appear in the fiches are especially rich in qualitative information. There would be particular merit in encouraging further contact between projects, particularly those of a similar type which feature in the database.

Focus on young people and women

In total, eight projects focus especially on young people and five on women. It is interesting to see that from these projects eleven are situated in the EU15.

Application process

There is inevitably some criticism of the project application and approval processes which is commonly accepted as being complex and time consuming to navigate. Overall however the sentiments expressed by projects managers have been mainly neutral or positive.

Lessons learned & Factors for success

The 80 good practices provide a wealth of information on lessons learned and factors for success. All lessons and success factors have been clustered.

It can be concluded that three elements are considered the most important for successful projects:

1. Management. Professional project management has been indicated as the most important success factor and good preparation before the application has been mentioned as the second most important lesson.

2. People. Regional support, good cooperation, enthusiasm and commitment have been mentioned as very important success factors. Under the lessons learnt the effective partnerships, professionals and experts are considered the most important lesson and furthermore a good organisation structure is an important lesson mentioned.

3. Content. A good project content has been mentioned as an important lesson and under the success factors a sound business development plan is mentioned.

It is recommended that DG AGRI explores how these success factors and lessons learnt can be used in future projects and programming period.

Other key points in the good practices

During the analysis of the good practices, a number of key points were observed that could not be placed under any of the sub-sectors used in the above analysis. These 'key points' fall into the following categories and are briefly discussed here:

- The *ageing population* structure and *out migration* of young people to find suitable employment is almost universal. Many of the good practices are designed to address this issue.

- *Unemployment rates* are especially high in New Member States (particularly among women) and this is despite the fact that rural areas tend to export their unemployment.

- *Employment in the primary sector* remains higher in the New Member States and remoter parts of the EU15 although productivity and farm structure are much weaker. There is a resistance to producer cooperation in traditional farming areas.

- Considerable emphasis is placed on the connections between *environmental quality and tourism*, and the scope for adding value to primary products. These are regarded as areas with scope for innovation and having growth potential.

- *Healthcare* has been identified as a potential growth sector and an expanding source of female employment in rural areas.

- *Renewable energy* is also regarded as a growth sector and some highly imaginative projects illustrate the potential.

- It is interesting to see that mostly projects on renewable energy are considered *innovative.* Furthermore there are several projects on innovation in rural service provision (on disabled people and broadband infrastructure for remote communities).

- *Adequate broadband* infrastructure is regarded as essential for the economic and social sustainability of communities in more remote rural areas.

- There is some apparent tension between *sectoral* (agricultural) development *vs. territorial development* and between localisation vs. centralisation. Leader is often regarded as the essential mechanism for initiating local action and building capacity in rural communities.