



Peripheral Regions: A Marginal Concern?

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Preface

This report was prepared by the European Policies Research Centre (EPRC) under the aegis of EoRPA (European Regional Policy Research Consortium), which is a grouping of national government authorities from countries across Europe. The Consortium provides sponsorship for EPRC to undertake regular monitoring and comparative analysis of the regional policies of European countries and the inter-relationships with EU Cohesion and Competition policies. Over the past year, EoRPA members have comprised the following partners:

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Norway

- Kommunal-Og Regionaldepartementet (Ministry of Local Government and Regional Development), Oslo

Poland

- Ministerstwo Rozwoju Regionalnego (Ministry of Regional Development), Warsaw

Sweden

- Näringsdepartementet (Ministry of Enterprise, Energy and Communications), Stockholm

Switzerland

- Staatssekretariat für Wirtschaft (SECO, State Secretariat for Economic Affairs), Bern

United Kingdom

- East Midlands Development Agency, on behalf of the English RDAs
- Department for Business, Innovation and Skills, London
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Disclaimer

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EXECUTIVE SUMMARY

Peripherality has long been the subject of analysis by economists and geographers with an interest in regional disparities, developing countries and the location of economic activity. Current debates focus on the impact of economic integration on the geographical distribution of economic activities, as well as the potential for information and communication technologies to provide new opportunities in peripheral areas, and also the institutional and political dimensions of peripherality.

From a policy perspective, peripheral regions are often seen to be disadvantaged by poor accessibility to large markets and by low or falling population density, which in turn constrain business development. Local and regional authorities in these areas often face difficulties in providing adequate services, for example because their revenues are limited by weak business activity and because service provision is more costly in per capita terms in low population density areas. Nevertheless, policy-makers in some countries also emphasise the existing and potential strengths of peripheral regions, not least in terms of natural resources and quality of life.

One difficulty facing both researchers and policy-makers relates to the development of a robust and useful definition of peripherality. One common approach focuses solely on accessibility to large markets, while another combines accessibility and population density indicators. The European Union (EU) draws on a number of categories, including 'outermost regions' and 'sparsely populated regions', as well as those designated for regional aid under Article 107(3)(a) or eligible for Cohesion policy's Convergence Objective.

This paper focuses on regions with poor access to large markets and low population density, and where these factors underpin socio-economic problems. Large areas of many central and some southern European countries score highly on many of the indicators of peripherality (see Maps in Annex 2). A simple regression analysis of correlations between, on the one hand, indicators of accessibility and population density and, on the other, socio-economic strength, shows that there is a statistically significant correlation between inaccessibility / low population density and structural socio-economic weaknesses, both at the level of the EU as a whole and in most Member States.

The priority given to peripheral areas within countries' domestic regional policy varies greatly, depending on the degree of economic concentration, population density and accessibility problems, as well as political decisions on policy priorities. Three main approaches can be identified: those countries where peripheral areas have a high priority on the national regional policy agenda (Finland, Norway and Poland), those countries where the issues of peripheral areas are reasonably important but are not the main focus of policy (Sweden, Austria, Switzerland, France and Germany), and those countries where the problems of peripheral regions do not have a high profile in national policy terms but are significant in a minority of regions (Italy and the United Kingdom). Regional economic policy in the Netherlands has focused on peripherality in the past, but this has progressively diminished over the past decade.

However, many of the instruments which have the most profound impact on the development of peripheral areas operate outside narrow regional policy. One set of interventions concerns efforts to enhance key capacities or potential for development in peripheral areas, notably natural resources, as well as human and social capital. A second set of interventions relates to accessibility and openness, both in terms of human interactions and transport and broadband infrastructure networks. A third set of interventions focuses on the provision of local services of general economic interest, which are often limited due to the fiscal constraints affecting many local and regional authorities in peripheral areas.

The paper concludes by identifying a number of questions for discussion, namely:

- Is peripherality becoming less of a ‘regional policy problem’?
- Do you agree that the main policy focus on peripheral areas involves: local capacities (e.g. natural resources and human and social capital), accessibility and openness (both human networking and transport / broadband infrastructure), and local service provision? Are there other, emerging types of policy intervention?
- What types of intervention are most effective in supporting development in peripheral areas?
- Should regional policy do more to support development in peripheral areas? Is there tension between the ‘all region’ approach and support for peripheral or structurally weak areas?
- Should rural policy instead be responsible for the development of rural areas? Should the focus of EU rural policy (EAFRD) be shifted more strongly away from agriculture and forestry?

1. INTRODUCTION

This paper examines the theme of peripherality from both a conceptual and policy viewpoint. A key difficulty relates to the definition of peripherality which can range from ‘any country or region affected by structural weakness’ to ‘areas with very poor accessibility and low population density’. Different approaches are examined in this paper, but the primary focus is on regions with poor access to large markets and with low population density, where these factors lead to socio-economic disadvantage that is reflected in indicators such as low GDP per capita, low employment rates, low household disposable income, a narrow sectoral structure, a falling or ageing population, and the poor provision of public and private services.

After exploring a number of conceptual and definitional issues relating to peripherality, the paper presents a limited quantitative analysis of the extent to which indicators of socio-economic weakness are correlated with variables of geographical peripherality (poor accessibility and low population density). It finds that there are statistically significant correlations between at least some pairs of indicators for the EU27 as a whole and also for all individual Member States except Slovenia.

This analysis suggests that the issues facing businesses and households in peripheral regions are likely to be of concern to policy-makers, both within the field of regional policy and in other policy fields. The paper therefore examines the extent of support for peripheral regions within domestic regional policies, before exploring a series of case studies from other policy fields. These relate in turn to: efforts to build and exploit potential in terms of natural resources, as well as human and social capital; investment in bridging and brokering activities, as well as in transport and broadband infrastructure; and initiatives aimed at ensuring and expanding the provision of public services in peripheral areas.

The paper ends by posing a number of questions, notably:

- Is peripherality becoming less of a ‘regional policy problem’?
- Do you agree that the main policy focus on peripheral areas involves: local capacities (e.g. natural resources and human and social capital), accessibility and openness (both human networking and transport / broadband infrastructure), and local service provision? Are there other, emerging types of policy intervention?
- What types of intervention are most effective in supporting development in peripheral areas?
- Should regional policy do more to support development in peripheral areas? Is there tension between the ‘all region’ approach and support for peripheral or structurally weak areas?
- Should rural policy instead be responsible for the development of rural areas? Should the focus of EU rural policy (EAFRD) be shifted more strongly away from agriculture and forestry?

2. STUDIES ON PERIPHERALITY

2.1 Agglomeration economies and institutional dimensions

Policy measures aimed at peripheral regions often draw on the concept of agglomeration economies and the idea that - in the absence of public intervention - economic activity tends to concentrate cumulatively in the largest market, due to increasing returns to labour pooling, input-output links and technological spillovers.¹ Thus, peripheral regions are characterised by the outflow of resources, a narrow sectoral structure and price-taking firms in dependent relationships with external customers.² Many studies argue that economic integration (both within the EU and globally) fuels the concentration of higher level business activities in a small number of cities, while the economic structure of many regions has become more precarious due to increased competition between locations.³

However, other studies emphasise that integration can reduce concentration, particularly if peripheral areas retain cost advantages.⁴ Similarly, the growth of information and communication technologies is argued to weaken the force of agglomeration economies by facilitating cooperation across long distances, as well as shared social norms and institutional frameworks that do not depend on physical proximity.⁵ Moreover, some peripheral areas have advantages both in terms of natural resources and also in their capacity to attract skilled human resources due to their quality of life, and can thus develop strengths in a range of sectors, particularly those less affected by the costs of transporting inputs and finished goods, such as renewable energies, tourism and knowledge-based services.⁶

Nevertheless, the economic forces that drive the relationship between core and periphery are in turn shaped by political and institutional mechanisms.⁷ Policy can either encourage

¹ A. Marshall (1890) *Principles of Economics*, London: MacMillan. M. Fujita, P. Krugman and A. Venables (2001) *The Spatial Economy: Cities, Regions and International Trade*, Cambridge MA: MIT Press. G. Myrdal (1957) *Economic Theory and Under-developed Regions*, London: Duckworth. A. Hirschman (1958) *The Strategy of Economic Development*, New Haven.

² N. Young (2010) Globalization from the edge: a framework for understanding how small and medium-sized firms in the periphery 'go global', *Environment and Planning A* 42: 838-855.

³ A. Lagendijk and A. Lorentzen (2007) Proximity, knowledge and innovation in peripheral regions, *European Planning Studies* 15: 457-466. D. Perrons (2004) *Globalisation and Social Change: People and Places in a Divided World*, London: Routledge.

⁴ D. Puga (1999) The rise and fall of regional inequalities, *European Economic Review* 43: 303-334

⁵ A. Copus et al. (2004) Aspatial peripherality, innovation and the rural economy (AsPIRE), Final report to the European Commission, EU Fifth Framework Programme. Boschma R (2005) Proximity and innovation: a critical assessment, *Regional Studies* 39: 61-74. A. Torre and A. Rallet (2005) Proximity and localization, *Regional Studies* 39: 47-59.

⁶ A. Copus et al. (2010) *European development opportunities for rural areas*, Draft final report, ESPON, Inverness. S. Davies, R. Michie and H. Vironen (2012) Can peripheral regions innovate? In M. Danson and P. de Souza (eds.) *Regional Development in Northern Europe: Peripherality, Marginality and Border Issues*, London: Routledge. D. Doloreux and S. Dionne (2008) Is regional innovation system development possible in peripheral regions? *Entrepreneurship and Regional Development* 20: 259-283.

⁷ D. Massey (1995) *Spatial Divisions of Labour*, London: Routledge, 2nd edition.

concentration or spread effects, for example via planning rules, regional aid or investment in infrastructure. Similarly, centralised political institutions may encourage concentration, as businesses often locate their headquarters close to government centres in the hope of gaining influence. Moreover, political decisions on the provision of public services in peripheral areas can strongly influence the location decisions of businesses and the migration decisions of individual workers and households.

2.2 Perspectives on peripherality

Looking beyond the research literature, the question is how policy-makers view peripherality.

Many countries⁸ emphasise the same types of issue in peripheral regions, although the emphasis varies between countries. Many perceive the problems of peripheral regions largely in terms of poor accessibility to large markets and service centres (e.g. France, Austria, Sweden, Switzerland, and the Netherlands).⁹ There is often also a strong emphasis on low population density (e.g. Finland, Norway and Sweden) and/or falling or ageing populations. In some countries (e.g. Germany, Sweden and Switzerland), it is primarily younger people – often women – who leave peripheral areas, not only in search of employment but also better educational and social opportunities although, in some countries (e.g. France, Norway and the United Kingdom), some peripheral areas are seeing in-migration, often of middle-aged or older people seeking a better quality of life.

A further focus is the availability and quality of local public (and sometimes also private) services and infrastructure (France, Germany, Poland and Sweden).¹⁰ These concerns may relate to broadband or public transport services, but also to healthcare provision, postal services and even local shops.¹¹ Low population density means that individuals often have to travel long distances to reach public services, particularly higher level services such as specialist medical treatment or higher education. Moreover, in countries where local authorities' revenues depend on local taxes, lower levels of business profitability and household disposable income in peripheral areas constrain local service provision.

In addition, the higher cost of some dimensions of living in some peripheral areas is a concern in some countries (e.g. Scotland in the United Kingdom). These costs may relate to households' dependence on private cars due to the lack of coordinated public transport, as

⁸ The focus here is on the EoRPA countries: Austria, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Sweden, Switzerland and the United Kingdom.

⁹ ÖROK (2009) *Neue Handlungsmöglichkeiten für periphere ländliche Räume. Stärkung der sozialen Vielfalt, Ausbau der interkommunalen Zusammenarbeit, Gestaltung der Landschaftsvielfalt*, ÖROK-Schriftenreihe 181, Wien. Ministry of Agriculture (2008) *Rural development programme for Sweden - the period 2007-2013*, Stockholm. Bundesamt für Statistik (2009) *Regionale Disparitäten in der Schweiz, Schlüsselindikatoren*, Neuchâtel. DATAR (2003) *Quelle France rurale pour 2020 ? Contribution à une nouvelle politique de développement rural durable*, Paris.

¹⁰ F. Rennie, W. Greller, and M. Mackay (2002) Review of international best practice in service delivery to remote and rural areas, *Report to the Scottish Executive*, The Stationery Office, Edinburgh.

¹¹ J. Alquier and C. Biwer (2008) *Pour une politique de désenclavement durable*, Rapport no. 410, 19.06.2008.

well as higher energy costs in colder regions, the need to travel long distances in order to access public and private services, and the limited availability of affordable housing.¹²

Nevertheless, some countries (e.g. Finland, Norway, Sweden and Scotland in the United Kingdom) also emphasise the potential of peripheral areas, not least in sectors dependent on natural resources, including minerals, forestry, energy, food and tourism. In northern and eastern Finland and northern Sweden, for example, the mining sector has seen strong growth in recent years, due to increases in world commodity prices.¹³ Similarly, in Scotland, increased pressure to address climate change is generating new economic opportunities in peripheral areas with potential in renewable energies, particularly tidal and wind energy. A further possible area of strength concerns quality of life (e.g. linked to the natural environment, cultural assets or social cohesion), which not only facilitates the development of leisure and tourism sectors but can also attract in-migrants.¹⁴

¹² NHS Scotland (2005) *The national framework for service change in NHS Scotland*, Edinburgh.

¹³ H. Hernesniemi, B. Berg-Andersson, O. Rantala and P. Suni (2011) *Kalliosta kullaksi kummusta klusteriksi, Suomen mineraaliklusterin vaikuttavuusselvitys*, Elinkeinoelämän Tutkimuslaitos ETLA. K. Reini, S. Määttä and H. Törmä (2011) *Talvivaaran kaivoksen jalostusketjun ja siihen liittyvien investointien aluetaloudelliset vaikutukset*, University of Helsinki, Ruralia Institute, Report No. 73.

¹⁴ Ministry of Employment and the Economy, 'Suomen aluekehittämisstrategia 2020', 17 March 2010.

3. DEFINITIONS OF PERIPHERALITY

A further focus of research has been the definition and measurement of peripherality, notably by the OECD, the European Commission and the European Spatial Planning Observation Network (ESPON). Many recent studies draw on the concepts of ‘accessibility’ or ‘remote rurality’, possibly because the term ‘peripherality’ is seen as overly negative. This section examines studies that focus on accessibility, as well as those that look both at accessibility and at population density. It then describes the European Union’s approach to peripherality and the definitions of peripherality employed in selected European countries.

3.1 Distance/access to large markets

Many studies start from the premise that peripherality is the opposite of accessibility, and aim to build a ‘peripherality index’, where a value is assigned to a number of different indicators relating to accessibility. Some use a ‘gravity model’ approach to estimate the economic potential of each region, based on the assumption that this potential is a function of its proximity to other economic centres and of the level of economic activity in other regions.¹⁵ Gravity models were used to construct a ‘European peripherality index’ in 1999–2000.¹⁶ Other studies focus solely on travel time/cost or daily accessibility indicators or draw on a range of indicators and regional case studies.¹⁷

3.2 Access/distance plus population density

Other studies combine indicators of accessibility and population density.¹⁸ The OECD, for example, has developed a typology of regions,¹⁹ based on whether they are:

¹⁵ D. Keeble, P. Owens and C. Thompson (1982) Regional accessibility and economic potential in the European community, *Regional Studies*, 16: 419–432. F. Bruinsma and P. Rietveld (1993) Urban agglomerations in European infrastructure networks, *Urban Studies*, 30: 919–934. J. Gutierrez and P. Urbano (1996) Accessibility in the European Union: the impact of the Trans-European road network, *Journal of Transport Geography*, 4:15–25.

¹⁶ A. Copus (1999) *A new peripherality index for the NUTS III Regions of the European Union*, Report to the European Commission, DG Regional Policy. C Schürmann and A. Talaat (2000) *Towards a European peripherality index*, Final report to the European Commission, DG Regional Policy.

¹⁷ H. Lutter, T. Pütz and M. Spangenberg (1993) *Lage und Erreichbarkeit der Regionen in der EG und der Einfluß der Fernverkehrssysteme*, Bundesforschungsanstalt für Landeskunde und Raumordnung, Bonn. K. Spiekermann and M. Wegener (1996) Trans European Networks and unequal accessibility in Europe, *European Journal of Regional Development* 4: 35–42. K. Spiekermann, M. Wegener et al. (2011) *Transport accessibility at regional/local scale and patterns in Europe (TRACC)*, Interim report to ESPON, Dortmund.

¹⁸ T. van Dijk and A. van der Valk (2007) *Shades of urbanity: diverging statistical definitions*, Paper to ENHR 2007 Conference ‘Sustainable Urban Areas’. T. Dax (1996) Defining rural areas: international comparisons and the OECD indicators, *Rural Society Journal* 6: 3–18. SERA (2006) *Study on employment in rural areas*, Report to the European Commission, Brussels.

¹⁹ M. Brezzi, L. Dijkstra and V. Ruiz (2011) OECD extended regional typology: the economic performance of remote rural regions, *OECD Regional Development Working Papers*, 2011/06, Paris. L. Dijkstra and H. Poelman (2008) Remote rural regions: how proximity to a city influences the performance of rural regions, *Regional Focus* No. 1, European Commission, Brussels.

- **predominantly urban:** where less than 15 percent of the population lives in communities with fewer than 150 inhabitants per square kilometre, or where population density is lower but it has a town of more than 500,000 inhabitants representing at least 25 percent of the regional population;
- **intermediate:** where 15-50 percent of the population lives in communities with fewer than 150 inhabitants per square kilometre, or where population density is lower but it has a town of more than 200,000 inhabitants representing at least 25 percent of the regional population;
- **predominantly rural:** where more than 50 percent of the population lives in communities with fewer than 150 inhabitants per square kilometre.

Intermediate regions and predominantly rural regions are further divided into those that are 'close to a city' or 'remote', depending on whether it takes more than 45 minutes for 50 percent of the region's population to reach a town of at least 50,000 people. A European Commission study that applies this definition to the EU27 (see Table 1 and also Annex 2, Map 1) finds that the percentage of the population that lives in remote rural or remote intermediate areas is:

- over 20 percent in Bulgaria, Ireland, Greece, Estonia, Latvia, Finland (and Norway);
- between 15 and 19 percent in Denmark, Hungary, Portugal and Sweden;
- between 10 and 14 percent in Austria, Lithuania and Romania;
- between 5 and 9 percent in Spain, Italy, Slovenia (and Switzerland);
- between 0.1 and 5 percent in Germany, France, Poland and the United Kingdom;
- zero in Belgium, the Czech Republic, Cyprus, Luxembourg, Malta, the Netherlands and the Slovak Republic.

Table 1: European Commission classification of regions (% of national population)

	Predominantly Urban	Intermediate - Close to a City	Intermediate - Remote	Predominantly Rural - Close to a City	Predominantly Rural - Remote	Total
Belgium	84.7	11.1	0.0	4.2	0.0	100
Bulgaria	16.2	52.4	6.9	9.2	15.4	100
Czech Rep.	11.6	83.4	0.0	5.0	0.0	100
Denmark	29.3	27.9	0.0	23.6	19.3	100
Germany	59.5	28.1	0.0	12.2	0.2	100
Estonia	12.8	64.8	12.0	0.0	10.4	100
Ireland	27.7	0.0	0.0	44.2	28.1	100
Greece	36.2	25.3	2.2	6.8	29.6	100
Spain	48.5	35.8	2.2	7.4	6.1	100
France	29.5	53.7	0.0	13.0	3.8	100
Italy	54.1	34.0	2.6	6.3	2.9	100
Cyprus	0.0	100.0	0.0	0.0	0.0	100
Latvia	31.6	15.4	13.4	29.0	10.5	100
Lithuania	25.1	50.1	5.2	10.7	8.9	100
Luxembourg	0.0	100.0	0.0	0.0	0.0	100
Hungary	20.9	51.9	0.0	8.2	19.0	100
Malta	100.0	0.0	0.0	0.0	0.0	100
Netherlands	82.9	15.9	0.0	1.3	0.0	100
Austria	23.4	30.9	0.0	35.2	10.5	100
Poland	22.5	28.8	2.3	45.5	0.8	100
Portugal	52.3	26.8	0.0	5.8	15.1	100
Romania	9.0	50.3	0.0	27.5	13.2	100
Slovenia	0.0	37.2	5.3	53.8	3.7	100
Slovakia	11.3	63.5	0.0	25.2	0.0	100
Finland	26.1	8.7	3.5	37.1	24.6	100
Sweden	21.1	29.9	0.0	29.4	19.6	100
UK	69.6	27.2	1.2	1.5	0.5	100
EU27	44.9	35.1	1.2	13.7	5.1	100

Source : EPRC calculations based on European Commission data (available at: http://ec.europa.eu/regional_policy/sources/docgener/focus/nuts_urbrur_2008.xls). The methods used to construct the original data-set are described in: L. Dijkstra and H. Poelman (2008) *op. cit.* and M. Brezzi, L. Dijkstra and V. Ruiz (2011) *op. cit.*

3.3 European Union approaches to peripherality

The European Union recognises a number of categories of peripheral or disadvantaged region, and it emphasises the role of the EU in ensuring that these regions benefit from EU integration. Two types of region - outermost regions and low population density regions - have special status in the EU Treaties and so, for example, receive additional Cohesion policy funding (in 2007-13, additional ERDF funding of €35 per inhabitant per year, on top of 'normal' Cohesion policy allocations).²⁰

One category comprises the outermost regions (Guadeloupe, French Guiana, Martinique, Réunion, Saint-Barthélemy, Saint-Martin, the Azores, Madeira and the Canary Islands) are seen to have a particular 'structural social and economic situation' which is 'compounded by their remoteness, insularity, small size, difficult topography and climate, economic dependence on a few products'.²¹ These factors are seen to 'severely restrain their development' so that they require 'specific measures', including special treatment under Treaty Article 107(3)(a) on regional State aid, 'whether or not [they]... have a GDP per capita of less than 75 % of the Community average'.²²

A further category consists of regions with very low population density have enjoyed a special status since the accession of Austria, Finland and Sweden in 1995, with the Accession Treaty noting that specific Cohesion policy funding would be awarded 'to promote the development and structural adjustment of regions with an extremely low population density'.²³ These regions (which also automatically qualify for regional aid designation under Article 107(3)(c)) are defined as 'NUTS-II geographic regions with a population density of less than 8 inhabitants per km², or NUTS-III geographic regions with a population density of less than 12.5 inhabitants per km²'.²⁴

More broadly, the EU defines other regions with structural difficulties.

