



AsPIRE

ASPATIAL PERIPHERALITY, INNOVATION, AND THE RURAL ECONOMY

EU Fifth Framework Programme; Contract Number QLK5-2000-00783

DELIVERABLE 32

Aspatial Peripherality, Innovation & The Rural Economy (AsPIRE)

FINAL REPORT



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March, 2004

Acknowledgements:

This report is the culmination of three year's work by a large number of researchers in five institutions in Scotland, Ireland, Greece, Spain, Finland and Germany. Primary author's names appear on the title page for each chapter. However the contributions (direct or indirect) of a number of others, should be acknowledged:

- At the Scottish Agricultural College (SAC) in Aberdeen; Yvonne Loughrey and Morag Mitchell
- At TEAGASC in Dublin; Ultan Shanahan, Tony McGarry, Michael Cushion, Eamonn Pitts and Carmel Clifford
- At the National University of Ireland in Galway; John Murray
- At the University of Valencia; Carmen Pastor and Jenaro Parra
- At the Institute of Spatial Planning, University of Dortmund; Guenter Kroes, Joerg Grimm, Elke Brennenstuhl, Sina Uti, Benedikt Schlusemann
- At the Institute for Rural Research and Training, University of Helsinki, Seinajoki; Merja Lähdesmäki and Terttu Poranen .

The very valuable contributions of the five "peer reviewers" who attended the AsPIRE Workshop in Dortmund in November 2003 must be acknowledged. These were, Roger Vickermann (University of Kent), Mr Jeremy Millard (Danish Technological Institute), Dr Kostas Ksekouras, (University of Patras), Dr Ilari Karppi (University of Tampere), Dr Peter Collier (Independent Sociologist), and Dr Bill Slee (University of Aberdeen).

We would also like to thank all the entrepreneurs and the staff of numerous agencies and organisations who participated in our various surveys for their patience and willingness to give us their time.

Finally, we would like to express our appreciation to Mr Sjur Baardsen, our EU desk officer, for his patience, flexibility, and support.

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SECTION A:
CONCEPTUAL FRAMEWORK AND PROJECT STRUCTURE

CHAPTER 1: INTRODUCTION

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Background

European economic history has seen several fundamental shifts in the spatial organisation of economy and society, triggered by radical changes in transport and communications technology and by shifts in the focus of economic activity. Thus a diffuse but localised, predominantly agrarian economy, dependent upon inland waterways, coastal shipping and road transport, gave way (at different times in different parts of the continent) to an economy dependent upon heavy and secondary industry, using canals and later railways for domestic transport, and steamships for global communications. This was associated with the development of Europe's great industrial conurbations at the expense of peripheral regions, which are not only less well endowed with the sort of resources required for heavy industry, but suffered the additional handicap of being distant from the developing "hubs". During the second half of the twentieth century the improvement of road, rail and air transport, and the increasing shift from manufacturing to service activity as the motor of the European economy, have reduced the dominance of the industrial core regions. At the beginning of the twenty-first century many would argue that new transport and communications technology together with structural trends provide potential new opportunities for peripheral regions, and that future historians may identify this as the beginning of a period of fundamental spatial restructuring.

However, for a variety of reasons, not least the need for society to adjust, considerable inertia seems to slow down the process of spatial reorganisation. Within this context, as geographical constraints become (at least potentially) weaker, other "softer" characteristics may tend to determine the response of peripheral regions to new opportunities. For instance the adoption of new forms of economic activity depends to some extent upon the skills, education and adaptability of local entrepreneurs and their workforce (human capital). The diffusion of new ideas and working practices may be dependent to some extent upon the network of linkages (both in terms of transactions and informal contacts) between entrepreneurs and sources of information – such as customers and suppliers in other regions, research and development institutions, or regional development agencies - (business networks). Ease of adjustment may also be affected by the effectiveness of relationships within the local business community (social capital) and by characteristics of the administrative environment (governance).

All the “soft factors” described above have a common characteristic which distinguishes them from “traditional” industrial location factors, such as the cost of raw materials or access to markets. Since both raw material and products are transportable (at a cost), there is a sense in which the impact of these factors varies systematically across space. They are conventionally cheapest and most easily available in the old industrial core areas and most expensive/least accessible in the periphery. By contrast the “soft factors” tend to be much less mobile. Many of them are closely related to historical social and cultural factors, and they are not easily relocated or recreated. Their geography (although not yet fully understood) does not seem to be systematically related to that of the old industrial regions, or to urban hierarchies etc. In this sense they may be described as “aspatial”.

There has already been a considerable shift of focus away from the traditional location factors towards the soft, and aspatial, explanations in both academic and policy communities, as seen in some notable (EU and National) policy initiatives relating to information technologies, and to human/social capital and governance. However, it is nevertheless true to say that the potential role of soft/aspatial regional characteristics in compensating (or exacerbating) for spatial peripherality is as yet imperfectly understood, and requires to be more fully integrated into the rationale and practice of regional policy.

Aim and Objectives

The overarching aim of the AsPIRE project is to develop tools to assess the extent to which aspatial soft factors can compensate for (or exacerbate) the economic development implications of peripheral location, and on this basis to formulate best practice guidelines and policy recommendations.

In pursuit of this general aim, the project has been guided by a number of objectives, which were formulated in the proposal and the technical annex:

- (a) A *review* objective, to analyse existing peripherality indicators and their theoretical basis.
- (b) A *conceptual* objective, to undertake thematic studies to identify a series of hypotheses relating to the nature of soft/aspatial factors and their impact on innovation and economic vitality.

- (c) A *validation* objective, concerned with the development of practical methods to test the hypotheses, in the context of a set of representative case study regions.
- (d) A *measurement* objective, concerned with developing new indicators with standard methodologies, to allow regional agencies to generate comparable assessments of soft/aspatial factors for their regions.
- (e) A *policy* objective, to assess the impact of current and past policy approaches to economic development in peripheral regions.
- (f) A *best practice* objective, to establish examples and guidelines for effective intervention to ameliorate the effects of negative soft factors, and to strengthen positive ones.

Outline of Methodology and Project Structure

The project has a conventional overall structure, beginning with a review of literature, progressing through a case study phase, and ending with analysis and application in terms of best practice, policy recommendations, and the presentation of a set of tools for assessing the strength of aspatial factors within a region. This is illustrated by Figure A1.1.

Throughout these stages a set of themes provided a substructure for the work. These themes were:

- (a) Information Society Technology (IST)
- (b) Business networks and innovation
- (c) Governance
- (d) Social capital
- (e) Tourism

One of the key outcomes of the conceptual phase of the project was the establishment of a set of working hypotheses about the role of each of the above soft/aspatial factors in determining levels of regional economic vitality. These formed the underlying rationale for the case study element of the project.

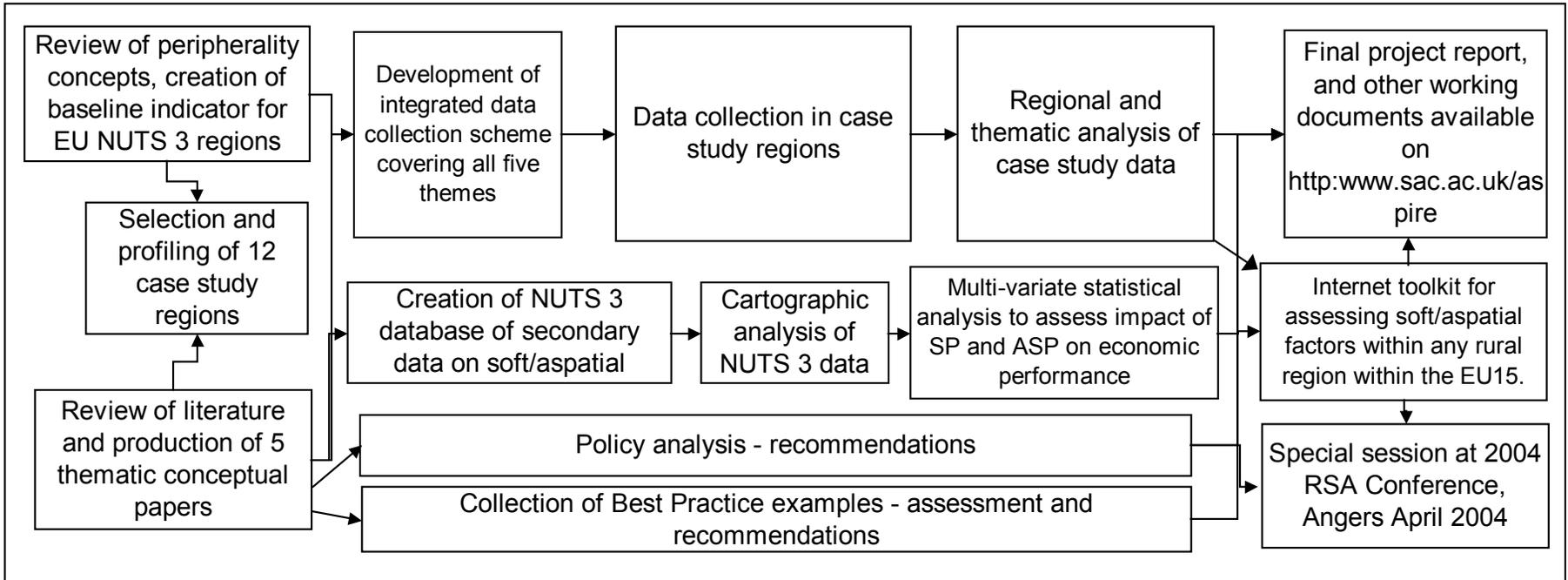


Figure A1.1: Outline of Project Activities

The case studies were designed to be comparative within each project partner's country. Thus in each represented member state two case study regions were chosen, one of which (Region A) was considered to be relatively peripheral but showing a degree of economic vitality which was assumed to be due to positive soft/aspatial factors, the other (Region B) was considered to be relatively accessible but lagging, due to negative local soft factors. The validity of the working hypotheses was then assessed using both quantitative and qualitative techniques, as appropriate. Perhaps unusually, and in an attempt to achieve true comparative analysis, the results for all case study regions were collated, analysed, and reported by theme (as well as in integrated regional reports in the local language).

Information for the best practice and policy analysis elements of the project was collected throughout all phases of the project. The focus of the former was on examples of entrepreneurial activities or regional organisations which seemed to be particularly effective in either overcoming conventional spatial peripherality, or in exploiting or reinforcing local soft factors. The policy analysis both reviewed existing EU policy measures (in terms of their impact upon conventional peripherality, and upon soft/aspatial factors), and studied the perceptions of regional development agents with respect to the efficacy of different types of intervention in ameliorating peripheral disadvantage.

A final element of the project was to assemble a "tool kit" of indicators and assessment procedures which would assist regional policy makers in diagnosing the key issues for their area and designing a policy response. An early contribution to this was the development of a quantitative indicator which measured the peripherality of each NUTS 3 region in the EU15 in terms of travel time from the main centres of economic activity in Europe. Subsequently, a very thorough review of available secondary data relating to the measurement of key soft/aspatial factors was carried out. The resulting database was used to assess the relative strength of the relationship between conventional peripherality and GDP per capita (as a crude proxy for economic vitality), and between the indicators of soft/aspatial factors and GDP per capita. It was also incorporated into a web-based tool which will allow regional development agents to produce a clear profile of their region, benchmarked against all other EU regions, both in terms of spatial peripherality, and in terms of the different soft/aspatial factors. It is hoped that this will prove a useful resource for the regional policy community in future months.

Project Team

The project team consisted of staff from four universities, an agricultural college, and an agricultural/rural development agency. Details are provided in Table 1. Coordination was provided by the Scottish Agricultural College at Aberdeen. The research team represented a variety of disciplinary backgrounds, including geography, planning, and economics. With one exception, each partner assumed primary responsibility for one of the five themes (IST, Business Networks, Social Capital, Governance and Tourism). The University of Valencia took responsibility for Best Practice and Policy Analysis. With the exception of NUI Galway each partner was also responsible for two case study regions (Table 1.1). In addition to the usual management and administrative functions, the co-ordinating partner (Scottish Agricultural College) took responsibility for integrating the various thematic elements of the data collection instruments, and for the structure of the Final Report.

Table 1.1: The AsPIRE Project Partnership

Partner	Key Thematic Responsibility	Case Study Region A	Case Study Region B
SAC – Scottish Agricultural College, Aberdeen	Tourism	Shetland	East Ayrshire (part)
TEAGASC – Rural Economy Research Centre, Dublin	Social Capital	Clare	Wexford
NUI GALWAY, Geography Department, National University of Ireland	Information Society Technology	N/A	N/A
UVEG Geography Department, University of Valencia	Best Practice and Policy Evaluation	L'Alcoià	El Camp de Morvedre
DEUP Department of Economics, University of Patras	Business Networks and Innovation	Evrytania	Achia (part)
IRPUD Institute of Spatial Planning, University of Dortmund	Indicators, quantitative analysis, internet toolkit	Rottal-Inn	Bitburg Prum
SIRRT Seinajoki Institute for Rural Research and Training, University of Helsinki	Governance	Keski Suomi (part)	Satakunta (part)

Coordination was enhanced by the creation at an early stage, and subsequent active development, of a private project web site. This provided efficient transfer of documents and information between partners. Project meetings were held on a regular basis throughout the life of the project.

Dissemination

Many of the projects internal working papers are now available through a public web site at <http://www.sac.ac.uk/AsPIRE>. On completion of the conceptual phase the project team organised a workshop to facilitate peer review of the thematic papers and the proposed research hypotheses. Case study findings were reported to regional development agencies through a series of seminars, one in each case study area. Most project team members have presented papers at various academic conferences during the life of the project. Academic dissemination culminated in a special session at an international conference (Regional Studies Association Angers April 15-16th 2004).

CHAPTER 2: THE ASPIRE CONCEPTUAL FRAMEWORK

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Introduction: “SP” and “AsP”

The potential for a fundamental and far-reaching spatial reorganisation of economic activity which seems already to have begun to affect Europe’s periphery has already been alluded to in very general terms. The following chapter seeks to provide a more detailed conceptual framework, which will form the foundation for the more detailed thematic results presented in Section B.

The discussion will begin by setting the scene in terms of conventional explanations of core-periphery disparities, based upon the assumption that certain key determinants of economic performance vary systematically across space. For convenience, these traditional peripherality concepts will be referred to as “Spatial Peripherality” abbreviated to “SP”. This approach has often been summarised in terms of quantitative indicators, and this project has generated its own “baseline” SP indicator. It will then be shown that the baseline indicator seems to account for a substantial minority of variation in economic performance at the EU NUTS 3 region level.

The fundamental contention of this project has been that whilst SP continues to have a substantial impact on the economic performance of the European periphery, the basic shift which is taking place means that regional economic trends will be increasingly affected by a range of characteristics which do not vary systematically across space, but which can potentially have the same effect as SP. The final section of this chapter will introduce aspects of these “Aspatial Peripherality” (AsP) processes, and the thematic structure which underlies the AsPIRE project, and Section B of this report.

Conventional Concepts of Peripherality

Accessibility and peripherality are notoriously vague and variable concepts. In 1969 Peter Gould described accessibility as

“...a slippery notion...one of those common terms everyone uses until faced with the problem of defining and measuring it” (Gould 1969, p37).

A few years later the Norwegian sociologist Naustdalslid stated:

“...there is no such thing as a single centre-periphery theory or concept...it is difficult, if not impossible, to extract any common element

from the wide variety of usages of the centre-periphery metaphor...”
(Naustdalslid 1983, p17).

Conventional concepts of peripheral disadvantage generally include a number of elements. These can be roughly classified into three broad groups, causal, contingent and associated (Figure A2.1), (although the boundaries between the second and third are very hard to draw).

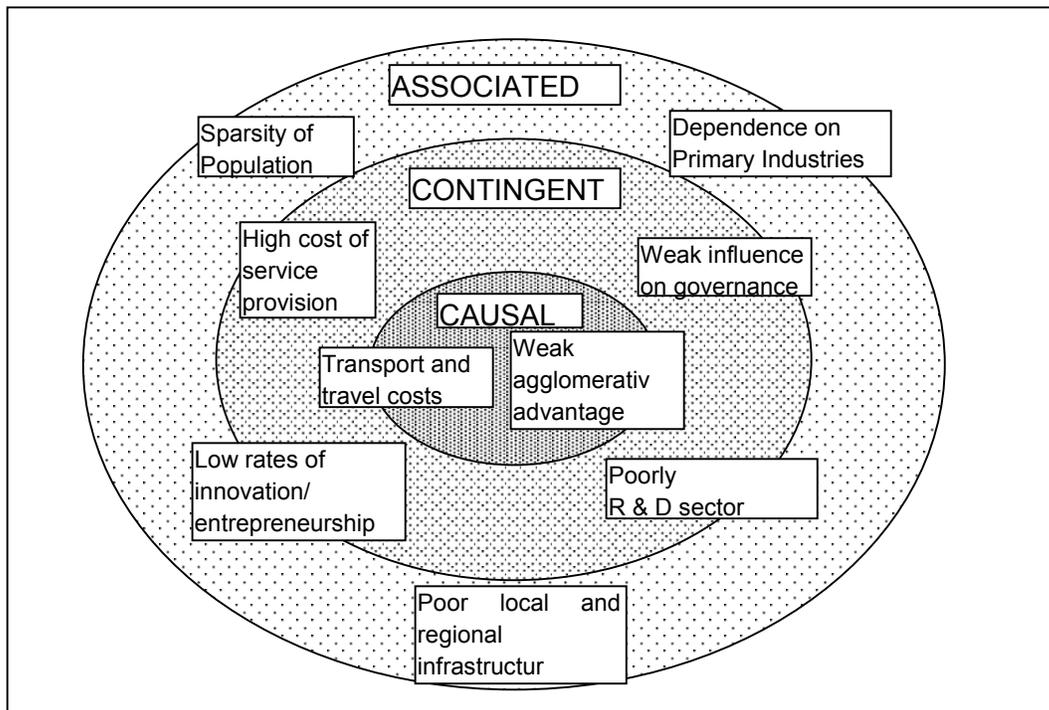


Figure 2.1: The Elements of Conventional Concepts of Peripherality (SP)

There are two causal elements. The first is increased travel and transport cost (expressed either in financial or time penalty terms) resulting from remoteness relative to the main centres of population and economic activity. The second is the absence of agglomerative advantages (external economies of scale, broadly defined) enjoyed by less remote locations. It is perhaps important to stress the interdependence of these two causal elements, the link between proximity and agglomerative advantages of course being transport cost savings. Thus distance impacts upon competitiveness both directly through Weberian locational economies and indirectly as firms are able to derive shared benefits from clustering.

The second group of elements are those which are contingent upon the first, and include for example, the high cost of service provision, and low rates of entrepreneurship and innovation.

The third group of elements is often associated with peripherality, although the causal link is less direct. These include sparsity of population, a dependence on primary industries, poorly developed local and inter-regional infrastructure, poorly developed research and development sector, and a lack of influence in the wider governance arena.

Conventional Explanations of Peripheral Disadvantage

In broad terms two “families” of formalised models have sought to explain the economic/spatial processes which lie behind peripheral disadvantage. The first, mainly coming from the fields of land economy and regional science, seeks to answer the question “How can we account for apparently systematic changes in land value and economic activity with increasing distance from pre-existing urban/industrial centres?” The second, referred to by Krugman (1994) as “high development economics”, addresses the development of spatial disparities in economic activity, with a strong emphasis on the role of agglomerative economies and processes of “cumulative causation”.

(i) The first of these modelling traditions originated in the late eighteenth century with Von Thunen (Hall 1966), but was perhaps in its hey-day in the 1960s and early 1970s, when the basic “bid-rent” principle was developed and applied not only to rural land use (such as in Chisholm 1962) but also within the contexts of urban land use and industrial location by such writers as and Isard (1956), and Alonso (1964), and the empirical analyses of city structure, beginning perhaps with Burgess’ (1925) description of Chicago. Closely related to these models are various dynamic macro-scale land use models (Peet, (1972), Wallerstein (1991), Terlow (1992), and their essential “distance decay” concept underpinned the Newtonian gravity analogy for core-periphery variations in “economic potential” (Keeble 1982, 1988).

What all these “models” have in common is the assertion that type and intensity of economic activity at any given location can be at least partially explained in terms of penalties imposed by distance from a given city or concentration of industry. Most, if not all, of them subsequently discuss various local characteristics, which (in the real

world) caused distortion of simple concentric patterns. However, “the tyranny of distance” remains at the heart of such theories, and the considerable literature of empirical and policy application which they have generated.

(ii) “High development economics” as developed by writers such as Myrdal (1957), Hirschman (1958) and Friedmann (Wight 1983) during the 1950s was distinctive in its emphasis on regional divergence (in terms of levels and growth of economic activity) due to processes of “cumulative causation”. Of central importance in the latter was the role of agglomeration and “external economies of scale”. The latter were mainly seen in terms of what Fujita, *et al* (1999) call “Marshall’s trinity”;

- proximity to suppliers of intermediate inputs and to purchasers of intermediate outputs (ie linkages);
- the benefits of “labour pooling”;
- and the facility for the rapid transfer of information.

However in recent years agglomerative economies have been shown to include a range of less tangible aspects, to which we shall return at the end of this chapter.

In a recent major contribution to the literature Fujita, Krugman and Venables have suggested that the work of Myrdal, Hirschmann and Friedmann during the 1950’s was “heuristic” (Fujita et al 1999), “a sort of muscular pragmatism in grappling with the problem of development” (Krugman 1994). They failed, Krugman argues “to produce buttoned-down, mathematically consistent analysis” which was at that time “increasingly becoming the unique language of discourse of economic analysis” (Ibid). Fujita Krugman and Venables seek to remedy this omission. They demonstrate that the existence of agglomerative processes and “increasing returns” may be modelled with mathematical rigour on the basis of linkages alone, without reference to the other two Marshallian forces. They also show that a reduction in transport costs (both for industrial goods and for agricultural products) will (*ceteris paribus*) tend to accelerate the process of agglomeration. Population growth, they argue will result in further spatial differentiation, with the emergence of an ordered hierarchy of cities, similar to that posited by Central Place Theory.

This brief review of the major formalised models shows that they have generally focussed solely upon the two causal elements (distance costs and lack of agglomerative economies) of the broader concept of peripherality which we began by describing.

Empirical Evidence for the Importance of SP in Regional Economic Development

Keeble et al. (1988) argued that "peripherality is ... synonymous with relative accessibility or inaccessibility to economic activity". Accessibility is the main "product" of a transport system. It determines the locational advantage of an area (i.e. a region, a city or a corridor) relative to all other areas. Areas with better access to the locations of material inputs and markets will, *ceteris paribus*, be more productive, more competitive and hence more successful than more remote and isolated areas (see Linneker, 1997).

Empirical analyse of the relationship between the impact of transport infrastructure patterns of economic development has met with mixed success: There certainly seems to be a clear positive correlation between transport infrastructure endowment (or location within interregional networks), and economic indicators such as GDP per capita (Biehl, 1986, 1991; Keeble et al., 1982, 1988). However, this correlation may merely reflect historical agglomeration processes rather than causal relationships effective today (cf. Bröcker and Peschel, 1988).

Attempts to explain *changes* in economic indicators, i.e. economic growth and decline, by transport investment, have been much less successful. The reason for this failure may be that in countries with an already highly developed transport infrastructure further transport network improvements bring only marginal benefits. The conclusion is that transport improvements have strong impacts on regional development only where they result in removing a *bottleneck* (Blum, 1982; Biehl, 1986, 1991).

While there is uncertainty about the magnitude of the impact of transport infrastructure on spatial development, there is even less agreement on its direction. It is debated whether transport infrastructure improvements contribute to spatial polarisation or decentralisation. Some analysts argue that regional development policies directed at the creation of infrastructure in lagging regions have not succeeded in reducing regional disparities in Europe (Vickerman, 1991a), whereas others point out that it has yet to be ascertained that the reduction of barriers between regions has disadvantaged peripheral regions (Bröcker and Peschel, 1988).

From a theoretical point of view, both effects can occur. A new motorway or high-speed rail connection between a peripheral and a central region, for instance, makes it easier for producers in the peripheral region to market their products in the large cities, however, it may also expose the region to the competition of more advanced products from the centre and so endanger formerly secure regional monopolies (Vickerman, 1991b). While these two effects may partly cancel each other out, one factor unambiguously increases existing differences in welfare. New transport infrastructure tends to be built not between core and periphery but within and between core regions, because this is where transport demand is highest (Vickerman, 1991a). It can therefore be argued that the Trans-European Networks will largely benefit the core regions of Europe.

The relationship between transport infrastructure and spatial development is clearly complex. The presence of successful regions in the European core seems to confirm the theoretical expectation that location matters. However, there are also centrally located regions suffering from industrial decline and high unemployment. On the other side of the spectrum although many of the poorest regions, as theory would predict, are at the periphery, there are also prosperous peripheral regions, especially in the Scandinavian countries.

Conventional (SP) Peripherality Indicators

In recognition of the importance of SP to patterns of regional economic development, a number of quantitative indicators have been published during the last twenty years. These may be classified into three broad types¹;

1. Travel Cost Indicators: These take the form of an average or total travel cost (or time) from each origin (such as a regional centroid) to a fixed set of destinations (usually the largest cities in the area under study).
2. Daily accessibility indicators: These are framed in terms of a count of population which may be accessed within a certain return journey time (generally between 3 and 5 hours) of the origin.
3. Economic potential indicators: These are based upon gravity models, which allocate “economic potential” to a point or region on the basis of its location

¹ For a more detailed theoretical discussion, and a mathematical explanation, see Deliverable 1, Spiekermann, Wegener and Copus, Review of Peripherality Indices and Identification of the Baseline Indicator, downloadable from <http://www.sac.ac.uk/aspire>

relative to all centres of economic activity within the area under study. Each of these destinations contributes economic potential to the origin in proportion to its “economic size” and in inverse proportion to the intervening distance.

The AsPIRE Baseline Indicator

Specification

Within the context of the AsPIRE project there was a requirement for a baseline indicator of conventional peripherality (SP). This would allow the SP characteristics of the Case Study regions to be assessed, and would also help to “calibrate” the multi-variate statistical analysis of the role of SP and AsP (see section C). In developing the baseline indicator the research team sought to combine the best practice observed in the review of existing indicators summarised above with the potential of state of the art geographic information system (GIS) software, and the detailed European database created by IRPUD (Institute for Spatial Planning University of Dortmund).

Methodology

Previous work has shown that multimodal potential accessibility indicators, (i.e. indicators that aggregate over transport modes), have a much higher explanatory power than any accessibility indicator based on a single mode only (Fürst et al., 2000). For that reason, a logsum accessibility potential aggregating over road, rail and air has been defined as AsPIRE Baseline Peripherality Indicator.

The baseline indicator is calculated by developing a pre-existing model (Spiekermann and Wegener, 1996; Wegener et al., 2001). Accessibility has been calculated for the centroids, i.e. the locations of the major cities in the NUTS-3 regions. Population of the destination regions has been disaggregated to 10x10-km raster cells (see Schürmann et al., 1997, Fürst et al., 2000).

The accessibility of region r in year t , $A_r(t)$, is the accessibility of raster cell k of its centroid:

$$A_r(t) = a_k(t)$$

For the calculation of the accessibility of the centroid of the region the potential accessibility of the centroid's raster cell k is the sum of destination population $P_j(t)$ in all 70,000 destination cells j in year t weighted by a negative exponential function of travel time $c_{kj}(t)$ between centroid k and destination cells j . Different β can be used in the potential models for different economic sectors to reflect the differences in travel time sensitivity. For the production functions to be estimated for the agricultural sector and the manufacturing sector a β of 0.007 is used:

$$a_k(t) = \sum_j P_j(t) \exp[-0.007c_{kj}(t)]$$

The travel time impedance $c_{kj}(t)$ is represented by the composite or logsum calculated as:

$$c_{kj}(t) = -\frac{1}{0.03} \ln \sum_{m \in \mathbf{M}_{kj}} \exp[-0.03c_{kjm}(t)]$$

where \mathbf{M}_{kj} are road, rail and air modes available between raster cells k and j .

Results

The AsPIRE Baseline Peripherality Indicator and the National Peripherality Indicator have been calculated for NUTS 3 regions. The indicator values have been standardised to the European Union's average or to the National average. They have been grouped in five classes: central regions that are clearly above average, intermediate regions that are about average and three classes of peripheral regions.

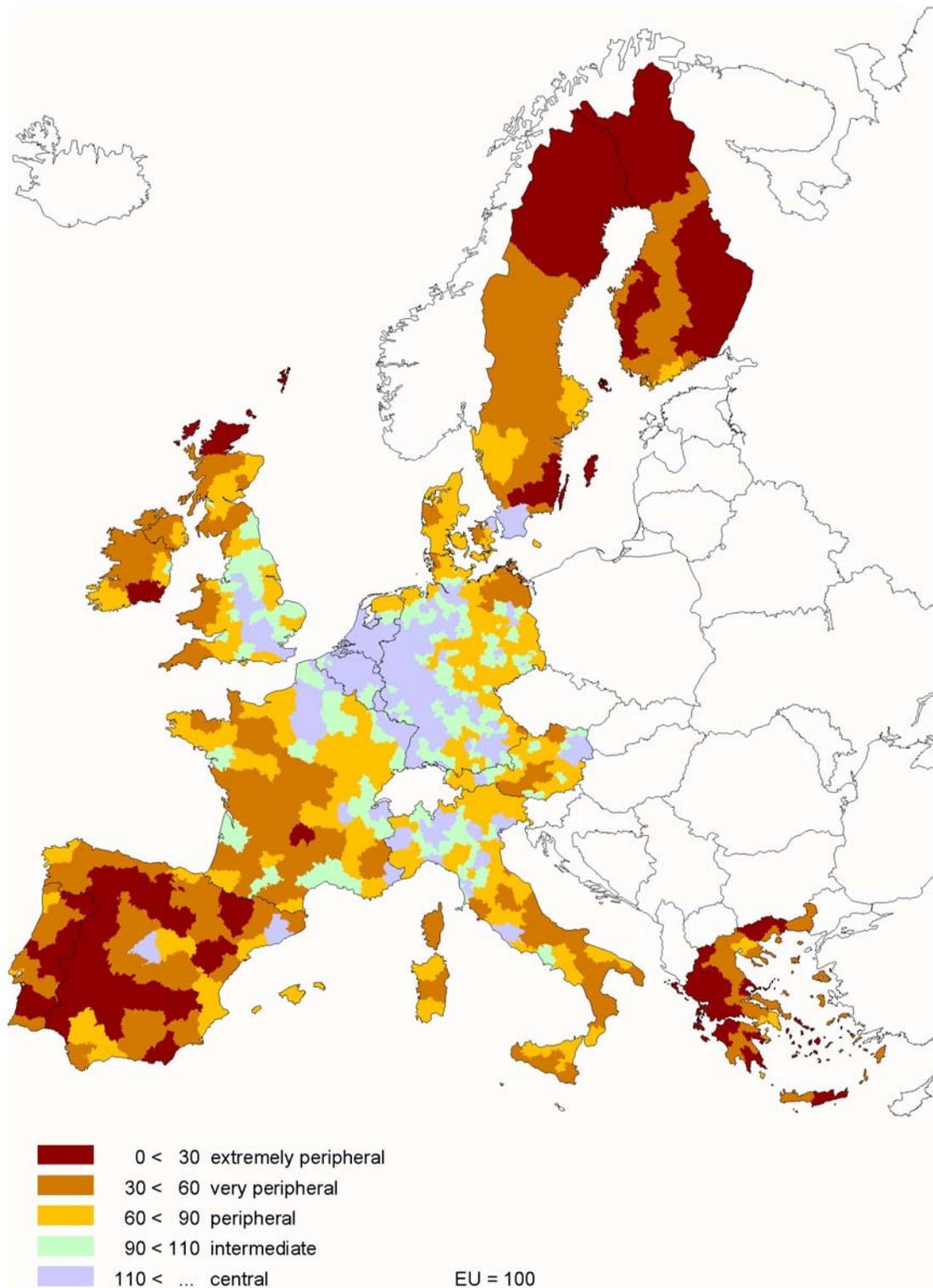


Figure 2.2: AsPIRE Baseline Peripherality Indicator (NUTS 3 regions).

Figure 2.2 presents the AsPIRE Baseline Peripherality Indicator for the territory of the European Union. Not surprising, central regions are located in an arc stretching from Liverpool and London via Paris, Lyon, the Benelux regions, along the Rhine in Germany to Northern Italy. However, some agglomerations in more remote areas such as Madrid, Barcelona, Dublin, Glasgow, Copenhagen, Rome and Naples are also classified as being central or at least intermediate because their international airports improve their accessibility. At the same time, the European periphery begins in regions that might be usually considered to be more central. Thus, several regions in France, - even in northern and eastern parts of the country, - or Germany, - mostly in the New Länder, - are classified as “peripheral”, or even as “very peripheral”, having an accessibility only about half of the European average. With a few exceptions mentioned above, the regions of Portugal, Spain, Ireland, Scotland and Wales, the Nordic countries, Austria, southern Italy and Greece are “very”, or even “extremely peripheral”. As the example of the Iberian peninsula shows, the “extremely peripheral” regions are not necessarily located at the very edge of Europe, some are between larger agglomerations.

SP as an explanation of Regional Disparities in Economic Performance

All the European peripherality indices reviewed above conclude that there is in general terms, a systematic relationship between location (on a core-periphery continuum) and regional economic performance. However, the majority point to cartographic patterns as evidence, and do not do not subject this to quantitative analysis (Table 2.1). Their conclusions regarding the dynamics of these pattern, (whether they tend towards increasing or decreasing disparities) are mixed, perhaps reflecting the different points in the history of the EU at which they were written.

Table 2.1: Statements regarding Spatial Patterns and Dynamics of Regional Economic Performance derived from the major Peripherality Indices

Authors	Spatial disparities	Changing pattern through time
Keeble et al. (1982; 1988)	clear core-periphery pattern	disparities have increased in past periods
Lutter et al. (1993)	existing, but scope depends on destination activities considered	travel time benefits for peripheral regions, daily accessibility increases in central regions
Spiekermann and Wegener (1994, 1996)	clear core-periphery pattern plus clear centre-hinterland disparities in all European countries	increasing disparities induced by TEN
Chatelus and Ulied (1995)	clear core-periphery pattern	decreasing disparities
Gutierrez and Urbano (1995, 1996)	clear core-periphery pattern	decreasing disparities induced by TEN
Copus (1997, 1999)	clear core-periphery pattern	dynamics not considered
Wegener et al. (2001)	different core-periphery patterns for different transport modes	increasing or decreasing disparities is an outcome of the indicator chosen
Schürmann and Talaat (2000)	clear core-periphery pattern for road transport	improvements mainly for EU candidate countries

The AsPIRE baseline indicator provides a sound quantitative basis from which to carry out regression analysis of the relationship between peripherality and economic performance.

GDP per capita is predominantly used as proxy for the welfare of a region and is therefore used in many reports addressing spatial disparities in Europe. However it has the inherent problem of not properly matching income because of commuting. Productivity (GDP per worker) seems to match more closely the production model laying behind this project, and is to be preferred as a proxy for regional economic performance.

Figure 2.3 compares the AsPIRE Baseline Periphery Indicator with GDP per worker for NUTS 3 regions. The graph shows that the relationship between peripherality and GDP per worker could not be described as close. The correlation coefficient r^2 is only about 0.31. However, this is partly a consequence of having such spatial detail. Previous work with the same logsum accessibility indicator for NUTS 2 regions has resulted in a correlation coefficient of $r^2 = 0.47$ (Fürst et al. 2000); however, in this analysis outlier regions such as the Nordic regions and the New German Länder were excluded.

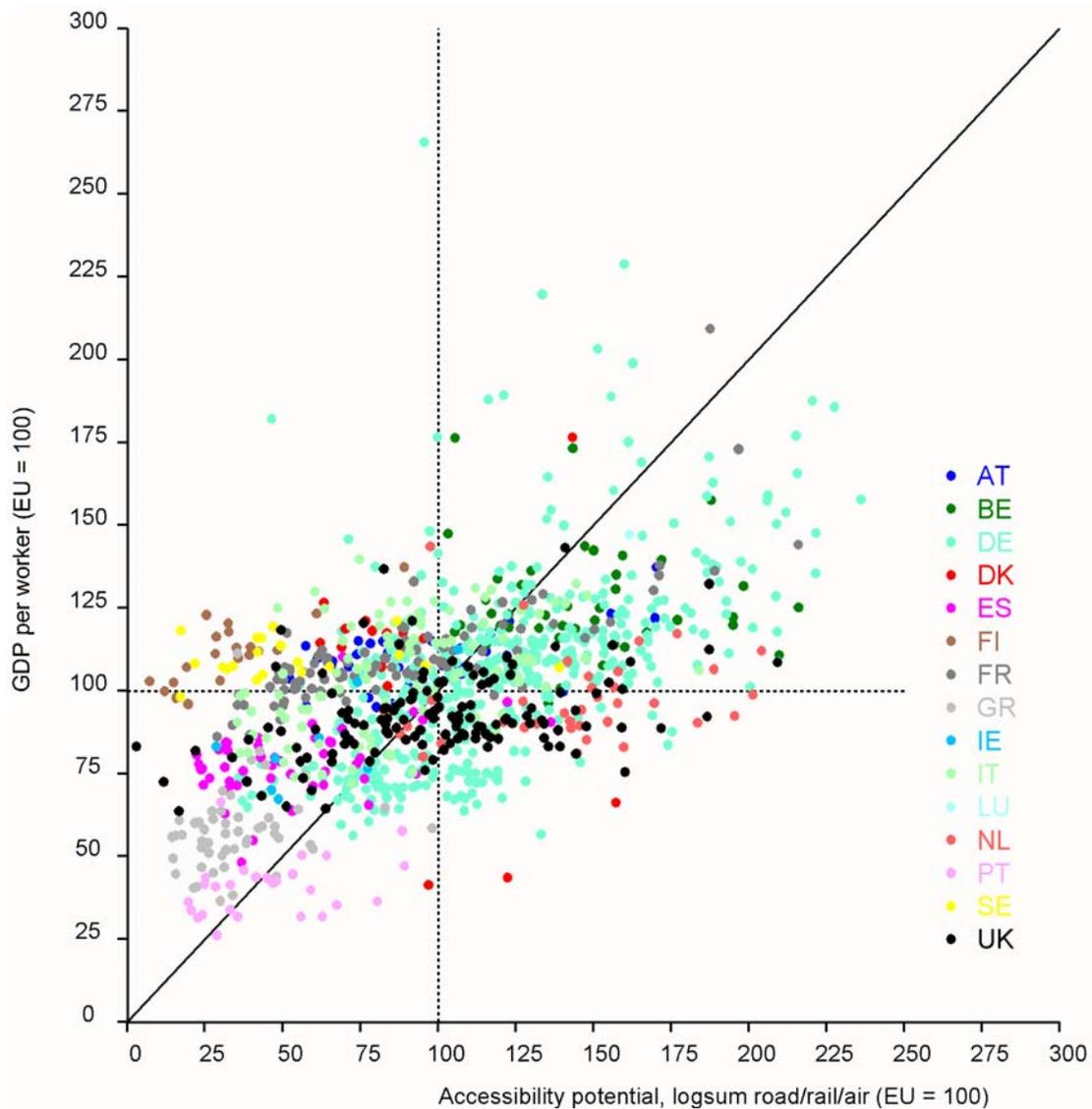


Figure A2.3: AsPIRE Baseline Peripherality Indicator v GDP per worker (NUTS 3

The relatively low correlation of the AsPIRE Baseline Peripherality Indicator with regional GDP per worker suggests that accessibility is only one of several, transport and non-transport, factors determining regional economic performance. More sophisticated, multi-variate analysis of the conventional explanations of regional economic disparities generally involving factors which vary systematically across space (SP factors) is presented in Section C of this report. However the implication of this initial analysis is that SP (as reflected in the baseline indicator), is far from adequate as an explanation of regional disparities across Europe, and thus legitimates the focus of Section B upon the role of various AsP factors.

Diagnosing AsP as a Residual

The baseline indicator and productivity data presented above allows a crude, first attempt to determine in which regions economic performance is most likely to be affected by soft “aspatial” factors. This is achieved through an analysis of the pattern of the residuals of the correlation between accessibility and economic performance. By highlighting their position in the correlation diagram, (i.e. with respect to their residual or distance from the diagonal) it is possible to identify the degree to which each European region conforms to the hypothesis that more accessible regions are economically more successful. The greater the residual, the more important (it is assumed) regional AsP factors are.

Figure 2.4 shows the AsPIRE Baseline Peripherality Indicator combined with GDP per worker. The regions are coloured according to their relative position to the diagonal in the scatter diagram of Figure 4. The following types of regions can be distinguished:

- The regions coloured in red perform economically better than their accessibility would suggest. Of these only some regions have above average accessibility. The largest number of regions in this class, are peripheral regions in Portugal, Spain, southern France, Italy, Ireland, Scotland and in the Nordic countries.
- The regions coloured in blue are economically less successful than their accessibility would suggest. This group mainly includes regions with high and very high accessibility in the centre of Europe. Many regions belong to the economic centres of Europe. Another group are regions with economic problems, among them many old industrial regions in England, northern France, Belgium, the Netherlands and Germany. In these regions, the regional economy is not able to fully utilise the enormous locational potential. The real bottlenecks for their development seem to be non-transport such as over-agglomeration diseconomies in the case of large agglomerations or an outdated economic structure in the case of old industrial cities.

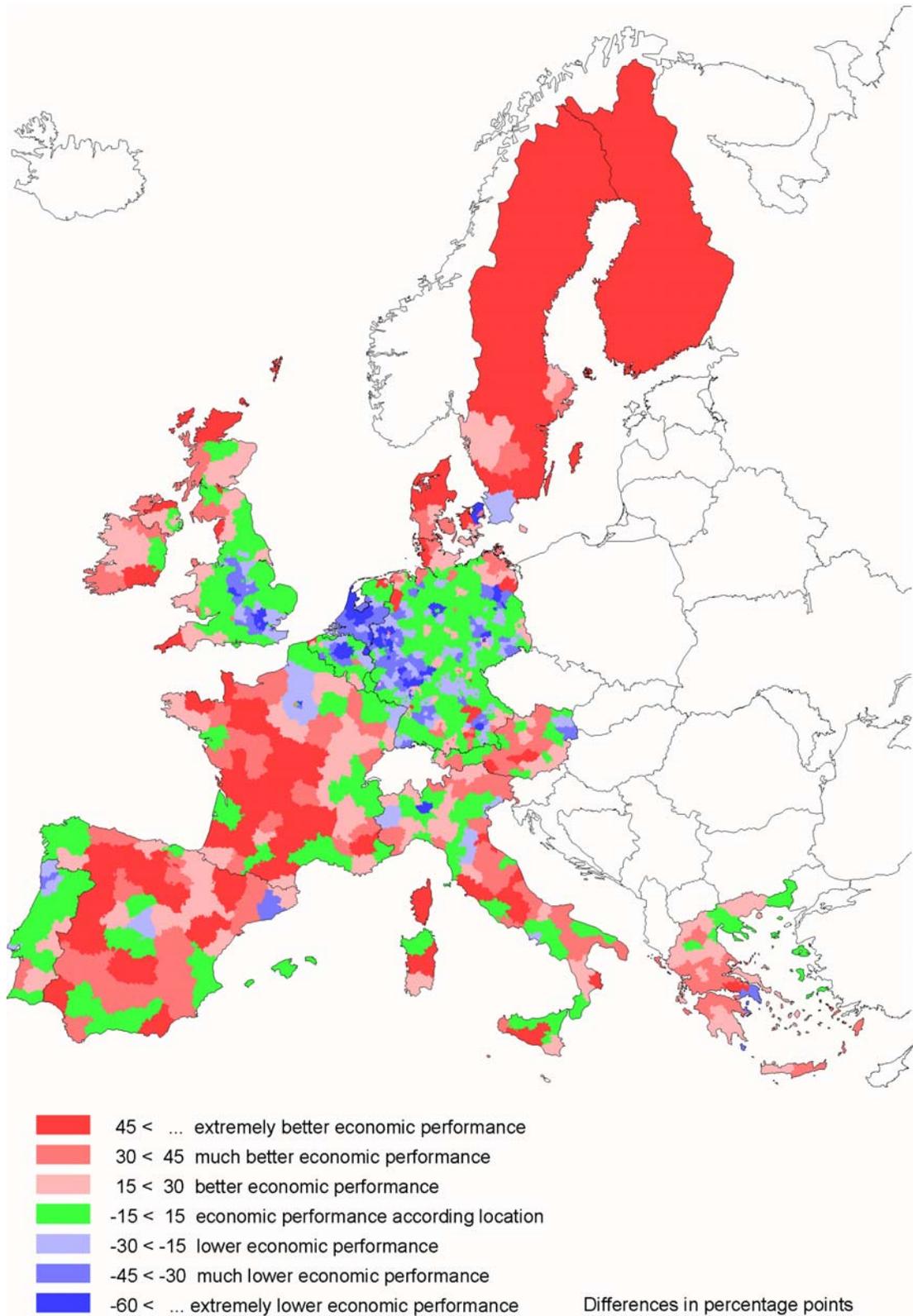


Figure 2.4: Spatial distribution of residuals of AsPIRE Baseline Peripherality Indicator

- The regions in green are located in a buffer zone along the diagonal. They conform to the hypothesis that the higher the accessibility the higher the economic performance and vice versa, i.e. their residuals are small. Such regions do not show a clear spatial pattern as they can be found anywhere in Europe.

The spatial pattern of residuals suggests in general that peripheral regions perform better in economic terms than their location would suggest. And, vice versa, that more central regions have an economic performance that is lower than their location would suggest.

- Nearly all Nordic regions perform economically clearly above expectation from peripheral location.
- Many of the Scottish and Irish regions are about expectation, however, also several regions in those areas perform below expectation.
- In France, most peripheral regions do better than their location would suggest, however, regions near the French major agglomerations do worse than expected.
- In Germany, the peripheral regions in the New Länder do much worse than their location would suggest. The regions are mostly rural regions.
- Southern Europe countries provide a very mixed picture. There are regions in Portugal, Spain, Italy, Greece, but also in Austria performing better, but at the same time, other regions in the same country performing worse or according expectation from their peripheral location.

In general, there seems to be a tendency that rural peripheral areas tend to perform better than location would suggest, whilst urban peripheral areas do worse. Whereas the former seem to have other assets that compensate for lower accessibility, the latter that mostly do not belong to the extremely peripheral areas and in most cases do have good air connections, cannot transfer this in an appropriate economic performance. Exceptions from this observation are the rural peripheral regions in the New German Länder and the agglomerations in the Nordic countries.

A Simple Regional AsP Typology

These results seem to confirm the basic hypothesis of the AsPIRE project; that there are regions that appear to be performing relatively well despite a peripheral location and other regions that seem to be under-performing in relation to their location. The deviation from the expected performance is assumed to be due to the various soft factors which we have collectively denominated “AsP”.

Figure 2.5 is a diagrammatic representation of the AsP concept. The diagonal line represents the level of economic performance which on the assumption of a simple inverse relationship with distance from the economic core regions. The red shaded area represents a relatively peripheral region which, due to various local soft (AsP) characteristics, performs better than might be expected. Within the context of the AsPIRE project these have generally been referred to as “Type A Regions”. The blue shaded area represents a relatively accessible region in which local “soft factors” cause under-performance. These have been termed “Type B Regions”.

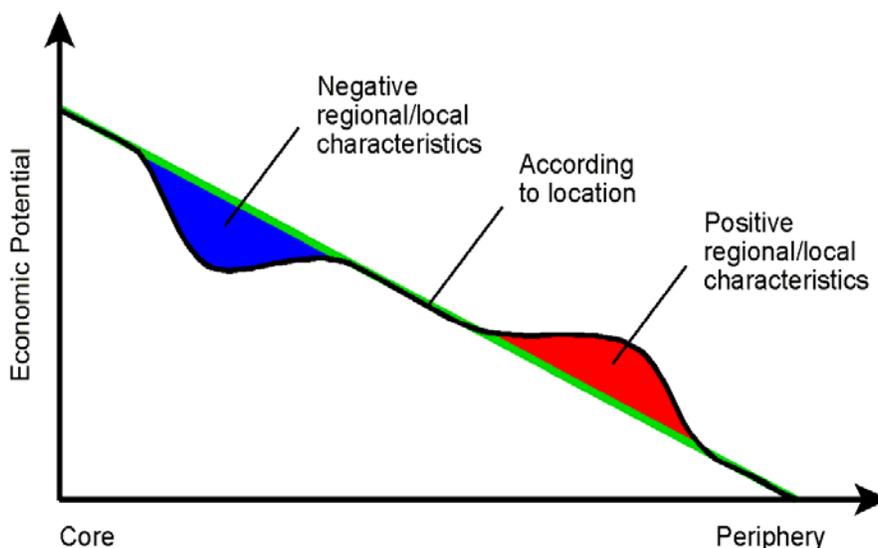


Figure 2.5: Deviations from Expected Regional Economic Performance: A and B Regions

The Increasing Importance of AsP

The two decades which have passed since Keeble produced his first maps of European peripherality have seen a number of changes in the economic environment, some long standing and gradual, others more recent and rapid, some in response to market and technological conditions, others at least partly driven by policy interventions. As argued in the Introduction above, changes in the geographic constraints to many economic activities, and especially the key growth sectors, will increasingly mean that the economic potential of all regions (including those on the “periphery” in spatial terms) are less closely related to location, and increasingly influenced by a variety of “aspatial” characteristics. Many of these are of long-standing importance, but with the gradual reduction in the constraints associated with conventional spatial peripherality their impact will be more clearly seen.