First, Treaty Article 107(3)(a) refers to the possibility of providing State 'aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment'. More generally, the EU Regional Aid Guidelines state that Article 107(3)(a) and (c) areas should be confined to 'the most disadvantaged regions,

²⁰ European Council (2006a) Regulation No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999, *Official Journal of the European Union* L 210, 31 July 2006, Annex II, paragraph 20.

²¹ European Union (2010) Consolidated version of the Treaty on the functioning of the European Union, *Official Journal of the European Union* C 83, 30 March 2010, Article 349.

²² European Commission (2006) Guidelines on national regional aid for 2007-2013, *Official Journal of the European Union* C 54, 4 March 2006, Section 3.2, paragraph 17.

²³ European Union (1994) Documents concerning the accession of the Republic of Austria, the Kingdom of Sweden, the Republic of Finland and the Kingdom of Norway to the European Union, *Official Journal of the European Union* C 241, 29 August 1994, Protocol 6.

²⁴ European Commission (2006) *op. cit.*, Section 3.4.1, para. 26 and Section 3.4.2 para. 30(b).

as well as a limited number of regions which are disadvantaged in relation to the national average in the Member State concerned'.²⁵

Second, Treaty Article 174 commits the EU 'to the strengthening of its economic, social and territorial cohesion' and to 'reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions', with particular attention being 'paid to rural areas, areas affected by industrial transition, and regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and island, cross-border and mountain regions'. However, although the highest Cohesion policy funding levels in 2007-13 target regions with low GDP per capita, funding is now allocated to all EU regions, and funding to the poorest Member States is capped relative to national GDP.

Third, the Common Agricultural Policy's rural development fund (EAFRD) provides higher co-financing rates in Convergence regions and requires relevant Member States to earmark a proportion of allocations for Convergence regions²⁶ although, like Cohesion policy, its funding is available throughout the EU and is subject to GDP caps on national funding allocations.²⁷ Moreover, the EU Recovery Plan allocated an additional €1.02 billion to the EAFRD for investment in broadband infrastructure in rural areas.²⁸

Fourth, the EU Treaty notes the need to ensure access to national networks and 'to link island, landlocked and peripheral regions with the central regions of the Union'.²⁹ In this context, EU guidelines allow governments to invest in broadband infrastructure in areas where broadband is not available and where there are no plans for private investment in such infrastructure - which are often low population density areas - because 'a well targeted State intervention in the broadband field can contribute to reducing the 'digital divide' that sets apart areas or regions within a country where affordable and competitive broadband services are on offer and areas where such services are not'.³⁰ The guidelines also recognise that State intervention may be justified in other areas where there is some level of broadband availability, if there is under-investment in 'next generation access' networks, particularly in areas with lower levels of business activity or household income, given that private investment in higher quality networks may only occur where there are high rates of traditional broadband connections. The Commission is currently revising its State aid broadband guidelines, with new guidelines due by September 2012. A list of

²⁵ European Commission (2006) *op. cit.*, paragraph 13.

²⁶ European Council (2005) Regulation No 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), *Official Journal of the European Union* L 277, 21 October 2005, Articles 11 and 16, Article 70.

²⁷ European Council (2006b) Regulation No 1944/2006 of 19 December 2006 amending Regulation (EC) No 1698/2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), *Official Journal of the European Union* L 367, 22 December 2006.

²⁸ European Commission (2009) Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks, *Official Journal of the European Union* C 235, 30 September 2009, paragraph 3.

²⁹ European Union (2010) *op. cit.*, Article 170.

³⁰ European Commission (2009) *op. cit.*, paragraph 4; see also paragraph 9.

broadband schemes and projects that have been approved by the European Commission is included in Annex 3.

3.4 Definitions of peripherality

Most countries use some kind of classification of regions based on their urban/rural character or degree of peripherality. Some countries (e.g. Austria) take a pragmatic approach, due to difficulties in defining criteria that adequately represent peripherality.³¹ In others, the peripheral status and preferential treatment of some regions is set out in domestic legislation or constitutions (as in the case of the overseas regions and *departements* in France and the Åland islands in Finland). More frequently, regional classifications are either closely linked to specific policy instruments, or are used only for analytical or monitoring purposes.

Various types of regional classification are used for area designation in regional policy. In Finland, Norway and Sweden, peripherality is largely seen as synonymous with low population density, and this criterion is used in designating areas for the regional aid map. Similarly, in France, one definition of 'fragile' rural areas (around 500 cantons) is based on low population density, low economic diversification and demographic decline at NUTS 3 level,³² and is used to designate the Rural Renewal Zones (*Zones de Revitalisation Rural*, ZRR). Special status and additional funding is also accorded to island (Corsica and the overseas *departments*) and mountainous areas in France. In the Netherlands, special funding has historically been provided for the three northern provinces, Groningen, Drenthe and Friesland (regarded as peripheral in a Dutch context) on the basis of GDP, unemployment and accessibility. In Poland, two levels are used in allocating additional Cohesion policy funding to the most peripheral regions in 2007-13: first, GDP per capita is used to define the five poorest regions (Lubelskie, Podkarpackie, Podlaskie, Świętokrzyskie, and Warmińsko-Mazurskie); second, the division of funds between these regions draws on four criteria, namely the number of inhabitants, GDP per capita, population density and the unemployment rate.

Other classifications are primarily used for monitoring purposes. In Switzerland, the 106 labour market areas are classified into a number of different groups, based on degree of agglomeration, accessibility and extent of tourism.³³ A similar approach, based mainly on population density and accessibility, is used by spatial planners in Germany.³⁴ However, this approach does not influence regional policy area designation; for example, the Regional Joint Task instead targets 'structurally weak areas' which are defined on the basis of criteria relating to unemployment, employment, wages and infrastructure.

³¹ ÖROK (2009) *op. cit.*

³² DATAR (2003) *Quelle France rurale pour 2020 ? Contribution à une nouvelle politique de développement rural durable*, Paris.

³³ Regiosuisse (2010) *Monitoringbericht 2009, Die regionalwirtschaftliche Entwicklung in der Schweiz*, Bern, pp.11-15.

³⁴ Bundesamt für Bauwesen und Raumordnung (2005) *Raumordnungsbericht 2005*, Bonn, pp.19-21.

Box 1: The classification of labour market areas in Switzerland

1. Metropolitan areas, namely the agglomerations of Zürich, Geneva-Lausanne, Basel and Bern, including neighbouring areas if over 50 percent of people work in the agglomerations (47.4 percent of the population);
2. Other agglomerations and other urban communities (25.8 percent of the population);
3. Peri-urban rural areas with short driving times to the nearest agglomeration or town (20.6 percent of the population);
4. Peri-urban rural areas with moderate driving times to the nearest agglomeration or town (1.3 percent of the population);
5. Alpine tourism centres, namely mountain areas with at least 100,000 overnight stays annually, outside metropolitan and other urban areas (1.3 percent of the population); and
6. Peripheral rural areas (3.6 of the population).

Last, in countries where significant tasks have been devolved to the regional level, different classifications of peripherality may be used in different regions, particularly where there is strong interregional variation in accessibility and population density (e.g. between England and Scotland, see Table 2).

Table 2: The classification of rural and urban areas in England and Scotland

England's Local Authority Rural-Urban Classification	Scotland's Eight-fold Urban Rural Classification
Areas with either 100,000 people or with 50% of their population in urban areas with a population of over 750,000	Settlements of over 125,000 people
Areas with either 50,000 people or with 50% of their population in areas with a population of 250,000-750,000	Settlements of 10,000-125,000 people
Areas with less than 26% of their population in rural towns	Settlements of 3,000-10,000 people and less than 30 minutes' drive to a settlement of 10,000+
Areas with 26-50% of their population in rural towns	Settlements of 3,000-10,000 people and over 30 minutes' drive to a settlement of 10,000+
Areas with 50-80% of their population in rural towns,	Settlements of 3,000-10,000 people and over 60 minutes' drive to a settlement of 10,000+
Areas with at least 80% of their population in rural towns	Areas with fewer than 3,000 people and less than 30 minutes' drive to a settlement of 10,000+
	Areas with fewer than 3,000 people and over 30 minutes' drive to a settlement of 10,000+
	Areas with fewer than 3,000 people over 60 minutes' drive to a settlement of 10,000+

Sources: Department for Environment, Food and Rural Affairs (2011) *Statistical digest of rural England*, Government Statistical Service, London; Scottish Government (2010) *Urban-rural classification 2009-2010*, Office of the Chief Statistician, Edinburgh.

4. LINKING GEOGRAPHICAL PERIPHERALITY WITH SOCIO-ECONOMIC VARIABLES

Implicit in the idea of peripherality is that regions with poorer accessibility or lower population density are affected by socio-economic disadvantage. This section draws on available data for the EU27, plus Norway and Switzerland, to explore, first, the extent to which different countries are affected by diverse definitions of peripherality (including socio-economic indicators, as well as low population density and poor accessibility). Second, it examines whether low population density and poor accessibility are correlated with a number of variables that reflect structural socio-economic weakness.

4.1 Performance on different indicators of peripherality

The proportion of the national population living in regions which score highly on various peripherality indicators varies between countries and also across variables (see Table 3 and Maps in Annex 2). This analysis uses the same thresholds for identifying peripheral regions across all countries and therefore provides a picture of peripherality from a Europe-wide perspective, rather than from a national viewpoint.

A number of (mostly central European) countries scores highly on most peripherality indicators, indicating that the majority of the population lives in regions that are affected by different dimensions of geographical and socio-economic peripherality. The highest scores are seen in Lithuania and Romania (over 70 percent on average), Bulgaria, Latvia and Poland (over 60 percent) and Hungary, Portugal and Slovakia (over 45 percent).

A second group of countries scores relatively highly on between three and five indicators that reflect different aspects of peripherality. Some combine high scores on poor potential accessibility and on socio-economic indicators (Estonia, Ireland, Greece, Spain and Cyprus), while others have high scores for a range of socio-economic indicators including low internet usage (Czech Republic and Italy).

A third group has relatively high scores on between one and three indicators that relate to only one or two dimensions of peripherality. Some countries perform poorly mainly on the unemployment rate indicator (Belgium, Germany and France) or on accessibility and population density (Norway and Sweden), as well as unemployment (Finland). Others have a high score only for primary sector employment (Austria) or also for low household disposable income (Slovenia). Other countries perform poorly mainly on business R&D spending (United Kingdom) or also on internet usage (Malta).

The last group includes countries which, from a European perspective, are not strongly affected by any of the peripherality indicators. They either have low scores for no more than two indicators (Denmark and the Netherlands) or score zero for all indicators for which data are available (Luxembourg and Switzerland).

However, this analysis does not necessarily demonstrate that poor performance on socio-economic indicators is related to poor accessibility or low population density. It is possible, for example, that less accessible or low population density regions perform better than some urban regions on some indicators (e.g. unemployment rates or internet usage rates).

Table 3: Percentage of regional populations showing characteristics of peripherality

	Potential access- ibility index 2006 NUTS 3	Popula- tion density ≤25 per km ² 2008 NUTS 3	GDP per capita PPS ≤75% of EU average 2008 NUTS 3	House- hold dispos- able income PPS ≤ 12,000 2007 NUTS 2	Unemp- loyment rate ≥10% 2009 NUTS 3	Primary sector employ- ment ≥10% 2008 NUTS 3	Business R&D spending ≤0.5% of GDP 2007 NUTS 2	At least weekly internet use ≤60% 2010 NUTS 2
BE	0	0	11.2	0	31.9	0.5	n.a.	0.0
BG	78.7	0	83.8	100	13.0	77.8	100.0	100.0
CZ	27.9	0	77.4	100	11.0	5.0	11.0	60.9
DK	0	0	0	0	7.8	0.0	10.6	0.0
DE	0.4	0	10.1	0	26.8	0.4	16.9	1.3
EE	61.0	48.2	61.0	100	100	0.0	0.0	0.0
IE	46.2	0	0	0	100	0.0	0.0	26.8
EL	53.7	1.6	21.3	13.9	32.3	45.1	n.a.	100.0
ES	38.8	4.4	8.7	23.3	97.7	10.4	52.0	60.5
FR	11.0	0.8	5.3	0	28.6	1.3	n.a.	0.0
IT	15.5	0	30.1	28.6	29.6	n.a.	51.6	100.0
KY	100	0	0	n.a.	0	0	100.0	100.0
LV	51.8	39.3	68.4	100	100	51.8	100.0	0.0
LT	74.9	0	74.9	100	94.6	33.2	100.0	100.0
LX	0	0	0	n.a.	0	0	0.0	0.0
HU	45.5	0	83.1	100	49.3	37.4	71.3	50.4
ML	7.6	0	7.6	n.a.	0	0.0	100.0	100.0
NL	0	0	0	0	0	1.3	5.8	0.0
AT	0.6	1.2	5.6	0	0	29.5	0.0	0.0
PL	55.8	0	84.2	100	25.6	61.6	100.0	100.0
PT	56.6	5.9	59.1	69.6	46.5	55.2	51.1	100.0
RO	81.2	0	89.6	100	19.2	89.6	100.0	100.0
SI	0	0	18.0	53.7	0	51.5	0.0	0.0
SK	51.0	0	78.4	88.7	67.3	0	100.0	0.0
FI	71.6	39.7	7.0	0	35.2	14.3	0.5	0.0
SE	34.2	23.8	0	0	6.0	0	4.1	0.0
UK	6.7	0.9	13.3	0	13.7	0.0	30.5	1.9
NO	60.3	48.4	n.a.	n.a.	n.a.	n.a.	n.a.	0.0
CH	0	0.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Note: 1) See Annex 1 for a full description of data sources and variables.

Source: EPRC calculations using EUROSTAT and © ESPON 2006 data.

4.2 Correlations between peripherality indicators

In order to take the analysis a step further, this section examines correlations between different indicators of peripherality. Table 4 shows the results of a simple regression analysis, which tests for statistically significant correlations between pairs of variables, with one variable in each pair relating to physical peripherality (accessibility or population density) and the other relating to socio-economic factors (GDP per capita, household disposable income, unemployment rates, business R&D spending as a percentage of GDP, or internet usage). The analysis demonstrates correlation rather than causality i.e. it does not prove that poor accessibility or low population density is the root cause of, for example, low GDP per capita. Correlations that are statistically significant are marked by one or more stars, indicating a 90 percent probability (one star), 95 percent probability (two stars) or 99 percent probability (three stars) that the two variables are correlated with each other. If peripherality is related to negative socio-economic outcomes, the analysis should show positive correlations in the case of all pairs of variables except population density and unemployment rates, where there should be a negative correlation. Further methodological and data information is provided in Annex 1.

The strongest correlations are seen in the case of the Czech Republic (not R&D spending) and Romania (not unemployment), both of which show significant correlations for five sets of variables, while the EU as a whole and five other countries (Greece, France, Poland, Sweden and the United Kingdom) show a significant relationship in the case of four pairs of variables. Italy (GDP per capita and R&D spending) and Slovakia (GDP per capita and unemployment) show significant correlations for three sets of variables. Seven countries (Belgium, Bulgaria, Denmark, Ireland, Lithuania, Hungary and Portugal) show significant results only for the two variable-pairs that include GDP per capita (possibly in part because these were the only pairs of variables tested in some countries). Germany and Austria also show a significant correlation between peripherality and low GDP per capita but in addition the results for these two countries indicate that high unemployment rates are correlated with high population density. This result is not entirely unexpected, as unemployment rates are often higher in cities, partly because there is a stronger tendency to migrate out of rural areas if no jobs are available. Three countries show a significant correlation between only one peripherality indicator and one socio-economic variable: Spain and Finland (accessibility) and the Netherlands (household disposable income). Slovenia is the only country to show no significant relationship between the pairs of variables tested.

Overall, this analysis suggests that, for the EU as a whole and also for most individual EU countries, there is a clear correlation between poor accessibility or low population density on the one hand, and at least some indicators of socio-economic weakness on the other. Most countries show significant correlations for low GDP per capita with poor accessibility and low population density (20 or 19 out of 23 calculations), and a majority (9 out of 14) also show a positive relationship between low population density and low household disposable income. (It should, however, be noted that EUROSTAT GDP per capita data do not take account of within-country differences in the cost of living and operating a business.) A smaller percentage of countries show the expected correlation between low population density and low internet usage (4 out of 12), low business R&D spending (4 out of 13) or high unemployment rates (4 out of 20).

Table 4: Correlations between (1) indicators of accessibility or population density and (2) GDP per capita, unemployment rates, business R&D spending and internet usage

	Potential accessibility index & GDP per capita NUTS 3	Population density & GDP per capita NUTS 3	Population density & unemployment rate NUTS 3	Population density & household disposable income NUTS 2	Population density & business R&D spending as a % of GDP NUTS 2	Population density & internet use NUTS 2
EU27	0.570 (22.893)*** [28.8%] d.f. 1298	0.018 (18.530)*** [20.9%] d.f. 1298	0.008 (0.683) [00.0%] d.f. 1194	0.106 (3.892)*** [5.5%] d.f. 263	0.002 (0.241) [0.0%] d.f. 258	0.234 (2.012)** [2.4%] d.f. 168
BE	0.684 (3.862)*** [26.2%] d.f. 43	0.023 (6.844)*** [52.7%] d.f. 43		-0.006 (-0.175) [0.3%] d.f. 10		0.010 (0.135) [0.2%] d.f. 10
BG	0.564 (5.014)*** [49.2%] d.f. 27	0.081 (10.635)*** [81.3%] d.f. 27				
CZ	0.801 (3.998)*** [57.1%] d.f. 13	0.044 (17.220)*** [96.1%] d.f. 13	-0.164 (-1.837)* [21.9%] d.f. 13	0.160 (5.336)*** [82.6%] d.f. 7	0.010 (0.307) [1.6%] d.f. 7	0.685 (3.155)** [62.4%] d.f. 7
DK	0.874 (2.922)** [48.7%] d.f. 10	0.022 (5.153)*** [74.7%] d.f. 10	0.011 (0.155) [0.3%] d.f. 10			
DE	0.570 (8.629)*** [14.8%] d.f. 428	0.034 (13.412)*** [29.6%] d.f. 428	0.094 (3.724)*** [3.1%] d.f. 428	0.051 (1.116) [3.3%] d.f. 38	0.001 (0.056) [0.0%] d.f. 38	0.080 (0.555) [2.2%] d.f. 15
IE	1.416 (4.171)*** [74.4%] d.f. 7	0.069 (3.648)*** [68.9%] d.f. 7	-0.204 (-1.697) [32.4%] d.f. 7			
GR	0.314 (1.805)* [6.2%] d.f. 50	0.033 (2.093)** [8.2%] d.f. 50	-0.033 (-0.112) [0.0%] d.f. 50	0.520 (2.853)** [42.5%] d.f. 12	0.029 (4.650)*** [66.3%] d.f. 12	
ES	0.470 (5.041)*** [30.8%] d.f. 58	0.001 (0.390) [0.3%] d.f. 58	0.102 (1.104) [2.1%] d.f. 58	0.006 (0.140) [0.1%] d.f. 18	-0.011 (-1.545) [12.3%] d.f. 18	-0.072 (-0.721) [3.0%] d.f. 18
FR	0.652 (7.988)*** [40.4%] d.f. 95	0.011 (16.027)*** [73.2%] d.f. 95	0.002 (0.238) [0.0%] d.f. 95	0.421 (4.369)*** [48.8%] d.f. 21	0.091 (1.347) [8.7%] d.f. 20	1.506 (8.018)*** [91.5%] d.f. 7
IT	0.631 (11.308)*** [54.9%] d.f. 106	0.013 (1.840)* [3.1%] d.f. 106	-0.012 (-0.112) [0.0%] d.f. 106	0.184 (0.297) [0.5%] d.f. 20	0.141 (2.497)** [24.7%] d.f. 20	0.112 (0.106) [0.1%] d.f. 20
LT	0.926 (6.461)*** [83.9%] d.f. 9	0.607 (4.087)*** [67.6%] d.f. 9	2.163 (0.642) [4.9%] d.f. 9			
HU	0.661 (5.098)*** [59.1%] d.f. 19	0.030 (8.859)*** [81.3%] d.f. 19	-0.165 (-1.596) [12.4%] d.f. 19			
NL	0.075 (0.471) [0.6%] d.f. 39	0.011 (1.419) [5.0%] d.f. 39	-0.015 (-0.617) [1.0%] d.f. 39	0.243 (4.435)*** [66.3%] d.f. 11	0.017 (0.328) [1.1%] d.f. 11	0.380 (1.096) [10.7%] d.f. 11

AT	0.640 (3.542)*** [27.5%] d.f. 34	0.016 (2.510)** [16.0%] d.f. 34	0.081 (4.260)*** [35.5%] d.f. 34	0.016 (1.201) [17.1%] d.f. 8	0.015 (0.758) [7.6%] d.f. 8	0.130 (1.515) [24.7%] d.f. 8
PL	0.613 (7.533)*** [47.0%] d.f. 65	0.025 (12.007)*** [69.3%] d.f. 65	-0.137 (-3.355)*** [15.0%] d.f. 65	0.621 (1.974)* [21.8%] d.f. 15	0.046 (1.739) [17.8%] d.f. 15	
PT	0.371 (2.242)** [15.2%] d.f. 29	0.027 (3.228)*** [27.1%] d.f. 29				
RO	0.553 (6.399)*** [50.6%] d.f. 41	0.009 (6.255)*** [49.4%] d.f. 41	-0.045 (-1.045) [2.7%] d.f. 41	0.372 (7.165)*** [89.5%] d.f. 7	0.030 (2.783)** [56.3%] d.f. 7	1.770 (6.018)*** [85.8%] d.f. 7
SI	0.574 (1.391) [16.2%] d.f. 11	0.149 (1.394) [16.3%] d.f. 11	1.302 (1.044) [9.8%] d.f. 11			
SK	1.235 (5.764)*** [84.7%] d.f. 7	0.536 (11.232)*** [95.5%] d.f. 7	-5.388 (-3.101)** [61.6%] d.f. 7			
FI	1.791 (2.620)** [27.6%] d.f. 19	0.352 (1.346) [9.1%] d.f. 19	-1.720 (-1.685) [13.6%] d.f. 19			
SE	0.166 (0.960) [4.6%] d.f. 20	0.177 (5.115)*** [57.9%] d.f. 20	-0.738 (-2.167)** [19.8%] d.f. 20	1.014 (7.906)*** [91.2%] d.f. 7	0.792 (1.998)* [40.0%] d.f. 7	-0.053 (-0.561) [5.0%] d.f. 7
UK	0.799 (5.248)*** [17.4%] d.f. 132	0.018 (7.645)*** [30.8%] d.f. 132	0.063 (5.916)*** [21.1%] d.f. 132	0.068 (3.476)*** [25.7%] d.f. 36	-0.012 (-0.980) [2.7%] d.f. 36	0.062 (0.868) [2.4%] d.f. 32

Notes: 1) See Annex 1 for a full description of data sources and variables.