Three developments are particularly relevant to defining concepts of peripherality:

(a) Improvements in transport and communications infrastructure, both through ongoing technological change and through publicly funded improvements in infrastructure (including the Trans European Network (TENs) programme).

(b) Structural changes, notably the continued expansion of the service sector and light manufacturing together with the decline of heavy manufacturing and primary production.

(c) The recent rapid technological change in the field of information society technology (IST) and the rapid growth of E-Commerce

The first two of these have reduced both the absolute cost of remoteness, and the overall importance of distance/travel time costs in relation to other locational considerations. Even in the case of many of the manufacturing industries which are traditionally sensitive to transport costs, infrastructural improvements have reduced their relative role in locational decision making. Transport costs now account for a relatively small percentage of production costs in most modern industries (Vickerman 1991a, PIEDA 1997). Furthermore, there is little or no evidence that transport costs

account for a larger proportion of the value of output in remoter areas (PIEDA 1984, 1997, Chisholm 1987).

However, upgraded transport and communications may, in certain circumstances, have perverse “pump” effects, whereby the removal of the “natural protection” of poor accessibility results in economic activity being siphoned away from the periphery to more accessible areas enjoying various agglomerative advantages (EU Commission 1999, McKinnon 1992, Bachtelor 1996).

The rise of IST and E-Commerce is, for many economic activities anticipated to render location (relative to the “core”) less crucial. In contrast to the incremental shifts resulting from conventional infrastructure improvements, this is seen by many as a radical change, a change in kind rather than degree. The Committee of the Regions, for instance, stressed the importance of these developments in its response to the ESDP; “Advances in communications technologies will ... bring major changes in the siting and nature of economic activity... The ESDP rightly sees ICT as a means of overcoming the adverse impact of geographical remoteness on business start-ups.” (COR 1998) The Conference of Peripheral and Maritime Regions (CPMR) has also noted the opportunities presented by these changes; “The advent of information highways is one of the aspects that has raised greatest hopes in the peripheries. The entry into the century of the immaterial would at last make it possible to do away with disparities linked to geographic distance....” (CPMR 1997) This optimism is, however, quickly qualified by concerns regarding ubiquity of access to the new technology.

Both the limited explanatory power of conventional (spatial) indicators, and the observed economic trends noted above point to the need for a new, broader, more inclusive concept of peripherality, taking account of aspects which, although they do not vary systematically across space (ie they are aspatial), nevertheless have the same effect as (conventional) peripherality.

Viewed in a positive light, some of these aspatial characteristics can provide a viable alternative to the agglomerative advantages which have until now formed the attraction of core areas. Others are associated with links to, and information flows from, global markets and centres of economic activity. These issues should therefore still be discussed within the context of “peripherality”, although because they do not vary systematically across space they are essentially “aspatial”. It therefore seems

appropriate to refer collectively to these constraints under the term “aspatial peripherality” (AsP).

The elements of AsP

The concept of aspatial peripherality is best described by disaggregating it into a number of elements (Figure 2.6). Each of these is already the subject of a separate body of research and academic literature. However a holistic approach is helpful here, stressing the relationships between them and placing them within the context of the wider ongoing changes in the economic environment.

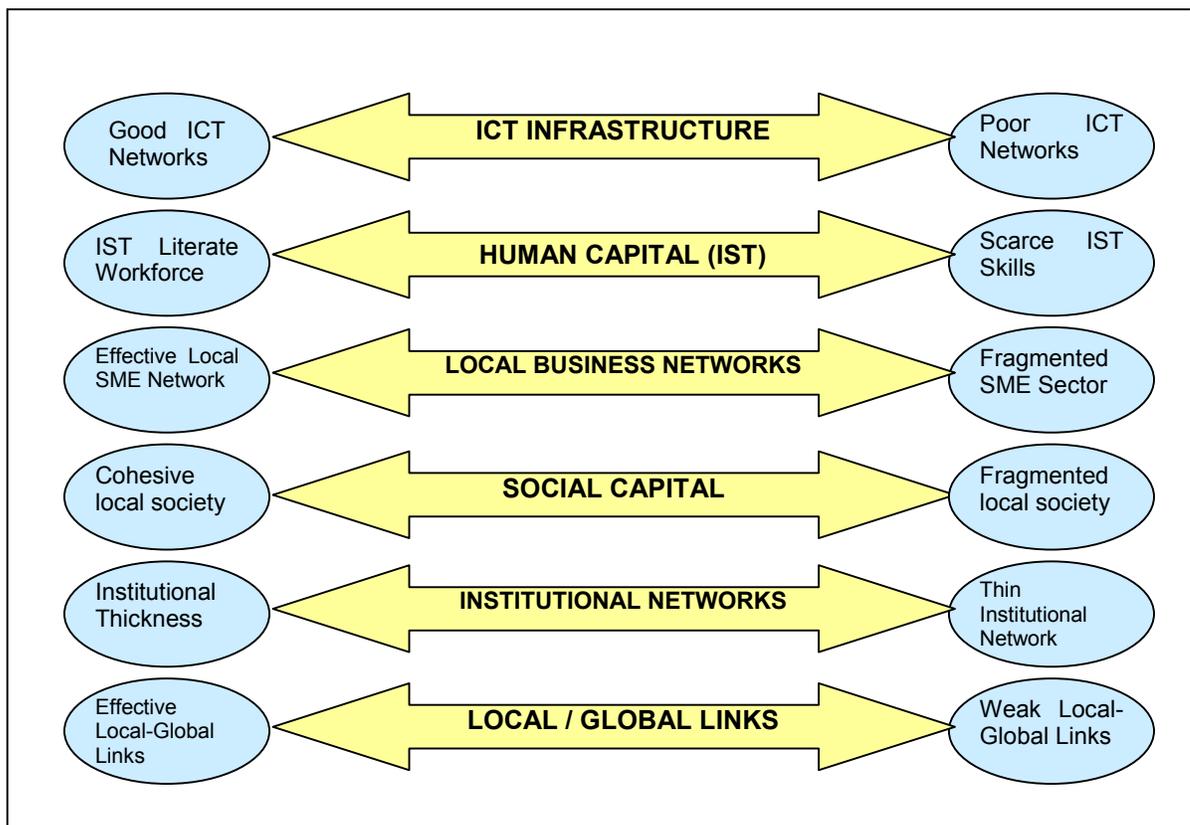


Figure 2.6: Key Elements of Aspatial Peripherality

Such an approach clearly has much in common with that of several (overlapping) existing schools of literature, relating to “industrial districts”, “learning regions”, “milieux innovateur” and “innovation systems”. A discussion of these approaches may be found in this project’s “Integrated Conceptual Framework” document (Copus 2002).

Within the context of the AsPIRE project five of the elements shown in Figure 7 have formed the basis for four thematic work packages;

- (a) IST (including consideration of related human capital),
- (b) Business Networks,
- (c) Social Capital, and
- (d) Governance.

Each of these will be the subject of a more thorough conceptual discussion, supported by the findings of the case study work, in Section B. Each of them are carried through into the Best Practice and Policy Analysis discussions (Section D), and are reflected in the Web-based toolkit for regional diagnosis of AsP (Section C).

Quality of the local IT infrastructure and Related Human Capital

Information and communications technology, and the development of ecommerce has been widely hailed as a means of levelling the playing field of rural/peripheral economic development (see section 1b above). However the review of the literature carried out by Partner 3 NUIGALWAY (see section B1), has shown that the reality is rather more complex. It seems that at present the benefits of Information Society Technology (IST) are more potential than real. There are a range of reasons for this:

- (a) Issues relating to physical infrastructure, both technical (distance decay in ADSL), and economic (the lack of a critical mass of subscribers in rural and peripheral areas, which makes them unattractive to broadband providers).
- (b) A lack of human capacity to develop the radically new business models to exploit the potential of IST.
- (c) Inadequate development of associated business services
- (d) Inadequate policy support

Despite Grimes' justifiable pessimism regarding IST as a sole panacea for the economic development problems of the periphery, it is nevertheless fair to say that a better understanding of the above four aspects of regional IST environments will enable us to discriminate between regions which are likely to be better able to compete, perhaps within particular niche markets, or with an emphasis on quality, or other specific product attributes.

Quality of Local Business Networks

The importance of effective local business networks is highlighted by the literature on regional competitiveness (Porter 1990) and “flexible specialisation”, (Piore and Sable 1984), and on the determinants of local variations in innovation and entrepreneurship (Asheim 1999). These networks are the medium for both business transactions and less tangible “untraded interdependencies” (Storper 1995). Such networks seem to provide an alternative to more conventional agglomerative economies as a stimulus to local development.

Goudis and Skuras (2001), after reviewing the considerable literature on business networks, propose a typology based on the following “dimensions”:

- Network content (what flows through the network; products or services, capital, information/knowledge, or employment).
- Spatial characterisation (patterns of “nodes” and links; vertical/horizontal networks.)
- Network length/size
- Type of links (formal/informal etc)
- Network strength (ie the degree to which the network is a vital or less important aspect of its members business activity).

As regards the benefits of networking, Goudis and Skuras found that the evidence on the relationship between networking and business performance is ambiguous, although it is generally assumed that the relationship is a positive one. Furthermore they developed a series of hypotheses relating to the role of various kinds of business networks in economic development in peripheral areas (see Section B, Chapter 2)

Quality of Social Capital

Commins defines social capital in his review of the literature (Commins and Meredith 2001) as follows:

“... the social capital of a society or community is represented by the nature and extent of its personal networks and institutional relationships, together with the shared values and understandings that facilitate cooperative behaviour and support collective endeavours. The argument is that, other things being equal, societies and communities with higher endowments of social capital will be wealthier, more informed, better governed, and less marked by conflict than those with lower stocks of social capital....”

The ways in which social capital is formed or eroded are at present imperfectly understood, although it is generally accepted that it can strengthen other forms of capital (physical, financial, human etc).

Commins explains the role of social capital in relation to AsP as follows:

“In the AsPIRE project, social capital is introduced in the expectation that it has a contribution to make to economic development and governance. The general proposition is that various forms of collaborative networking – in businesses, civic associations and public agencies – create effective synergies among different interests involved in the economic development of the selected study areas. These manifestations of collective endeavour, it is hypothesised, are important elements in helping to reduce the disadvantages of spatial peripherality.”

Within the context of the AsPIRE project, social capital is viewed as a structural feature (rather than a process or an outcome). This allows evidence of this typically intangible issue to be more easily identified in the empirical phase.

Governance (local institutional structures, networks and processes)

As Lakso and Kahila point out in their review of the literature, (Lakso and Kahila 2001) governance is a focus of a great deal of research activity across a number of disciplines at present. Perhaps because of this it is a term with a rather elastic definition. However, they explain that Governance is a somewhat broader term than “Government”, relating to the network of public, private and third sector actors, and involving structures, activities/interactions and policy outcomes.

For the purpose of identifying focusing the governance theme in relation to the study of AsP, Lakso and Kahila divide it into three sub-themes:

- a) Structures
- b) Processes
- c) Policy Incentives

The first of these is concerned with the way in which institutional structures within a region may enhance or hinder its development potential. They are the aspect of governance which is both most tangible and the most characterised by inertia. The actors within the governance system are characterised by different degrees and types of power (systemic, command, coalition and pre-emptive, Ibid P16), and different degrees of autonomy.

In the second element of governance (process) the focus is not upon what is done (in terms of development policy) but upon how it is done. The concern is with the effectiveness with which all the actors (including the private and third sector) work together to achieve development goals. It is concerned with the nature, quantity and quality of those interactions.

The final element of the governance system relates to forms of intervention or support carried out by the various actors and agencies. Such policies may be formulated at an EU, national or local government level, or be truly “bottom up” community initiatives. Although financial assistance continues to play an important role, incentives are increasingly concerned with “softer” issues, such as human and social capital.

Conclusions

This chapter has presented the conceptual background to the AsPIRE project. It has sought to show that conventional views of the peripherality issue centre upon distance costs and absence of agglomerative advantages as driving forces, upon which a number of forms of disadvantage are contingent, or are associated. These ideas have been formalised into a family of geographical models based upon the concept of “bid rent” and a group of economic theories sometimes described as “high development economics”, and more recently the “New Economic Geography”.

Moving from a conceptual into an empirical environment, the main types of peripherality indicators have been described, and the AsPIRE baseline indicator presented. The latter has shown that although there is a statistically significant inverse relationship between levels of peripherality and economic performance (measured in GDP per worker), there remains a substantial amount of unexplained variation in performance among peripheral regions. It is proposed that this variation may be explained, at least in part, by reference to soft and aspatial characteristics, collectively termed AsP. The chapter concludes by describing the main elements of AsP, and introducing the four themes which underlay the AsPIRE project.

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CHAPTER 3:
CASE STUDY AREA CONTEXT AND DATA COLLECTION ARRANGEMENTS

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Rationale for Case Study Area Selection

The choice of case study areas was necessarily addressed very early in the project timetable (at the first co-ordination meeting), in order to allow work on the Case Study Area Profiles (D10) to proceed. The criteria for selection were simple; they should approximate to NUTS 3, and within each member state one region should be perceived as Type A (peripheral but relatively dynamic), and one region should be perceived as Type B (accessible but lagging). Although all partners were able to select regions on this basis after some discussion, both the criteria proved problematic as the project progressed.

The first criterion was derived from the need to be able to extract standard statistical data for the Case Study Area profile. However, the variation between member states in the size and (urban-rural) configuration of NUTS 3 regions created problems of comparability when the project reached the stage of primary data collection. To some extent this issue was addressed by focussing upon sub-regions within NUTS 3 regions (as was the case in Ireland Spain and Finland, and in one of the Scottish regions).

The second criteria proved more problematic when it was appreciated that partner's subjective perception of "dynamic" and "lagging", and even of "peripheral" and "accessible", were not in all cases supported by key secondary indicators. Generally speaking once the case study areas were selected, and time and effort had been invested in case study area profiles, it was necessary to assume that the research partner's perceptions were more reliable than the secondary data, and the case study regions were not changed. However it is probably fair to say that one of the lessons learned during the case study phase of the project was that comparative analysis might have been more conclusive if all the case study regions had been peripheral, (one lagging, one dynamic in each member state). In effect this would have reduced the number of interacting independent variables, and rendered interpretation of results more straightforward.

The twelve case study regions are shown in Figure 3.1.



Figure 3.1: The AsPIRE Case Study Regions

Pen Pictures of the Case Study Regions

Shetland Islands, Scotland (A)

In terms of straight-line distances Shetland is 1,000 kilometres from London, and lies on a latitude of 61° north. It's climate is heavily influenced by the North Atlantic Drift, characterised by persistent winds, cold winters and milder summers. With a total land area of a little over 1247 km², Shetland has a population of 22,700. In recent years the island has been distinguished by positive population trends overall, accompanied by centripetal migration pattern from the outer isles into the “mainland” and the main town of Lerwick (7,280 inhabitants).

The daily ferry service from Lerwick to Aberdeen has a passage time of 12.5 hours. The island is served by daily flights to Aberdeen, Edinburgh, Glasgow, Inverness and Wick. Economically, Shetland is outperforming both similarly peripheral regions in Scotland, and central regions. It has a consistently high GDP per capita, and has one of the lowest unemployment levels in Scotland. Historically, the region was dominated by a dual economy of agriculture and fishing. During the 1970's, however, the sectoral employment balance was modified by the construction of the oil terminal at Sullom Voe. The North Sea oil industry, comprising offshore oil and gas fields, oil terminal activity and associated service industries, now accounts for a small, yet key component, of the Shetland economy. That aside, two of the major growth industries in the last two decades have been niche tourism and aquaculture, principally marine salmon production. The viability of the later has, however, been threatened in recent months.

In historical terms Shetland has closer links to Norway, Sweden and Denmark than it does to either London or Edinburgh. This heritage lives on in the local dialect and in political terms through the islander's coolness towards devolution and nationalism. Shetland has benefited from a greater degree of stability in terms of local government than any other part of Scotland, retaining an autonomous Island Council through reforms in both the late 1970's and early 1990s. The Council has been strengthened in terms of its economic development role through the availability revenues of local taxes upon oil passing through Sullom Voe terminal. It is certain that the area's political and economic historical legacy has contributed to the areas entrepreneurial nature and the ownership of “a very coherent community voice in dealing with the outside world, whether HIE, Scotland, UK or Brussels”.

East Ayrshire (Cumnock and Doon Valley), Scotland (B)

The centre of the East Ayrshire area is approximately 40 kilometres from the city of Glasgow, 80 kilometres from Edinburgh, and about 500 kilometres from London. East Ayrshire is relatively accessible to the “Central Belt” of Scotland via the A77, a major trunk road Connecting Ayr and Glasgow, and the A70/A71 and M74. It also has a rail connection, with stations at the main settlements of Cumnock in the South and Kilmarnock in the North offering a relatively fast service into Glasgow.

The total population of East Ayrshire is approximately 125,000, and the average population density is a little under 100 persons per km². The predominantly rural Cumnock and Doon Valley, which is the selected sub-regional focus for AsPIRE, is less populated than the northern part of East Ayrshire, at only 48 persons per km². The former tends to have an older age structure, as a result of the decline of its heavy industrial economic base and sustained out-migration of economically active age groups, whilst the northern area has a more balance age structure associated with the development of more modern industries.

The heavy industries (coal mining, iron and steel and textiles), which were the dominant economic sectors in East Ayrshire’s recent history, have passed through decades of decline. Iron and steel making died out in the first half of the last century, the last coal mine closed in the mid-1970s. All that is left of the textile industry is a few “niche market” specialist companies, associated engineering activities, and some tourism related craft producers. The manufacturing sector, although reduced by 22 percent between 1995 and 1999, still accounts for a fifth of all jobs in East Ayrshire. Although there has been a growth in new economy industries in the northern part of East Ayrshire around Kilmarnock, the Cumnock and Doon Valley area has failed to attract new investment and its business environment displays low levels of innovation.

The long decline in coal mining after the 1950s led to high unemployment. Former mining settlements were replaced with larger developments of public housing, which have in turn become the socially and economically deprived areas of the new century, with low levels of civic activity. The area remains characterised by persistently high unemployment and below average earnings. Regional economic performance reflects these trends, for it has one of the lowest levels of GDP per capita in Scotland.

Keski-Soumi, Finland (A)

Keski-Suomi is located in the middle part of Finland approximately 300 kilometres from the capital of Helsinki. It has a total population of 264,000 inhabitants, though approximately half the population is concentrated in regional centre of Jyväskylä. The regions accessibility to the national capital region is moderate – by road and rail it is some 3.5 hours, and by air 50 minutes. However, products for export have to travel some 200 kilometres to the main ports on the Finnish coast.

Large-scale forestry dominates the rural landscape. This resource is the origin of two important industrial towns in the region, Jämsä and Äänekoski, which have significant clusters of modern wood processing industries. The remaining area is characterised by relatively small communities, rural settlements and sparse population. The attractiveness of its natural environment – its pure lakes, large forest areas and varied hills – means Keski-Suomi has a positive image for attracting residents and visitors alike.

Keski-Suomi's regional economy has traditionally been based on chemical (papermaking) and associated machinery-manufacturing industries for the export market. The latter part of the 1990s has witnessed, however, a new period of economic growth in Keski-Suomi, in electronics and telecommunications, services and energy and environment technology-related sectors. The public sector is also a significant employer, relative to the national average, due to the presence of a multidisciplinary University in the town of Jyväskylä.

Associated with this trend has been population growth due to an influx of students and skilled migrants, concentrated in the Jyväskylä sub-region. The central town itself has developed special expertise in paper manufacturing and machinery, as well as energy production and environmental, information and welfare technology. As such, Jyväskylä is identified as one of the growth centres in Finland. This success contrasts, however, with the more rural northern-most part of the region, which continues to suffer from structural problems in the primary and manufacturing sectors.

Satakunta, Finland (B)

Satakunta is located on the west coast of Finland approximately 240 kilometres from the capital of Helsinki. There are 28 municipalities and five sub-regions in the region which has a population density of 28.1 persons per km². Half of the total population of 237,000 is concentrated in the towns of Pori, the regional centre, and Rauma. The population of Satakunta has been steadily decreasing during the past decade, against the national trend of population growth. The region has a well-established cultural tradition as one of the oldest historical provinces in Finland.

Satakunta's regional economy is based on traditional heavy, capital intensive industries of energy production, metal and machinery manufacturing, agriculture and forestry. This large-scale industry has also promoted the growth of small machinery plants and associated service support industries. Although traditionally conceived as a significant industrial region - Satakunta has 4.7 percent of the nation's total population, but approximately 8 percent of its industrial production – the economic structure is changing. Manufacturing and primary production employment is decreasing, and employment in telecommunications, computing and other business services is increasing.

Satakunta is viewed as a key infrastructure corridor in Finland; the entire region is located near to the sea, in close proximity to well developed ports, and travel time by car to the capital is approximately 2 hours and 15 minutes. On the other hand, the fastest travel time to Brussels is approximately 5 hours and 45 minutes by air. Despite relatively good national accessibility, Satakunta's economic performance is average. It suffers from high unemployment, particularly in the centre town of Pori, and the traditional large-scale metal industry and primary production sectors are no longer drivers of the regional economy. Rural areas within the region are suffering from population decline, and the region has low levels of immigration.

There is a range of education providers in Satakunta, for instance, multidisciplinary regional polytechnics and the sub-units of Technology University of Tampere and University of Turku. However, the region doesn't have its own multi-faculty university, a feature that seems to be one of the key factors behind contemporary regional development success in Finland.

L'Alcoià, Spain (A)

L'Alcoià is located in the south-central inland part of the NUTS II region of Comunidad Valenciana (CV). With a total land area 5397 km², L'Alcoià has a population of 104,601. It has two main urban centres, Alcoi (60,476 inhabitants) and Ibi (21.180 inhabitants), which are also the most important industrial locations. Despite traditionally poor communication infrastructures and a lack of energy and raw materials, this region is one of the earliest industrial areas in CV. As early as the middle of the 18th century, the population engaged in manufacturing overweighed the population engaged in agriculture, partly due to the difficult conditions imposed on the latter by the mountainous terrain and narrow valleys of the area.

The current industrial activity of l'Alcoià, developed from the above-mentioned manufacturing/craft tradition, focuses on the production of home-textiles, toys and plastic objects, and to a lesser extent, metallic industries, machinery and transport material. Although quite diverse, the vast majority of manufacturing activities is labour intensive and with little sophisticated technology.

On the other hand, despite being one of the most dynamic areas in CV, l'Alcoià has always suffered from poor communication infrastructures. During recent years accessibility has improved dramatically, but still Alcoi and Ibi find themselves among the very few centres in CV with more than 20,000 inhabitants that are not connected through dual carriageway/motorway to other regional centres. Thus, the reason for the dynamic performance of the area lies, according to many authors, in the entrepreneurial behaviour of the population and the commercial and manufacturing tradition that has consolidated and modernised until today.

The regional government is aware of the importance of modernisation and the need to introduce new economic sectors, including services. Strengthening the service sector depends mainly on the role that the medium-sized centre of Alcoi could play in relation with the rest of l'Alcoià and the surrounding area.

El Camp de Morvedre, Spain (B)

El Camp de Morvedre covers a flat, coastal area of 271,1 km² and is home to 73,366 inhabitants. Its most important centre, Sagunt (56,836 inhabitants), is located on the coast just 26 kilometres north of Valencia city (capital of the NUTS II region of Comunidad Valenciana). Outwith Sagunt, the region is predominantly agrarian with dispersed settlements of less than 3,000 inhabitants.

Accessibility from the region to the main Spanish economic centres is very high, through motorway and speed train connections to Valencia, and from there, rapid connections to Madrid and Barcelona by air, motorway and speed train, and consequently with all main European cities. In addition it has a harbour which has specialist and complementary tasks to the large harbour in nearby Valencia.

Prior to the 20th century El Camp de Morvedre was an agrarian region. In the early 1900s, the exportation of iron from the mines of Ojos Negros (Teruel), and the subsequent emergence of the iron and steel industry generated the sudden growth of Sagunt and transformed the economic and demographic profile of the region as a result. However, during the first half of the 1980s the iron and steel industry collapsed, and as by far the most important employer in the area, it had a significant affect on the social and economic welfare of the region. Despite public strategies to encourage inward investment, the employment gap which emerged after the severe restructuring of the iron and steel industry, is still to be filled.

Today, Sagunt itself can be considered a regional service centre. Nearly all service sector activities, including branch offices and local offices of regional and central administrations, are concentrated in the town. The development of the service sector in Sagunt has, however, been largely inhibited by the proximity of the Metropolitan Area of Valencia (MAV).

The level of performance of el Camp de Morvedre does not reach the threshold one would expect according to the advantages offered by its location and accessibility conditions. Cheap industrial land, good transport and communication infrastructures, a coastal location in CV, a significant historic and cultural heritage, and a favourable climate are all attractive to potential firms. The region is typified by above average unemployment levels and low household income relative to other rural regions in Spain.

Rottal-Inn, Germany (A)

The county of Rottal-Inn covers an area of 1,281 km² and is situated on the Austrian border in South-eastern Germany. It is part of the state of Bavaria, whose capital Munich is at a distance of approximately 90 minutes car travel time. The *settlement structure* of Rottal-Inn is marked by a total of 2,600 small rural settlements and villages evenly spread over the country's area. Rottal-Inn is therefore known as one of the rural German counties with the most scattered settlement structure.

Its largest towns of about 11,000 inhabitants each are Eggenfelden, Simbach am Inn and Pfarrkirchen, the county's administrative centre. Due to the dispersed settlement structure, Rottal-Inn is characterised by a very dense network of public roads as well as a very high motorisation rate. The county today has a population of 117,000 inhabitants. Its population density of 91 inhabitants per km² is one of the lowest in Bavaria. However, within the last decades the county has experienced a continuous population growth. The number of inhabitants increased from 101,000 in 1960 to 117,000 in 2000. The majority of the study area's population is Catholic, which is also reflected at the political level: the Christian Social Union (CSU) party has held majorities of 60-80 percent over the last 20 years.

With regard to history, Rottal-Inn has for centuries been a farming area. Besides agriculture, which even today plays an important role for the regional economy, the industrial structure of the county is marked by a large number of manufacturing SMEs. Further, the discovery of hot springs in the early 1970s offered the opportunity to establish a new economic branch: the health and spa tourism.

During the last decades, Rottal-Inn has evolved to be one of the most economically successful rural counties in Germany. Despite of its peripheral location at the German-Austrian border and its scarce population density, Rottal-Inn experienced remarkable increases in GDP and occupation during the 1980s and 1990s. In parallel, a constant in-migration and population growth took place (1980-1998: +16.5%). The growth of Rottal-Inn's economy is mainly based on the rapid expansion of the service sector, among them the tourism sector, and relatively small losses in the industrial branches.

Bitburg-Prüm, Germany (B)

The county of Bitburg-Prüm covers an area of 1,627 square kilometres and is located in the west German state of Rhineland-Palatine. The county directly borders Luxembourg and Belgium, but despite its status as a 'border region' it is well positioned: the two nearest agglomerations are within 45 minutes car travel time and the large conurbations along the Rhine river can also be reached within about 90 minutes. The county's largest towns are Bitburg (13,000 inhabitants) and Prüm (6,000 inhabitants) followed by more than 200 little towns and villages.

The landscape of the county is characterised by rugged mountains of up to 700 metres in the north and hilly plains in the south. One third of the county is covered by forests. Steep river valleys cut through the area and (just outside of the county) lead into the picturesque river valley of the Moselle, which is a famous wine-growing region. Bitburg-Prüm today has a population of 96,000 inhabitants. Its population density of 59 inhabitants km² is one of the lowest in west Germany and just above one quarter of the national average. For most of the 19th and 20th century Bitburg-Prüm experienced severe population losses. Only in the 1990s there has been a modest population increase of 5 percent.

Bitburg-Prüm's economy has only recently been improving. For most of the 19th and 20th century the economy of this mountain region was notoriously weak. Therefore the Bitburg-Prüm area has been receiving support from various regional, national and European funding programmes for lagging regions since the end of the 19th century. In the last 20 years agriculture and forestry industries have contracted massively, whilst manufacturing has remained fairly stable. In the 1990s the county's economy, especially its tourism industry, finally expanded. Therefore, in the year 2000 Bitburg-Prüm did not qualify as a seriously lagging region for the first time, which will result in a withdrawal of public funding support. Nevertheless, the region's economy is still at a low level, as its GDP per capita of only 72 per cent of the national average indicates.

Bitburg-Prüm's location is much less peripheral than most other rural areas of Germany. Hence, the county's low economic performance cannot be entirely explained by locational disadvantage.

Evrytania, Greece (A)

The prefecture of Evrytania is part of the Central Greece region, located between 280-320 kilometres northwest of the capital of Athens. Its land area of 1870 km² (1.4% of Greece) is all classified as mountainous, and the region is endowed with excellent natural resources, specifically natural forestry. Almost 25 percent of the areas total population of 32,026 live in the capital town of Karpenisi, while the remainder of the population is dispersed through six large villages and 75 small villages.

Accessibility from the region to Greece's large urban centers is low. It is 4.12 hours from Karpenisi to the capital of Athens, and 4.50 hours from the city of Patras, due to moderate road links, a lack of modern high-speed highways in addition to poor public transport availability. Moreover, even today some villages in Evrytania cannot be accessed by car due to an absence of road infrastructure.

Over the last decade significant economic reform has occurred in this region. Although the areas GDP is below the national average, the actual development of GDP over time reveals a high growth rate. Prior to this period of growth, the region was characterized by high rates of unemployment, labour out-migration and a population decline in the younger age cohorts. In the last decade, development efforts have begun to reverse these migration trends. There has been a gradual development of activities linked to the region's natural resources and other activities related to tourism, such as the successful development of Karpenisi ski-center. The primary sector accounts for 22 percent of all employment, but the majority of employment is in the tertiary sector. Since 1988, there has been a significant restructuring in this sector as the number of tourists to the region has increased, and tourism related enterprises (including agro-tourism) have multiplied.

As far as institutional structures are concerned, Evrytania has benefited from the work of a Development Agency (Evrytania SA), which prior to the launch of LEADER, had already accumulated experience of administering local development projects.

Kalavryta, Greece (B)

Kalavryta is a sub-region, located in the Southeast part of the prefecture of Achaia, in Peloponnesse (a NUTS III region). Kalavryta covers mainly mountainous and sub-mountainous areas. The region is a short distance from important urban centers (Patras and Aigio) within Achaia, and only 89 kilometres from Patras and 190 kilometres from the capital city, Athens. In terms of travel-time, this involves a two-hour train journey to the former, and a three-hour car journey to the latter. A significant proportion of the total population of 187,500 live in the towns of Kalyvryta and Kleitoria while the remainder of the population is dispersed across small villages in the area.

Traditionally, the population of the region was engaged in agriculture, animal breeding, and fishing production. In the last decade, efforts to develop and diversify the economic base of the area have been made in an attempt to reverse the out-migration trend of the region. Key developments include the redistribution and irrigation of land around the Vouraiiko River, and the development of tourism attractions based on natural resources, such as a ski-centre and underground cave exploration attraction. The tourism industry is based on domestic, short-stay trips, from the neighboring large urban centres.

The GDP is, however, significantly below the national average. A decline in the manufacturing sector, and a shrinking agricultural labour force, have caused high levels of unemployment. In the European context, the region has Objective 1 status.

Midwest (Co. Clare), Ireland (A)

The Midwest NUTS III region is located on the west coast of Ireland, and the western periphery of Europe. Encompassing the estuary of the River Shannon, the Midwest has a long coastline with relatively fertile lands in the South and East. Composed of three counties, the region accounts for approximately 12 percent of Ireland's landmass and has a total population of 317,069. For the purposes of the AsPIRE project, a sub-regional focus on County Clare has been adopted.

The Midwest is a relatively diverse entity, encompassing areas of strong urban growth particularly Limerick City (79,000) and the Co. Clare town of Ennis (14,000). However the region also contains rural areas with significant population loss and decline, such as the west Clare seaboard and parts of west Limerick. Though the region is mainly rural, in recent years it has had a continued decline in agricultural employment. Industry has shown considerable growth, with an equivalent increase in services employment, which is forecasted to grow by 15% from 2000 to 2006, representing the strongest performer in job creation.

In common with the national economy the region has enjoyed a recent period of sustained high economic growth. This is reflected in the dramatic fall in unemployment, from a level of 14% in the early 1990's. Agriculture/agri-business, tourism and manufacturing /internationally traded services are the main components of the productive sector in the region. As employment has declined in the agricultural sector so employment has increased in the manufacturing and internationally traded sector which is primarily export orientated.

Growth in this sector has been driven by a strong flow of foreign direct investment mainly sourced in the USA. The region has a long history of attracting Foreign Investment originally associated with Shannon International Airport. The airport has little real significance in terms of inter-regional travel or Ennis – Dublin interaction, as its primary role is as an international stopover point. Laterally, the local development strategy has been to successfully target visitor tourist traffic. The development of Shannon Free Zone as the world's first duty free Industrial location, targeting industries that would use the Airport to move both people and freight is a second important feature of the regional strategy. Both these strategies have been highly successful and continue to have a major impact on the regions economy.

South East (Co. Wexford), Ireland (B)

Composed of counties Wexford (the selected sub-region for AsPIRE), Waterford, Carlow, Kilkenny and Tipperary South Riding, the Southeast region accounts for 12 percent of Ireland's landmass and is located in on the Southeastern seaboard. The Southeast has a population of 391,517 persons, 10.8 percent of Ireland's total and a lower than average population density of 41 persons per km². The region experienced continuous population decline between 1841 – 1961. Since 1961 its population has increased by 22 percent, an increase that is directly comparable with the Midwest.

The population is widely dispersed in a number of relatively autonomous urban centres. Waterford City is the region's administrative capital with a population of 42,540. There are four additional towns with populations greater than 10,000 persons of which Kilkenny Town, Co. Kilkenny is the largest, with a population of 17,726. The two largest agglomerations in Ireland, Dublin, and Cork can be reached by road in approximately 180 and 120 minutes respectively.

The Southeast region is characterised by a low-lying, fertile undulating landscape that is bisected by three relatively large rivers. Mountainous areas to the north and west form natural boundaries with the surrounding regions. This combination of mountains and rivers makes intra and inter-regional transport and communications somewhat difficult, as there are a limited number of primary access routes. Notwithstanding this, local commentators suggest that a pattern of long range commuting has developed in recent years, with those involved in particular economic activities, e.g. construction, travelling to Dublin and Cork on a daily basis indicating that there is a 'backwash' process in effect.

The region's economy was based on agriculture and to a lesser extent, fishing. Restructuring of the Common Agricultural Policy and increasing global competition have led to a decline in farm viability that has exposed the region's overdependence on a single sector of the economy. This economic trend has not been fully mitigated by development of manufacturing and service activities or the growth of the tourist industry. From an industrial economy perspective the Southeast, with good sea access to the continental and UK markets, and good international transportation links, has largely failed to capitalise in its strategic geographic position.

Data Collection Plan

An Integrated Data Collection Scheme (D17) was devised to allow data to be collected relating to the hypotheses generated by each of the six Conceptual Papers (D1-6) and also to support the work by Partner 4 (UVEG) on Best Practice and Policy Evaluation, in a co-ordinated and comparable way in all twelve Case Study Areas. It provides full details of specific objectives, sampling procedures, implementation style and basic analysis for the project's five major data collection instruments:

- (i) A telephone survey of managers of businesses within the case study areas.
- (ii) A face to face survey of the managers of businesses within the case study areas (known as the "Business Survey".)
- (iii) A postal survey of a sub-sample of firms to collect quantitative data on the geography of business linkages (known as the "Spatial Tracking Survey").
- (iv) A set of structured interviews with key staff in development agencies, local government, and third sector organisations within the study areas, (known as the "Institutional Interviews").
- (v) A survey of tourism consumers and "intermediaries".

The Process of development of the questionnaires and interview structures was as follows:

Each thematic leader (IST, Business Networks, Governance, Social Capital, and Tourism) submitted proposals (in the form of draft questions) for inclusion in one or more of these survey instruments.

Two of these instruments relate to a single theme; the telephone survey relates to the IST theme only, whilst the fifth instrument obviously relates only to tourism. These were therefore the sole responsibility of Partners 3 (NUIGALWAY) and 1 (SACE) respectively.

In the case of the Business Survey, the majority of the questions were proposed by Partner 5 (DEUP), and it was appropriate that they co-ordinate the contributions from other partners, and devise the questionnaire.

The Organisational Interviews incorporated substantial contributions on Governance from Partner 7 (SIRRT) and on Social Capital from Partner 2 (TEAGASC), but also included questions on Business Networks from Partner 5 (DEUP), on Tourism from

Partner 1 (SAC) and on IST from Partner 3 (NUIGALWAY). Partner 1 (SACE) was responsible for weaving all these contributions together into a set of interview schedules. Three of these were designed to suit the three main types of organisation which we anticipated encountering in our field work (Public Sector, Third Sector, and Partnerships) and three of which were designed staff specialising in IST, support for small business development, and tourism development.

Each partner (with the exception of Partner 3 NUIGALWAY) then used the consolidated questionnaires and interview schedules to collect data within their two case study regions. This was carried out during the spring and summer of 2002.

The next stage in the data collection process (during autumn and winter of 2002) was to input data into databases, and carry out “basic analysis”, (such as tabulations, simple graphs etc). This was be carried out by each partner for their own case study areas (as D19), and formed the basis of regional reports, and presentations at Regional Seminars (D25). Finally the basic data in each partner’s D19 was transmitted to the Thematic lead partners for further analysis, as the basis for Thematic Reports (D20-24)

The Role of the Case Studies in the AsPIRE Project

Given the “soft” nature of the elements of AsP which make up the four thematic strands of the project it was perhaps inevitable that case study work should be an important component of the project workplan. It was also appropriate that this empirical work should involve both quantitative and qualitative approaches. The function of this activity was to test hypotheses derived from the conceptual review of the four elements of AsP (and the sectoral case study, tourism). The data collection and analysis model described in the preceeding section was intended to provide a basis for truly comparative analysis, between A and B type regions across all six member states. Previous experience with multi-national projects had highlighted the danger of producing separate, parallel national analysis, but with limited comparisons between them. This pitfall has been largely avoided in the present study. However another issue became apparent at an early stage: Much of the information collected, especially the qualitative material was very context dependent. It was not easy for thematic leaders to interpret data collected outside their own member state without some appreciation of the local context. This issue was addressed by the addition, at the first project meeting, of an undertaking to produce regional reports for each case

study region. These were not a contractual obligation, but a response to an identified methodological difficulty. They also provided a useful summary of the local outcome of the research for interested regional development agencies and other bodies. Since these reports were written in the national language of the each case study region, English language summaries were also provided.

Ultimately the purpose of the case study analysis was to assess the validity of the generalisations about AsP which were derived from the literature for the four themes. This provided the more precise and empirically orientated understanding which formed the basis for the selection of the secondary indicators discussed in Section C of this report, and the key questions within the AsP assessment tool designed to elicit local expert knowledge of the less tangible aspects of the regional economic environment (Section D3). It also formed the basis of a recommendation for regular data collection by Eurostat and member states (Deliverable 30).

It is perhaps worth stressing that although the case study work was one of the more time consuming foundational tasks of the project, the subsequent analysis of secondary data carried out by IRPUD (and the AsP diagnostic tool derived from it) is likely to prove a significant practical benefit to regional policy makers and agencies.

SECTION B:
ASP THEMES

CHAPTER 4: INFORMATION SOCIETY TECHNOLOGY

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Introduction

With the increased diffusion of information and communication technologies throughout most areas of economy and society in the more developed parts of the world, small and medium-sized enterprises (SMEs) are becoming increasingly aware of the need to face the challenge of effectively exploiting the opportunities presented by the digital economy. Unlike well-endowed large businesses and other organisations located in well-serviced urban locations, SMEs in peripheral rural areas face very considerable challenges in seeking to ensure that, rather than falling victim to increased levels of competition from organisations outside their limited market areas, they can exploit the potential benefits presented by the new technologies. Regular surveys of telecommunications infrastructure and ICT usage in Europe indicate significant variation at country level, with the Nordic regions being much further ahead in their promotion of an 'information society', and the regions of southern Europe, particularly Greece, lagging behind (European Commission, 2000). The data on ICT infrastructure and usage presented in the AsPIRE project contributes towards highlighting the heterogeneous nature of infrastructure provision and capacity for exploitation in a range of European rural regions. In addition to physical peripherality from core market areas, such differences can be partly explained by the profile of rural businesses in these areas, and particularly by the degree of localisation of business activity. The extent to which SMEs in rural areas trade beyond their local and relatively bounded markets varies considerably between countries like Ireland, on the one hand, whose economy is exceptionally open and Greece, on the other.

While peripheral rural areas, by their nature, have always suffered from serious infrastructural disadvantages, in terms of telecommunications infrastructure they have benefited considerably in the past through cross-subsidisation, resulting from the application of universal service obligation by national telecommunications providers. With the liberalisation of telecommunications markets in Europe and elsewhere in recent years, this is no longer the case, and with the shift towards more expensive broadband infrastructure being associated with a reliance on market forces, there is a real danger that peripheral rural areas will become increasingly disconnected from the opportunities presented by the new digital economy. The widespread hype associated with the promotion of the new technologies in rural

areas tends to underplay the significant challenges which many rural areas face in gaining access to affordable broadband infrastructure (Grimes, 2003).

To understand the nature of the challenge facing rural SMEs it is necessary to assess how the traditionally bounded nature of rural market areas are becoming increasingly exposed to intense competition from outside companies engaging in e-commerce. It is also necessary to explore the range of transformations which rural areas and rural SMEs must undergo before they can effectively exploit the new opportunities, which include ensuring that, in addition to reasonably priced access to broadband telecommunications infrastructure being available, the necessary skills and backup services for developing suitable e-commerce business models are also available. Among the more serious threats affecting the capacity of rural areas to face these challenges is a deficient or even misguided appreciation on the part of some of those responsible for policy issues of the nature and significance of these economic transformations for rural areas. In addition to acquiring a thorough understanding of the complexities associated with the technologies themselves, policy makers must seek a balance between, on the one hand, not underestimating the considerable potential which the new technologies can offer rural SMEs, and, adopting a critical perspective towards exaggerated claims, on the other.

At the outset it should be noted that, with the abandonment of universal service obligation associated with the liberalisation of EU telecommunications policies, rural areas are now more dependent than ever on ameliorative actions to ensure that they have the necessary capacity to compete with more advantaged locations. Within the regions of Europe, those areas, which are fortunate to have dynamic regional or rural development agencies, engaging pro-actively with the complicated issues involved in diffusing effective use of ICTs, are likely to benefit more than lagging regions. While EU policy has tended to favour an endogenous model of rural development, focused on ensuring that SMEs, particularly in peripheral regions, acquire the capacity to exploit opportunities presented by the digital economy, the reality would suggest that exogenous models have been more successful in the case of Ireland and Scotland in promoting employment growth in rural areas, by means of attracting investment in the form of call centres and data processing operations. The challenge for policymakers is to devise more flexible programmes that are capable of dealing with the specifics of heterogeneous rural areas in terms of their involvement with local and global markets. Over time policies have shifted away from a technologically determinist and 'infrastructuralist' approach to one that places a greater emphasis on

soft infrastructures which relate to networking, untraded interdependencies, social conventions, and institutional thickness (MacLeod, 2000). Gibbs (2001) also notes a shift in EU policy initiatives in relation to the Information Society away from dependence on technology solutions towards a greater emphasis on stimulating and facilitating institutional learning and change. A more evolutionary approach is developing, which is informed by an awareness of the need to bring about a series of transformations in rural areas from ensuring access to reasonably priced broadband infrastructure to the point where local entrepreneurs can effectively exploit opportunities in the digital economy. One of the most important issues for rural development policy makers in this area is to ensure that the focus on the new technologies is not an isolated one, but rather that their limited, though potentially powerful role, is contextualised within a holistic framework.

In outlining different theoretical perspectives on the information society/economy, Kitchin (2000) notes that political economists have argued that such political programmes involve little more than attempts by the state to extend and deepen capitalism, and to serve the interests of the establishment of transnational corporations. Since technologies are not separated from society, such critiques remind us of the need to interrogate the political, economic and social relations underlying technology policies and programmes. Yet Graham and Marvin (1996) point to the deterministic tendencies of some political economy perspectives, which neglect social processes by overplaying the role of capital in shaping society's response to technological developments. The tensions between such approaches can remind us that while policy areas such as the EU's Information Society Technology programme can benefit greatly from constructive academic critique, such critiques need to bear in mind the requirements of policymakers to produce pragmatic, workable solutions.

Thus, within a European Union policy context, while there is general agreement about the potential contribution which ICTs can make towards improving the competitiveness of rural SMEs, isolating these effects can be problematic since they are interconnected with many other requirements for competitiveness (Richards and Bryden, 2000). It is not too surprising, therefore, that the 'First Official Draft' of the European Spatial Development Perspective notes that the new technologies, while not having a determined effect, had an important role to play in helping SMEs in less favoured regions. It acknowledged at the same time that the spatial impact was 'potentially enormous but as yet quite unknown' (European Commission, 1997, 30). It

is little wonder, therefore, that an unfortunate tendency within rural development policy circles has been to confuse the virtual dimension of the digital economy with the assumption that 'geography means less and less' (Hetland and Meyer-Dallach, 1998, 10). Nor can it be too surprising that many of the earlier experiments with rural telematics met with such disappointing results (Grimes, 1992; 2000). To some extent the lack of success with rural development policy in this area can be attributed to the nature of the problem being mis-specified by policymakers, particularly by assuming that distance from the market rather than more fundamental issues relating to the lack of competitiveness of rural enterprise was the main problem to be tackled (Gillespie et al, 2001). The earlier rhetoric, which emphasised the potential contribution of rural telematics, has been replaced gradually with a more sceptical appraisal (Ray and Talbot, 1999). Some argue that SMEs that are totally focused on local markets are unlikely to benefit from ICTs, while others suggest that the limited scope of local markets make it necessary for rural enterprises to develop innovative products to enable them to compete with urban firms (Richardson and Gillespie, 2000a; Smallbone and North, 2000). From such sometimes contradictory prognostications, the policymaker must develop programmes which will deliver practical results.

Summarising the literature

There is considerable evidence of significant disparities in participation levels in the digital economy throughout European regions, with a consistent digital divide between urban and rural areas. The most fundamental, but by no means the only reason for such inequality of opportunity, arises from the significant barriers to low cost, high speed Internet access in many rural areas. Despite the widespread hype about electronic commerce, the generally low levels and significant regional disparities in broadband connectivity throughout Europe indicate that there is still considerable work to be done in terms of infrastructural investment and awareness raising before e-commerce becomes a real option for many rural SMEs. The virtual dimension of the digital economy is perhaps more illusory than real and results more from our conceptual difficulties in dealing with the geography of invisible transactions. Their invisible nature, however, does not obliterate the reality of the underlying geography of the digital economy, which reflects the spatial structure of telecommunications services provision, which in turn must deal with the economic cost of overcoming distance, topography and low levels of demand in rural areas.

The difficulty of making a business case for advanced services such as DSL in the Highlands and Islands of Scotland does not augur well for the many other remote rural areas throughout Europe. The considerable uncertainty that prevails about the most suitable technology to deliver high speed Internet access to rural areas where demand is growing slowly is also inhibiting the diffusion of electronic commerce. With the state withdrawing universal service provision from broadband access, rural areas will require some form of state intervention, probably through forms of public-private partnerships, if they are to be allowed participate in the digital economy. The most likely outcome, based on developments to date, is one of concentrated provision of broadband in targeted centres, capable of producing the necessary threshold of demand for viability.

Much of the research to date looking at rural SME usage throughout the UK reveals that the provision of adequate telecommunications infrastructure is but the first step of a series of necessary 'translations' before rural areas become effective participants in the digital economy. Apart from infrastructure, a number of variables have been identified as impacting on levels of usage, such as company size, sector, and particularly the attitude of owner-managers. The reality is that rural enterprises in many rural areas are, if engaged at all in the digital economy, only taking the most basic steps in terms of exploiting the potential. One of the most serious potential policy errors is to assume that ICTs can in some way substitute for inadequacies in the range of entrepreneurial skills, which are essential to ensure that SMEs can compete. While a more nuanced approach appears to be emerging among policy makers towards the possibilities offered by ICTs, there is a continuing danger of the failure to contextualise the limited, though potentially powerful contribution of the new technologies towards enhancing the competitiveness of rural enterprise. A more critical approach is necessary which is open to learning from the failure of many experimental projects to date to take adequate account of the specific needs of rural users.

AsPIRE Survey findings

Aspatial Peripherality (AsP) is a term to collectively describe a range of processes which are increasingly emerging to compound or distort the handicaps conventionally associated with remote locations (Copus, 2001). The underlying hypothesis in relation to IST is that the benefits to peripheral and more accessible regions arising from costs associated with distance or travel/freight may not be fully derived because of poor utilisation of ICTs. On the other hand, regions which may be physically

remote, which succeed in exploiting ICTs effectively, may exhibit rates of higher economic growth than would be expected for remote regions.

In terms of the methodology of the study, since pairs of contrasting regions in terms of economic growth and relative peripherality were chosen in the six study countries, we can now see whether the differences between the A and B regions in terms of their usage of ICTs are significantly related to the fact that they are different types of regions (in terms of growth or peripherality). For all kinds of reasons, one might expect to find that usage of ICTs was much lower and less sophisticated in the more remote regions, because of lack of access to broadband infrastructure, skills and services.