2) The first figure in each cell shows the correlation coefficient (i.e. the size of the correlation, which depends in part on the data units used). The second figure in round brackets shows the t-statistic or whether there is a 90% (one star), 95% (two stars) or 99% (three stars) probability that the correlation is statistically significant. The third figure in square brackets shows the R-square and reflects the percentage of variation in the y variable (e.g. GDP per capita) which is explained by the x variable (e.g. accessibility). The fourth figure shows the degrees of freedom (which equals the number of regions minus one); the larger the number of degrees of freedom, the more robust is the calculation).

3) No regressions were undertaken for countries with fewer than 8 regions at the relevant NUTS level.

Source: EPRC calculations based on EUROSTAT and © ESPON 2006 data.

5. REGIONAL POLICIES FOR PERIPHERAL REGIONS

The priority given to peripheral areas within countries' domestic regional policy varies greatly between countries, depending on the degree of economic concentration, population density and accessibility problems, as well as political decisions on policy priorities. Three main approaches can be identified: those countries where peripheral areas have a high priority on the national regional policy agenda (Finland, Norway and Poland), those countries where the issues of peripheral areas are reasonably important but are not the main focus of policy (Sweden, Austria, Switzerland, France and Germany), and those countries where the problems of peripheral regions do not have a high profile in national policy terms but are significant in a minority of regions (Italy and the United Kingdom). Regional economic policy in the Netherlands has focused on peripherality in the past, but this has progressively diminished over the past decade.

Several countries operate instruments of regional policy that specifically address the needs of peripheral areas, notably Finland, France, Norway, Poland, Sweden and the United Kingdom. In these countries and also in a number of other countries (Austria, Germany, Italy and Switzerland), there are regional policy instruments which address both peripheral areas and other types of area.

5.1 Countries where peripheral regions have a high profile

In the first group of countries (Finland, Norway and Poland), the difficulties facing peripheral areas have a high profile nationally, and support for these areas is important in national terms. This is reflected in the orientation of regional policy resources and instruments.

In Finland, there is specific regional policy support for peripheral regions because it is recognised that conditions are not the same in all regions. Nevertheless, all regions are considered to be important in regional development terms, and the overall focus is on strengthening competitiveness across the country. The special treatment of the northern and eastern sparsely populated regions in both regional aid schemes and EU Cohesion policy is underpinned by the special status of these regions as defined in the EU Treaty (see also Section 3.3). Hence, regional aid (business development aid and development aid for the business environment) is targeted on eligible areas in the more remote eastern and northern regions, which cover approximately 12 percent of the population. In 2010, the east of the country received 30.7 percent of total regional policy aid, worth around €45 million, while the north accounted for a further 25 percent, or €37 million. Moreover, a transport aid scheme has been in operation since 1973, and is restricted to SMEs located in sparsely-populated areas. Eligible areas are mainly located in the north and east of the country (although it is also awarded in permanently inhabited island areas located in other regions). The size of the award to mainland firms varies from seven to 29 percent of transport costs, depending on distance, while island transport aid can be up to 46 percent of transport costs.

Similarly, in Norway there is a long-standing political commitment to ensuring equal living conditions throughout the country and maintaining settlement patterns, as reflected in the 2009 regional policy White Paper, and this has been backed up by policies which target funding on the country's disadvantaged, peripheral and low population density areas. The 'district' component of Norwegian regional policy, in particular, responds to the inherent disadvantages facing the peripheral north and other difficult-to-access, sparsely-populated areas. As regional policy resources are allocated on the basis of a 'district index' that reflects needs, a spatial orientation in favour of more disadvantaged regions is implicit in the allocation of national regional policy funding. Thus, regional investment aid in Norway strongly targets the designated regional aid areas in the peripheral north. In 2011, approximately 38 percent of the budget (some NOK 587 million, or €75 million) was allocated to the three northernmost counties (Finnmark, Troms and Nordland) which together are home to just over 10 percent of the national population.

Norway has a number of other instruments that support development in peripheral and low-population-density areas. First, there is a transport aid scheme, which is comparatively small scale (although not restricted to SMEs), which is financed and administered by local authorities in the sparsely-populated regions (i.e. there is no national budget). Second, the social security concession for employers has been a core component of district policy since 1975, and had a budget of NOK 696.3 million or €89.8 million in 2011. It was challenged by the EFTA Surveillance Authority in 2000-06 but, following amendments to the EU regional aid guidelines, was reintroduced for 2007-13 in areas of very low population density (covering 17.7 percent of the national population). The 2009 White Paper explicitly recognised the importance of the social security concession, arguing the need to be able to provide such support to sparsely-populated parts of the country in future. Third, in the Finnmark and Northern Troms 'Action Zone' in Norway, other forms of support are available, including a partial write-down of student loans, a reduction in personal income tax, an increase in child benefit and exemption from the electricity consumption tax.

Peripherality is also seen as an important issue in Poland, with the country's eastern regions being seen as peripheral on an EU and national scale. The regions of Lubelskie, Podkarpackie, Podlaskie, Świętokrzyskie, and Warmińsko-Mazurskie are the poorest in the EU, in terms of GDP per capita, apart from 13 regions in Bulgaria and Romania. The new National Strategy for Regional Development, launched in 2010, is based on a model of 'polarisation-diffusion' which prioritises support for the country's largest cities and agglomerations but also aims to develop mechanisms to encourage the diffusion of growth effects to more peripheral regions. The Cohesion policy co-funded 'Operational programme for the development of the eastern regions 2007-13' is investing in infrastructure and urban development, the information society (notably the extension of broadband), and the modernisation and diversification of largely rural economies and tourism, with €2.2 billion from ERDF sources and around €400 million from the domestic budget. The programme contributes to a domestic strategy for the five poorest regions - the 'Strategy for the socio-economic development of eastern Poland to 2020' - which has the same structure as the EU co-funded operational programme but a longer time perspective.

5.2 Countries where peripheral regions have a relatively high profile

The problems of peripheral areas are also of national political importance in Austria, France, Germany, Sweden and Switzerland, not least because a relatively large number of areas are affected by issues of accessibility or low population density. Regional policy in these countries therefore includes a focus on peripheral regions, either through specific instruments, broader policy instruments or more general coordinating measures.

In Austria, peripheral areas (mountainous regions in the centre and west of the country) and border regions are the main focus of regional development efforts. No specific regional policy instruments or funding is targeted on these areas, but firms in many of these areas are eligible to apply for funding under the regional programme of the European Recovery Programme (ERP) Fund. Moreover, the Federal Chancellery (*Bundeskanzleramt*) and the Austrian Spatial Planning Conference (*Österreichische Raumordnungskonferenz*, ÖROK) provide strategic guidance and promote coordination between different bodies. Similarly, the Federal Chancellery and the *Länder* provide financial and organisational support for the local development entities (*Regionalmanagements*) which are predominantly but not exclusively located in rural and peripheral areas.

Peripherality has also been a longstanding issue in France, due to the country's centralised institutional framework (e.g. in terms of transport infrastructure), as well as regional disparities in terms of population density, and the particular difficulties of mountainous areas and islands. The overseas *départements* (DOM) have a specific status based in domestic legislation and benefit, for example, from transport aid. Similarly, Corsica is entirely covered by the regional aid map and receives exceptional support in the form of tax relief, as well as a 15 year infrastructure investment programme of around €2 billion that was set up in 2002 and aims to enhance infrastructure and service provision (water supply, waste water and waste treatment). Tax relief in Corsica accounts for a considerable share of regional policy support in France (an estimated €389 million in 2011).

Other peripheral areas in France are mainly addressed through regional policy instruments which target rural areas. In France, the Rural Renewal Zones (*Zones de Revitalisation Rural*, ZRR), which are designated largely on the basis of demographic criteria, benefit from tax exemptions for businesses. The ZRR scheme has been in place since 1995, and will last until at least 2013. In 2011, a number of changes were introduced to the scheme. On the one hand, it was extended to include transfer of ownership, and firms now enjoy full instead of partial tax exemption throughout the whole period. On the other hand, the duration of support under the scheme was reduced from fourteen to eight years, and support was limited to micro firms. In addition, State and EU funding of €235 million is available to the 'Rural excellence poles' (*pôles d'excellence rurale*, PER) which can be located either in a Rural Renewal Zone or outside towns of more than 30,000 inhabitants, with a maximum of €1.5 million being allocated per pole. Last, the main regional policy grant (*Prime d'aménagement du territoire*, PAT) is available in some peripheral, sparsely populated areas and in 2009-10, one in five projects was located in a rural (although not necessarily a peripheral) area.

In Germany, the main national regional policy instrument - the 'Joint task for the improvement of regional economic structures' (*Gemeinschaftsaufgabe 'Verbesserung der regionalen Wirtschaftsstruktur'*, GRW) - funds economic development projects in structurally weak regions throughout the country. It thus provides funding for peripheral or structurally weak rural areas alongside other areas with structural economic weaknesses. The regional aid map was revised in 2008 to extend eligibility to cover a number of mainly rural areas in the western *Länder*, due to the socio-economic difficulties in these rural areas. Moreover, since 2009-10, *Land* governments have been able to use GRW funding to fund broadband infrastructure in areas with no or only limited coverage, and this step is seen mainly to benefit sparsely populated and rural areas. Funding is provided for broadband for firms or business parks in designated areas where bandwidth is less than two Megabytes (download speed), including for 'next generation access'.³⁵ Funding is available for infrastructure, advisory services and individual firm support (see Annex 1).

In Sweden, regional development policy has moved towards a focus on the growth of all regions, while still recognising the problems of the northern, sparsely populated regions. As in Finland, sparsely populated northern regions with fewer than 12.5 inhabitants per square kilometre (namely the regions of Norrbotten, Västerbotten, Jämtland, Västernorrland and parts of the Dalarna region, but not the three northern cities of Luleå, Umeå and Sundsvall) enjoy Article 107(3)(a) designation due to their special status in the EU Treaty. Regional aid therefore continues to be targeted mainly on these peripheral northern regions, via the regional investment aid scheme, the regional grant for business development and the employment grant. In addition, Sweden has operated a transport aid scheme for the north since 1972, with an annual budget of around €54 million. Operated by *Tillväxtverket*, the scheme is available to firms of any size in the sparsely populated north. It comprises two elements: an 'outward' transport aid which subsidises the cost of transporting goods from firms in sparsely populated areas; and 'inward' transport aid for raw materials or semi-finished products being shipped for processing in firms located in the least-populated regions. The first component accounts for about 85 percent of the overall budget, and the second component for around 15 percent. The subsidy covers 10-45 percent of transport costs, depending on the location of the production site.

Topographical specificities and regional disparities in population density also ensure that peripherality is an important issue in Switzerland. Although the main focus of the country's 'new regional policy' is on regional competitiveness, the Federal Law on Regional Policy still makes provisions for peripheral areas, with a commitment to safeguarding a decentralised settlement pattern. Moreover, regional policy projects are now required to have a positive effect on mountain, border or rural areas (or other areas with similar problems and potential), regardless of where the projects take place. Tax relief for firms is also restricted to the economically weakest areas of the country (which are partly defined in terms of lower than average demographic development). In addition, one of the country's two fiscal equalisation instruments includes a 'geographical-topographical' dimension, alongside a socio-demographic dimension, each of which had a budget of

³⁵ Deutscher Bundestag (2009) *Koordinierungsrahmen der Gemeinschaftsaufgabe, Verbesserung der regionalen Wirtschaftsstruktur' ab 2009*, Drucksache 16/13950, 08.09.2009, Berlin.

CHF341 million (€260 million) in 2008. The geographical-topographical component is targeted at cantons in mountainous areas with low population density (settlements with 200 inhabitants or less), and takes account of the following aspects: burdens relating to altitude (e.g. winter services, infrastructure), burdens relating to steepness (e.g. forest management, water engineering, avalanche protection), and costs due to distance (e.g. infrastructure (roads, water, energy), school and health systems, public transport).³⁶

5.3 Countries where peripheral regions have only a regional profile

In the final group of EoRPA countries (Italy and the United Kingdom), the problems of peripheral regions do not have a particularly high profile in the national context but are seen as important within a minority of regions. Some regional policy instruments cover peripheral regions among others and, within individual regions, there may be further entities or schemes that aim to support the most peripheral areas.

In Italy, domestic regional policy funding (via the Fund for Underutilised Areas or *Fondo per le Aree Sottoutilizzate*, FAS) is focused on the southern regions which, as a whole, are relatively peripheral to the European economy but in general do not have low population density. Nevertheless, some areas, particularly on the island of Sardegna, do experience particular difficulties due to their sparse population, and so domestic regional policy can be seen to be addressing these areas, alongside other structurally weak areas.

In the United Kingdom, peripheral regions (such as Scotland's Highlands and Islands, West Wales, and Cornwall and the Isles of Scilly) have benefited from higher levels of Cohesion policy funding (via Objective 1 / Convergence / Transitional programmes) in recent years. These areas are also designated for regional aid purposes, although the UK government has ended the main regional aid scheme in England (but not in Scotland or Wales, where this decision is in the hands of the sub-national authorities). In addition, peripheral, sparsely populated northern areas in Scotland are supported through the activities of Highlands and Islands Enterprise (HIE), which has a budget of £54.6 million or €63 million in 2010-11. HIE's role is to develop sustainable economic growth across the region, through investment in infrastructure, providing support for large and small businesses with growth aspirations, and supporting the strengthening of communities, particularly in fragile areas, for example through helping communities to acquire and develop land and other assets. Alongside the provision of mainstream business support throughout the Highlands and Islands, HIE invests in large-scale 'transformational' projects of major regional significance, which are expected to have a long-term impact on the structure of the regional economy. In addition, there is a programme supporting communities in the most fragile rural areas where, by working in partnership with local authorities and other public agencies, HIE supports selected communities to develop and implement plans for local growth.

Lastly, as noted above, regional economic policy in the Netherlands has historically given considerable attention to the three northern provinces, Groningen, Drenthe and Friesland (collectively termed 'the north'), regarded as the 'peripheral regions' in a Dutch context.

³⁶ Eidgenössisches Finanzdepartement (EFD) (2007) *Neugestaltung des Finanzausgleichs und der Aufgabenteilung zwischen Bund und Kantonen - NFA*, Informationsbroschüre, pp. 11-16.

These provinces retained special funding well after other problem region support was abandoned, through: (a) the *Kompas* programme - to support economic centres in the North; (b) the one remaining regional aid, Investment Premium; and (c) a special budget line under the 'Peaks in the Delta policy'. This special funding for the north of the country was meant to be phased out, but parliamentary pressure led to transitional funding being agreed for the 2007-10 period. The nature of this funding, notably in the form of infrastructure investment to compensate for the abandonment of a fast rail link (*Zuiderzeelijn*) to improve accessibility, meant that some preferential funding for the north has continued beyond 2010 despite the disappearance of most forms of central government regional economic policy following recent reforms.

6. PERIPHERALITY AND OTHER POLICY AREAS

Many of the initiatives and projects which have the most profound impact on peripheral rural areas are carried out under policy fields which lie outside narrow regional policy - including transport and education, energy, innovation and social policies. This section highlights some interesting examples from among selected European countries. Coverage is not intended to be comprehensive of all countries, and further information on the policy initiatives mentioned (and others) can be found in Annex 4.

The examples are drawn from three main groups of policy fields. The first focuses on the key capacities or potential for development in peripheral areas, notably natural resources, as well as human and social capital. While many peripheral regions are rich in natural resources, tensions often emerge over their exploitation, not least due to possible environmental impacts. In the case of human and social capital, a key concern in many peripheral regions is the out-migration of younger people, and there are often significant financial constraints, as well as socio-institutional obstacles, to the development or attraction of these 'soft' resources.

The second set of issues relates to accessibility and openness, both in terms of human interactions and of transport and broadband infrastructure networks. The sparse population of peripheral areas increases the importance of linkages with people and firms outside the region, and policy actors can play an important role in bridging or brokering linkages on behalf of businesses within the region. While investment in transport and broadband networks is widely seen as important for these regions, the high costs involved (particularly in per capita terms in sparsely populated regions) are often an obstacle to development.

Last, a major policy focus in many peripheral areas is the provision of local services of general economic interest, which may include both public and commercial services, particularly in the context of the fiscal constraints affecting many local and regional authorities. Similar solutions are being developed in different countries and regions, relating to increased cooperation between different organisations, as well as the combination of resources and efforts across the public, private and not-for-profit sectors.

6.1 Managing development linked to natural resources

Natural resources are often seen as a core distinctive resource for business in peripheral rural areas, acting as a core input in industries such as agriculture, forestry, fishing, food and drink processing, tourism and renewable energies. The abundance of natural resources in peripheral areas can provide a reason for locating or developing a firm in these regions. However, there is often a need for careful management and the regulation of economic activities so that natural resources are not degraded for short-term interests, especially as the natural environment has inherent value in terms of its impact on human endeavour (e.g. via carbon and water cycles), as well as biodiversity and socio-cultural benefits. Tensions often arise over the appropriate shape and scale of economic activities in peripheral areas, partly due to their potential impact on the natural environment but also because local employment opportunities are often limited.

The complexity and potential tensions involved in some countries' policies for peripheral areas is illustrated by Norway's High North strategy, which includes elements of policy related to foreign affairs and security (particularly *vis-à-vis* Russia), oil and gas exploitation in the Barents Sea, climate change, stewardship of the natural environment, fisheries, regional economic development, and the traditions and cultures of indigenous peoples. The overall objective of the multi-annual High North strategy is 'to create sustainable growth and development in the High North'³⁷ and in 2011 it has a budget of around NOK 1.2 billion (€153 million) across a range of ministries, particularly foreign affairs, fisheries, education, industry, and regional development.

Tensions between regional economic development goals and environmental protection have also been evident in the creation of new protected areas in Switzerland since 2007, when it was decided to allow local, referendum-based applications for protected area status. While the Swiss federal level focuses primarily on environmental protection issues, many local initiatives seem aimed primarily at increasing tourism activities through improved branding, as well as accessing federal funding (which will involve CHF10 million or €8 million annually from 2012).³⁸ Most local applications are for 'regional nature park' status which involves only limited additional restrictions on development, whereas there are stronger constraints on tourism and other development in other protected areas. There are concerns over the possible devaluation of 'protected area' status, as well as the scope for potential tourism expansion, although the initiative has been helpful in encouraging cooperation between local authorities, including between cantons and linguistic groups.

Similarly, there are debates over the balance between economic development and environmental protection in eastern Poland, one of the most significant locations of biodiversity in the EU (with 38 percent of the EU's nature reserves). The region is seen to have considerable potential for tourism development,³⁹ and significant Cohesion policy funding is being focused on tourism-related infrastructure, businesses and marketing (€47.5 million of ERDF funding in the Eastern Poland operational programme). There are, however, tensions between environmental protection and economic goals, given that development in many areas is constrained by protected area status. There are also concerns that scope for biodiversity-related tourism development may be smaller than anticipated, particularly if tourist infrastructure and services are limited.⁴⁰ Further, although efforts are being made to ensure a collaborative and strategic approach to tourism development, there have been difficulties in achieving cooperation between regional and local authorities.

There are also efforts to exploit natural resources for economic ends in Scotland, through a strategy for renewable energies. Renewable energies are seen to offer potential for

³⁷ Norwegian Ministry of Foreign Affairs (2006) The Norwegian Government's High North Strategy, Oslo, p.7.

³⁸ <http://www.bafu.admin.ch/paerke/10459/10467/index.html?lang=de>

³⁹ OECD (2008) *Territorial Review of Poland* Organisation for Economic Cooperation and Development, Paris p152.

⁴⁰ M. Kozak (2010) Turystyka: niewykorzystywana szansa rozwoju regionów? *Studia Regionalne i Lokalne* Nr 4(42) r. 2010, str. 43-59.

economic development, particularly in the northern Highlands and Islands, where many areas have strengths in terms of proximity to the sea and waterways (wave, tidal and hydro energies), strong winds (offshore and onshore wind farms) and forestry and agriculture (biomass). Renewable energies are also seen to contribute to climate change goals and to energy security concerns. The development agency, Highlands and Islands Enterprise, invested £15.4 million (€17.7 million) in renewable energy projects and infrastructure in 2007-10. Nevertheless, there are tensions over the visual impact of some types of infrastructure, especially in 'wilderness' landscapes with no other visible human structures, and particularly in relation to plans to construct a network of large-scale pylons and overhead power lines.⁴¹ There are also concerns that some (e.g. onshore wind farm) projects involve the destruction of peatlands which act as carbon sinks, with perverse effects on climate change goals.

6.2 Building, retaining and attracting human and social capital

The role of human and social capital is of particular importance in peripheral rural areas due to their low population density and the need to maximise the added value of economic activity. While many peripheral areas are experiencing outflows of more educated younger people (or those in search of higher education), some are also seeing inflows of highly educated return-migrants or in-migrants who are attracted by the perceived quality of life of these areas, in terms of the natural environment and social cohesion.

6.2.1 Higher education

While education is often equated with out-migration in many peripheral regions, some countries (e.g. Finland, Norway and Sweden) have invested strongly in higher and further education in the towns of peripheral macro-regions, not least with a view to retaining young people within the region, if not in all communities. Such investments may be perceived as more affordable in countries with a strong commitment to 'settlement in all areas' or 'equivalent living conditions', although there may still be tension around funding levels, as well as around the appropriate territorial level at which access to higher education should be ensured. In a context of limited public funding, a balance needs to be struck between the goals of ensuring the decentralised provision of higher education and the parallel goal of investing in internationally excellent higher education and research.

Aspirations to extend access to higher education started to appear in Finland in the 1950s, although there were also concerns that this could lead resources to be spread too thinly.⁴² In 1958, parliament passed a law to set up the University of Oulu in northern Finland, and this was followed by the transfer of a university college from Helsinki to Tampere in 1960, the award of university status to the university college in Jyväskylä in 1966, and the creation of the University of Lapland in Rovaniemi in 1979. The Finnish government adopted the strategic goal of increasing the number of localities with universities, and later also

⁴¹ <http://www.hbp.org.uk>

⁴² A classical university with several colleges is called *yliopisto* in Finnish. However, some specialised universities are called *korkeakoulu* (here translated as university college), because unlike classical universities, they focus only on one discipline, even though they have the same status as an *yliopisto*.

with polytechnics and university sub-units. The networking of university colleges and universities across the country remains a strong priority today, with higher education institutes playing an important role, for instance, in the centre of expertise programme.