The analysis draws on three separate surveys carried out in 2002 in 12 regions, in Scotland, Ireland, Finland, Spain, Greece and Germany: a 600 firm Telephone Survey, 600 firm Face-to-Face Survey, and a face-to-face survey of 34 institutions. Among the key issues explored were the following: IT infrastructure and its use, assessment of IT impacts and attitudes to e-commerce, and public sector policies and supports offered. The Telephone Survey was modelled on the United Kingdom Department of Trade and Industry *International Benchmarking Survey* for 2002 (Department of Trade and Industry, 2000). The objective of the UK survey was to highlight the move towards the information age by benchmarking the extent to which businesses use the Information and Communication Technologies (ICTs) to engage in e-commerce.

The telephone interviews, and face-to-face interviews with firms and institutional actors were guided and directed by the following four hypotheses, which concern how firms in more (A regions) and less (B regions) peripheral locations address issues surrounding the usage of ICTs.

Hypothesis 1

That levels of e-commerce (% of enterprises trading online) will reflect:

- provision of broadband access in areas
- access to e-commerce services
- e-commerce skills of management

Hypothesis 2

That levels of e-commerce will be lower in remoter rural areas than more accessible rural areas

Hypothesis 3

That companies and organisations from outside the study areas will use ICTs more to exploit opportunities within areas, than will companies within to exploit opportunities in the core

Hypothesis 4

That small and medium-sized enterprises (SMEs) with non-local markets are more likely to exploit ICTs

Of the firms sampled in the Telephone Survey, two-thirds were established for 10 or more years, while 61% had fewer than nine employees, while only 13% had 50 or more employees.

While the A and B regions had a roughly equal representation of manufacturing and services firms, within services there was a marked concentration of firms involved in 'wholesale & retail trade', and in 'hotel, restaurant & recreational' activities (Table 4.1). Comparatively few firms in either of the manufacturing and services sectors are engaged in data-intensive, broadband dependent, new-economy industries.

A and B regions compared

Few differences were evident in the trading patterns of A or B region firms. Firms in both A and B regions tended to trade with regional or national markets and less with EU or global marketplaces. There was a very slight tendency for B region firms to trade more with customers in national markets and for A region firms to sell to global markets. Roughly 80% of firms trade with regional or national markets, which suggests that only a minority of the total sample of firms were either capable or interested in expanding their business beyond their national boundaries. It should be remembered, of course, that national markets in question are much bigger in some cases than in others. Many small family-based rural firms are happy with a modest level of growth, and even in the tourism sector it is interesting to note that 90% of activity in both Greek study regions relate to the domestic market. The extent of localisation of economic activity is likely to be reflected in the level of demand for ICTS.

The average use of internet protocol networks by firms was 28% with little difference between A and B regions. The major difference here was between countries, varying from 69% of Irish firms to one per cent of Greek firms and three per cent of Spanish firms. In the middle were Germany (41%), Scotland (33%) and Finland 21%). A significant correlation existed between the 69% of firms dealing with non-regional markets which used IP networks and the 31% which traded more locally.

Table 4.1 Telephone Survey firm sectoral specialisation

Nace Category	%
Manufacturing	
Food & Beverages	16
Textiles, Clothing, Leather, Wood, Paper & Pulp	22
Publishing, Printing & Reproduction of Recorded Media	6
Chemicals, Man-made Fibres, Rubber & Plastics, Other Non-Metallic	10
Basic Metals and Fabricated Metal Products	15
Machinery, Electrical, Optical & Transport Equipment	20
Other (Manufacture of Furniture,....Construction)	11
Total	100
Services	
Wholesale and Retail Trade	32
Hotels, Restaurants & Recreational	25
Transport, Storage & Communication	9
Computer and Related Activities	7
Research & Development	1
Professional Business Services	14
Public Administration, Education, Health and Social Work	4
Other	8
Total	100

Few differences in the usage of ICTs by firms in A (more remote) and B (more accessible) regions were found. With the exception of Greece where only 39% of firms had an internet connection, around 80% of firms in both A and B regions had internet connections, and there were few differences in terms of levels of satisfaction with ICTs. Firms in both A and B regions expressed similar views about what supports in relation to ICTs they felt agencies could provide.

There was some evidence that firms in A regions who traded beyond regional markets as opposed to those in the B regions, felt that a number of barriers did inhibit the development of e-commerce initiatives. On the other hand, firms in both A and B regions which traded beyond their regional markets, were more satisfied with their internet service than were firms which were focused on local markets. Also firms with

10 or more employees tended to be happier with internet service than smaller companies.

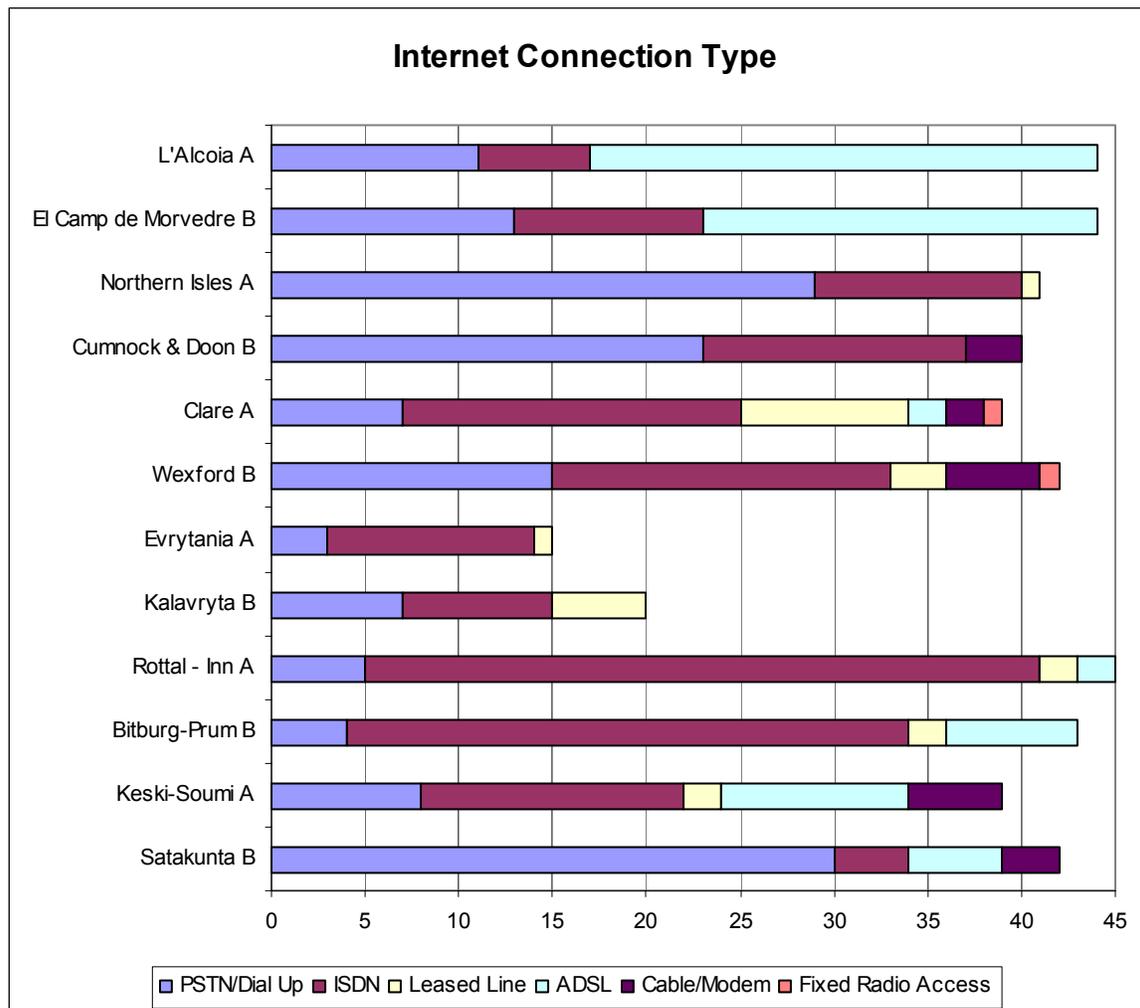


Figure 4.1: Internet connection type

Across all the regions, ISDN proved to be the most popular method of connecting to the internet, followed by PSTN (Figure 4.1). Combined, these two connection types account for how the vast majority of firms connect to the internet. Of the 600 A&B region firms, 56% of Finnish firms, 75% of German Firms, 33% of Greek firms, 58% of Irish firms, 77% of Scottish firms and 40% of Spanish firms access the Internet using these two connection modes. Of the other internet connections used by firms, only Spain and Finland, and A region firms in particular, had any notable involvement in ADSL.

A rather surprising finding, considering the hypothesis that ICT infrastructure in remote regions would be inferior to that in more accessible regions, was that more A

region firms used ISDN, while more B region firms used PSTN. More firms in the A regions also identified a time lag in the provision of telecommunications infrastructure. Rather than differences between regions, most of the significant differences in the data were between countries, with one of the most dramatic differences arising from the very low level of internet connection of firms (only 39%) in the Greek study regions, compared with an average of 80% in other study regions. Within the dataset as a whole of the 600 firms interviewed, the key differences were associated with the following firm characteristics: firms trading with regional/non-regional markets, size of firm and age of firm. These relationships confirmed what was expected at the outset, that larger firms trading beyond their local regional markets were more sophisticated users of ICTs.

A number of direct quotes help to indicate to some extent the overall impressions of what some firms feel ICTs can contribute to their businesses bearing in mind their rural/peripheral location. Unsurprisingly, many believe, particularly in the services sector, that it is difficult to overcome geographical distance issues through deployment of ICTs. In particular, peripherality is directly related to the distance from the firm's main market.

Some firms identify the difficulties that persist in overcoming rural/peripheral location disadvantages as follows:

"Physical distance is still a big factor when trying to win contracts in service businesses" (Ireland).

"ICTs do not compensate a situation of bad accessibility. Transport infrastructures are totally essential and constitute the fundamental parameter for the enterprise development" (Spain).

"We don't need a website - not for Shetland, we know all our customers" (Scotland).

"The enterprise is so small,[IT] does not compensate" (Finland).

Other firms were a little more upbeat:

"It is not place-bound, IT-technologies makes rural and urban areas more equal" (Finland).

A firm in Germany expressed the belief that IT assists structural economic change resulting from loss of employment in the agricultural sector, while also helping to prevent population decline. Another German firm suggested that rural areas have a higher quality of life, lower costs of living, and better leisure time; therefore,

companies that do not rely on permanent face-to-face contact find it attractive to work in rural areas.

In general, however, these comments perhaps imply that investments in 'hard' infrastructures such as road and rail are likely to remain very important in facilitating communications between firms, either internal or external to the region.

The Face-to-Face Business Survey revealed that few firms in either A or B regions felt compelled to change their business models (18%), few felt threatened by the presence of ICT-proficient firms from outside the region (7%), and only a small proportion claimed that ICTs assisted in the establishment of business relationships in their locality (21%). This would suggest that the majority of firms saw little threat or opportunity arising directly from the new technologies.

The majority of institutions interviewed (80%) claimed that there was an ICT strategy for their particular region, the reality would appear to be that the level of activity in promoting ICT exploitation varied considerably between regions. The focus of much of the activity that was taking place was focused on local endogenous activity, with only 9% of institutions being convinced that their regions were prime locations for inward investment associated with the new technologies.

An e-commerce model?

Few firms in the survey have graduated from relatively simple information-gathering and self-promotion internet uses to more advanced e-commerce models. Surveyed firms ranked the following in order of importance as their most important uses of the internet: 1) Markets and Competitors; 2) Banking Online; 3) Promotion and Advertising; 4) Access to Public Services; 5) B2B E-commerce; 6) After-Sales Service; 7) B2C E-commerce; 8) Teleworking; and 9) Recruitment (Fig. 3.2). Websites were developed mainly as a complement to existing business channels, with few firms extracting any commercial benefits apart from attracting additional business in some cases. In some cases, such as the tourism sector in Greece, websites were developed by agencies on behalf of small enterprises, and thus functioned only as marketing tools rather than as a means for interacting with customers. In a country where internet usage levels appear to be considerably lagging relative to other European regions, the recent introduction of an EU-funded scheme, which provides a five per cent reduction for firms making their tax returns

via the internet, has helped to raise the level of usage. Of the first four most important uses of the internet, however, none involve any direct contact being made with customers and represent somewhat less sophisticated uses than being involved in e-commerce. An e-commerce business model is a much more costly and complex initiative, with many firms apparently still in the earlier and less sophisticated stages of ICT usage, such as email and non-interactive websites.

The number of firms that showed signs of a developed 'e-commerce model' were few¹. Only a handful of firms could be identified as 'innovators' with evidence of simultaneous internet connections, websites developed, non-dial-up connections, e-commerce business model with interactive transactions capability, and a non-regional customer base. Among those that appeared to identify commercial benefit to be extracted from using the internet or hosting a website, a firm in the Northern Isles suggested that "*Prospective clients can pre-qualify themselves...this means cost savings for us*". Another firm, also in the Northern Isles, explained:

"We are currently developing our web-site in order for customers to order and pay on-line...we believe that it's efficient. For example, when people enquire about our products we no longer have to send them a catalogue... so on a cost comparison basis it is much better".

One of the most frequently mentioned reasons for the lack of e-commerce initiatives was the conviction that e-commerce was inappropriate for the type of business being operated. Other factors included lack of knowledge and cost of implementation. The view of rural enterprises was confirmed by 48% of institutions surveyed who also felt that e-commerce was suited only to certain types of enterprises. It should be noted, however, that this lack of interest in e-commerce should not be confused with a more general appreciation of ICTs, with only seven per cent of the total population of firms claiming a lack of relevance in general towards ICTs.

¹ Indeed, few firms could be considered data-intensive and therefore it was difficult to examine this aspect of firms' usage of ICT in relation to hypothesis number three.

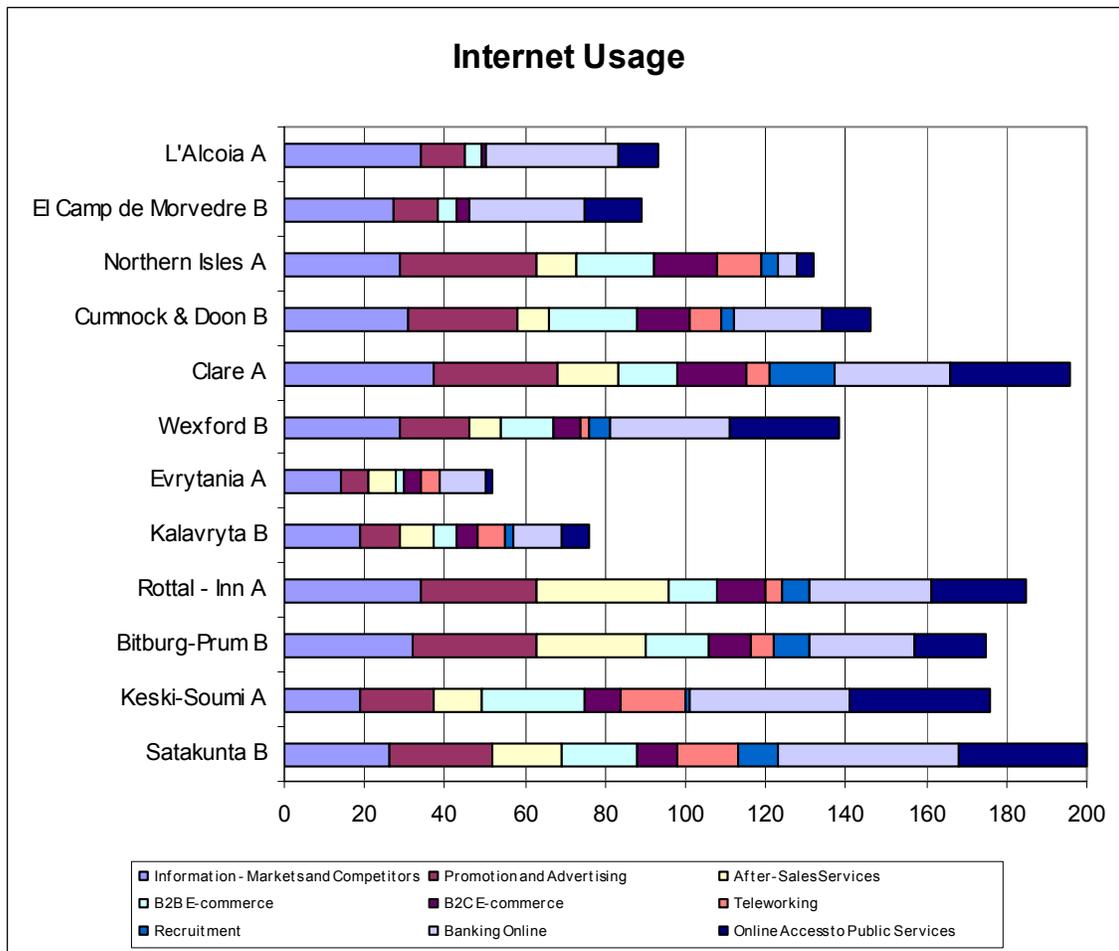


Figure 4.2: Internet usage by firms in study regions

Older firms (10 years or more in existence), service firms and particularly those which were more focused on local markets tended to be less convinced about the relevance of e-commerce. Many of these firms had developed long-standing relationships with customers based on direct personal contact, which they felt could not be replicated by outside firms using the internet. Many small rural firms were also satisfied with their current customer base and volume of sales, and saw little need to expand their operations through getting involved in complex e-commerce procedures. Some firms expressed scepticism about the potential of e-commerce based on the small population of potential on-line customers, while others were influenced by a small number of failed innovators. On the other hand, firms with predominantly non-regional markets in the more peripheral A regions, as opposed to the more accessible B regions, were more inclined to identify barriers such as the inappropriateness of e-commerce models together with the a lack of knowledge and the cost of implementing such models as inhibiting their progress in developing them. It should be noted that the sample of firms in the study contained few innovative firms

in terms of ICT usage, with many depending on PSTN for connecting with the internet and with most of the better endowed depending on ISDN. It is not too surprising, therefore, that there was little evidence provided of ICTs being used in a significant way to overcome the disadvantages of a peripheral location.

Policy intervention and telecommunications infrastructure

A legacy of poor telecommunications infrastructure provision affected a number of the study regions. Only 34% of firms in the Business Survey deemed the local telecommunications infrastructure to be sufficiently developed to enable them to make effective use of it. Similarly in the Institutional Survey only half the surveyed institutions accepted that the necessary level of telecommunications infrastructure was in place. Concern was voiced in Shetland about the high costs of transferring files by means of a dial-up connection. In County Clare users in the east of the county were better endowed and were more familiar with internet usage, particularly non-family companies involved in exporting. Despite the availability of ADSL in both the Spanish and Finnish regions (although there were complaints about the quality of ADSL in the Spanish regions), few firms in these areas had moved in the direction of developing e-commerce activity. The very low percentage of Greek firms with an internet connection (39%) was reflected in the high proportion of Greek firms perceiving a significant delay in the provision of telecommunications infrastructure. It is also interesting to note that in the sample of 600 firms more firms in the more peripheral A regions, that were focused more on regional markets, perceived a time lag in the provision of telecommunications infrastructure relative to the urban areas of their regions, than was the case for the more accessible B regions. In relation to such perceptions, however, it is always difficult to disentangle cause and effect between such firms and those which are succeeding in transcending regional markets.

Some firms expressed themselves dissatisfied with the limited range of choices offered by telecommunications services companies. A firm in Ireland expressed particular annoyance as follows: *'Eircom are disastrous! They promised ISDN connection for the past two years and failed to deliver. Our ordinary telephone lines are faulty so internet connection is a nightmare'*. The inability of Irish firms to change service provider compares with the situation in another study region where a German company, dissatisfied with its service provision, simply changed service providers. A Scottish firm suggested that the level of service provided was *'pretty awful'* and they would definitely change to ADSL if it were available. Such anecdotal evidence

confirms the highly variable quality of provision in the various regions and thus the context-dependent of responses to this question.

There is a growing acceptance for the need to provide affordable broadband infrastructure as an essential precondition for the promotion of e-commerce. In addition to the need for such capacity building measures, there is also a need for a greater appreciation for the continued significance of face-to-face interaction in many business activities, particularly in rural areas. Survey firms both in Spain and Germany emphasised the need for greater investment in roads infrastructure as an essential aspect of helping rural enterprises to expand their markets. This contextualisation of ICT infrastructure investment within a broader development model was echoed in the views put forward by institutions: the overall view was that the provision of broadband is 'helpful' (47%) and 'vital to maintain competitiveness' (45%), but likely to become more important in future. Other 'hard' infrastructures such as road and rail were considered to be more in demand.

Public sector policies and supports

Although it is clear that there is considerable level of activity being carried out by various institutions in many of the study regions seeking to raise the level of ICT usage and also to promote greater involvement in e-commerce, the findings suggest the need to tailor such activities towards the particular needs of different sectors in these rural regions. It is interesting to note, nevertheless, that the two key complaints received by institutions in the survey related to the provision of ICT infrastructure and also to the prohibitively high costs of e-commerce. Around 60% of firms in the Telephone Survey highlighted the lack of ICT training support as a major concern. This need for training was acknowledged by 44% of institutions with 37% admitting that ICT skills were scarce and 7% saying that they were very scarce. Responses from the institutions suggest that they face a major challenge in dealing with considerable inertia and unwillingness to change established practices. Such inertia characterises many small, family-owned, non-exporting enterprises that are reluctant to become involved in the yet unproven e-commerce business model.

Institutions face the challenge of implementing the policy drive towards a greater diffusion of e-commerce, which has become one of the main goals within the EU's Information Society programme, and the scepticism of many small rural businesses with whom they are dealing. Part of this challenge involves perhaps a more effective

tailoring of general programmes to the needs of particular sectors and regions. Despite the fact that 61% of firms in the Telephone Survey acknowledged that ICTs do help overcome the disadvantages of a peripheral location, few are prepared to invest in making more sophisticated use of the technologies by means of e-commerce, arguing that such models are not relevant to their type of enterprise. The data from the three surveys suggest that a first step in developing more tailored programmes is the provision of very basic IT training. The survey data also suggest a definite gap between the highlighting by firms of the need for more ICT training, however, and the apparent low levels of uptake of such training when it is provided. There are differences between the various study regions in relation to the provision of such training, with much of it being left to the commercial sector in Germany. A greater effort is required by institutions, with a mandate for helping SMEs acquire the necessary skills for exploiting opportunities presented by the emerging digital economy, to be better informed of the particular difficulties faced by remotely located enterprises in exploiting such opportunities. Part of their brief should include making such enterprises more aware of the likely intensification of competition from outside as rural areas become better connected to the internet. In addition to the concern expressed by many firms about the need for more ICT training, 56% of firms also felt that institutions could do more about reducing the cost of internet access, although only 51% were concerned specifically with the provision of access to broadband.

Strategic planning designed to help rural areas to exploit the benefits of the digital economy must also pay attention to the considerable threats arising from both public and private investors seeking to exploit the comparative advantage of these areas which is enhanced by the new technologies. The threat posed from the closer integration of rural areas into wider economic systems suggests that rural enterprise must engage pro-actively with the new technologies if they are to ensure their survival. Rural development agencies are, however, likely to adopt a dual strategy of building the ICT capacity of local enterprise, on the one hand, and of attracting inward investment into their areas, on the other.

Having reviewed some of the recent literature looking at ICTs and rural areas, one may question the effectiveness of conceptualisations by geographers and others of the changing nature of spatial processes and structures associated with the impact of the new technologies. Because of the fact that the digital economy to date has been predominantly an urban phenomenon, much of the literature has understandably tended to ignore rural areas. An important contribution by geographers, however,

which presents an antidote to the rather simplistic 'death of distance' perspective, is the emphasis placed on the significance of scale, which points to continuing urban concentration of economic activity in this era of globalisation. The relative absence, however, of critical analysis of policy developments, particularly in the EU context, has facilitated a rather superficial understanding of the gaps between the reality on the ground, the political nature of Information Society thinking in the EU, and the exaggerated hype, which has been associated with the telecommunications sector. While the serious downturn in the ICT sector in the past year or so is likely to have some serious negative impacts on many European regions, it may also provide an important opportunity for academics and policy makers to reconsider some of their thinking in relation to the emerging digital economy and its implications for peripheral rural areas.

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CHAPTER 5
THE ROLE OF BUSINESS NETWORKS AND INNOVATION IN PERIPHERAL
REGIONS

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Introduction

Business networks have become a very important concept in contemporary economics and economic geography. Business networks are the conventional carriers of goods and services from suppliers to the business and from there to consumers or customers. Business networks are formed on the basis of frequent trade relationships among the same businesses as opposed to spot trade. However, the renewed interest in the importance of business networks does not focus so much on trade relationships but on the linkages that are formed among enterprises, linkages that allow information, knowledge and innovation to flow in the network. Thus, business networks are re-interpreted as a form of industrial organization and a force which may produce agglomeration either on the basis of urbanization or localization economies. Thus, business networks, together with their conventional operation of facilitating trade, are also an important factor in the location of industry and the creation and adoption of innovation.

The flow of goods and services among businesses in a network is best explained on the basis of reduced transaction costs. The operation of a network reduces transaction costs by serving as a seller's or buyer's guarantee of price, quality, time delivery, etc. In particular, transaction costs involved in an exchange between a customer and a supplier may include supplier identification, contract negotiation and contract verification and enforcement and it is argued that some or all these types of transactions costs may be potentially reduced thereby increasing firm and/or sector competitiveness. Furthermore, when business networks are also characterized by business proximity, transportation costs are also reduced.

Business networks form the core of industrial districts and of geographical clusters. This point of view is based on knowledge theories of the firm, and regards business networks as the basic tools of the firm's knowledge acquisition. In Marshallian industrial districts, business networks are the force agglomerating and clustering together businesses of a specific location around trade relationships and the creation of an 'entrepreneurial' environment. In knowledge clusters business networks disseminate knowledge and contribute to the creation of innovative milieux or learning regions.

An innovative milieu may be defined as the set, or the complex network of mainly informal relationships on a limited geographical area, often determining a specific external 'image' and a specific internal 'representation' and sense of belonging, which enhance the local innovative capability through synergetic and collective learning processes (Camagni, 1991). This definition has consequently been broadly used for a class of environments described as "innovative milieu" (Neely and Hii, 1998; Mole and Worrall, 2001; Maillat and Lecoq, 1992). The elements of an innovative network or milieu are individuals and institutions (actors) participating in an innovation process and the formal and informal relations that they develop for this purpose. The informal relations are mainly between customers and suppliers, public and private actors and may involve transfer of tacit knowledge through mobility and inter-firm imitation. The formal relations are usually trans-territorial and concern vocational training, technological development or infrastructure (Camagni & Capello, 1999; Perrin, 1991; Bramanti and Senn, 1991).

The entrepreneur remains, of course, the centre of the business network. However, the entrepreneur now becomes a network manager and an innovator (Nijkamp, 2003). A business (and consequently the business owner) may access a number of networks at the same time and membership of one network is not exclusive of membership of another network. Thus, the firm and the network is the nexus of businesses while the cluster becomes the nexus of the nexuses. In that sense, business networks have distinct spatial characteristics, i.e. a space of operation, and exert forces that re-formulate the local economy, i.e. the creation of agglomerations or knowledge clusters. At the same time, business networks are thought to be aspatial factors of local development, i.e. factors not linked to proximity and accessibility. There is no reason why central places would have better developed business networks or business networks leading to the creation of knowledge, learning and innovative spaces. On the contrary, business networks may contribute to the re-definition of proximity and accessibility and there are numerous examples where business networks have contributed to the creation of superior economic activity or have assigned a competitive advantage to less accessible or remote locations.

Definitions and Research Hypotheses

The basic aim of this work is to identify the role of business networks in local development and particularly in compensating for disadvantages of location. Two basic hypotheses are proposed:

- First, business networks have *direct* impacts on business performance by creating efficient marketing channels between firms and regions and hence reducing transaction costs. Thus, the better performance of less accessible regions may be explained, (inter alia), by the operation of successful business networks contributing to the production of price competitive goods and services.
- Second, business networks enhance businesses' learning capacities and knowledge, essentially acting as the "carriers" of innovation, and thus, bring indirect effects on business performance, through the creation of an "innovative milieu".

Of course, various combinations of these two effects may be observed in different regions.

Before proceeding to the diagrammatical presentation of the above hypotheses we will define the terms used in the present work and thus hope to avoid misconception and facilitate the presentation of quantitative measurements. In an operational and managerial context, a network is a structure where a number of nodes are related to each other by specific threads (Håkansson and Ford, 2000). Both, threads and nodes, are heavy in resources, knowledge, and understanding as a result of complex interactions, adaptations and investments within, and among firms over time. Networking is then a social construction that exists only so far as the individual understands and uses a network (Johannisson, 1995; Monsted, 1995; Chell and Baines, 2000). An important feature of business networks concerns with their spatial expansion. The terminology of vertical and horizontal networks is used in business economics to indicate networks linking businesses at different stages of the production chain (vertical linkages) or at the same stage of production (horizontal linkages).

Unconventionally, however, in this work *vertical* networks are defined as those networks that link businesses in one location or region with businesses *outside* the location. In terms of the AsPIRE business survey, it is assumed that businesses access vertical networks (for inputs or outputs) if they trade repeatedly with the same businesses (a pre-requisite for accessing a network) that are located outside the

local area and this trade accounts for at least 50% of their inputs or outputs. On the other hand, *horizontal* networks consist of relationships with *locally-based* producers, institutions, and consumers. Businesses access horizontal networks if they trade repeatedly with businesses located in the same area, and this trade accounts for at least 50% of their inputs or outputs.

Kneafsey et al. (2001), argue that strong *vertical* networks allow local enterprises access to external market outlets, relationships with external buyers, processors, institutions, etc., and that these are fundamental to the long term success of a marginal (peripheral) region. They further suggest that strong *horizontal* networks are characterized by trust-based relationships between local producers, consumers and institutions, strong knowledge flows, and the use of place-based promotional schemes. Thus defined, horizontal networks may thus be interpreted as a precondition for to the development of an “innovative milieu” (Carmagni 1995).

Furthermore, we consider business networks as formal and informal. Formal networks assume business interaction based on previous agreement or contracts (written or verbal) with another business (businesses) which, originally, when the contact started, were not either friends or family members (Jenssen and Koeing, 2002). A network consisting of formal relationships gives the mental and social support that is necessary to promote entrepreneurial action (Johannisson,1988; Jenssen and Koeing, 2002). Informal networks are comprised of business interactions based on trust, friendship or family relations and focus on entrepreneurship as embedded in a social context, channelled and facilitated or constrained and inhibited by people’s positions in social networks (Aldrich and Zimmer, 1986).

According to Neely and Hii (1999) innovation can be classified to three categories (product innovation, process innovation and organizational innovation) which are not necessarily mutually exclusive. The one may lead to the other. North and Smallbone (2000) take a more practical view of what constitutes innovation which is also close to Schumpeter’s original ideas. North and Smallbone (2000) distinguish five types of innovation:

- (a) The introduction of a new good
- (b) The introduction of a new process
- (c) The opening of a new market
- (d) The identification of a new source of raw materials
- (e) The creation of a new type of industrial organization

North and Smallbone (2000) recognize the difficulties to observe (measure) innovation in practice and, following a well-documented rationale, construct an index of innovation. Innovative firms are shown to achieve faster growth and best employment creation during the 1990s while, and this may be their most important conclusion, they show that the characteristics of a remote rural location influences innovation in different aspects. In this report a similar classification is adopted; differentiating between the introduction of a new product (as being new to the region, new to the nation, or totally new product), an innovation related to methods of production (process innovation) or any other type of innovation (organizational or marketing).

Bearing this conceptual background in mind, our hypotheses are diagrammatically presented in figures 5.1 and 5.2. Figure 5.1 assumes that the operation of successful business networks will have a direct (transaction cost based) impact on business performance and an impact on innovative activity (innovative milieu) which, indirectly affects business performance.

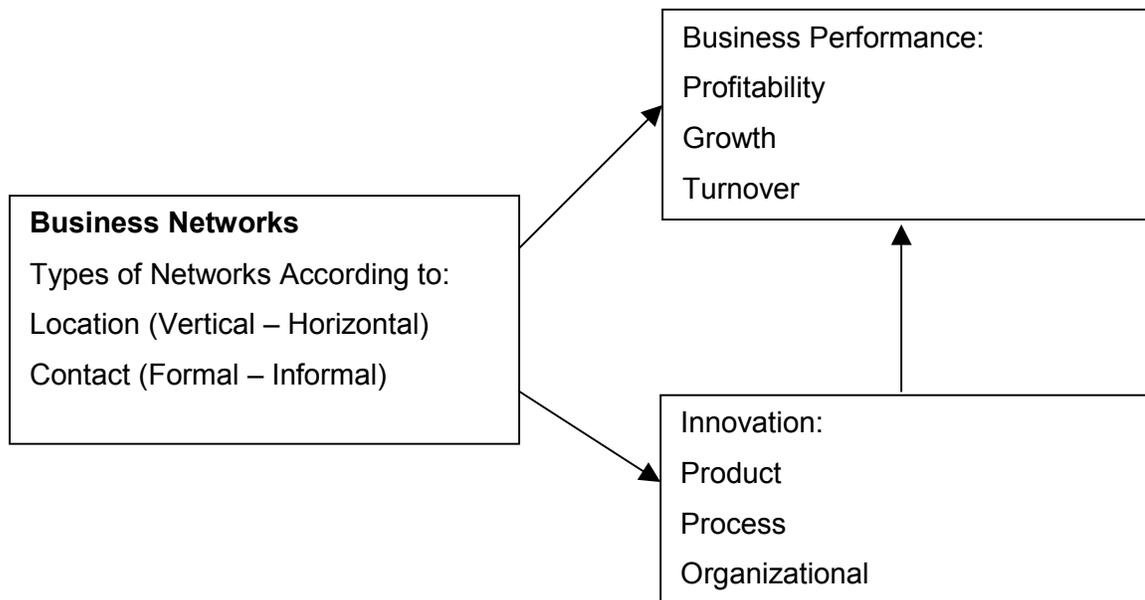


Figure 5.1: The Impacts of Business Networks on Business Performance

Thus, businesses accessing both horizontal and vertical networks will perform well and the areas where they are located will show a superior economic performance to corresponding areas which do not have highly networked businesses. Figure 5.2 diagrammatically presents this. Less accessible areas may be hampered by a low level of networking due to isolation and distance from major markets. On the other hand, isolation may have provoked the operation of strong horizontal networks and also the formation of vertical networks which reduce the isolation of an area from the centrally located markets.

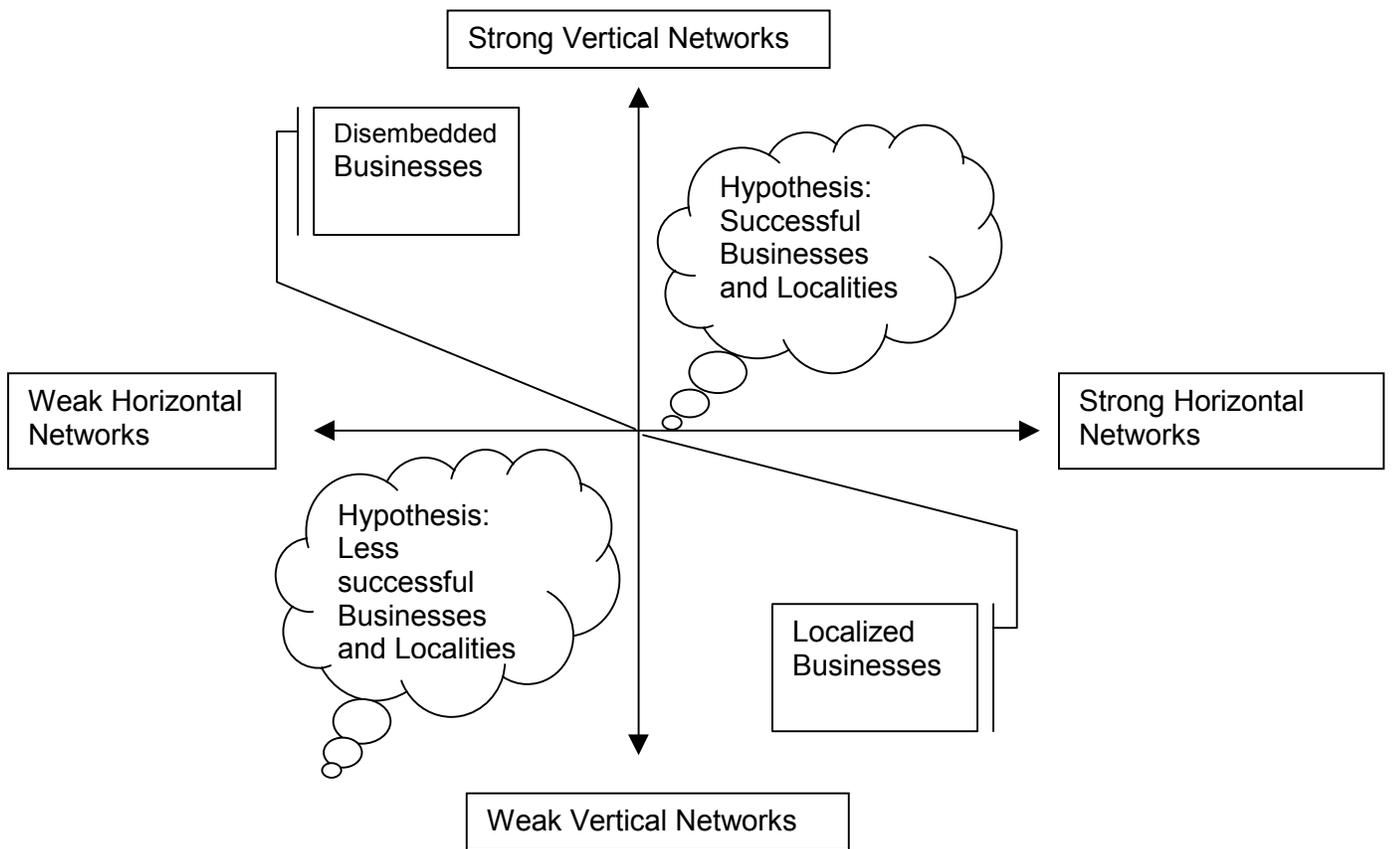


Figure 5.2: Vertical and Horizontal Networks and Hypotheses of Local Development.

The Business Survey

In each case study area a survey of 50 businesses took place. A two-stage, (quota, then representative stratified) sampling procedure was devised. The sample of 50 businesses in each area was first divided into two sub-samples (25 each), to be drawn from the manufacturing and service sectors (as defined by the NACE Divisions). Each sub-sample, was proportionately stratified so that to yield a representation of the distribution of micro, small, medium and large firms in each case study area. The business questionnaire was designed to be administered face to face with the manager of the firm. The majority of the questions were closed, simply requiring from the interviewee a number, ticking off a series of options, or a response to an attitudinal scale. The sectoral distribution of surveyed businesses is shown in table 5.1.

There were significant size differences among businesses located in accessible regions (B Regions) and less accessible but dynamic regions (A Regions). On

average, businesses in accessible regions were larger (11.5 full-time equivalents) than businesses located in less accessible areas. Taking into account a wide-ranging theoretical discussion (Skuras et al., 2003) concerning the effects of firm size on performance including survival and innovative activity, one may expect that businesses located in B regions would, on average, perform better, and have higher innovative rates. No other notable differences between businesses located in accessible and less accessible areas were identified, except that businesses in less accessible areas were more frequently created by their present owners.

As concerns the human capital characteristics of the entrepreneurs, in the accessible regions (B regions) there were more entrepreneurs with managerial experience (running another business) while in less accessible regions (A regions), entrepreneurs tended to have more work experience. Furthermore, entrepreneurs in less accessible areas more frequently came from an entrepreneurial family background than entrepreneurs in more accessible areas. Levels of social capital accumulation (membership in social and civic associations) seemed to be similar in the two types of case study areas.

Table 5.1: The sectoral distribution of surveyed businesses in the 12 case study regions

Region	Agriculture etc	Mining etc	Manufacturing of food products	Other manuf.	Electricity etc	Construction	Wholesale and retail	Hotels and restaurants	Transport etc	Financial intermediation	Real estate etc	Other services	Total
Shetland	1		5	17		1	2	5	3		1	15	50
Rottal-Inn			1	24			6	6	2		9	2	50
Evrytania	1		8		1	1	21	8	1	2	1	6	50
Kalavryta			1		1	2	23	12		2		8	49
Wexford	3		9	15	1			9	1		5	7	50
L'Alcoia			1	29		1	4	7				6	48
Clare	1		2	11	7			7				22	50
Satakunta			1	25			2	10	3		5	4	50
Bitburg-Prum				24			4	10	2			10	50
East Ayrshire	1	1	4	17		1	2	1	4		1	18	50
Keski-Suomi			3	18	1		1	11			7	5	46
El Camp de Morvedre			7	17		2	5	4		1		13	49
Total	7	1	42	197	11	8	70	90	16	5	29	116	592

Business Networks and Accessibility

The spatial tracking sub-sample revealed only slight differences between A and B type regions in terms of the average length of (both upstream and downstream) linkages (Copus et al 2003), but significant differences between different groups of entrepreneurs and firms. The length of linkages was profoundly affected by sector (food processing and services tending to have shorter linkages than other manufacturing). Younger firms, and those which had recently migrated tended to have more extensive networks, as did those managed by more highly qualified entrepreneurs.

Table 5.2: Network Access by Businesses in the Two Types of Regions.

Type of Network	Percentage of Businesses in:		
	A Regions	B Regions	All Regions
Suppliers Networks			
Horizontal	33.3	34.0	33.7
Vertical or Spot Trade	66.7	66.0	66.3
Customers Networks			
Horizontal	36.0	30.0	33.0
Vertical or Spot Trade	64.0	70.0	67.0
Financial Networks			
Horizontal	52.7	43.3	48.0
Vertical or Spot	47.3	56.7	52.0
Any Horizontal Networks			
At Least One Horizontal	54.3	50.7	52.5
Vertical or Spot Trade	45.7	49.3	47.5
Any Vertical Networks			
At Least One Vertical	68.0	71.3	69.7
Horizontal or Spot Trade	32.0	28.7	30.3
Spatial Networks for Inputs or Outputs			
Both Horizontal and Vertical	29.3	24.3	26.8
Horizontal Only	25.0	26.3	25.7
Vertical Only	38.7	47.0	42.8
Spot Trade	7.0	2.3	4.7

Table 5.2 presents the characteristics of the networks in the A and B regions as identified by the main business survey. As concerns frequency of suppliers and customers networks (considered separately) there were no significant differences between two types of case study areas. However, businesses in case study areas of type A more often sought finance at a local level than their region B counterparts.

Furthermore, almost 80% of businesses located in A regions sought technical advice from local consultants as opposed to 60% of businesses located in B regions. 54% of the sampled businesses in A regions accessed at least one horizontal network, (as opposed to 51% in the B regions), and almost 30% were linked simultaneously to at least one horizontal and one vertical network (compared with only 25% in B regions).

Already a contrast between the more peripheral (Type A) regions (where horizontal networks seem more common) and more accessible (Type B) regions (where vertical networks are dominant). However, a clearer picture emerges if, instead of grouping the study regions by type A and B, they are differentiated according to their peripherality, as measured by the AsPIRE baseline peripherality index (see Section A Chapter 2). Table 5.3 presents tobit estimates with the dependent variable defined as the percentage of businesses accessing each type of network, and independent (explanatory) variable as the degree of peripherality, and the level of economic development as a control variable. The results shown in table 5.3 are summarised diagrammatically in figure 5.3.

Some important conclusions may be drawn from figure 5.3:

- Starting from the periphery and moving towards more accessible regions, the percentage of firms linked to *horizontal networks for inputs* decreases, until a point where the peripherality index reaches a value of 67 (roughly half way to the national core regions) is reached. From this point to the central regions the percentage gradually increases.
- The curve representing the percentage of firms accessing *vertical networks for outputs* almost presents a mirror image. In the most peripheral regions the role of vertical networks is a minimum (less than 20%). Similar levels are shown in the most accessible regions, whilst vertical networks for outputs are at a maximum in roughly the same zone in which horizontal networks for inputs are minimised (peripherality index = 70).

Table 5.3: Accessibility, economic development and aggregate network activity

Independent Variables	Dependent Variables (% of firms in case study area)				
	Accessing Horizontal Networks for Inputs	Accessing Horizontal Networks for Output	Accessing at Least 1 Horizontal Network	Accessing at Least 1 Vertical Network	Accessing at Least 1 Horizontal and 1 Vertical Network
Constant	119.11**	124.184**	171.847**	9.524	85.7066**
GDP 1999	-0.0019**	-0.0029**	-0.0032**	0.00117**	-0.0018**
Nat. Access	-1.7617**	-1.2492**	-1.9532**	1.3873**	-0.7257
(Nat. Acc.) ²	0.01304**	0.00848**	0.01348**	-0.0105**	0.00426
Log-L	-45.18	-40.63	-43.19	-40.85	-40.85
Σ	10.784**	7.227**	8.901**	7.303**	7.389**

Note: **=significant at 5%, *=significant at 10%, n.s.= no significant

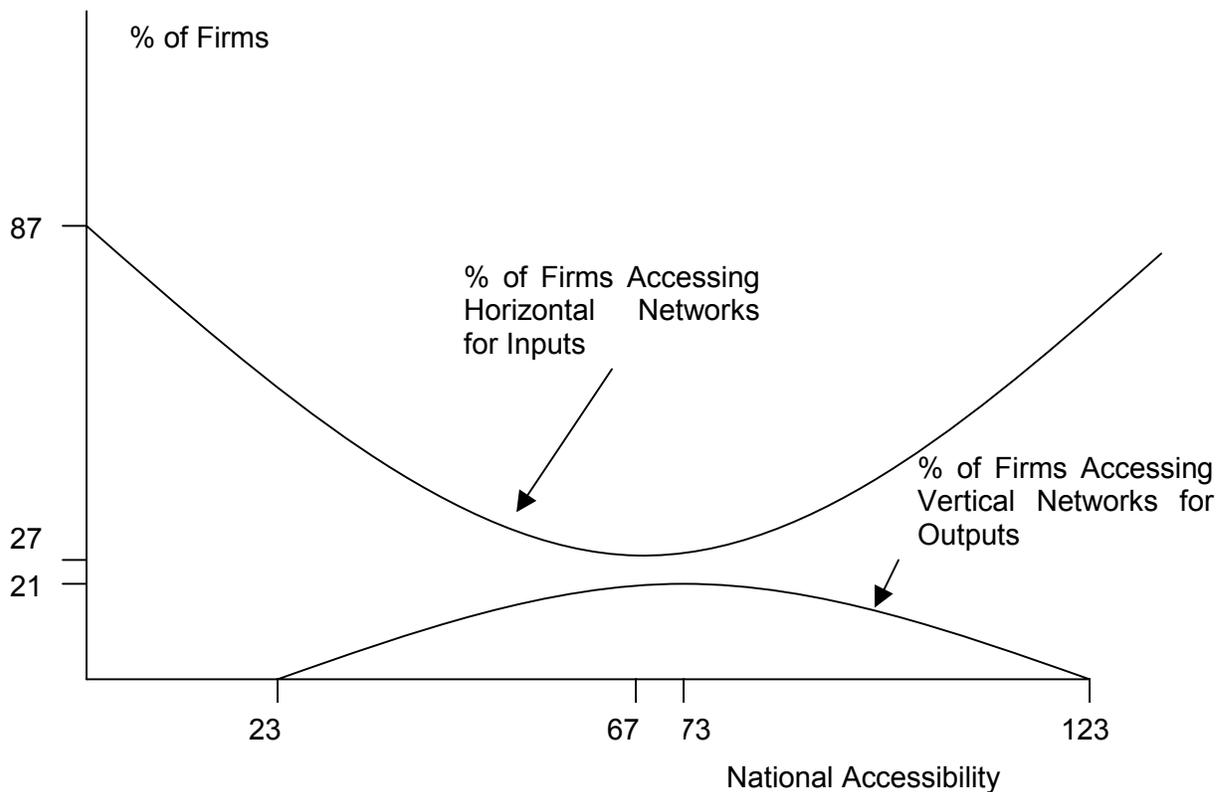


Figure 5.3: A Diagrammatic View of Table 5.3.

The interpretation of this pattern (which is of course based only upon the 12 AsPIRE case study regions) might be that in the more peripheral regions high transport costs act as a deterrent to the development of vertical networks, and to forms of economic activity which depend upon them. Instead there is a natural tendency to focus upon activities which can use local resources and serve local markets, and therefore tend to sustain predominantly horizontal networks. At the other extreme, in the very

accessible regions the density and diversity of firms are high and a wide range of “linkage opportunities” exist within a relatively short radius. Here vertical networks are not often necessary, and horizontal networks give a competitive edge by reducing production and distribution costs. In the intermediate regions vertical networks become more common since although local sources of materials and markets are insufficient to sustain businesses, the moderate cost of accessing supplies and markets either in the adjacent core regions, or in other intermediate regions are not prohibitive. Involvement in vertical networks enables firms in intermediate areas to compete by reducing their transaction costs (relative to those of spot trading).