The regional expansion of higher education in Sweden dates back to the late 1960s, when the government proposed that both regional and educational policy considerations should be taken into account when deciding where to locate new higher education institutes. The motive was to increase access to higher education for larger segments of the population, as well as to improve the supply of highly qualified workers in all regions.⁴³ Following the creation of the University of Umeå in 1965, access to higher education expanded in the northern regions, which in turn facilitated the recruitment of university educated staff in these regions, especially in the growing public sector in the 1970s and 1980s. Furthermore, the University is seen to have contributed to the population increase and growth of Umeå.⁴⁴

In the United Kingdom, universities must compete for public funding, with resources depending on the number of students attracted and the quality of research undertaken. In this context, efforts to expand higher education in peripheral areas have drawn on network-based models. One example is the University of Cumbria (in north-west England), which was formed in 1997 through the merger of several colleges with the local campus of a neighbouring university, with the aim of keeping more young people in the region.⁴⁵ The creation of the university was expected to cost over £145 million during its first five years, with funding from the State, the regional development agency and other partners, and it now educates around 15,000 students.⁴⁶ A second example is the University of the Highlands and Islands, which was first proposed in the 1400s but gained formal university status only in February 2011. The university has 13 main campuses and over 50 local learning centres, which provide access to virtual learning environments, with the options of distant and online study, while courses offer videoconferencing, internet discussion and online, tutor-led workshops. Both universities are developing educational and research expertise in niche areas, often related to the strengths of peripheral areas (e.g. tourism, culture and renewable energies) or to the needs of local labour markets and communities (e.g. healthcare in rural areas).

6.2.2 Social capital

While some peripheral areas have cohesive local communities, many are weakened by outmigration or are fragmented, with limited capacities for local decision-making and problem-solving, and difficulties in integrating in-migrants. Some countries (e.g. Austria, Switzerland and Scotland in the United Kingdom) fund local policy agencies or measures that aim to encourage local capacity building, for example via support for social or

⁴³ Swedish National Agency for Higher Education, '*OECD thematic review of tertiary education, country background report for Sweden*', 29 June 2006

⁴⁴ E. Sondell, '*Det regionala uppdraget: En fjärde uppgift*', May 1999

⁴⁵ http://www.hefce.ac.uk/pubs/rereports/2003/rd07_03/rd07_03.pdf NWDA, North West England Regional Economic Strategy, 2006, <http://www.nwda.co.uk/PDF/RES06v2.pdf>

⁴⁶ <http://www.hefce.ac.uk/news/hefce/2007/cumbria.htm#note2>

community enterprises or bottom-up projects for delivering local services. However, such interventions may be more effective where local strengths already exist and more problematic in areas with very limited social or human capital.

A recent Austrian study has focused on the role of social diversity in facilitating development in peripheral areas.⁴⁷ Individual decisions to migrate away from (or move to) peripheral areas are seen to be based not only on economic criteria (such as job opportunities) but also on social structures which shape the scope for individuals to develop their creativity, interests, and talents. Moreover, it is argued that regional development decision-making bodies fail to reflect or exploit the diversity of rural populations in terms of age, gender, origin and levels of knowledge. Efforts are seen to be needed to integrate in-migrants, improve work-life balance, strengthen the presence of women in public and political life, and encourage dialogue with critical and creative people in the region. The study examined a range of local examples of social diversity in development projects.

There is also a strong focus on supporting local social capital in Scotland, where Highlands and Islands Enterprise (HIE) not only has a remit to support economic development but also to encourage community development, particularly in more peripheral and fragile areas. The agency provides hands-on support for up to five years to local communities or social enterprises to develop their own 'growth plan', achieve specific goals and find ways of self-funding certain activities. It can provide local communities with advice on a range of legal, practical and financial issues, including on ways of buying and developing local land and other assets. HIE also facilitates networking between social entrepreneurs from different areas of the Highlands, with a view to encouraging leadership skills and mutual support. The difficulties of setting up and sustaining community-based projects and enterprises are well-recognised, not least in maintaining enthusiasm, managing conflicts and retaining the active involvement of the wider local population.⁴⁸

6.3 Improving accessibility

Apart from low population density, the main defining characteristic of peripheral areas is their lack of access to external markets and resources. While some studies suggest that openness is an important factor in facilitating economic development,⁴⁹ others argue that improved linkages may in some cases increase outflows of people and other resources.⁵⁰ On balance, economic development seems to depend on high quality connections and openness but also on endeavours to build local capacities and resources, so that local actors can

⁴⁷ ÖROK (2009) *Neue Handlungsmöglichkeiten für periphere ländliche Räume: Stärkung der sozialen Vielfalt, Ausbau der interkommunalen Zusammenarbeit, Gestaltung der Landschaftsvielfalt*, ÖROK Schriftenreihe 181, Wien. W. Strahl, T. Oedl-Wieser and T. Dax (2011) Mobilisierung des endogenen Potenzials in peripheren ländlichen Regionen, in M. Schrenk, V. Popovich and P. Zeile (eds.) *Proceedings REAL CORP 2011*, 18-20 May 2011, Essen, http://www.corp.at/archive/CORP2011_90.pdf

⁴⁸ Highlands and Islands Enterprise (no date) Community engagement: Getting people to stay together, Factsheet No. 4, Inverness.

⁴⁹ N. Miles, C. Wilkinson, J. Edler, M. Bleda, P. Simmonds and J. Clark. (2009) The wider conditions for innovation in the UK: How the UK compares to leading innovation nations, NESTA, London.

⁵⁰ R. Faini (1984) Increasing returns, non-traded inputs and regional development, *Economic Journal* 94: 308-323.

benefit from linkages with external sources of funding and knowledge. Many peripheral regions not only have poor infrastructure linkages to the outside but, because of low population density, also have fewer human connections, and this can lead to a risk of 'lock in' to existing relationships and sources of knowledge.⁵¹ Investment in improving accessibility through transport networks, enhancing broadband connectivity and activities to support human bridging and brokering can therefore help to mitigate the problems faced by businesses and communities in peripheral regions.

6.3.1 Human bridging and brokering

Public-sector agencies in peripheral regions often aim to build networks and relationships with external markets and sources of information and expertise, and to make these linkages available to local businesses and communities. One example concerns the work of Innovation Norway in assisting Norwegian businesses to grow and find new markets, both domestically and internationally.⁵² The agency has 20 regional offices which provide local access to a range of services, including help for innovative SMEs to find private or public sector customers for their products and services, and legal support with issues relating to contracts and intellectual property rights. Innovation Norway also helps businesses to gain access to different types of grant and loan financing for innovation projects, to build links with relevant sources of external know-how and to build relationships with other businesses.

Similarly, in Finland, Tekes (the Finnish Funding Agency for Technology and Innovation), runs a number of R&D programmes which support networking among businesses, universities and research institutes with the aim of facilitating the development of innovative products, processes and services. In addition, the network of 15 ELY Centres (Centres for Economic Development, Transport and the Environment) provide advisory and brokering services to start-ups and existing businesses, including assistance with the development of business ideas, with efforts to find sources of finance, and with the protection and commercialisation of ideas and innovations.

Although financial services are in principle available in all parts of a country, in practice options may be more limited for firms in peripheral areas. In particular, financial institutions, such as banks, venture capitalists and business angels, are less likely to have offices in remote regions, so that businesses in these areas may need to travel some distance to meet funding providers. Similarly, businesses in areas of low population density may have fewer contacts with other businesses and support organisations and so may experience difficulties in obtaining information and recommendations on potential funders. A further issue is that the lack of large local markets in peripheral areas may mean that many businesses in these areas are less attractive to financial institutions, for example because they are very small, lack their own capital or have limited profitability.

⁵¹ M. Granovetter (1973) The strength of weak ties, *American Journal of Sociology* 78: 1360-1380. G. Grabher (1994) *Lob der Verschwendung: Redundanz in der Regionalentwicklung: ein sozioökonomisches Plädoyer*, Berlin: Sigma.

⁵² <http://www.innovasjon Norge.no/Om-oss/Innovation-Norway/>

Policy-makers in some peripheral regions have, therefore, supported the expansion of financial services, alongside traditional grant schemes. In Scotland, for example, a business angel network of 40 investors, Highland Venture Capital, has been set up to provide equity finance to new or growing businesses in the Highlands and Islands.⁵³ Similarly, in Sweden, the Norrland Fund (*Norrlandsfonden*) provides flexible loans for investment projects, mainly by SMEs, in the five northernmost counties, with a particular focus on businesses which are innovative or have strong growth potential.⁵⁴ Loans are provided in cooperation with other public bodies (e.g. county administrations, local authorities and ALMI, a public loan company) and private financiers (e.g. banks and venture capitalists).

6.3.2 Transport infrastructure and services

The quality of transport connections varies considerably across peripheral regions. Some countries with large peripheral regions (e.g. Finland, Norway, Sweden) have invested heavily in transport infrastructure in past decades and now have good air, rail and road connections, at least to the main towns in peripheral regions. Other countries, particularly in central Europe (e.g. Poland) are still developing such networks, often drawing on EU Cohesion policy funding. An alternative approach is to subsidise the costs of transport to the most peripheral regions (e.g. through transport aid as in the Nordic countries and the French overseas *départements*, or through a subsidy scheme such as the one being trialled in Scotland in the United Kingdom). Inevitably, the pursuit of improved transport connections with the most peripheral regions can be controversial - either due to conflict with environmental protection objectives, or because of concerns over whether subsidies are effective.

The development of Poland's eastern regions is seen to be constrained by weak transport links with the rest of Poland, including Warsaw; by poor connections between towns within the macro-region, and between these towns and rural areas;⁵⁵ as well as by limited cross-border transport arrangements with Belarus and the Ukraine.⁵⁶ EU Cohesion policy is allocating significant funding to transport links throughout Poland, amounting to over €25 billion in EU grants alone or 38 percent of Poland's total EU Cohesion policy funding in 2007-11. However, transport infrastructure projects in eastern Poland have not only experienced administrative delays (e.g. due to public procurement procedures) but also face challenges due to the region's importance in terms of biodiversity. There may be as many as 100 zones where planned road projects would have a significant negative impact on significant Natura 2000 sites and could thus be blocked.⁵⁷

⁵³ <http://www.highvc.co.uk/>

⁵⁴ <http://www.norrlandsfonden.se/english/>

⁵⁵ T. Komornicki (2011) Wewnętrzne i zewnętrzne powiązania Polski Wschodniej oraz dostępność transportowa determinantami rozwoju sieci drogowej: diagnoza, zachodzące zmiany, perspektywy, paper presented at conference *Projekty drogowe w Regionalnych Programach Operacyjnych i Programie Rozwoju Polski Wschodniej* Lublin, June 2011.

⁵⁶ Organisation for Economic Cooperation and Development (2008) *Territorial Review of Poland*, Paris.

⁵⁷ OECD (2008) *Territorial Review of Poland* Organisation for Economic Cooperation p119.

A pilot scheme to explore the impact of lower ferry fares on island communities was launched in Scotland in 2007. This was in recognition of the importance of ferry services in supporting these remote and fragile communities, and concerns that the high cost of ferry fares may have been a barrier to economic growth. The Road Equivalent Tariff (RET) involves setting ferry fares on the basis of the cost of travelling an equivalent distance by road, and has resulted in a 50 percent reduction in fares. The aim of the RET pilot, which is focused on some of the more remote islands (the Western Isles, Coll and Tiree) is to boost island economies by attracting tourists and reducing costs for local businesses. The Western Isles were identified as a particularly fragile economy, which is experiencing population decline as well as historically higher rates of unemployment than other parts of Scotland. The budget for the pilot scheme was £22.5 million or €25.7 million for the period 2008-2011. After an early evaluation indicated significant benefits for the local economies involved, the pilot was extended to spring 2012, at a cost of a further £6.5 million or €7.4 million. There has, however, been some criticism of the scheme from people on islands excluded from the trial, who are concerned that the scheme places their tourism and other businesses at a disadvantage in cost terms.

6.3.3 Broadband

Broadband infrastructure and services are seen to offer new economic possibilities in many peripheral regions, particularly in sectors where firms are less affected by the costs of transporting inputs and finished products (e.g. knowledge-based services). However, low population density means that private telecommunications companies tend to under-invest in peripheral areas, leading to more limited services. In response, many Member States, including Austria, Germany and France, have launched programmes to try to ensure that broadband reaches businesses and citizens located in the more peripheral parts of their countries. As noted in Section 3.3, the European Commission has published guidelines on State aid for broadband and has approved various schemes and a full list of these is included in Annex 3. However, apart from concerns over the compatibility of public funding with State aid rules, further tensions relate to the level and type of funding provided, as well as the need to ensure that funding is targeted on the most appropriate technical solutions, particularly as the areas without sufficient broadband coverage are often very small and in some cases can only be reached via satellite coverage.⁵⁸

The Austrian federal government has run a series of initiatives since the mid-2000s to increase broadband provision in the more peripheral and sparsely populated regions. In 2005-08, €30 million of public funds was provided to achieve almost full coverage of the country. This was followed in 2008 by the 'Austria Broadband 2013' strategy (*Breitband Austria Zwanzigdreizehn*, BBA_2013), which was launched to enhance broadband infrastructure, with an additional €30 million budget of federal and EU (EAFRD) funding, and a target of full coverage of the country with internet access of 25 Megabit per second

⁵⁸ The basic options for broadband delivery are: via telephone lines/exchanges using copper-wire or fibre-optic networks; via cable companies (alongside television services, and usually only available in the most densely populated areas); and for more remote locations, satellite, wireless and mobile services via the mobile phone network.

by 2013. Eligible areas have been defined across the country with interventions being concentrated in the mountainous areas of central Austria.

In Germany, a range of federal, *Land* and local authority funding is being provided to expand broadband provision, particularly in structurally weak rural areas, with public programmes providing over €150 million in total for broadband investment.⁵⁹ In addition to funding provided by the Regional Joint Task or GRW (described in Section 5.2), further resources are being made available via combined federal, *Land* and EU instruments for rural development, via the federal government's response to the financial crisis, and via individual *Land* programmes (sometimes co-funded by the ERDF or EAFRD). In all cases, funding is administered by *Land* authorities and most projects are managed by (groups of) local authorities. Federal and *Land* support is provided to local authorities for feasibility studies and consultancy, for setting up a local broadband network, and for laying open access conduits that can be used for broadband infrastructure.

There have also been concerns about the 'digital divide' in France for over a decade. The level of mobile phone and broadband coverage currently provided by private operators is very low and is concentrated in urban areas. Alongside nationwide investment in high-speed broadband infrastructure (with a budget of €2 billion), the Fund for Digital Territorial Development (*fonds d'aménagement numérique du territoire*, FANT) has been set up to support the provision of open infrastructure and networks in sparsely populated areas (with a budget of €750 million).⁶⁰ In addition, local authorities are now required to identify future investment plans and develop local strategies. However, there are concerns about the level and allocation of funding (notably the balance between resources for private and local authority actors), as well as over technical choices.

6.4 Provision of local services of general interest

A further set of difficulties in many peripheral regions concerns the provision of local public and private services to households, such as healthcare, primary and secondary education, social services, post offices and local shops. Local authorities often have problems in funding adequate services due to their limited resources, which may be linked to broader issues over the types of revenue and tasks attributed to the local level, the shape of fiscal equalisation schemes, and the practical interpretation of any constitutional or legal commitments to equivalent living conditions or universal public services.

While the balance between the public and private provision of some services varies between countries, there are often similar attempts to bridge gaps in services, either by promoting cooperation between local authorities or by developing social or community (not-for-profit) enterprise solutions. Nevertheless, there may be political or pragmatic obstacles to cooperation between local authorities, perhaps especially where local social capital is weak or where there is lock-in to traditional cognitive and institutional

⁵⁹ Bundesministerium für Wirtschaft und Technologie (2009) *Breitbandstrategie der Bundesregierung*, Berlin.

⁶⁰ French parliament (2009) *Loi n° 2009-1572 du 17 décembre 2009 relative à la lutte contre la fracture numérique*, Paris.

frameworks. Similarly, community or social enterprise depends on the human and financial resources of the local population and these may be limited in low density areas. Moreover, although community or not-for-profit enterprise may be a cheaper approach than traditional forms of public service provision, it still often depends on some form of public funding and support, and may therefore face constraints in some areas.

In Finland there is a statutory obligation on local authorities to provide core services in all areas, yet local authorities in sparsely populated areas are facing difficulties in meeting their obligations, due to the increased needs of an ageing population, as well as falling local tax income. One response is the PARAS project, which aims to safeguard welfare services through local authority mergers and cooperation. However, a different approach is being taken in the northern Lapland region, due to its very low population density and long distances between settlements. Moreover, the peripheral eastern region of Kainuu is implementing an alternative approach, by creating local service centres which provide joint access to a range of public advisory services (including health care, business activities and distance working) and thus aim to safeguard local service provision.

Ensuring public services across all regions is also an explicit policy objective in France, where a series of initiatives during the last five years has culminated in a national agreement in September 2010 between the government and major public service providers, covering fields such as postal, electricity, gas and rail services. This agreement involves sectoral contracts between the State and local service providers, which specify the level of State funding and also the extent of local service provision. In addition, there has been growing concern about health service provision, notably in areas affected by out-migration and an ageing population (and the non-replacement of retiring local doctors). One of the objectives of the 2009 law on 'Hospitals, patients, health and territories' is to ensure equal access to quality health services in all regions, not least via the creation of 250 multi-disciplinary health centres (*Maisons de santé*) in fragile rural areas.⁶¹

In Italy, the regional development plan 2010-14 of the regional authority of Sardegna includes support to improve access to health services through the development of IT based networks, particularly for people living in remote, inaccessible and sparsely populated areas. One project which aims to improve access to specialised services is the 'oncological tele-pathology network'⁶² (*Rete di TelePatologia oncologica*), which aims to link the island's existing cancer screening centres in the four main towns (Cagliari, Sassari, Nuoro and Oristano) with each other and also with local doctors and hospitals throughout the island, as well as with regional and national oncology centres.

State funding is available to regional authorities in Sweden to develop and implement regional services programmes, which aim to ensure the provision of commercial and public services in sparsely-populated and rural areas. The programmes involve a range of public, private and not-for-profit partners, depending on regional conditions and decisions. One focus is on the role of grocery stores and fuel stations in maintaining an acceptable level of

⁶¹ J.-N. Escudié. (2011) *Une circulaire précise les financements du FNADT pour les maisons de santé*, published on www.localtis.info.

⁶² Tele-pathology involves distance diagnosis using digital images.

services for residents and businesses, and providing support to these traders to expand their commercial services. The programmes can provide funding and also mentoring support for local traders. Some programmes involve local not-for-profit organisations in contributing to local service provision in sparsely-populated and rural areas.

Local service provision in the context of a falling and ageing population is also a matter of concern in many structurally weak rural areas of Germany, especially in the new *Länder*. The federal government's 'Rural infrastructure initiative' (*Initiative Ländliche Infrastruktur*) aims to improve public services in sparsely-populated, rural areas, particularly by encouraging cooperation across local authority boundaries and by reducing duplication. In 2007-11, around €24 million of federal funding (plus *Land* and local authority funding) has been allocated to pilot projects which maintain service quality yet reduce costs. A key issue in these areas is that their sparse population limits the supply of labour, which means that they are less attractive locations for business, which in turn reduces the tax revenues of local authorities and thus limits funding for local public services. In addition, the shift to a smaller and older local population is leading to the reorientation and rationalisation of local services that are underused. There is, however, a concern that these types of restructuring (e.g. school closures) could stimulate further out-migration and a lack of attractiveness to business.

7. CONCLUSIONS AND ISSUES FOR DISCUSSION

Although definitions of peripherality vary, the analysis in Section 4 showed at least some regions in many European countries perform poorly on indicators of accessibility, population density and structural socio-economic weaknesses. It also demonstrated that, at the level of the EU as a whole and in all Member States except Slovenia, there is a statistically significant correlation between peripherality (in terms of low accessibility or population density) and poor performance on at least some socio-economic indicators.

Although many European countries have seen the emergence of ‘all region’ approaches to regional policy in recent years, many also retain a focus on structurally weak regions, which, depending on the national situation, often include peripheral regions. Countries sometimes address peripheral areas alongside other regions and/or have specific instruments or agencies for peripheral areas.

Nevertheless, many of the most important policy interventions that support development in peripheral regions operate outside narrow regional policy. This paper has examined a range of interventions, focusing in particular on efforts to build and exploit local strengths (in terms of natural resources, as well as human and social capital), to generate and extend linkages with entities outside the region (via bridging and brokering services, as well as via investments in transport and broadband infrastructure), and to safeguard and improve local services (sometimes including local commercial as well as public services).

The range of policy approaches to supporting development in peripheral regions among European countries suggests a number of issues for discussion:

- Is peripherality becoming less of a ‘regional policy problem’?
- Do you agree that the main policy focus on peripheral areas involves: local capacities (e.g. natural resources and human and social capital), accessibility and openness (both human networking and transport / broadband infrastructure), and local service provision? Are there other, emerging types of policy intervention?
- What types of intervention are most effective in supporting development in peripheral areas?
- Should regional policy do more to support development in peripheral areas? Is there tension between the ‘all region’ approach and support for peripheral or structurally weak areas?
- Should rural policy instead be responsible for the development of rural areas? Should the focus of EU rural policy (EAFRD) be shifted more strongly away from agriculture and forestry?

ANNEX 1: DATA NOTE

1. Data sources

Most of the data used for the analysis in Section 4 of the paper is drawn from the European Commission's EUROSTAT database (<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>).

However, the data on potential accessibility (in Tables 3 and 4) are taken from the ESPON database (www.espon.eu) © ESPON 2006.

Polish data on population density are taken from a domestic source (Central Statistical Office (2008) Area and population in the territorial profile in 2008, Warsaw).

2. Definition of variables

The accessibility index used refers to 'potential accessibility across rail, road and air', which is calculated using a gravity model. Accessibility is seen to depend both on the activities or opportunities to be reached, and the other representing the effort, time, distance or cost needed to reach them. 'Potential' accessibility is based on the assumption that the attraction of a destination increases with size and declines with distance or travel time or cost. Therefore both size and distance of destinations are taken into account. A fuller explanation of the methods used to generate the index can be found at: http://www.espon.eu/export/sites/default/Documents/Projects/AppliedResearch/TRACC/TRACC_Inception_Report_300710.pdf

Unemployment data are Labour Force Survey data.

Primary sector employment (NACE A and B) and financial & real estate sector employment (J and K) are taken from the Regional economic accounts (Branch accounts). EPRC calculated the percentage of employment in each sector, drawing on EUROSTAT data on absolute numbers of people in employment.

Internet use refers to the percentage of people who use the internet at least once a week.

3. Data gaps and related issues

Data for the overseas *départements* (DOM) are excluded for all variables.

Population density: UK data are for 2007.

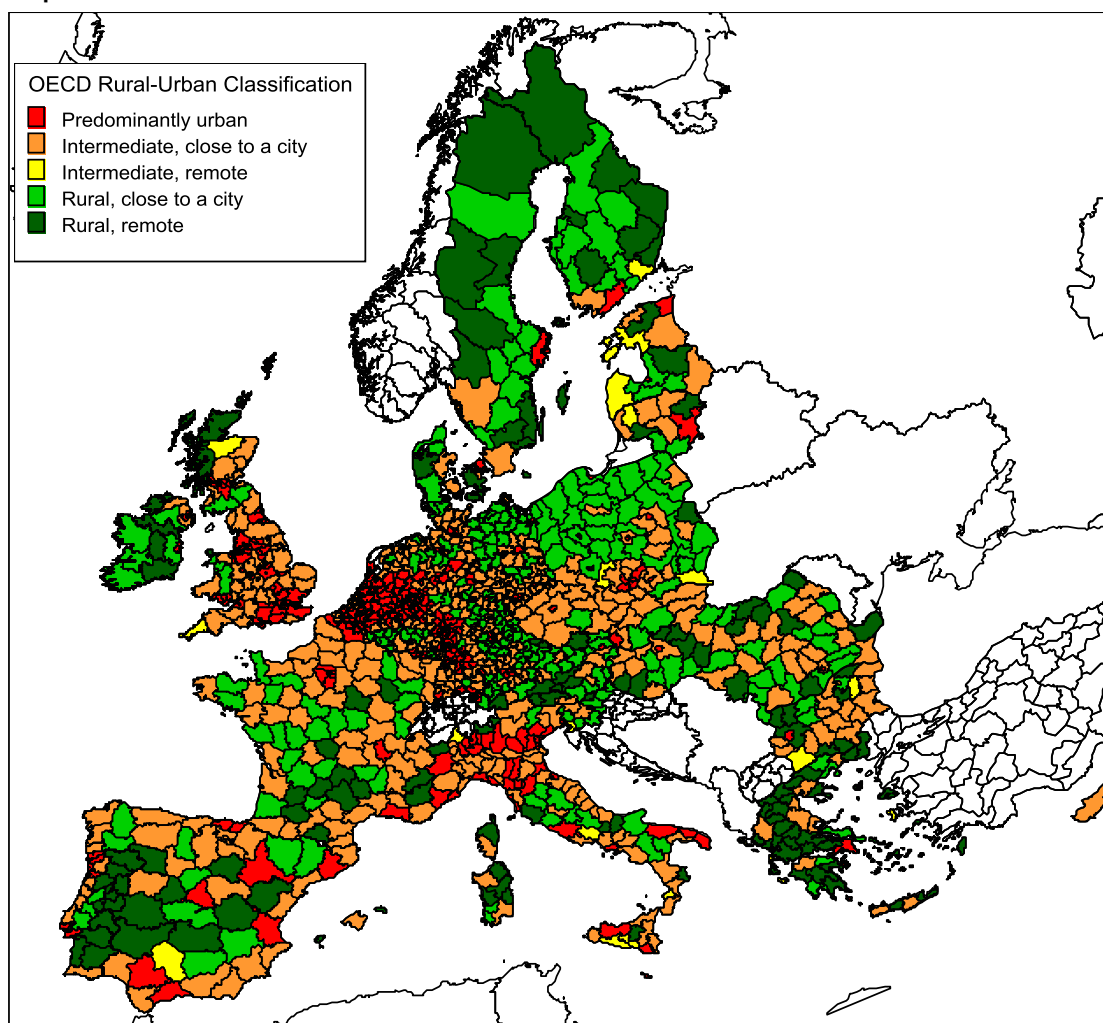
Unemployment rate: Data for Belgium, Bulgaria, Malta and Portugal are at NUTS 2 level.

Internet use data for the UK exclude four regions (name). R&D data for France exclude one region (name)

Internet use: Data for Germany, France, Poland and Slovenia are NUTS 1, while data for Cyprus are from 2009.

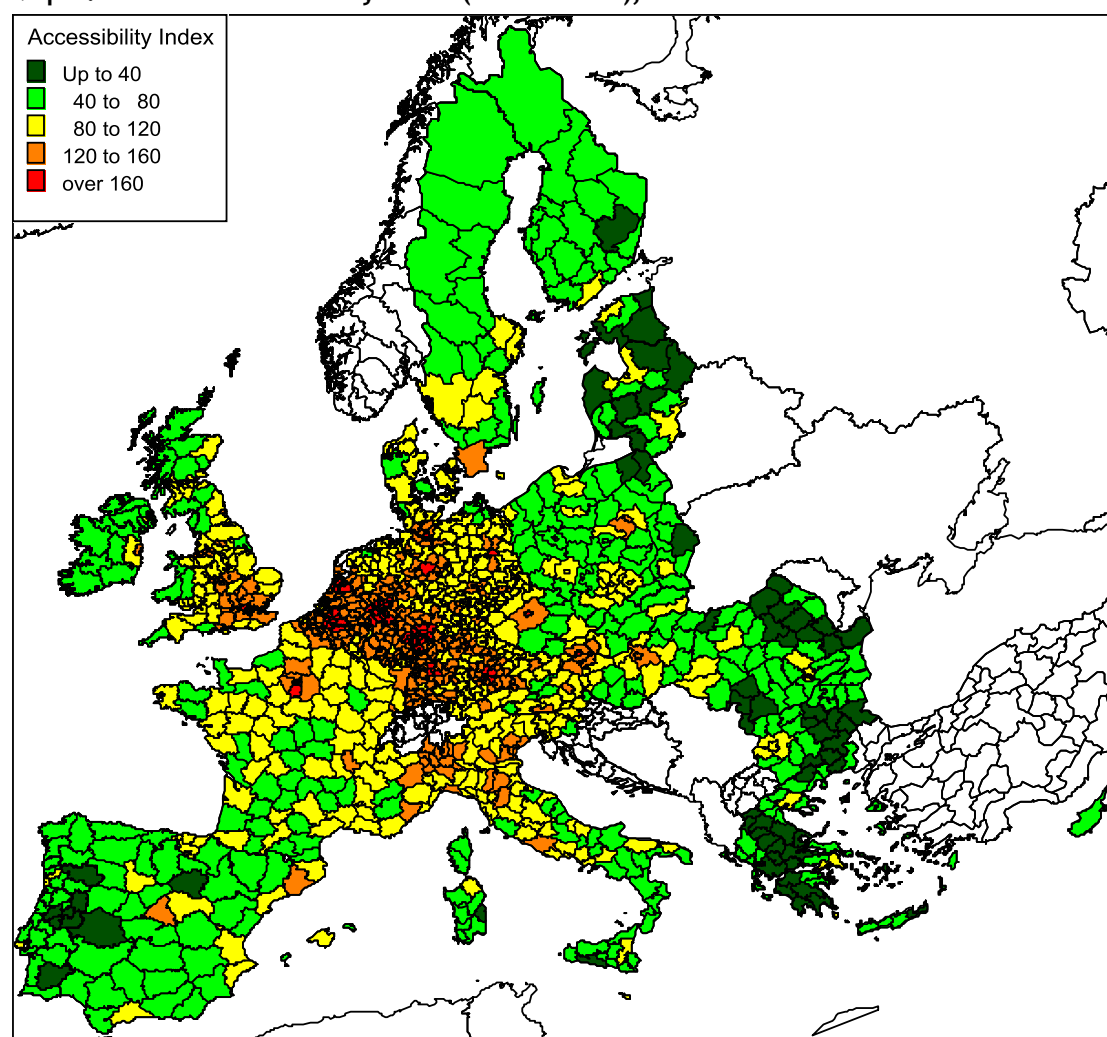
ANNEX 2: MAPS

Map 1: OECD Rural-Urban Classification



Source: EPRC calculations based on European Commission data (available at: http://ec.europa.eu/regional_policy/sources/docgener/focus/nuts_urbrur_2008.xls).

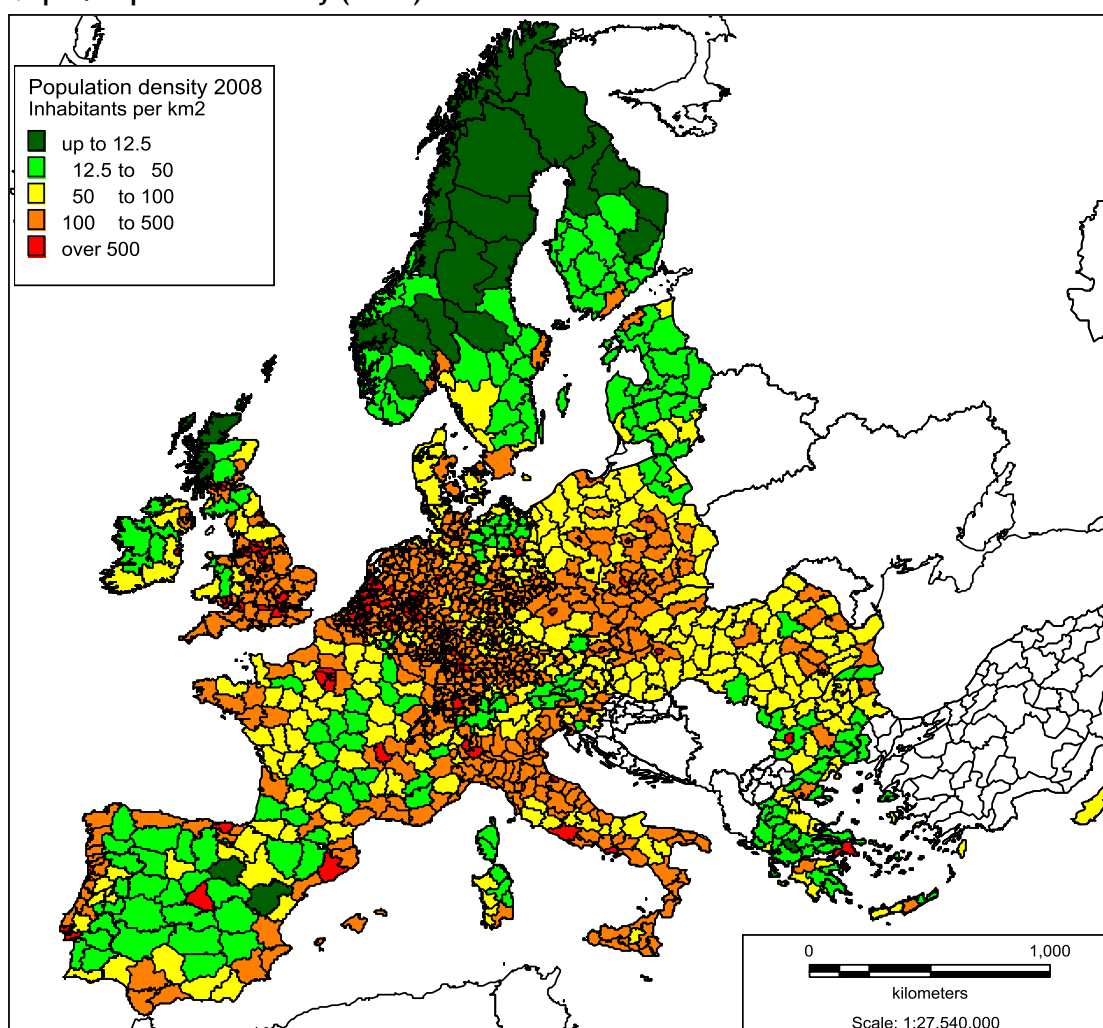
Map 2: Potential accessibility index (multi-modal), 2006



Note: For methodological notes on how the index was constructed, see http://www.espon.eu/export/sites/default/Documents/Projects/AppliedResearch/TRACC/TRACC_Inception_Report_300710.pdf

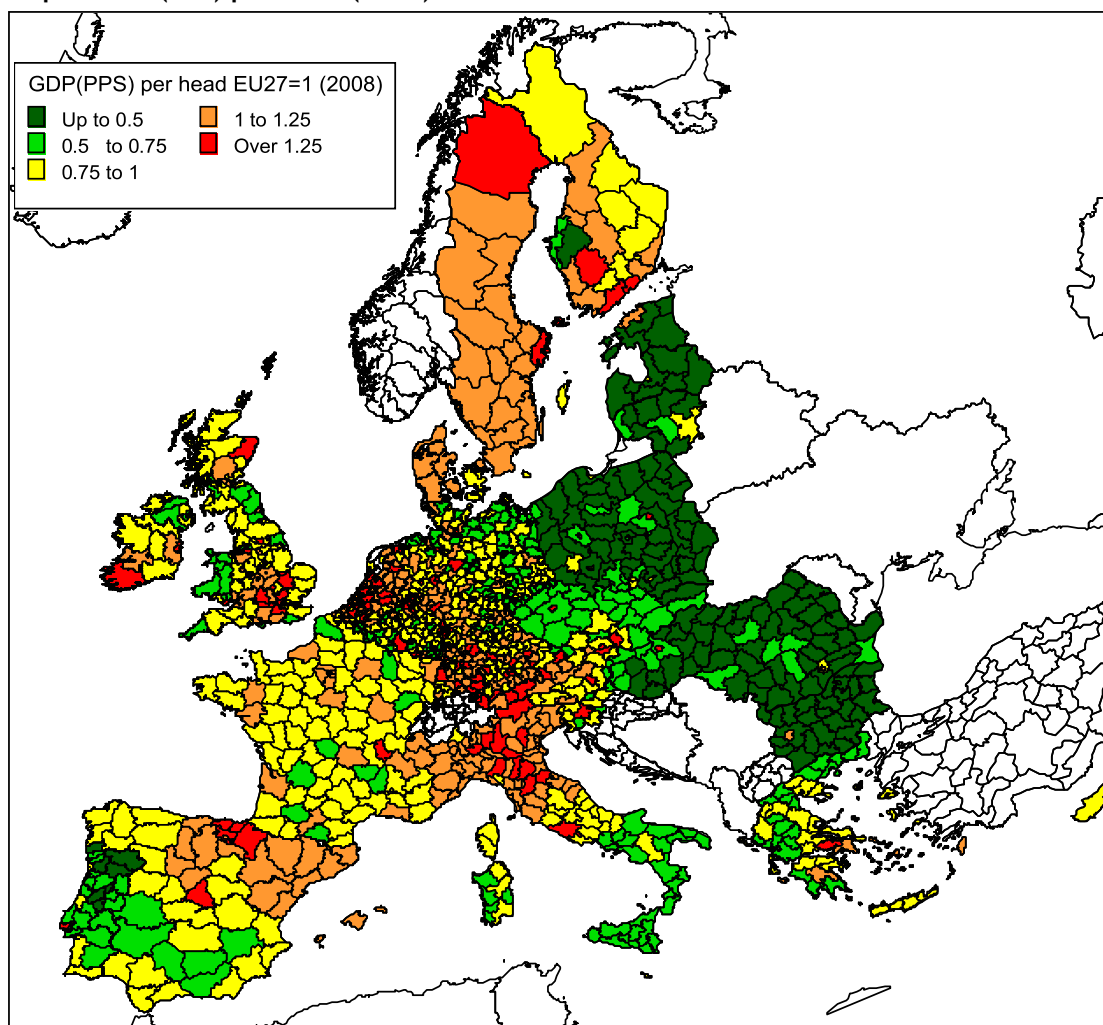
Source: EPRC mapping based on ESPON data, © ESPON, 2006.

Map 3: Population density (2008)



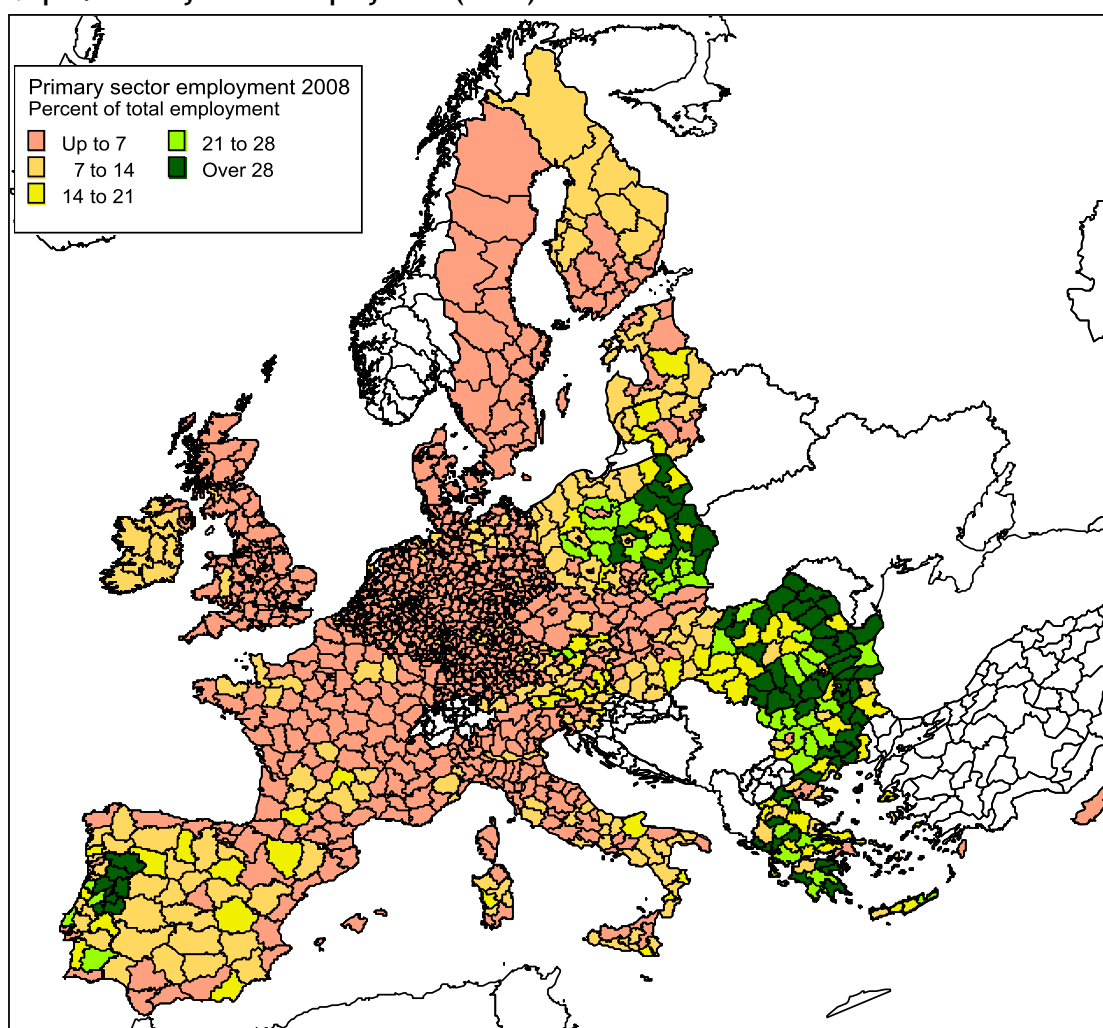
Source: EPRC calculations based on EUROSTAT data.

Map 4: GDP (PPS) per head (2008)



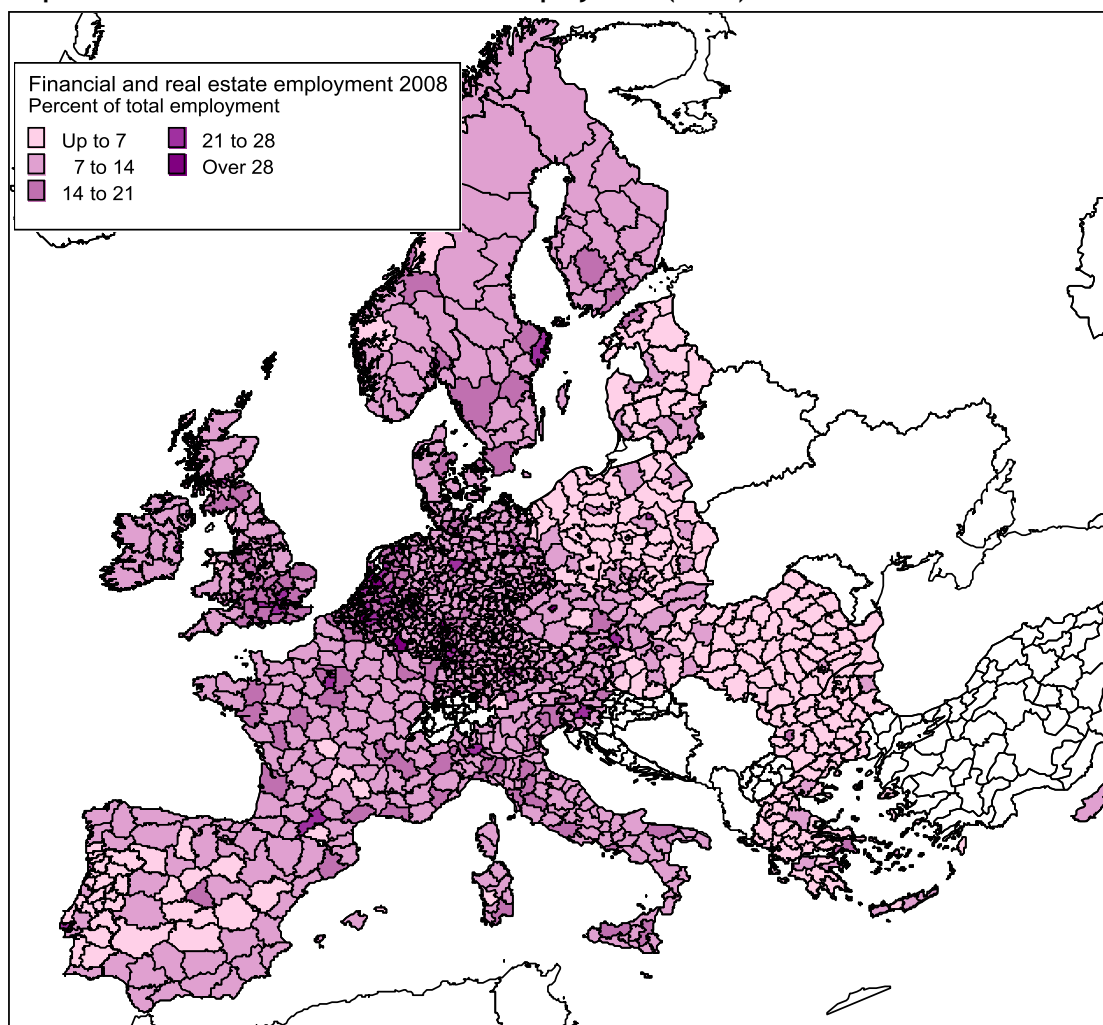
Source: EPRC calculations based on EUROSTAT data.