Business Innovation and Accessibility

Innovative activity is very common among the surveyed businesses, partly because of the relatively broad and inclusive definition of innovation. Almost 70% of surveyed businesses (419 of the 590 surveyed businesses) reported an innovative activity in the sense of innovation as the introduction of a new to the firm product

Individual Firm and Entrepreneur Characteristics

Among the top innovative sectors were the manufacturing industry and the real estate businesses. Innovative firms were, on average, significantly larger than non-innovative firms: The mean size of innovators was about 36 full time equivalents while the corresponding figure for non-innovators was just 9. As concerns the age of the entrepreneur or of the enterprise there was no significant difference between innovating and non-innovating firms. Innovating firms were more often created by their owners and, to a lesser extent, tended to be family businesses. Innovative entrepreneurs had significantly higher average levels of university and post-graduate education and had undertaken training to a larger extent. Owners of innovative firms had accumulated higher levels of entrepreneurial capital through experience acquired running, or working in, another business and were more frequently raised in an entrepreneurial family environment. Furthermore, owners of innovating firms tended to be more socially embedded as they were, to a larger extent than their non-innovating counterparts, members in sports clubs and social and cultural associations (but, interestingly, less likely to be members of professional associations). Innovation is instigated by various sources. The majority of innovations were instigated from within the firm (49% of innovating firms) while 35% of the businesses reported that innovation was created with the assistance of business partners, (underlining the importance of access to business networks).

Regional Characteristics and “Milieux”

Innovative activity and the development of innovative milieux differ markedly between the case study areas. Camagni (1995) describes four region types according to the frequency of innovation and the extent to which they present the characteristics of an “innovative milieu”.

(a) In the first type there is no innovation and no milieu.

- (b) The second type of region has no milieu, but there is innovation.
- (c) In the third type a weak milieu exists through synergies, and innovation is taking place to a limited extent.
- (d) In the fourth type the fully fledged innovative milieu is observed. Knowledge and learning in an innovative milieu are transmitted with the help various mechanisms, including relationships and links between firms, suppliers, customers, mobility of highly skilled workers, and collaboration with universities and laboratories (Keeble and Wilkinson, 1999).

Through a combination of indicators of business network and innovation characteristics it has proved possible to apply this typology to the AsPIRE case study regions. An index of local innovativeness may be proxied by the percentage of firms presenting some signs of innovative activity. For instance, A “soft” definition of innovativeness would be the percentage of firms reporting the introduction of a new (for the firm) product. An appropriate index of local synergies in the sense of business cooperation would be the percentage of firm reporting access to at least one, spatially defined, horizontal network.

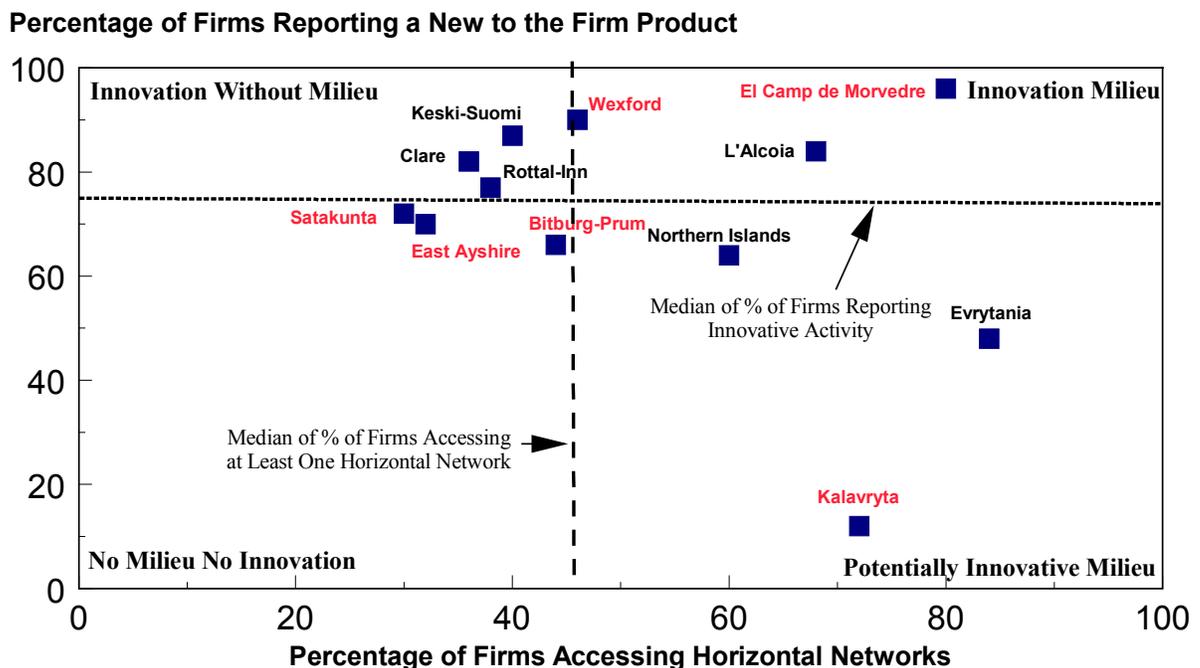


Figure 5.4: Innovation and Business Networks (a)

Figure 5.4 depicts the four types of innovative milieu by using the aforementioned indices of innovativeness and local synergies. It is evident that three of the six less

accessible areas are in the innovation milieu type (L'Alcoia), or very close to it (Keski-Suomi and Northern Isles) In Greece, Evrytania, the less accessible area, ranks higher in the percentage of firms accessing horizontal networks and reporting innovation in comparison to the Kalavryta, the more accessible area.

Figure 5.5 depicts the four types of innovative milieu by using a much stronger index of local innovativeness. It considers as local innovativeness the percentage of firms reporting a totally new product. Again one of the most peripheral areas areas (Northern Isles) is clearly in the innovation milieu type whilst Keski-Suomi (the less accessible area in Finland) is very close to it. At the other extreme, two accessible areas (Satakunta and East Ayshire) are clearly in (or very close) to the “no innovation no milieu” type.

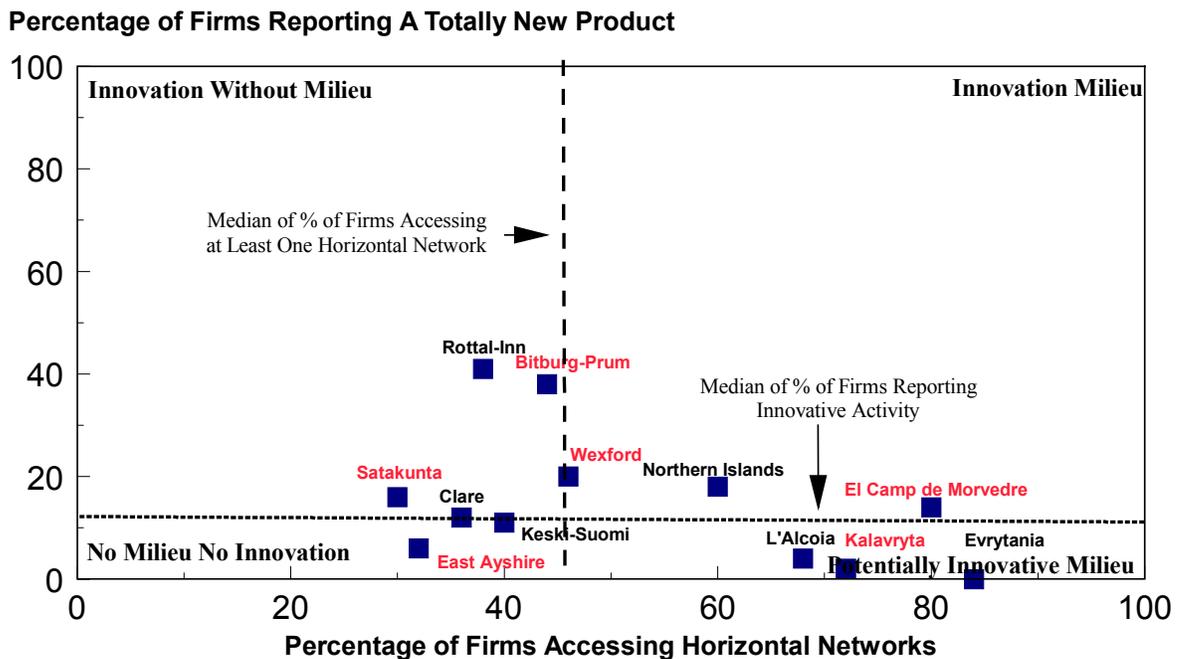


Figure 5.5: Innovation and Business Networks (b)

In figure 5.6, another index of local synergies is adopted. Local synergies are captured by the percentage of firms accessing both horizontal and vertical networks. Again the same pattern is revealed. The less accessible area of L'Alcoia is in the innovation milieu type and two other “A regions” (Keski-Suomi and Rottal-Inn) are very close to it. At the other extreme, two more accessible (B) regions (East Ayshire and Bittburg-Prüm) are in the “low innovation, low milieu” sector.

Percentage of Firms Reporting a New to the Firm Product

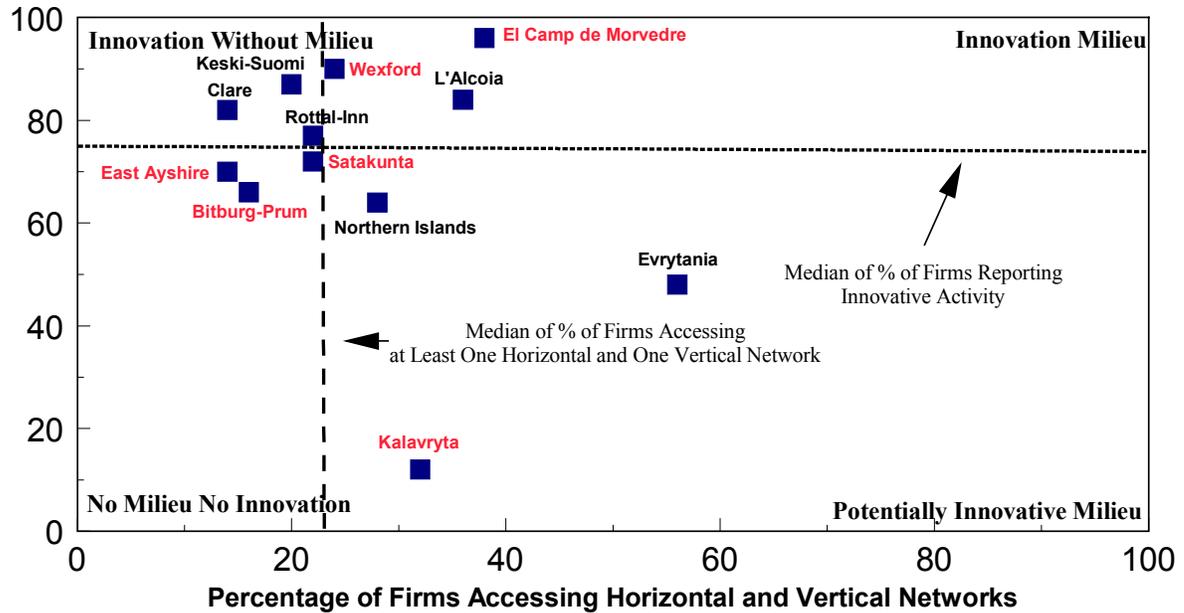


Figure 5.6: Innovation and Business Networks (c)

These results suggest that several of the more peripheral (A) case study regions were close to developing an “innovative milieu”. The more accessible (B) regions were classified either as having innovation without milieu, or with no innovation and no milieu. This tends to confirm the view that businesses’ innovative activity is influenced by the operation of business networks, and that the type of networks accessed by enterprises is of central importance.

A Model of Network Characteristics and Innovation

A formal model may be employed in order to examine the relationship of innovation and network activity. The dependent choice variable Y , takes on the value of 1 ($j=1$) if the firm shows any kind of innovative activity and the value of 0 ($j=0$) if the firm does not show any innovative activity at all. Such a binary process may take the form of a logit model as following:

$$Pr ob (Y = 1, \text{Innovative Activity is Reported}) = \frac{e^{\beta'x}}{1 + e^{\beta'x}} = \Lambda(\beta'x)$$

(1)

where x is a vector of factors influencing innovative activity and denoted as independent variables in table 5.4, β is a vector of parameters to be estimated by the model and $\Lambda(\cdot)$ indicates the logistic cumulative distribution function. The log-likelihood function for the logit model in equation (1) is estimated as:

$$\ln L = \sum_j [Y_j \ln \Lambda(\beta' \mathbf{x}) + (1 - Y_j) \ln(1 - \Lambda(\beta' \mathbf{x}))]$$

(2)

Parameter estimates are shown in table 5. Parameter estimates of the logit model indicate the direction of the effect of each explanatory variable on the response probability but do not directly represent the actual probability changes. By differentiating equation (1), we find the marginal effects at the sample mean of the regressors on the probabilities as (Greene, 1997):

$$\frac{\partial P_{Y=1}}{\partial \mathbf{x}} = P_{Y=1} \left[\beta - \sum_{Y=0}^{Y=1} P_Y \beta \right] = \Lambda(\beta' \mathbf{x}) - [1 - \Lambda(\beta' \mathbf{x})]$$

(3)

A goodness of fit measure based on the likelihood ratio test statistic, usually reported as McFadden's ρ^2 measure (Maddala, 1983), is:

$$\rho^2 = 1 - \frac{\log L_{\Omega}}{\log L_{\omega}}$$

(4)

where L_{Ω} is the maximum of the likelihood function when maximised with respect to all parameters and L_{ω} is the maximum when the likelihood function is maximised with respect to the constant term only, i.e. setting all the β s equal to zero. The marginal effects reported in Table 5.5 show how much the probability that a firm will claim an innovative activity, expressed in percentages, will change if the independent (explanatory) variable changes by a marginal amount from its sample mean. The marginal effects for dummy independent variables are estimated as a difference between the variable's two values, i.e. 0 and 1 (Greene, 1997). The interpretation of the marginal effects is thus, straightforward.

The probability that an innovative activity has taken place in the firm (INNOVNO) is positively affected by the accessibility and the economic development of the firm's location. Thus, between two firms that have similar characteristics at the sample's means, 10 degrees more in the level of the relative national accessibility indicator will increase the probability that this is an innovative firm by 5%. Similarly, for each thousand Euros higher in the per capita income, the corresponding probability that an innovative activity occurs increases by 2.4%. Taking into account that our case study areas have been selected to reflect the fact that more remote are also more dynamic (on average higher levels of economic development) this finding means that firms located in areas A have higher chances of being innovative. Accessing at least one

horizontal (in spatial terms) network increase the probability of occurrence of innovative activity by 7.6%. The sector of economic activity also plays a very important role in innovation (holding all other variables constant at sample's means).

Table 5.4: Definitions and descriptive statistics for dependent and independent variables.

Variable Name	Definition	Mean (S.D)
INNOVNO	Dummy variable, 1= Firm presents innovative activity, 0= Firm does not claim any innovative activity	0.705 (0.456)
ACCESSNA	National accessibility indicator	73.583 (20.727)
GDP1999	GDP per capita in 1999 in '000 euros	16.790 (52.730)
HORIZ	Dummy variable, 1= Firm accesses at least one horizontal network for inputs or outputs, 0= Otherwise	0.525 (0.460)
SECTORS	Dummy variable, 1= Business is in Manufacturing, 0= Business is in Services	0.55 (0.498)
FIRMAGE	Firm's age in years	20.111 (25.770)
HUM2	Dummy variable, 1= Entrepreneur raised in entrepreneurial environment, 0= Otherwise	0.378 (0.485)
EDUCAT1	Dummy variable, 0= Entrepreneur has finished up to secondary school, 1= Entrepreneur has higher education	0.602 (0.490)
ACQUIRE1	Dummy variable, 1= The business created by the present owner, 0= The business was acquired by any other method except creation	0.665 (0.472)

Table 5.5: Coefficient estimates and marginal effects of logit models

Independent Variables	Coefficient Estimate	Asymptotic t-value	Marginal Effect
Constant	-3.682	-6.299**	---
ACCESSNA	0.027	5.436**	0.005
GDP1999	0.126	6.393**	0.024
HORIZ	0.413	1.763*	0.076
SECTORS	0.636	2.780**	0.119
FIRMAGE	-0.005	-1.186	---
HUM2	0.559	2.432**	0.104
EDUCAT1	0.547	2.566**	0.108
ACQUIRE1	0.336	1.394	---
Summary Statistics			
N	548		
$\log L_{\Omega}$	-280.430		
$\log L_{\omega}$	-332.690		
$-2[\log L_{\omega} - \log L_{\Omega}]$	104.540**		
McFadden's ρ^2	0.157		
% correct predictions	77.000		

Note: Two and one asterisks indicate significance at the 5% and 10% levels respectively.

Firms in the manufacturing sector show a 10.4% higher probability of being innovative than their services counterparts. Two human capital characteristics play an important role in offsetting the disadvantages of location and of lower economic development. Between two entrepreneurs owning enterprises with the same characteristics, the one who has been raised in an entrepreneurial environment will have 10.4% higher probability of owning an innovative enterprise and also the one who has education more than the secondary level will also have 10.8% higher probability of owning an innovative business.

Impact of Business Networks on Regional Economic Performance

The analysis presented above shows that the Aspire business survey provides evidence that peripheral regions may develop a form of “innovative milieu” based upon horizontal networks. Of course, more accessible areas may be characterized by higher percentages of innovating businesses but peripheral regions seem to offset this disadvantage through exploiting horizontal networks which, it is assumed, perform the role of “carriers” of innovative activity.

Extensive statistical analysis did not reveal any significant direct impacts of networking on business performance (at the individual enterprise level) in terms of increased employment, turnover, market share, profit margins or investments. However, it is generally accepted that business performance in all of the aforementioned dimensions is closely related to business innovative activity. On this basis it seems reasonable to assume that business networking has an *indirect* effect on business performance through its influence on business innovation. Access to horizontal networks (which is, as we have shown, more common in less accessible areas) is closely related to innovative activity, and in turn to increased business performance.

It may therefore be argued that in less accessible areas (horizontal) networking creates an innovative milieu that enables businesses to innovate (with the assistance of business partners) and thus contributes to the creation of a “knowledge cluster”. Horizontal networking is also common in central regions, but in this case

agglomeration takes the form of urbanization economies through which transaction costs are reduced.

Conclusions

Although there was little difference in the overall rate of participation in business linkages between A regions and B regions, there was a tendency for firms in A regions to have a greater involvement in horizontal networks, especially in relation to finance and technical assistance. This finding was reinforced by a clearer relationship between peripherality (as measured by the AsPIRE baseline peripherality indicator) and the relative importance of horizontal and vertical business linkages. Horizontal linkages were found to be more common in both peripheral and accessible regions, whilst the frequency of vertical networks was at a maximum in intermediate regions. In peripheral regions the dominance of horizontal networks was explained in terms of the effect of excessive transport costs, which precluded the development of vertical networks and encouraged a local specialisation in activities which could use horizontal links to local resources and markets. In the more accessible regions it was suggested that competitiveness was best served by exploiting the potential for horizontal linkages with the many accessible opportunities for business transactions. In intermediate areas vertical linkages tended to be more common due to the need to do business outside the immediate vicinity due to relative sparsity of the business population.

The relationship between rates of innovation (broadly defined) and certain firm and entrepreneurial characteristics, were explored. The study regions were then assessed in relation to Carmagni's four-fold classification according to innovation and milieu. It was found that several of the type A study regions fitted the "innovative milieu category, whilst several of the type B regions combined a low rate of innovation with relatively sparse business networks. These relationship were then presented in the form of a quantitative model.

Finally, the complex relationship between business network accessibility, innovation and performance was discussed. It was argued that accessing horizontal networks for inputs increases the probability of innovation in terms of a new products. The combined effects of innovation and business network accessibility on business performance are complex. However, it was argued that, (assuming exogeneity of the presence of innovation), innovative firms are more likely to perform better.

Thus although the research design (comparing A and B regions) was found to be in some respects flawed, the findings presented above nevertheless suggest that the relative dynamism of some peripheral regions may be due (in part at least) to the development of robust horizontal networks which support innovation which provides regional competitiveness. This explains the fact that firms in the peripheral (type A) regions were able to equal the business performance those in more accessible (type B) regions, despite their locational disadvantage. However, the exact operation of horizontal business networks in relation to innovation is not yet clear. They may, for example, facilitate strong spillover effects, acting as the matrix for the local diffusion of information and tacit knowledge.

The results derived by this study are thus valuable and serve two purposes: Firstly, they reveal some trends relating the role of networks and innovation in building the competitiveness of different types (peripheral and accessible) of region. Secondly, they serve as an excellent basis for further research. The database created and the precision of collected data may, it is hoped, be further exploited, perhaps using more complex econometric models and more sophisticated regional theory.

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CHAPTER 6: GOVERNANCE

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Introduction

Within the overall conceptual framework of the AsPIRE project, Governance is treated as one of several soft and aspatial factors which play a role in determining the level of economic performance in regions (both peripheral and more accessible). As explained in Section A Chapter 2, the assumption is that quality of governance will become increasingly important (in relative terms) as conventional spatial peripheral disadvantage weakens in the face of transport and communications improvements (including IST)

It is important to stress at the outset that “*governance*” is a broader concept than “*government*”. Essentially the former stresses the role of non-governmental organisations (private and “third sector”), and considers the relationships between them.

It is argued below that regional governance has three main components; organisational structures, governance processes, and policy measures. The causal relationship between the type/quality of governance and regional economic performance is largely implicit within the literature, the link often being described in terms of an observed association rather than an exact process. However, it is reasonable to assume that there may be indirect relationships between structures and performance, which are manifest in more direct links with policy measures and implementation (processes).

Modes and styles of governance vary considerably between EU member states (including those involved in the AsPIRE project). Although the existence of certain global (economic and social) forces for change is acknowledged, national cultures and traditions affect the local response in terms of structures or regional development institutions, and the distribution of different forms of the power between the various levels of government, and private/voluntary sector organisations. The “meanings” attached to the detailed procedures from which networks are constructed, and the terminology associated with the policy measures themselves, vary from country to country (and sometimes between regions within a country). This calls for extreme care to be taken with comparative analysis, and this should be stressed as a constant proviso underlying the discussion of findings below. It also leads to a focus upon organisational relationships and interaction, styles of implementation, and the

practical content of policy measures, rather than upon simple governmental structures.

Conceptual Background

The nature of Governance

Governance is a concept, a field of analysis, which was relatively unknown ten or fifteen years ago. However, its importance is now widely recognised, so that it is not easy to find literature on regional development and policy in which it does not have a prominent role.

The term is used, however, in a confusing variety of ways, even within the field of political economy, (as opposed to the fields of regional science, geography, or economics, where the focus is upon particular aspects of governance which have clear practical implications for regional economic development – to which we will return later).

According to Peters (2000) governance can be defined as either (i) an analysis of the adaptation of the state to its external environment, or (ii) to theoretical representations of interaction within social systems. The latter concept includes the state as one of many actors, whereas in (i) the state has a unidirectional relationship with its environment. Furthermore, in (ii) interaction within social systems implies the adaptation of government; i.e. new processes, new loci of power, or new methods of government (Rhodes 1996; 2000). This adaptation often involves the inclusion of the private and third sectors in new forms of governance process (a theme explored in greater detail in the next section).

Governance can also be understood as referring to the way in which power is distributed and exercised by different institutional actors within a given geographical territory. This translates into practical issues concerning how policy decisions are taken and if, when, and, how various actors, - such as the third sector and individual enterprises, - have the opportunity to participate. Thus, according to Goodwin (1998) governance relates to the development of governing styles in which boundaries between and within the public and private sector have become blurred. From another perspective the field of governance covers the interaction through which these various actors compete or co-operate in the pursuit of their various individual objectives.

According to this view, governance is concerned not only with the process by which the struggles between various actors within a region change the distribution of power, (including how new nodes in the power network are created and others removed), but also with the impact this has upon the style or mode of policy measures and implementation. These processes result in the differentiation of several different kinds of power, which Stoker (1995) has classified as follows:

- **Systemic power** is derived by certain actors from their position in the socio-economic structure, (whether or not it is self conscious or exercised).
- **Command power** is defined by active mobilisation of resources to achieve domination over other interests. Command power is thus less positional and more active, and it normally extends over a limited domain, and a restricted set of activities within the regional system.
- **Coalition power** involves actors not seeking to dominate but rather to bargain on the basis of their respective autonomous basis of strength. Such bargaining depends on the awareness of other interests that share similar aims and views. According to Stoker coalitional arrangements tend to be relatively unstable.
- **Pre-emptive power** rests on the need for leadership in a complex society, and the capacity of certain interests in coalition to provide that leadership. It is generally directed at solving substantial common problems and to the creation of a structure capable of performing the associated functions.

The concepts of the power above are associated with a view of contemporary mechanisms of governance as played out across complex networks of public, private and third sector actors. The key notion of “power bargaining” describes the actions and modes through which the various actors seek support and ratification for their ideas, beliefs and aspirations, in preference to those of others (Stone 1993).