Map 5: Primary sector employment (2008)



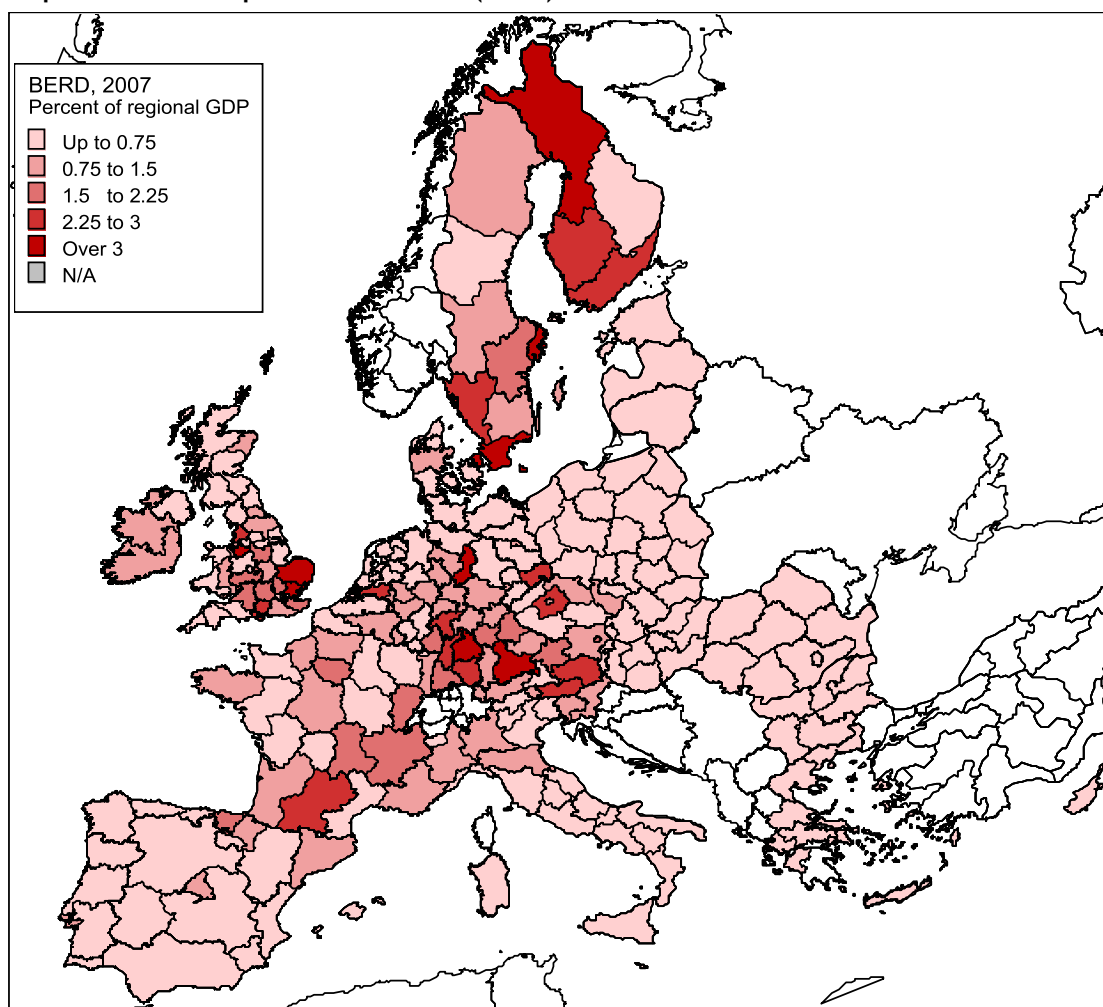
Source: EPRC calculations based on EUROSTAT data.

Map 6: Financial sector and real estate employment (2008)



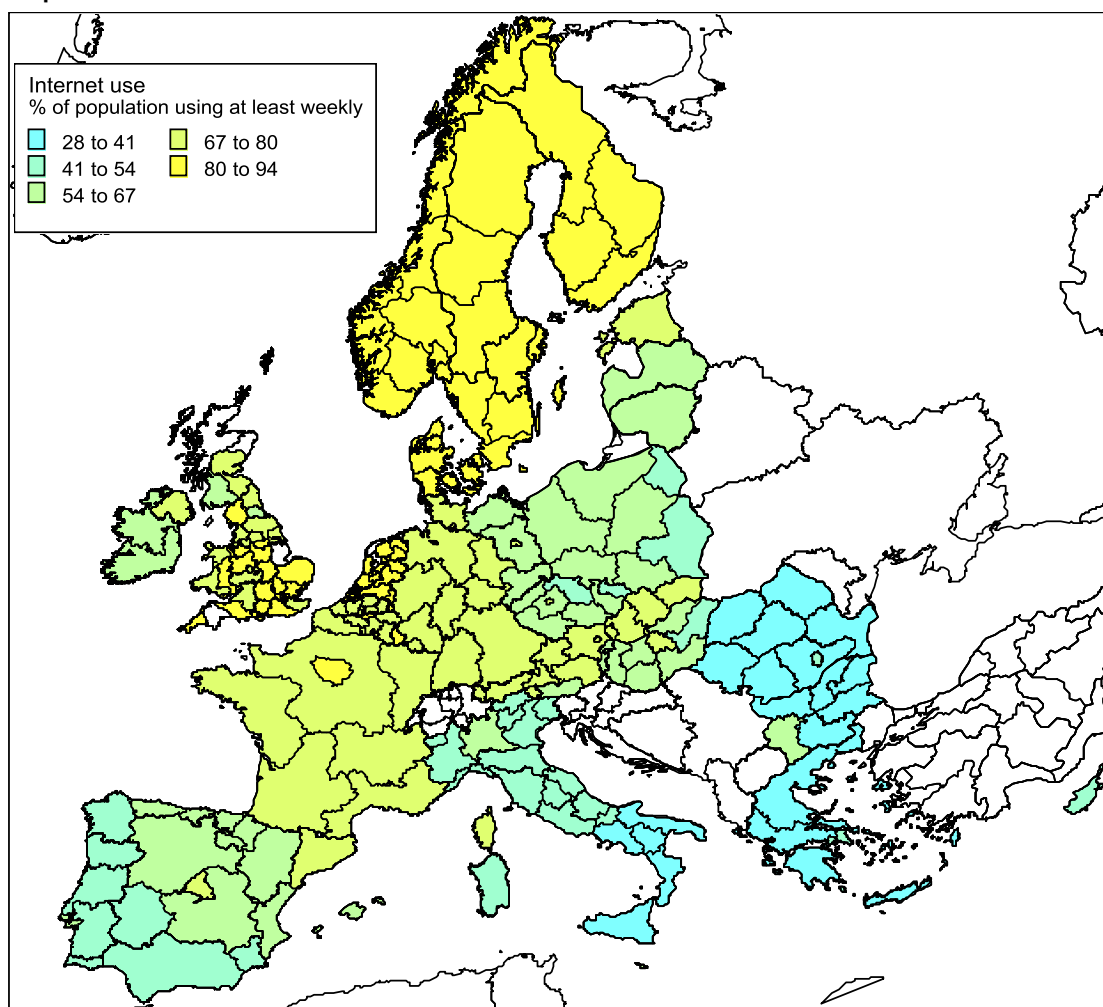
Source: EPRC calculations based on EUROSTAT data.

Map 7: Business expenditure on R&D (2007)



Source: EPRC calculations based on EUROSTAT data.

Map 8: Internet use



Source: EPRC calculations based on EUROSTAT data.

ANNEX 3: EUROPEAN COMMISSION DECISIONS ON AID FOR BROADBAND INVESTMENT

Member State	Scheme	Date	Decision	Aid €	Co-financed
Austria	Broadband for Kaernten	20/10/2005	Article 4(3)		
	Breitband Austria Zwanzigdreizehn	10/12/2010	Article 4(3)	26	
Cyprus	Broadband infrastructure deployment in Cyprus	10/12/2009	Article 4(3)		
Czech Republic	Prague Municipal Wireless Network	30/05/2007	Article 4(2)	7.5	EAFRD/ERDF
Estonia	Establishment of a Sustainable Infrastructure Permitting Estonia-wide Broadband Internet Connection (EstWin project)	20/07/2010	Article 4(2)	22.4	EAFRD/ERDF
Finland	High-speed broadband pilot projects in Finland	16/12/2009	Article 4(3)		
	High speed broadband in sparsely populated areas of Finland	6/05/2010	Article 4(3)	132	EAFRD
France	Haut débit en Pyrénées-Atlantiques	16/11/2004	Article 4(2)		
	Haut débit en Limousin - DORSAL	3/05/2005	Article 4(2)		
	Aide du Sicoval pour un réseau de très haut débit	10/07/2007	Article 4(3)		
	Réseau à très haut débit en Hauts-de-Seine	30/09/2009	Article 4(2)		
Germany	Broadband in rural areas of Baden- Württemberg	23/10/2007	Article 4(3)		
	Broadband in rural areas of Germany	2/07/2008	Article 4(3)		
	Broadband support in Niedersachsen	5/11/2008	Article 4(3)		
	Broadband in rural areas of Bayern	5/11/2008	Article 4(3)		
	Broadband infrastructure development	23/02/2009	Article 4(3)		
	Amendment of the State aid broadband scheme Bayern	19/05/2009	Article 4(3)		
	Extension of broadband coverage in Niedersachsen	14/08/2009	Article 4(3)		
	Amendment of the State aid broadband scheme Federal	22/12/2009	Article 4(3)		
	Federal framework programme on duct support Germany	12/07/2010	Article 4(3)		
	Broadband development in Hessen	12/10/2010	Article 4(3)		
	Prolongation of the Bavarian State aid broadband scheme	26/10/2010	Article 4(3)		
	Broadband in rural areas of Freistaat Sachsen/ Amendment of the State aid broadband scheme Freistaat	5/11/2008/	Article 4(3)	50	EAFRD

	Sachsen / broadband in the rural areas of Saxony	20/12/2010			
	Creation of Next Generation Access Infrastructure in Landkreis Rotenburg	24/01/2011	Article 4(3)		
	Broadband Egenhofen	20/05/2011	Article 4(3)	0.6	
Greece	Broadband access development in underserved territories	4/07/2006	Article 4(3)	160	
Hungary	Development tax benefit - modification of measure HU 3/04	16/05/2006	Article 4(3)		
Ireland	National Broadband Scheme Ireland	25/09/2007	Article 4(3)		
	Rural Broadband Scheme	4/12/2009	Article 4(3)		
Italy	Broadband for rural Tuscany	13/09/2006	Article 4(3)		
	Digital Divide in Sardinia	22/11/2006	Article 4(3)		
	Broadband connections for Alto Adige	11/10/2007	Article 4(3)		
	Aid in favour of broadband in remote areas of Veneto	23/10/2007	Article 4(3)		
	Aid to reduce digital divide in Piedmont	11/03/2008	Article 4(3)		
	Broadband connections for Alto Adige II	2/07/2008	Article 4(3)		
	Bridging the digital divide in Lombardia	8/02/2010	Article 4(3)	41	ERDF
	National broadband plan for rural areas in Italy	30/04/2010	Article 4(3)	154.5	EAFRD
	NGA for industrial districts of Lucca	28/06/2010	Article 4(3)	6.5	
	Reduction of the digital divide in Trentino	16/11/2010	Article 4(3)		
	Broadband Marche	11/04/2011	Article 4(3)		
Latvia	Development of broadband communication networks in rural areas	7/06/2006	Article 4(3)	8.1	ERDF
Lithuania	Broadband infrastructure in Lazdijai and Alytus	17/07/2008	Article 4(3)		
	RAIN project	17/07/2009	Article 4(3)		
Netherlands	Broadband development Appingedam	20/10/2005	Article 4(4)		
	Broadband development Appingedam	19/07/2006	Article 7(5)		
	Citynet Amsterdam	20/12/2006	Article 4(4)		
	Citynet Amsterdam	11/12/2007	Article 7(2)		
Portugal	High-speed broadband in Portugal	19/01/2011	Article 4(3)	106.2	ERDF/EAFRD
Slovenia	Broadband development in Slovenia	19/10/2009	Article 4(3)	92.5	ERDF
Spain	Broadband in rural and ultra-remote areas of Spain	6/04/2005	Article 4(3)	203	ERDF

	Public support to broadband, digital TV, mobile and infrastructures in rural areas	17/06/2008	Article 4(3)		
	Broadband in rural areas of Asturias	14/12/2009	Article 4(3)	6.5	ERDF
	Optical fibre Catalonia (Xarxa Oberta)	11/08/2010	Article 4(3)	354	
	Desarrollo del programa de infraestructuras de telecomunicaciones en la Región de Murcia	12/08/2010	Article 4(3)		
	Broadband deployment in Galicia	10/11/2010	Article 4(3)		
	Programa Avanza Nuevas Infraestructuras de Telecomunicaciones	17/12/2010	Article 4(3)	400	
Sweden	Broadband development within the framework of rural development	25/03/2010	Article 4(3)	28.152	EAFRD
UK	Cumbria Broadband-Project ACCESS	10/12/2003	Article 4(3)		
	ATLAS : Broadband infrastructure scheme for business park	20/07/2004	Article 4(3)		
	Broadband Business Fund	16/11/2004	Article 4(3)		
	Broadband in Scotland - remote and rural areas	16/11/2004	Article 4(3)		
	Broadband in Lincolnshire	14/12/2004	Article 4(3)		
	Regional Innovative Broadband Support				
	Broadband aggregated procurement - Scotland	21/09/2005	Article 4(2)/ Article 4(3)		
	South Yorkshire Digital Region Broadband Project	22/11/2006	Article 4(3)		
	North Yorkshire NYNET Project	21/02/2007	Article 4(3)		
	Welsh Public Sector Network Scheme	30/05/2007	Article 4(2)		
	Amendment of N131/2005 Fibrespeed broadband project in Wales	10/01/2008	Article 4(3)		
	Broadband in Scotland - Extending broadband reach	30/04/2008	Article 4(3)	3.4	
	Provision of Remote Broadband Services in Northern Ireland	10/12/2008	Article 4(3)		
	Northern Ireland - Next Generation Broadband	5/11/2009	Article 4(3)	19.6	
	Cornwall & Isles of Scilly Next Generation Broadband	12/05/2010	Article 4(3)	47-79	ERDF
	North Yorkshire - Next Generation Broadband	28/06/2010	Article 4(3)		
	SHEFA - 2 Interconnect (Shetland Islands)	13/12/2010	Article 4(3)	1.47	ERDF

Source: DG Competition website: http://ec.europa.eu/competition/sectors/telecommunications/broadband_decisions.pdf. Decisions and further detail on the individual cases can be searched for here: http://ec.europa.eu/competition/elojade/iseef/index.cfm?clear=1&policy_area_id=3. Note that information on the level of aid involved and the sources of funding has only been included where this was detailed in the individual decision, and was available online.

(*) **Commission decisions:** the following types of Commission decision are shown in the table. A range of other outcomes are possible - see http://ec.europa.eu/competition/sectors/telecommunications/broadband_decisions.pdf

Phase I decisions: After a preliminary examination -

- **Art 4(2) - decision that a measure does not constitute aid** - the Commission finds that the notified measure does not constitute aid
- **Art 4(3) - decision not to raise objections** - the Commission finds that no doubts are raised as to the compatibility with the common market of a notified measure, in so far as it falls within the scope of Article 87(1) of the Treaty
- **Art 4(4) - decision to initiate the formal investigation procedure** - the Commission finds that doubts are raised as to the compatibility with the common market of a measure

Phase II decisions: After a formal investigation procedure -

- **Art 7(2) - decision that a measure does not constitute aid (after formal investigation procedure)** - the Commission finds that, where appropriate following modification by the Member State concerned, the notified measure does not constitute aid
- **Art 7(5) - negative decision without recovery** - the Commission finds that the aid is not compatible with the common market and shall not be put into effect

ANNEX 4: CASE STUDIES

1. BALANCING GOALS IN THE USE OF NATURAL RESOURCES

1.1 Norway - the 'High North' Strategy

The complexity of issues relating to natural resources in some peripheral areas is illustrated by Norway's High North strategy, which is led by the Ministry of Foreign Affairs and is seen as 'the Norwegian government's number one foreign policy priority',⁶³ but also encompasses a range of other policy priorities, including oil and gas exploitation in the Barents Sea, climate change, stewardship of the natural environment, fisheries, regional economic development, and the traditions and cultures of indigenous peoples. The strategy has a budget of around NOK 1.2 billion (€153 million) in 2011 across a range of ministries, particularly foreign affairs, fisheries, education, industry, and regional development.

Norwegian policy has long included a focus on northern regions, not least due to security concerns linked to relations with Russia, as well as the importance of the northern fisheries industry in the country's total exports. However, the current High North strategy is rooted in a White Paper presented to the national parliament in 2004-05,⁶⁴ and reflects growing concerns over climate change and the prospect of significant oil and gas finds in the Barents Sea. The overall objective of the multi-annual High North strategy is 'to create sustainable growth and development in the High North. This requires a framework that will enable people in the region to build up viable local communities, where there are promising employment opportunities in the long term, good health care services and educational opportunities to enjoy varied natural surroundings and cultural events.'⁶⁵

In geographical terms, the strategy covers the land and sea from the southern boundary of Nordland county, and from the Greenland Sea in the east to the Barents and Pechora Sea in the west. Politically, it includes administrative entities in Norway, Sweden, Finland and Russia that are part of the Barents Cooperation. In addition, the High North policy overlaps with existing Nordic cooperation, relations with the United States and Canada through the Arctic Council and relations with the EU through the Northern Dimension.

Domestically, the ministries of foreign affairs and fisheries together account for almost 60 percent of the total budget, while the ministries of education and industry account for a further 30 percent. The Ministry of Regional Development contributes some NOK 50 million (about €6 million), which is targeted on research (NOK 35 million), tourism (NOK 10 million) and youth entrepreneurship and innovation, arctic tourism and technology (NOK 5 million).

⁶³ Minister of Foreign Affairs Jonas Gahr Støre (2011) Arctic State, *The Parliament Magazine - Politics, Policy and People*, Issue 325, Brussels, 4 April 2011.

⁶⁴ Norwegian Ministry of Foreign Affairs (2004/2005), *Opportunities and Challenges in the North*, Report no. 30 to the *Storting*, Oslo.

⁶⁵ Norwegian Ministry of Foreign Affairs (2006) *The Norwegian Government's High North Strategy*, Oslo, p.7.

1.2 Switzerland - national parks and other protected areas

Tensions between regional economic development goals and environmental protection have been evident in the creation of new protected areas in Switzerland since 2007, when it was decided to allow local referendum-based applications for three categories of protected areas: national parks, regional nature parks and nature discovery parks. Most of the 19 park projects are located in peripheral mountain areas, either in the Alps or the Jura Mountains. Sixteen of the projects are 'regional nature parks', which allow more economic development than does national park status.

The Swiss federal government sees this policy primarily as a tool for environmental protection. However, many initiatives mainly seem to aim at increasing tourism activities through improved branding, rather than restricting potentially environmentally damaging economic activities. A further attraction for local actors is that, once a project has been approved, it can receive funding for creating, operating and ensuring the quality of the protected area. From 2012, total funding for protected areas will amount to CHF10 million or €8 million annually.⁶⁶ Funding is channelled through the cantons, and distributed on the basis of a set of criteria that includes, for instance, the socio-economic situation, environmental quality and quality of the park management.⁶⁷

The rapid increase in the number of parks since 2007 has generated discussion about the economic sustainability of these developments. There are also concerns over the possible devaluation of 'protected area' status, as well as the scope for potential tourism expansion. However, the initiative has been helpful in encouraging cooperation between local authorities, including between cantons and linguistic groups.

⁶⁶ <http://www.bafu.admin.ch/paerke/10459/10467/index.html?lang=de>

⁶⁷ Bundesamt für Umwelt BAFU (2008) *Faktenblatt zum Prüfverfahren von Gesuchen um globale Finanzhilfen sowie zu deren Bemessung*. Available at: http://www.bafu.admin.ch/paerke/06679/index.html?lang=de&download=NHZLpZeg7t,lnp6l0NTU042l2Z6ln1acy4Zn4Z2qZpnO2YUq2Z76gpJCFeyB2gGym162epYbg2c_JjKbNoKSn6A--

1.3 Eastern Poland - sustainable tourism

Similarly, there are debates over the balance between economic development and environmental protection in eastern Poland, which is one of the most significant locations of biodiversity in the EU, with 38 percent of the EU's nature reserves. The region is seen to have considerable potential for tourism development, and it is argued that efforts are needed to improve accessibility and tourist infrastructure.⁶⁸ Significant Cohesion policy funding is being focused on tourism-related infrastructure, businesses and marketing. Alongside funding from the 16 individual regional programmes, the operational programme for the development of the eastern regions is allocating €47.5 million of ERDF funding to tourism in 2007-13. This will support two main initiatives- a joint promotional campaign by the five eastern regions aimed at attracting tourists and investors, and the development of a new 200 km supra-regional bicycle route. The Marshal Offices in the five regional self-governments will implement the project in collaboration with partners including local government units and boards of directors of roads and forests. One of the main aims of the project is a combination of existing local routes into a coherent network of bicycle routes.

There are, however, tensions between environmental protection and economic goals, given that development in many areas is constrained by protected area status.⁶⁹ National park authorities can prohibit investment within park boundaries and limit development near to park boundaries, where regional and local authorities often want to focus investment.⁷⁰

There are also concerns that scope for biodiversity-related tourism development may be smaller than anticipated, particularly if tourist infrastructure and services are limited.⁷¹ Further, although efforts are being made to ensure a collaborative and strategic approach to tourism development, there have been difficulties in achieving cooperation between regional and local authorities. A task force has been set up to address this challenge and local authorities are now working more closely together in preparing applications. However, no cycle routes are yet in operation and there has been no assessment of the effectiveness of the initiatives.

⁶⁸ OECD (2008) *Territorial Review of Poland* Organisation for Economic Cooperation and Development, Paris, p152.

⁶⁹ M. Kozak. (2008) Between sacrum and nature: tourism development in Nowa Slupia, Paper presented at RSA Seminar on Tourism, Regional Development and Public Policy, Ege University, Izmir 2-4 April 2008. I. Sadowski and R. Poczykowski (2006) Green Lungs 'breathing problem: environmental conflicts in the Podlaskie region (Poland), *Peuples & Monde*, 4 June 2006.

⁷⁰ Kozak, M. (2008) 'Between Sacrum and Nature: tourism development in Nowa Slupia' paper presented at RSA Seminar on *Tourism, Regional Development and Public Policy*, Ege University, Izmir, 2-4 April 2008.

⁷¹ Kozak, M. (2010) Turystyka: niewykorzystywana szansa rozwoju regionów? *Studia Regionalne i Lokalne* Nr 4(42) r. 2010, str. 43-59.

1.4 United Kingdom - the Scottish strategy for renewable energy

There are also efforts to exploit natural resources for economic ends in Scotland, through a strategy for renewable energies. Renewable energies are seen to offer potential for economic development, particularly in the northern Highlands and Islands, where many areas have strengths in terms of proximity to the sea and waterways (wave, tidal and hydro energies), strong winds (deepwater offshore and onshore wind farms) and forestry and agriculture (biomass). Renewable energies are also seen to contribute to climate change goals and to energy security concerns.

The development agency, Highlands and Islands Enterprise, invested £15.4 million (€17.7 million) in renewable energy projects and infrastructure in 2007-10. One focus is on the tidal energy sector, including the European Marine Energy Centre, which offers testing facilities to businesses, and is also linked to efforts to build local research and higher education capacities in the field. Other major projects include the United Kingdom's largest large hydro-electric scheme, a multi-million pound combined heat and power plant and wood fuel factory, and the world's first deepwater offshore wind farm. There are also efforts to support the emergence of a supply chain in the sector, including smaller businesses in fields such as electricity installation, crane hire, haulage, civil engineering and environmental consultancy.

Renewable energy resources in the Highlands and Islands are often located in the most economically fragile parts of the region, and it is therefore hoped that development of renewable resources will have significant benefits, encouraging population retention, upgraded infrastructure and benefits to local businesses. Moreover, wind, hydro and biomass projects are seen to provide a means for local communities in fragile areas to develop sources of income that could be used for community projects and infrastructure.

Nevertheless, there are tensions over the visual impact of some types of infrastructure, especially in 'wilderness' landscapes with no other visible human structures, and particularly in relation to plans to construct a network of large-scale pylons and overhead power lines (with campaigners calling instead for an undersea cable network).⁷² There are also concerns that some (e.g. onshore wind farm) projects involve the destruction of peatlands which act as carbon sinks, with perverse effects on climate change goals.

As a key action under the Scottish Government's 2009 Renewables Action Plan, the two regional agencies - Highlands and Islands Enterprise and Scottish Enterprise - led the development of the National Renewables Infrastructure Plan which identifies the key steps needed to support the growth of the offshore wind industry.⁷³ In addition, a £70 million (€80 million) National Renewables Infrastructure Fund has been set up to support manufacturing businesses in this field.⁷⁴

⁷² <http://www.hbp.org.uk>

⁷³ <http://www.hie.co.uk/highlands-and-islands/key-sectors/energy/n-rip.html>

⁷⁴ <http://www.scottish-enterprise.com/your-sector/energy/energy-how-we-can-help/energy-funding/Renewables-fund.aspx>

2. EXPANDING ACCESS TO HIGHER EDUCATION

2.1 Finland - higher education in rural and peripheral areas

Regional and local aspirations to extend higher education institutions more widely throughout the country started to appear in Finland in the 1950s, with the aim of increasing educational opportunities and contributing to regional economies. This was not, however, uncontroversial as there were concerns that resources might be spread too thinly and that such a policy could divert resources away from existing university colleges and universities⁷⁵ and potentially lead to a lack of sufficient qualified workers in existing university towns.⁷⁶

In 1952, a University College Committee was set up to develop a strategic policy for universities in Finland, and to look into the possibility of locating scientific teaching and research outside the capital of Helsinki. The Committee reviewed the development of scientific teaching and research in the existing universities. Much of the discussions focused on the idea of establishing a university college in Oulu in northern Finland, which could become a full university at a later stage, and parliament passed a law to set up the University of Oulu in 1958. Subsequently, university status was also awarded to the university college in Jyväskylä in 1966, and in 1960 a University College for Social Sciences was transferred from Helsinki to Tampere. It was not until 1979 that the University of Lapland was established in Rovaniemi. The Finnish government adopted the strategic goal of increasing the number of localities with universities, and later also with polytechnics and university sub-units.

The networking of university colleges and universities across the country remains a priority today. There is a strong emphasis on encouraging cooperation between higher education institutes, regional authorities and businesses (the so-called ‘triple helix’ approach). In this respect, the higher education institutes play an important role, for instance, in the context of the centre of expertise programme, which involves funding for innovative projects rooted in regional strengths, with support being focused on cooperation between the fields of business, research, education and public authorities.

⁷⁵ A classical university with several colleges is called *yliopisto* in Finnish. However, some specialised universities are called *korkeakoulu* (here translated as university college), because unlike classical universities, they focus only on one discipline, even though they have the same status as an *yliopisto*.

⁷⁶ M. Sippola (2011) *Kehitysalueista aluekehitykseen, Suomen virallisen aluepolitiikan 30 ensimmäistä vuotta*, Ministry of Employment and the Economy report no.31.

2.2 Sweden - higher education in rural and peripheral areas

Discussion on the expansion of higher education in Sweden dates back to the late 1940s and 1950s when pressure built for the creation of a new university in the north of the country. In 1965, a fifth university was founded in Umeå in northern Sweden,⁷⁷ in addition to the existing universities in Uppsala, Lund, Stockholm and Gothenburg.⁷⁸ Soon after this, several other campuses of the existing universities were established in other areas of the country.

An explicit regional dimension was introduced to university policy in the late 1960s, a government committee proposed that not only educational but also regional policy considerations should be taken into account when deciding where to locate new higher education institutes. Further, a 1977 government bill changed the university structure by introducing eleven new institutions, raising the status of 14 colleges and placing all 36 universities, institutes and colleges (located in 26 different municipalities) under one administration.⁷⁹

A key goal in underpinning the regionalisation of university policy was to increase access to higher education for larger segments of the population, including in peripheral regions,⁸⁰ as well as to improve the supply of highly qualified workers in all regions in order to meet demand for more skilled staff in both the public and private sectors.⁸¹ Moreover, as in other Nordic countries, universities came to be seen as important elements in the national welfare state in Sweden.

The northern University of Umeå is often noted as an example of a successful regional policy investment. Its creation increased access to higher education in the north and this in turn has facilitated the recruitment of university-educated staff in the regional labour market, especially in the public sector which saw considerable growth in the 1970s and 1980s. It is also seen to have contributed to the population growth of Umeå, contrasting with the demographic decline of other northern areas.⁸²

⁷⁷ J.-E. Nilsson, K. Nielsen, Å. Uhlin and H. Ylinenpää (2005) '*The role of universities in regional innovation systems - a Nordic perspective*', Report funded by the Nordic Industrial Fund - Centre for Innovation and Commercial Development.

⁷⁸ T. Kaiserfeld (2005) The regionalization of Swedish knowledge society: some preliminary consequences, CESIS Electronic Working Paper No. 48.

⁷⁹ R. Andersson, J. M. Quigley and M. Wilhelmson (2004) University decentralization as regional policy: the Swedish experiment, *Journal of Economic Geography* 4: 371-388.

⁸⁰ Swedish National Agency for Higher Education (2006) *OECD thematic review of tertiary education, country background report for Sweden*, Stockholm.

⁸¹ J-E Nilsson et al, '*The role of universities in regional innovation systems - a Nordic perspective*', 17 December 2003

⁸² E. Sondell (1999) *Det regionala uppdraget: En fjärde uppgift*, CERUM Working Paper No 12, Umeå.

2.3 United Kingdom - network-based higher education in remote areas

In the United Kingdom, universities must compete for public funding, with resources depending on the number of students attracted and the quality of research undertaken. In this highly competitive environment, efforts to expand higher education in peripheral areas have drawn on network-based models. Investment in the provision of higher and further education in peripheral areas of the United Kingdom is seen as an important contributor to regional economic development, as it can potential retain or attract young people to more remote regions, and also create relatively well-paid and secure jobs.

One example of a network approach is the University of Cumbria in north-west England, which was formed in 1997 through the merger of several colleges with the local campus of the University of Central Lancashire, with the aim of keeping more young people in the region and contributing to broader regional development.⁸³ The creation of the university was expected to cost over £145 million (around €166 million) during its first five years, with funding from the State, the regional development agency and other partners, and it now educates around 15,000 students.⁸⁴

A second example is the University of the Highlands and Islands, which was first proposed in the 1400s but gained formal university status only in February 2011. The university has 13 main campuses and over 50 local learning centres, which provide access to virtual learning environments, with the options of distant and online study, while courses offer videoconferencing, internet discussion and online, tutor-led workshops. Both universities are developing educational and research expertise in niche areas, often related to the strengths of peripheral areas (e.g. tourism, culture and renewable energies) or to the needs of local labour markets and communities (e.g. healthcare in rural areas).

⁸³ http://www.hefce.ac.uk/pubs/rereports/2003/rd07_03/rd07_03.pdf NWDA, North West England Regional Economic Strategy, 2006, <http://www.nwda.co.uk/PDF/RES06v2.pdf>

⁸⁴ <http://www.hefce.ac.uk/news/hefce/2007/cumbria.htm#note2>

3. BUILDING SOCIAL CAPITAL IN PERIPHERAL AREAS

3.1 Austria - social diversity in peripheral areas

A recent study commissioned by the Austrian Conference on Spatial Planning (*Österreichische Raumordnungskonferenz, ÖROK*) focused on the role of social diversity in facilitating development in peripheral areas.⁸⁵ It found that individual decisions to migrate away from (or move to) peripheral areas are based not only on economic criteria (such as job opportunities) but also on social structures which shape the scope for individuals to develop their creativity, interests, and talents - which in turn act as a resource for local development. The report argued for greater effort to activate existing creative potential, by integrating migrants, improving work-life balance, strengthening the presence of women in political roles and encouraging dialogue with critical and creative people in the region.

The report also argued that regional development decision-making bodies fail to reflect or exploit the diversity of rural populations in terms of age, gender, origin and levels of knowledge. It recommended that funding should be specifically earmarked for social diversity, that social diversity should be anchored in the structures of regional development institutions, and that diversity should be regularly monitored and evaluated.

The study also examined a range of local examples of social diversity in development projects. One was the Lungau Women's Network (*Lungauer Frauen Netzwerk*).⁸⁶ The Lungau area in *Land Salzburg* is characterised by a weak labour market and low female employment. Over 80 percent of female school-leavers migrate out of the region. Women are also widely underrepresented on regional decision-making bodies. The women's network set up in 2004 promotes networking for women and aims to improve the participation of women in decision-making processes. Originally launched as a LEADER project, the network is currently financed by *Land Salzburg*, the Federal Chancellery, membership fees and sponsors. The network has managed to improve childcare facilities in the district and increase female participation in regional decision-making bodies.

A second project was the Social Concept Außerfern (*Soziales Leitbild Außerfern*).⁸⁷ In the Außerfern area in northern Tyrol, many people either work in tourism or commute to work outside the area. In 2004, the Außerfern became the first region in Austria to develop a 'social strategy', which improved coordination between existing local service-providers. It also led to a list of all social services being made available online and translated into Turkish, the most important immigrant language in the region. A social aid fund was also set up, which offers support to local people in need.

⁸⁵ ÖROK (2009) *Neue Handlungsmöglichkeiten für periphere ländliche Räume: Stärkung der sozialen Vielfalt, Ausbau der interkommunalen Zusammenarbeit, Gestaltung der Landschaftsvielfalt*, ÖROK Schriftenreihe 181, Wien. W. Strahl, T. Oedl-Wieser and T. Dax (2011) Mobilisierung des endogenen Potenzials in peripheren ländlichen Regionen, in M. Schrenk, V. Popovich and P. Zeile (eds.) *Proceedings REAL CORP 2011*, 18-20 May 2011, Essen, http://www.corp.at/archive/CORP2011_90.pdf

⁸⁶ <http://www.lungauerfrauennetzwerk.at>

⁸⁷ <http://www.allesausserfern.at/servicebox/protokolle-zum-sozialen-leitbild>

3.2 United Kingdom - the role of Highlands and Islands Enterprise

In addition to its regional economic development role, Highlands and Islands Enterprise (HIE) has a distinctive statutory remit for supporting community and social development across the Highlands and Islands of Scotland. The agency's community development remit allows them to target resources towards helping communities in fragile areas to address issues such as employment opportunities, wage levels, transport and distance. Community activities and social enterprise businesses play an important role in the region's economy.

Current activity to support community and social development includes: support for social enterprises, including through the use of community benefit clauses in public tendering; exploring new ways of exploiting local assets for wider community benefit and delivering public services; providing advice and support for income-generating asset-based community development; and exploring options for community broadband. At a national level, HIE has also been involved in lobbying for land reform, ensuring flexible funding for community renewable energy projects, and identifying and developing workable models for the transfer of public assets to communities.

In addition to the region's natural resources, the development of arts and cultural activities is seen to contribute to the growth of the Highlands and Islands as an attractive and distinctive region, hence HIE also undertakes a range of activities aiming to sustain and develop the area's cultural and heritage resources. This includes support for the Gaelic language, through a partner organisation (*Comunn na Gàidhlig*), which helps HIE to identify economic and community development opportunities to regenerate Gaelic as a spoken language in fragile areas, develop innovative projects which contribute to Gaelic related creative industries, goods and services, tourism initiatives and the Gaelic labour market.

Building on previous schemes (funded by LEADER and the domestic programme, Initiative at the Edge / *Iomairt aig an Oir*), HIE has introduced a programme to support over 40 communities in the region's most fragile rural areas. Working in partnership with local authorities and other public agencies, HIE is encouraging these communities to develop and implement plans for local growth, via projects to increase income levels, retain population, and enhance infrastructure and local services. The plans are supported by funding for groups to employ a local development officer, alongside support from HIE staff. HIE plans to spend around £1.5 million (€1.7 million) over the next three years on this work, in addition to £1 million (€1.14 million) from the LEADER programme and local authority sources.

Another example of HIE activity in support of community development and social enterprise is the 'social entrepreneurs reference panel', where twelve leaders of social enterprises, often based in remote parts of the region, are brought together several times a year to encourage mutual support and leadership skills. The difficulties of setting up and sustaining community-based projects and enterprises are well-recognised, not least in maintaining enthusiasm, managing conflicts and retaining the support of the wider local population.⁸⁸

⁸⁸ Highlands and Islands Enterprise (no date) Community engagement: Getting people to stay together, Factsheet No. 4, Inverness.

3.3 Switzerland - the Swiss Centre for Mountain Regions (SAB)

In Switzerland, a number of non-governmental organisations and associations have been set up to represent the interests of mountain areas and to provide funding for infrastructure and social projects in these areas. The rationale behind these initiatives is the particular economic and social challenges faced by businesses and households in mountain areas, such as the Alps in south and east and the Jura Mountains in the north-west.⁸⁹

One body is the Swiss Centre for Mountain Regions (*Schweizerische Arbeitsgemeinschaft für Berggebiete*, SAB) which aims to represent the interests of mountain and rural areas, to engage in political lobbying and to inform the general public about the concerns of these areas. SAB is also engaged in international exchange of experience projects with similar bodies from other European countries, and also engages in analytical work on the problems facing mountain areas, such as structural change, population ageing, climate change, accessibility, energy supply, governance and territorial cohesion.⁹⁰

Three of the most important other non-profit organisations for mountain areas in Switzerland provided a total funding of more than CHF42 million (€33 million) in 2010. They include:

- The Sponsors of Mountain Communities (*Patenschaft für Berggemeinden*), which supports twinning arrangements between comparatively wealthy lowland municipalities and mountain villages, with the lowland authorities providing funding for infrastructure investment in the mountain areas;⁹¹
- The Swiss Mountain Protection Association (*Schweizer Berghilfe*), which supports projects on a variety of themes, including social issues and emergency assistance in the case of natural disasters;⁹² and
- The Cooperative Sponsors of Mountain Areas (*Coop Patenschaft für Berggebiete*) which provides funding for mountain farming households, for example for investments in equipment and small business development.⁹³

⁸⁹ T. Egger (2011) *Zukunftsperspektiven für Berggemeinden*, presentation. Available at: http://www.gemeinde.embd.ch/Zukunftsperspektiven_fur_Berggemeinden_Referat_Embd.pdf

⁹⁰ <http://www.sab.ch/Positionspapiere.892.0.html>

⁹¹ http://www.patenschaftberggemeinden.ch/ueber_uns.html

⁹² <http://www.berghilfe.ch/>

⁹³ <http://www.coop.ch/pb/site/common/node/9091/Lde/index.html>

4. BRIDGING AND BROKERING

4.1 Norway - the agency Innovation Norway

Innovation Norway (*Innovasjon Norge*) is the Norwegian Government's main agency that provides support for innovation and business development, through grant and loan programmes, advisory services (e.g. for firms aiming to operate abroad), networking services and programmes aimed at helping smaller firms to gain new capacities (e.g. relating to strategic or internationalisation). It is also responsible for trade representation abroad and for tourism marketing. The national Ministry for Trade and Industry holds a 51 percent share in Innovation Norway, with the remaining 49 percent of shares being owned by the country administrations and municipalities. In addition, Innovation Norway manages a range of funding streams on behalf of the Ministry for Local Government and Regional Development, the Ministry for Fisheries and Coastal Affairs, the Ministry of Agriculture and Food, and the Ministry of Foreign Affairs. In 2009 the agency distributed a total of NOK 9.8 billion (€1.25 billion) and gave advice to a value of NOK 235 million (€30 million).⁹⁴

Many of the agency's activities involve some form of brokering on behalf of SMEs to external sources of know-how, skills or funding. In particular, Innovation Norway bridges between the regional level (via its network of 20 regional offices) and the national and international level (via its Oslo headquarters and its 30 international offices), providing local access to a range of services and knowledge relating to innovation and market expansion.

One common type of bridging work is focused on helping Norwegian businesses to find new markets, both domestically and internationally. The regional offices can help innovative SMEs, including start-ups, to find private or public sector customers for their products and services. This can involve assistance in identifying a potential customer, the provision of funding to adapt a product for a specific customer's use, assistance in managing the process of co-developing a product between the supplier firm and the customer, and the provision of legal support with issues relating to contracts and intellectual property rights. These contracts can be significant, ranging from 300,000 NOK to around 10 million NOK (between €40,000 and €1.3 million).

⁹⁴ <http://www.innovasjon norge.no/Om-oss/>

4.2 Finland - the roles of Tekes and the ELY Centres

There is also a strong focus on the role of public-sector agencies in assisting firms and researchers, including in peripheral regions, to build networks and relationships with actors both within and outside the region, with the aim of encouraging innovation and business development.

Tekes (the Finnish Funding Agency for Technology and Innovation) runs a number of R&D programmes which support networking among businesses, universities and research institutes with the aim of facilitating the development of innovative products, processes and services. Tekes programmes provide support for seminars, training programmes, international visits, and liaison aimed at facilitating researcher exchange. For example, the TULI programme aims to foster cooperation between researchers and businesses, offering business expertise and funding for researchers, research groups and students willing to commercialise their research outputs through cooperation with other businesses or starting up their own companies. Tekes also runs programmes which aim to attract foreign researchers to Finland to facilitate international cooperation in R&D and innovation, including the Finland Distinguished Professor Programme, which offers grants for projects recruiting leading foreign scientists, and NSF Graduate Research Fellows, which focuses on attracting talented young researchers to Finland.

In addition, the network of 15 ELY Centres (Centres for Economic Development, Transport and the Environment) provide advisory and brokering services to start-ups and existing businesses, including assistance with the development of business ideas, with efforts to find external sources of finance, and with the protection and commercialisation of ideas and innovations. The Centres can help businesses find out about their competitors outside the region and country, through searches, seminars and funding to attend trade fairs.

5. TRANSPORT

5.1 Eastern Poland - transport infrastructure

The development of Poland's eastern regions is seen to be constrained by weak transport infrastructure both internally and externally. Not only are links with the rest of Poland, including Warsaw, relatively poor, but so too is the quality of transport connections between towns within eastern Poland, as well as between these towns and rural areas.⁹⁵ Further, cross-border transport infrastructure connecting eastern Poland with Belarus and the Ukraine is underdeveloped.⁹⁶

Recent years have witnessed a significant expansion in the funding available for transport infrastructure development throughout Poland, with EU Cohesion policy providing the bulk of the resources. Overall, Cohesion policy is allocating over €25 billion in EU grants to transport (38 percent of total funding) in 2007-11, notably through the national operational programme for infrastructure and the environment, as well as through the regional programmes. In addition, the multi-regional programme for eastern Poland is allocating around €0.6 billion to transport infrastructure (around 30 percent of total funding), and aims to take a macro-regional, strategic, coordinated approach, in contrast with the tendency for local public authorities to compete against one another for infrastructure funding.

However, transport infrastructure projects in eastern Poland have faced a number of challenges. Not only have there been administrative delays (e.g. due to public procurement procedures) but there is often a need to balance transport objectives with goals relating to biodiversity and environmental protection. Many areas of eastern Poland are protected under the EU's Natura 2000 programme, but some of the approved road investment projects (up to 100 potential conflict zones) are expected to be built across protected areas, and there are up to 100 areas where there is conflict between economic and environmental policy priorities.⁹⁷

⁹⁵ Komornicki, T. (2011) Wewnętrzne i zewnętrzne powiązania Polski Wschodniej oraz dostępność transportowa determinantami rozwoju sieci drogowej: diagnoza, zachodzące zmiany, perspektywy, paper presented at conference *Projekty drogowe w Regionalnych Programach Operacyjnych i Programie Rozwoju Polski Wschodniej* Lublin, June 2011.

⁹⁶ Organisation for Economic Cooperation and Development (2008) *Territorial Review of Poland*, Paris.

⁹⁷ Organisation for Economic Cooperation and Development (2008) *op. cit.*, p119.

5.2 United Kingdom - the Road Equivalent Tariff in Scotland

A pilot scheme to explore the impact of lower ferry fares on island communities was launched in Scotland in 2007, in recognition of the importance of ferry services in supporting these remote and fragile communities, and following concerns that the high cost of ferry fares may have been a barrier to economic growth. The Road Equivalent Tariff (RET) involves setting ferry fares on the basis of the cost of travelling an equivalent distance by road, and has resulted in a 50 percent reduction in fares. The aim of the RET pilot, which is focused on some of the more remote islands (the Western Isles, Coll and Tiree) is to boost island economies by attracting tourists and reducing costs for local businesses. The Western Isles were identified as a particularly fragile economy, which is experiencing population decline as well as historically higher rates of unemployment than other parts of Scotland. The budget for the pilot scheme was £22.5 million or €25.7 million for the period 2008-2011.⁹⁸ After an early evaluation indicated significant benefits for the local economies involved, the pilot was extended to spring 2012, at a cost of a further £6.5 million or €7.4 million.⁹⁹ There has however been some criticism of the scheme from people on islands excluded from the trial, who are concerned that the scheme places their tourism and other businesses at a disadvantage in cost terms.

The impact of the RET pilot was assessed in a report published in March 2011.¹⁰⁰ The main finding was that, apart from tourists, demand for ferry services is relatively inelastic, so that demand rose, but generally not enough to offset the reduction in value of each fare. As a consequence, to sustain the current price level on the pilot routes would require a long-term increase to the subsidy provided to the ferry operator. Extension of RET to other routes would similarly result in less income and increase the subsidy requirement.

The study also found that the subsidy had led to around 30,000 additional tourist visits by ferry to the pilot area each year. Nearly 75 percent of accommodation providers had experienced increased demand since the introduction of RET, although mainly in the traditional peak months of July and August. There is also some evidence that the strongest increase may have been in low-value tourism, especially camping and motor-home visitors.

In term of the impact on non-tourism businesses, RET reduced costs for haulage businesses although most of the reduction in ferry costs was absorbed by these companies and was not passed on through the supply chain. Lower ferry fares also enabled some island firms to increase market share in mainland markets, although there is also limited evidence of mainland businesses taking advantages of lower costs to extend their activities to the islands.

⁹⁸ Scottish Budget Spending Review, 2007, <http://www.scotland.gov.uk/Resource/Doc/203078/0054106.pdf>

⁹⁹ <http://blog.islayinfo.com/article.php/ret-trial-extended-to-support-economies>

¹⁰⁰ Halcrow Group Ltd (2011) Assessment of the Impacts of the Road Equivalent Tariff Pilot. Draft Final Report to the Scottish Government, March 2011, Edinburgh. <http://www.scotland.gov.uk/Resource/Doc/935/0115577.doc#>

6. FUNDING FOR BROADBAND IN PERIPHERAL AREAS

6.1 Austria - increasing coverage in sparsely populated regions

The Austrian federal government has run a series of initiatives since the mid-2000s to increase broadband provision in peripheral and sparsely populated regions. In 2004-08, the federal government and *Länder* jointly implemented an initiative aimed at increasing coverage across the country, drawing on €30 million of public funds (co-funded equally by the federal level, the *Länder* and the EU's rural development fund, the EAFRD). The initiative led to an increase in the percentage of households in areas with the technical preconditions for broadband coverage, from 88.7 percent at the start of 2005 to 95.4 percent by June 2007.¹⁰¹

This initiative was followed in 2008 by the 'Austria Broadband 2013' strategy (*Breitband Austria Zwanzigdreizehn*, BBA_2013), which aimed to ensure that all areas would have broadband access of at least 25 Megabit per second by 2013. The strategy is implemented through the EAFRD programme, drawing on a further €30 million of federal and EU funding, and is run jointly by the Federal Ministry of Agriculture, Forestry, Environment and Water Management and the Federal Ministry for Transport, Innovation and Technology, although the *Länder* are responsible for implementation.

The funding is earmarked for three areas of intervention: the establishment of new broadband infrastructure, the modernisation of existing infrastructure, and investment in passive broadband infrastructure such as conduits.¹⁰² Eligible areas have been defined across the country, with interventions being concentrated in the mountainous areas of central Austria.

¹⁰¹ Favry E. & Hiess H. (2008) 'Infrastrukturen der Daseinsvorsorge in Österreichs ländlichen Gebieten', in: *Informationen zur Raumentwicklung*, Heft 1/2 2008, pp. 60-61. Available at: http://www.bbsr.bund.de/nr_23680/BBSR/DE/Veroeffentlichungen/IzR/2008/1_2/Inhalt/DL_favryhiess,templateld=raw,property=publicationFile.pdf/DL_favryhiess.pdf

¹⁰² Lebensministerium (2011) *LE 07-13, Österreichisches Programm für die Entwicklung des Ländlichen Raums 2007-2013*, version 4 of 17 March 2011.

6.2 Germany - broadband in rural and structurally weak areas

In Germany, a range of federal, *Land* and local authority funding is available to expand broadband provision, particularly in structurally weak rural areas, amounting to over €150 million in total.¹⁰³ Federal and *Land* support is provided to local authorities for feasibility studies and consultancy, for setting up a local broadband network, and for laying open access conduits that can be used for broadband infrastructure. All funding programmes have been approved by the European Commission's State aid authorities and are based on the principle that funding is only provided where there are insufficient market-based solutions to meet existing needs due to particular economic, infrastructural or topographic conditions.¹⁰⁴ Federal/*Land* support is provided to local authorities for feasibility studies and consultancy, the provision of a local broadband network, and laying conduits that can be used for broadband infrastructure. The main sources of funding include the following:

1. The Regional Joint Task (GRW) supports broadband for firms or business parks in designated areas where bandwidth is less than two Megabytes (download speed), including for 'next generation access'.¹⁰⁵ In the case of infrastructure, the aid rate is usually 60 percent of the 'profitability gap' (i.e. those costs which would not be covered if final customers were charged market prices) but can rise to 90 percent if projects involve cooperation between local authorities, are part of a broader regional development strategy, or aim to regenerate brown-field sites. In the case of advisory services, the aid rate is up to 90 percent of eligible costs, with a ceiling of €100,000. In the case of individual firm support, aid rates depend on the type of designated area, with rates of up to 50 percent of eligible costs available to small firms in Article 107(3)(a) areas.
2. The Joint Task for the Improvement of Agricultural Structures and Coastal Protection (*Gemeinschaftsaufgabe 'Verbesserung der Agrarstruktur und des Küstenschutzes'*, GAK) provides funding for broadband to (groups of) local authorities in rural areas where bandwidth is less than two Megabytes. The federal and individual *Land* authorities jointly fund of up to 90 percent of 'the profitability gap' and up to €500,000 per project.¹⁰⁶
3. The federal response to the financial crisis in 2009-10 included funding for investment in local infrastructure, including broadband.
4. Some individual *Land* governments (Baden-Württemberg, Bayern, Sachsen and Niedersachsen) have obtained European Commission approval for their own broadband programmes, which are sometimes co-funded by *Land* ERDF and/or EAFRD programmes.

¹⁰³ Bundesministerium für Wirtschaft und Technologie (2009) *Breitbandstrategie der Bundesregierung*, Berlin.

¹⁰⁴ Bundesministerium für Wirtschaft und Technologie (2010) *Möglichkeiten der Breitbandförderung: ein Leitfaden*, Berlin.

¹⁰⁵ Deutscher Bundestag (2009) *Koordinierungsrahmen der Gemeinschaftsaufgabe, Verbesserung der regionalen Wirtschaftsstruktur' ab 2009*, Drucksache 16/13950, 08.09.2009, Berlin.

¹⁰⁶ Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz (2011) *Rahmenplan der Gemeinschaftsaufgabe 'Verbesserung der Agrarstruktur und des Küstenschutzes' für den Zeitraum 2011-2014*, Berlin, pp.18-19.

6.3 France - broadband in rural areas

There have been concerns about the 'digital divide' in France for over a decade because the level of mobile phone and broadband coverage currently provided by private operators is very low and is concentrated in the main urban areas. Alongside a nationwide investment programme for high-speed broadband infrastructure (with a budget of €2 billion), the French authorities have set up a Fund for Digital Territorial Development (*fonds d'aménagement numérique du territoire*, FANT) to support the provision of open infrastructure and networks in sparsely populated areas (with a budget of €750 million).¹⁰⁷ In addition, local authorities are now required to identify future investment plans and develop local strategies (territorial directive schemes for digital development, *schémas directeurs territoriaux d'aménagement numérique*, SDTAN). Although seven pilot projects have already been funded in areas with low or medium population density (each receiving €500,000), the French authorities are still waiting for Commission approval of the main funding schemes. The first applications are expected in September 2011 and the first decisions in December 2011.

However, there has been some criticism of the level and allocation of public funding for broadband (notably the balance between resources for private and local authority actors), as well as over technical choices. In particular, the Senate (which represents the interests of local authorities) has expressed concerns over the fact that 50 percent of the national high-speed broadband programme's €2 billion is earmarked for private investment, and that local authorities can only receive support in areas not covered by private investment (rather than for initiatives covering both profitable and non-profitable areas).¹⁰⁸ There are also concerns that, if some *départements* do not develop a directive scheme (SDTAN), the municipalities in those areas may not be able to obtain funding. A further contentious issue is the appropriate balance between the goal of upgrading broadband networks in areas that already have reasonably good coverage, and extending networks in areas where networks are very limited.

A further initiative aimed at increasing business access to high-speed internet access concerns the creation of tele-centres, jointly funded by DATAR and individual local authorities.¹⁰⁹ The centres allow self-employed people, workers or small businesses to rent office space, which not only offers good quality internet access but also basic administrative support from the centre manager, as well as opportunities for social interaction. Take-up of the initiative has been relatively limited, with only seven centres having been set up and three others in the planning stage.¹¹⁰

¹⁰⁷ French parliament (2009) *Loi n° 2009-1572 du 17 décembre 2009 relative à la lutte contre la fracture numérique*, Paris.

¹⁰⁸ Maurey H. (2011) *Rapport d'information fait au nom de la commission de l'économie, du développement durable et de l'aménagement du territoire sur la couverture numérique du territoire*, Sénat, Paris, pp. 58-73.

¹⁰⁹ DATAR (2011) *Territoires en mouvement*, no. 3, Paris, p. 12.

¹¹⁰ B. Moriset (2011) *Les télécentres dans les territoires ruraux français: essai d'évaluation*, Agence Nationale de la Recherche, Paris.

7. LOCAL SERVICES OF GENERAL ECONOMIC INTEREST

7.1 Finland - public services in rural and peripheral areas

In Finland there is a statutory obligation on local authorities to provide core services in all areas. However, local authorities in sparsely populated areas are facing difficulties in meeting their obligations, due to the increased needs of an ageing population, the additional costs of service delivery in these areas, and falling local tax income linked to the economic downturn. The severity of the situation varies across the regions. In the northern Lapland region, for example, many municipalities rely on loans even for the delivery for basic statutory services.

The Finnish regional development strategy for 2020 underlines the need to safeguard the accessibility of services, as well as their quality and efficiency, by reforming service structure, including the possibly involvement of the private sector in service provision.¹¹¹ In order to safeguard services across the country, focus is placed on cooperation between different actors, diversifying the delivery systems and better use of new technological innovations (e.g. mobile and electronic services).¹¹² One response is the PARAS project, which aims to safeguard welfare services irrespective of location, and has involved local authority mergers and the formation of local cooperation areas. However, the PARAS project is not seen as a solution in the northern Lapland region, due to its very low population density and long distances between settlements, which mean that it has not been possible to develop collaborative approaches, for example in the field of health and social services. A government working group in 2008 recommended that a broad-based pilot project be set up in Lapland to encourage municipalities to develop new solutions to service problems, for example drawing on the more efficient use of IT, better use of existing public buildings, a focus on the roles of village stores, and the development of local multi-services.¹¹³

An alternative approach is being pursued in the sparsely populated eastern region of Kainuu, where a pilot self-government approach has been underway since 2005, including the delivery of basic services.¹¹⁴ The latest plans in Kainuu concern the PALKE project, which aim to create service centres to safeguard and maintain local service delivery, particularly in rural areas, with the centres providing advice on, for example, health care, business activities, and distance working. The total cost of the project is €284,353, to be funded jointly by the region, the central State and the ERDF.

¹¹¹ Ministry of Employment and the Economy (2010) *Suomen aluekehittämisstrategia 2020*, Helsinki.

¹¹² Ministry of Employment and the Economy (2009) *Työ- ja elinkeinoministeriön aluestrategia 2009-2011*, Helsinki.

¹¹³ Ministry of Employment and the Economy, 'Lappi-työryhmän loppuraportti', Publications of the Ministry of Employment and the Economy 32/2008, 12 February 2008

¹¹⁴ <http://maakunta.kainuu.fi/mainnews.asp?id=2855>

7.2 France - the provision of public services in rural areas

Ensuring public services across all regions is also an explicit policy objective in France, where a series of initiatives during the last five years have culminated in a national agreement in September 2010 between the government and major public service providers, covering fields such as postal, electricity, gas and rail services. This agreement involves sectoral contracts between the State and local service providers, which specify the level of State funding and also the extent of local service provision, for example:

1. In December 2010, the State reached an agreement with the train authorities (SNCF) on maintaining geographical coverage via the ‘trains for territorial balance’ initiative (*trains d’équilibre du territoire*), which relates to 40 connections and 100,000 travellers per day. Under the initiative, the State defines the services that the SNCF should provide, and compensates the SNCF for losses on these lines (€210 million per year), as well as investing in new rolling stock (€300 million).

2. In January 2011, the State agreed a contract on post office services in 2011-13 with the national association of mayors and the postal company, and a law was passed in February 2010 to ensure a network of 17,000 post offices, including in rural areas. The postal company receives additional funding of of €170 million per year, mainly in the form of local tax relief. In addition, €24 million was provided for renovating post offices in rural areas.

A further area of concern relates to health service provision, notably in areas affected by out-migration and an ageing population (and the non-replacement of retiring local doctors). One of the objectives of the 2009 law on ‘Hospitals, patients, health and territories’ is to ensure equal access to health services in all regions. Several initiatives are currently underway, including the creation of 250 multi-disciplinary health centres (*Maisons de santé*) in fragile rural areas.¹¹⁵ Two sources of funding have been agreed for the health centres, namely €15 million annually for three years from the budget for infrastructure support in rural areas (*dotation d’équipement des territoires ruraux*, DETR), and €10 million annually for three years from the National Fund for Territorial Development (FNADT).

¹¹⁵ J.-N. Escudié. (2011) *Une circulaire précise les financements du FNADT pour les maisons de santé*, published on www.localtis.info.

7.3 Sweden - services in sparsely populated and rural areas

State funding and advisory support is available to regional authorities in Sweden to develop and implement regional services programmes, which aim to ensure the provision of a range of commercial and public services in sparsely-populated and rural areas. In 2008, the Government commissioned the Consumer Agency (*Konsumentverket*) and the Rural Development Agency (*Glesbygdsverket*) to develop guidelines for regional services programmes, building on previous experience under the local development programme for commercial services in 2002-07. The programmes were designed in 2009 by the County Administrative Boards or equivalent bodies (i.e. by the Municipal Cooperation Bodies or by the directly-elected Regional Councils of Skåne and Västra Götaland) and are being implemented in 2010-13. The Swedish Agency for Economic and Regional Growth (*Tillväxtverket*) is responsible for providing guidance and methodological support to the programmes. The programmes involve a range of public, private and not-for-profit partners, depending on regional conditions and decisions.

The aim is to support and encourage work with commercial and public services in the sparsely-populated and rural areas. For example, grocery stores and fuel stations play an important role in many sparsely-populated and rural areas in terms of maintaining an acceptable level of services for residents and businesses. However, the viability of the grocery stores and fuel stations is seen to depend on their capacity to broaden their activities with respect to the provision of commercial services and also certain public services. The aim is that these local stores should be able to provide access to a combination of different services, including postal and pharmacy services.

The regional services programmes can fund practical mentoring support for local public or private bodies aimed at improving the efficiency and operation of local services. A mentor can help rural traders by providing advice on business improvements relating to the design of their stores, energy efficiency and investment in new equipment (e.g. freezers, refrigerators and cash registers). They can also assist stores to access funding, which can contribute to improving the interior, equipment and facilities. Some regional services programmes strongly involve not-for-profit organisations in helping to provide local services in sparsely-populated and rural areas.

Government funding for commercial services has increased from around SEK 35 million (€3.8 million) in 2008 to SEK 44 million (€4.8 million) in 2010. An additional SEK 30 million (€3.3 million) has been provided to support investment in local stores and fuel stations in sparsely-populated and rural areas in 2009-2010,¹¹⁶ augmented by a further SEK 80 million (€8.8 million) for 2011-14.

An evaluation of the regional services programmes has been commissioned to be undertaken by the Swedish Agency for Growth Policy Analysis (*Tillväxtanalys*).¹¹⁷

¹¹⁶ Tillväxtverket (2011) *Regionala serviceprogram - delredovisning februari 2011*, Stockholm

¹¹⁷ <http://www.tillvaxtanalys.se>

7.4 Germany - the rural infrastructure Initiative

The German federal government is endeavouring to address difficulties in ensuring the provision of public services and infrastructure by local authorities, particularly in structurally weaker rural areas. One major theme concerns efforts to promote cooperation between local authorities in the provision of local services, as a means of maintaining service quality yet still reducing costs. Some local authorities already share back-office functions (e.g. data processing and accounting) and economic development strategies (e.g. tourism marketing and broadband access),¹¹⁸ or are considering shared business parks, which would involve agreement over the division of the key local revenue of business tax.

One policy strand is the 'Rural infrastructure initiative' (*Initiative Ländliche Infrastruktur*) of the Federal Ministry for Transport, Construction and Urban Development (*Bundesministerium für Verkehr, Bau und Stadtentwicklung*, BMVBS), which includes:¹¹⁹

1. The 'Small towns and communities - supra-local cooperation and networks' programme (*Kleinere Städte und Gemeinden - überörtliche Zusammenarbeit und Netzwerke*) provides funding to groups of local authorities to develop integrated strategies and shared infrastructure, with the aim of reducing duplication and to orient infrastructure and services towards current patterns of demand. The programme involved €54 million in 201 (equally co-funded by federal, *Land* and local authorities).¹²⁰
2. The 'Demographic change - regions create the future' (*Demographischer Wandel - Region schafft Zukunft*) programme funded 75 projects in four sparsely populated regions in 2007-11, with a focus on the opportunities created by demographic change and with a budget of around €6 million in 2007-11.¹²¹
3. In 2012-13 the 'Regional local services' programme (*Aktionsprogramm regionale Daseinsvorsorge*) will support strategy-building in rural areas where the provision of services and infrastructure is at risk due to a falling/ageing population. The programme has been allocated €6.5 million and plans to award €60,000-180,000 to each of 20-30 rural areas.¹²² Particularly successful strategies could receive further funds in 2014.

¹¹⁸ <http://www.zukunftsforum-laendliche-entwicklung.de/dokumentation-2011/>

¹¹⁹

http://www.bmvbs.de/DE/StadtUndLand/RegionenStaerken/ProjektbeispieleLaendlicheEntwicklung/projektbeispiele-laendliche-entwicklung_node.html

¹²⁰ Bundesministerium für Verkehr, Bau und Stadtentwicklung (2010) *Kleinere Städte und Gemeinden: Überörtliche Zusammenarbeit und Netzwerke: Informationen zum neuen Städtebauförderungsprogramm*, Berlin.

¹²¹ Bundesministerium für Verkehr, Bau und Stadtentwicklung (2009) *Region schafft Zukunft: Demografischen Wandel aktiv gestalten*, Berlin. See also: <http://www.region-schafft-zukunft.de>

¹²² Federal Ministry for Transport, Construction and Urban Development (2011) *Regionalstrategie Daseinsvorsorge: Denkanstöße für die Praxis*, Berlin.

7.5 Interreg Alpine Space: public services in mountain regions

Two projects addressing the problems of public service provision in sparsely populated mountain regions have been funded by INTERREG programmes for the Alpine Space. PUSEMOR (Public services in sparsely populated mountain regions)¹²³ was funded by INTERREG IIIB in 2005-07 in nine regions of Austria, France, Germany, Italy, Slovenia and Switzerland. It was followed by ACCESS (Improving accessibility of services of general interest - organisational innovations in rural mountain areas)¹²⁴ in 2008-11, which was funded by INTERREG IVB and had similar objectives.

PUSEMOR aimed to find innovative solutions to maintain the provision of public services in sparsely populated areas. It was initiated by the Swiss Federal Office of Spatial Development (*Amt für Raumentwicklung*, ARE) in 2004, who commissioned the Swiss Centre for Mountain Regions (*Schweizerische Arbeitsgemeinschaft für Berggebiete*, SAB) to develop a project on this issue on a European scale. PUSEMOR had nine project partners from six European countries and had a budget of €2.7 million, with 44 percent funding from the ERDF. It was split into two parts: an initial analysis of regional partners' existing knowledge; and 30 strategic pilot projects aimed at improving the provision of public services in sparsely populated areas and at developing strategies that could be implemented in practice. The pilot projects covered topics such as broadband access, local social services, the cooperation of local shops, mobile kindergardens, videoconferencing, and networks of employers providing training for young people.¹²⁵

The goal of the follow-up project, ACCESS, was to help maintain access to services of general interest in participating regions, regardless of geographical distance or social group. It involves many of the PUSEMOR project partners. ACCESS emphasises the importance of ensuring an impact on national and regional policies and strategies, such as the Austrian and Swiss spatial development strategies. In addition, efforts are made to facilitate the transfer of results, by documenting each step of the project process in reports and manuals, and by disseminating findings via networks such as Euromontana and the International Commission for Protection of the Alps (CIPRA).

¹²³ <http://www.sab.ch/PUSEMOR.884.0.html>

¹²⁴ <http://www.access-alpinespace.eu/>

¹²⁵ http://www.sab.ch/uploads/media/PUSEMOR_final_report_Internet_01.pdf

7.6 Italy - telemedicine in Sardegna

Healthcare is one of the core tasks of regional authorities in Italy, and often generates challenges for regional governments because it is a major component of regional spending (and budget deficits). Moreover, there are significant regional disparities in the quality of healthcare, so that there is a tendency for individuals in regions with poorer quality services (particularly in the South) to travel to seek healthcare in another region, often in the Centre-North. The regional authorities in Sardegna face particular problems in ensuring an appropriate level of healthcare provision, not only due to the financial difficulties of its health boards, but also because of the additional costs of providing adequate healthcare in this relatively sparsely populated region which has many areas which have poor accessibility to the main service centres.

The 2010-14 Regional Development Plan for Sardegna sets out the region's own domestic priorities and strategies, across a range of fields relating to the economy, infrastructure and public services, including healthcare. One strategy set out in the Plan concerns the use of IT networks to improve access to healthcare, particularly to more specialised services.

One project funded under this strategy has received around €1 million to develop an 'oncological tele-pathology network' (*Rete di TelePatologia oncologica*) which aims to improve the quality of screening for cancer by widening access to screening based on digital imaging. The telematic network links together the region's screening centres in the four main towns (Cagliari, Sassari, Nuoro and Oristano), and connects these centres with local doctors (general practitioners) and hospitals, as well as with the national oncological excellence centres outside Sardegna. The network therefore allows patients to be screened for cancer in local centres but also to ensure the quality of diagnosis via access to regional and national facilities.

In addition, the project involves the creation of a shared digital database of test results, which should help to improve longer-term treatment of cancer. The overall aim is to reduce 'the hardship and direct and indirect costs borne by patients for the diagnosis and treatment of tumours, reducing the number of persons that every year are forced to go outside of Sardegna'.¹²⁶

¹²⁶ Regione Autonoma della Sardegna, Assessorato dell'Igiene e Sanità e dell'Assistenza Sociale, Servizio Affari Generali (undated) *Progetto RTP - Telemedicina Specializzata - Rete di Telepatologia Oncologica*, Cagliari, p. 10.