Governance “Capacity” and Regional Development

The discussion above outlines the basic concept of governance. The focus now changes to the more practical issues concerned with the role of governance in regional development.

The ultimate test of the effectiveness of regional governance in an economic development context is its ability to facilitate adjustment of the region’s economy to changes in the economic environment, and thereby increase its competitiveness and hence its prosperity. In other words effective governance will enable the available funds and tools (EU and national) to be used in the pursuit of the goal of “balanced” development.

Changes in regional economic environment are driven by variety of (mainly medium-long term) trends (Storper, 1997; Swyngedouw 1997; Amin, 1999; Painter & Goodwin 2000) including:

- Globalisation, e.g. ICT, free trade, increasing competition
- Deficiency of resources, e.g. over-exploitation of resources, social and economic pressures in reallocation of investments
- Migration, e.g. in-migration and out-migration
- Political environment, e.g. administrative development, liberal policy, changing context in regional policies, development of European Union
- Territorial environment, e.g. importance of local factors in production, traditions in entrepreneurship, public and private networks, participation, cultural identities

There is a sense in which the overall economic development policy response of a region comprises not only the “discourse” set out in the policy documents of the major actors, but also incorporates the power relations at work within the broader policy process. The “capacity” of regional governance is reflected in its ability to integrate and give form to a variety of local and regional interests, organisations and social groups, and to develop more or less unified strategies (Le Gales, 1998). Of course such a process is frequently limited or frustrated by the inadequacy of the resources for which the region’s agencies and organisations can bid.

Governance capacity also reflects the regional network of actor’s ability to interact with those of other regions, to organise collective action (with other regions), and to build coalitions and partnerships directed towards specific goals. The increasingly popular endogenous approach to regional development may not necessarily have a positive impact upon this aspect of governance capacity. Thus Lagendijk (1999) argues that it may induce a detrimental process of interregional competition and inhibit valuable flows of knowledge between actors in competing regions.

In recent years an additional complicating factor in field of regional governance has been the tendency of several EU member state governments to devolve powers down to the regional level. This may well bring advantages in terms of regional economic development policy, in terms of greater sensitivity to local issues and needs. However if not handled well it may also result in a weakening of regional institutional capacity (e.g. Lovering 1999; MacLeod & Goodwin 1999) since:

- devolution of powers to regional authorities without parallel electoral adjustments may result in a “democratic deficit”
- regional actors often do not accept the importance of regional authorities in regional development

- regionalisation can be associated with (local) “elitism” and render it more difficult for policy to reflect the wider common interest
- local disagreements between actors at the regional level can distort policy development
- the growing importance of local policy targeting might lead to uneven development
- regional authorities often lack influence and cannot introduce coercive measures

Governance and Regional Policy Styles

Governance capacity is perhaps best reflected in the regional policy arena by the existence and wide acceptance of a “regional vision”. This is not necessarily a written document. Rather it is a generally accepted “model” of the future which provides a basis for regional and spatial development. It also reflects the collective motivation for the future based on past experiences. It has to be realistic, challenging, and to provide an agreed frame for regional policy actions.

Regional policy incentives have in the past been viewed as critical in attracting firms to locate in peripheral regions. However, most European governments have reduced regional business incentives in recent years (Armstrong & Taylor 2000). This may explain why Hudson (1999, 6) found that much of the industrial growth in European regions was only tangentially related to regional policies and incentives.

Regions can do little about their physical location and its natural potentialities. However as Copus (2001) notes, changes in the geographic constraints to many economic activities are likely, in future, to mean that the economic potential of peripheral regions will be less closely related to location, and increasingly influenced by a variety of “aspatial” characteristics. Successful regions may no longer depend on state financial incentives, but they can derive benefit from horizontal policies directed at aspatial factors, such as those concerned with quality of business environment, innovation systems and R&D activities. This also means that factors like innovation, networking, local knowledge and culture and social capital are recognised for their direct economic value instead of solely as soft values, and they can contribute to the capacity of local people and the institutional and entrepreneurial environment.

Coincidental with the reduction in regional development aids there has been increasing interest (from both academic and practitioner communities) in endogenous development processes. Such “bottom-up” styles of intervention are of course heavily

dependent upon regional institutional capacities. For example, Hudson (1999) claims that regional economies in Europe are as much affected by local conditions and processes as by wider economic forces. His list of critical characteristics of successful regions has a number of obvious cross references to governance:

- social cohesion and a culture of commitment
- co-operation, trust and networking
- embedded business and new forms of inward investment
- co-operation, compliance and new forms of industrial relations
- regulation, governance and institutions

Endogenous development policies often assume an increasing role for market-led (private sector) and “third sector” regional development actors, however this does not imply a reduction in the role of the public authorities in facilitating relationships and cooperation. The existence and influence of the state is essential, especially in regions suffering difficult structural development or in less developed regions. The development of new, more inclusive forms of governance capacity does not necessarily mean diminishing the role of the public administration. Many market led or third sector actors in regional development are very much dependent on the public sector's regulative powers, which provide a safe environment within which they can pursue their regional development vision.

Two “Models of Effective Regional Development Governance

To draw this conceptual discussion together, it is helpful to describe two “models” of “good” governance, which are seen by many to be causally associated with regional economic dynamism. Although distinct in their terminology they have much in common, and are also resonant with many of the points made above.

Institutional thickness

Amin and Thrift (1995) claimed that a particular model of regional governance - known as "institutional thickness" – can provide one of the preconditions for successful economic development. They suggested that

“ ... institutional thickness amounts to a combination of features, including: the presence of many institutions; inter-institutional interaction; a culture of collective representation; identification with a common industrial purpose; and shared norms and values which serve to constitute the ‘social atmosphere’ of a particular locality. Thus institutions were broadly conceived to include not only formal organisations, but also more informal conventions, habits and routines which are sustained over time and through space. Similarly ‘thickness’ is conceived to stress the strong presence of both institutions and institutionalising processes, combining to constitute a framework of collective support for individual agents. Implicit to the argument was also the tacit stress on the inclusive nature of such collective support, reaching out to and involving the majority of individuals and groupings in the local economy.”

Amin and Thrift (1995) argued that institutional thickness may be broken down into four elements:

- (i) A large number and variety of institutions (ranging from development agencies, local authorities industry associations, unions and research institutes, and, even, the firms themselves) to represent the actors in the network.
- (ii) High levels of interaction within the network are necessary. “The institutions involved must be actively engaged with and conscious of each other, displaying high levels of contact, cooperation and information interchange which may lead, in time, to a degree of mutual isomorphism.”
- (iii) The development of “...sharply defined structures of domination and/or patterns of coalition resulting in both the collective representation of what are normally sectional and individual interests, and the socialisation of costs and the control of rogue behaviour.”
- (iv) “There is a commonly held industrial agenda which the collection of institutions both depends upon and develops”. This common agenda for development may be formally defined, or simply a common set of priorities, perhaps reinforced by other sources of common identity, reflecting their embeddedness in local culture.

The authors stress that the first of the elements is a necessary precondition, but not sufficient without the development of the other three less tangible processes. “What is of significance here is not only the presence of a network of institutions *per se*, but rather the *processes* of institutionalisation; that is, the institutionalising processes that both underpin and stimulate a diffused entrepreneurship” (Amin and Thrift, 1995).

Furthermore they point out that while the former is relatively easy to create by policy intervention, the institutionalising process is much more difficult.

The Associational Economy; the Third Way

More recently, it has been argued that the “associational economy” offers a “third way” (Cooke and Morgan, 1998; Garmise and Rees, 1997; Hudson et al 1997), between state and market led strategies. “The common thread running through many third wave conceptions is the idea that to be an effective animateur of development the state must be reconstructed rather than dismantled and this means enhancing its capacity rather than its size.” (Cooke and Morgan, 1998) This third approach, namely the associational model, considers more the efficacy of the state as opposed to the scale of state intervention (which had been a key distinction between previous Keynesian and neo-liberalist approaches).

Like the concept of institutional thickness, the associational model is based upon “networks of institutions, both private (such as firms) and public-sector (such as universities and research laboratories, etc) as well as “intermediate” (trade associations, chambers of commerce, etc) (Garmise and Rees, 1997). However it differs in that it explicitly seeks to empower the intermediate associations that lie between the state and the market, where economic activity is increasingly based on modes of collective learning and where competition increasingly involves partnership and interactive innovation (Cooke and Morgan, 1998).

Within this context, “...one of the key developmental roles of the state is to create the conditions – the formal framework as well as the informal norms of trust and reciprocity – whereby firms, intermediate associations and public agencies can engage in a self-organised process of interactive learning” (Cooke and Morgan, 1998).

Those promoting the associational model stress that the state is just one among many institutions in the developmental process. Salas et al (1999), for example, suggest that universities, local governments, labour markets, communities, entrepreneurs, infrastructure and financial sources are all shapers of the economic structure of a region. Consequently, “... the effective use of state power is contingent on the active cooperation of others, hence it needs to collaborate with and

work through the institutions which collectively constitute the national system of innovation” (Cooke and Morgan, 1998).

Hypotheses and Research Questions

A set of hypotheses were developed (Lakso and Kahila 2001) within the three elements of governance introduced at the beginning of this chapter;

- (i) organisational structures
- (ii) governance processes; and
- (iii) the contents of governance (policy incentives).

These hypotheses were based on assumption that organisational structures, governance processes and policy incentives have impacts upon regional economic performance, and therefore are elements of aspatial peripherality. The full set of hypotheses are set out in Lakso and Kahila (ibid), but for clarity they are here expressed in the form of three simple research questions:

- What are the main differences (in terms of governance) between the case study regions of type A and those of type B?
- Do A-regions have more effective governance than B-regions?
- Is there any evidence to suggest that regional governance may play a role in aspatial peripherality?

Findings from the Case Study Regions

The main source of primary data for the following discussion was a survey, which consisted of structured interviews with most relevant actors within the governance system (public administration, regional development agencies, sectoral development agencies, and the education/R&D units) of each of the twelve case study regions. The interviewing process started in April 2002, and over the next 8 months 203 interviews were carried out.

The interview structure included separate thematic sections: governance, social capital, business networks, tourism and ICT. The governance and social capital thematic sections overlapped to a considerable extent, (both including some core questions relating to the regional governance system). However, the latter incorporated additional questions dealing with structures, resources and relationships within third sector organisations. Interviews with partnerships included additional questions designed to elicit information on intra partnership interaction. The analysis of regional governance presented below is based upon data derived from all three

overlapping interview structures (governance, social capital, and partnerships), and there is inevitably a close relationship with the Social Capital material presented in chapter B4.

In the interests of brevity, the following discussion is centred around a selection of the more quantitative (attitudinal scoring) results, although supporting qualitative findings will be cited where appropriate.

Power and influence of organisations

Figure 3.1 shows the results of a question eliciting the 3 most influential actors in economic development in the region. Local government was perceived to be the most important actor in both A-regions and in B-regions (Figure 6.1). Companies and firms, and organisations representing local businesses, were also perceived to have an important role, especially in A-regions.

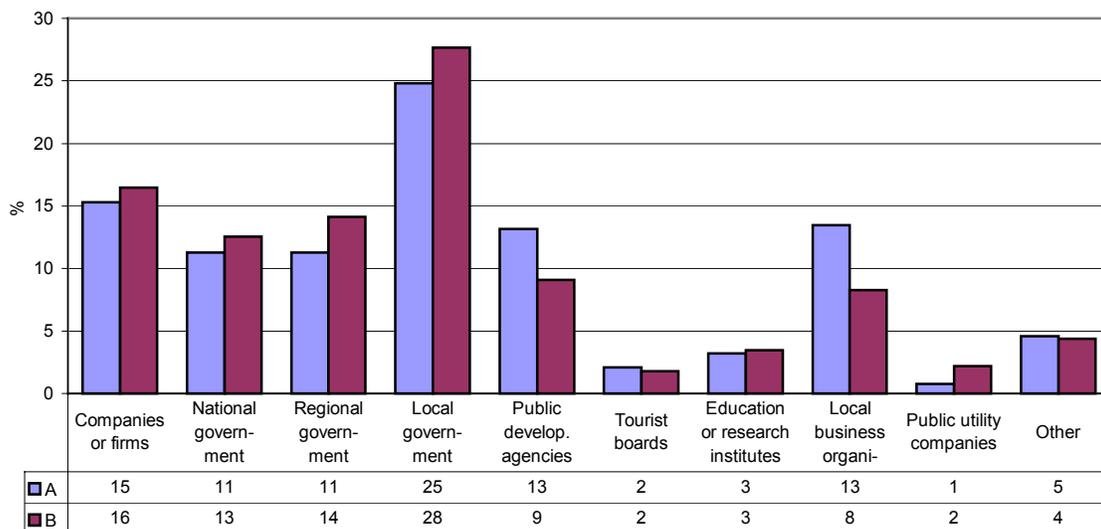


Figure 6.1: The three most influential actors over economic development in case study regions.

The interviews indicated that the dominant role of local government tended to be reinforced through the exercise of state responsibilities, e.g. provision of welfare services. Local government power is also based on the fact that they are commonly a major channel for regional development funding and associated project initiation. An interesting contrast at the member state level was that the importance regional government was stressed in Finland, Spain and Greece whereas regional development agencies were more frequently acknowledged in Scotland and Ireland.

Such differences between the role of different types of actors in national systems are to a large extent a result of the different evolutionary history of the national administrative systems (perhaps before EU accession), but they probably also have roots in local and regional culture.

Although the “profile” of perceived influence was quite similar in A and B regions, perhaps the key difference is the greater emphasis upon public development agencies, and on local business organisations in the A regions. The first of these differences may perhaps be due to the fact that some of the B regions were not covered by regional agencies (regional development being part of the remit of local or regional government). The greater role of local business organisations may be due to a combination of a stronger shared perception of regional disadvantage, together with the narrower sectoral focus leading to stronger organisations.

Reviewing both the quantitative and qualitative information derived from the interviews suggests some generalisations regarding trends in the role of local/regional government in the different member states:

- The more centralised government systems of Ireland and Greece, have been partially successful in realising devolution among regional actors.
- In the more decentralised countries of Spain and Finland, the governance structure has promoted a deeper “process oriented” form of regional development.
- In Germany and Scotland the systems have been more stable in recent years, although regional actors (as opposed to national government) have become more influential.

The influence of companies, and organisations representing local businesses was relatively strong in all case study regions. Businesses are the engines of economic growth, they hold significant sway at the regional and local levels. Public and private actors differ in the extent to which they are constrained by civil service and regional hierarchies. Public administration players can operate on their own level only, but businesses can interact with all levels, and can therefore become very important actor.

Regional Visions

The interviews probed issues relating to the existence and role of a “regional vision”. These are both of intrinsic interest, and are also indicative of the power relations between the actors of the different regions.

It was found that (overall) local government was perceived to be the primary initiator for the regional vision in both types of case study region (Figure 6.2). Regional and national government seemed to play more important roles in determining the vision in B-regions compared with A-regions. The private sector (as represented by both companies/firms and local business organisations) were perceived to play an important role on forming the regional vision, (in both A and B regions) being cited by about a quarter of all interviewees.

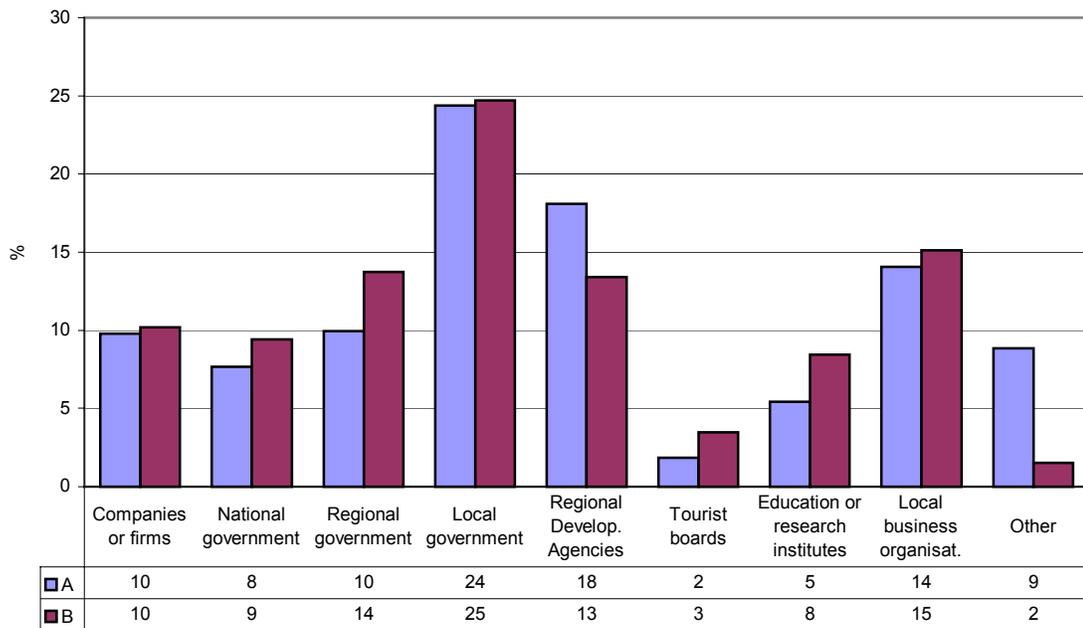


Figure 6.2: Initiators of the regional vision in case study areas.

However, national and A/B region differences in initiation of the images were also interesting. Private sector actors were conspicuous in A-regions in Finland and Spain, where both companies and organisations representing local businesses were very much involved with the regional government in initiating the vision. In the Scottish, Greek and Irish A regions the vision was perceived to have emerged from collaboration between local government and regional development agencies. In all B-regions the public sector was major initiator.

Frequently cited “regional vision” issues included development of the knowledge base, increased regional economic competitiveness, physical infrastructure improvements, and the introduction/expansion of new technologies. Generally administrative/public sector actors were conscious of and shared the vision, but the

other actors found it difficult to see its relevance to their activities. The private sector, in particular tended to feel that the vision had too broad a focus. The visions were set out in very general terms; specific future-oriented plans, and precise sectoral goals were rarely spelled out.

Governance and Implementation “Milieux”

The respondents of the organisations were asked to describe the “governance milieu” in their regions. In this context the term is used to characterise the overall interaction of actors and their mutual relationships within the region. The concept was first explained to the interviewee and then presented as set of seven characteristics measured on bi-polar scales (Figure 6.3). The results were as follows:

- The first of these scales ran from “Bottom up” at one extreme to “Top Down” at the other. On average (in both A and B regions) the responses were skewed towards latter end of the scale. However, those in A regions were much more likely to choose scores closer to the “Bottom up” extreme.
- “Flexibility” v “Rigidity ” were the extremes of the second scale. In this case the responses were more evenly distributed, but “Flexible” was substantially” more common in the A regions, whilst “Rigid” more often characterised the B regions.
- The third aspect to be assessed was the degree of integration (of all the different actors”. Here the majority of actors, in both A and B regions, perceived their system as “Integrative”, but slightly more of the B region interviewees scored their system closer to the “Exclusive” end of the scale.
- The scale from co-ordination to fragmentation was also fairly evenly divided, although the A region interviewees showed a marginal preference for the former, and the B region actors leaned slightly more towards “fragmented”.

- When asked to score their region on a scale between “decentralised” and “centralised”, the majority, in both types of region felt their governance system was relatively centralised. This view was slightly more dominant in the B regions.
- The scale between “Person orientated” and “Institutionalised” showed a clear difference between the two types of region, the A regions being more often perceived as closer to the first of these, and the B regions closer to the second.
- The final dichotomy, between “Formal” and “Informal” systems showed that almost 30% of A region respondents favoured the informal end of the scale, compared with less than 20% in the B regions.

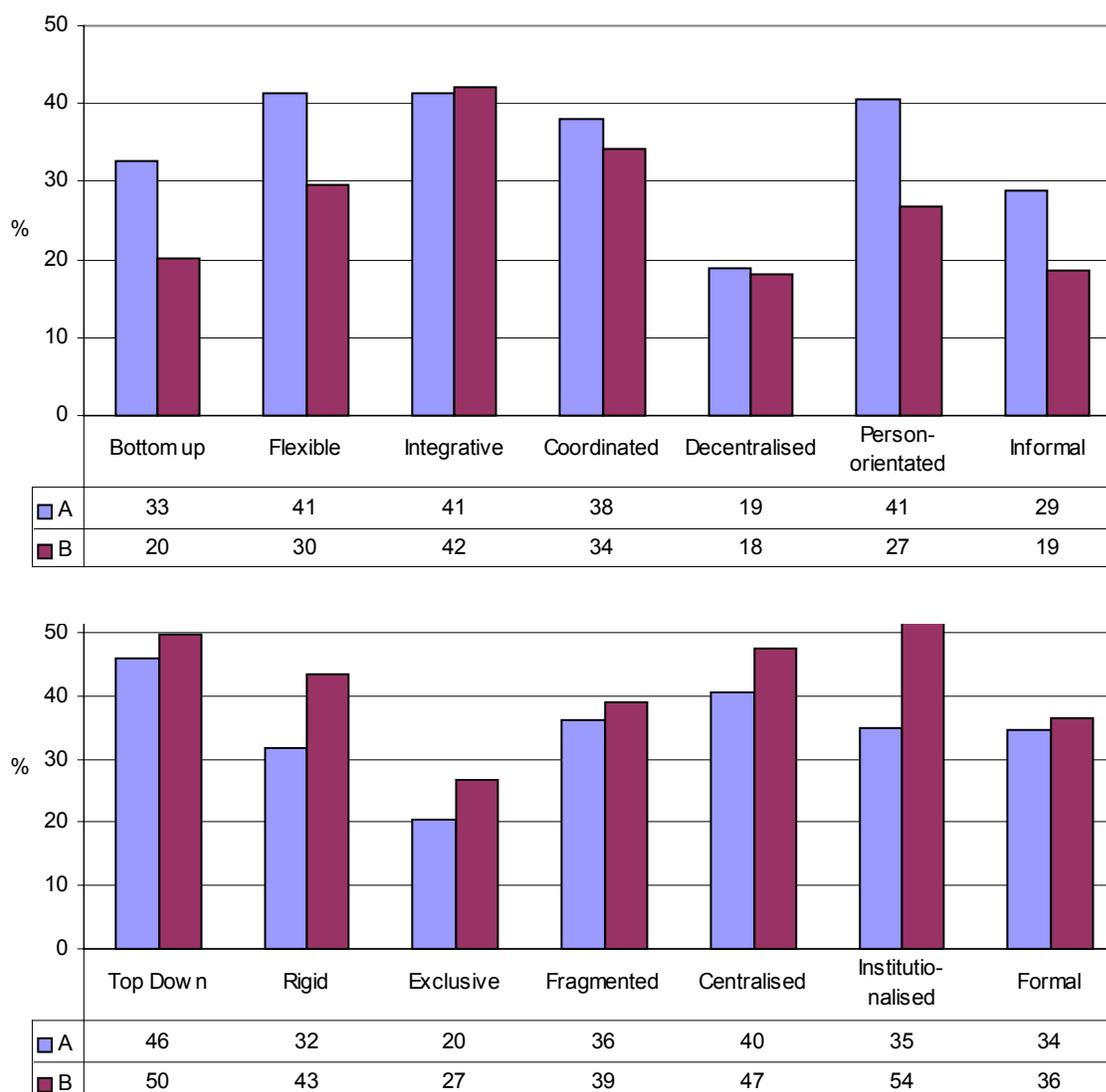


Figure 6.3 Aspects of governance structure in case study regions.

The above points seem to point to a fairly clear contrast between local perceptions of the governance systems in the two types of regions. The A regions were perceived

as significantly more bottom up, flexible, person orientated and informal, and slightly more integrative, co-ordinated and decentralised. The B regions were, by way of contrast, more institutionalised, more rigid, more exclusive, more top down, and slightly more formal.

A closely related, but less abstract, more practical issue was assessed by a question relating to “implementation milieu”. This relates to the day to day style, working culture and interaction between the actors of the regional governance system. The interviewees were asked to rate their actors on ten bi-polar scales (Figure 6.4). The key contrasts between A and B regions are summarised as follows:

The general implementation milieu of regional economic development policy in A-regions was perceived in a generally positive light. The actors were more often described as “optimistic”, “energetic”, “proactive” and “independent” (of central government) and “showing initiative”. Development work was perceived as taking place in close co-operation between the organisations, and motivated by mutual benefit.

By contrast, the respondents rated the culture and attitudes of the institutions, agencies and organisations rather negatively in B-regions. The following terms were more frequently used to describe the B regions than the A regions; “conflictful”, “self interest”, “apathetic”, “low morale”, “lacking identity”, “passive”, “dependent”, and “lacking initiative”.

Of all the ten bipolar scales, the only one in which the A regions received a larger number of votes than the B region at the negative end of the scale (and *vice versa*) related to levels of trust between actors.

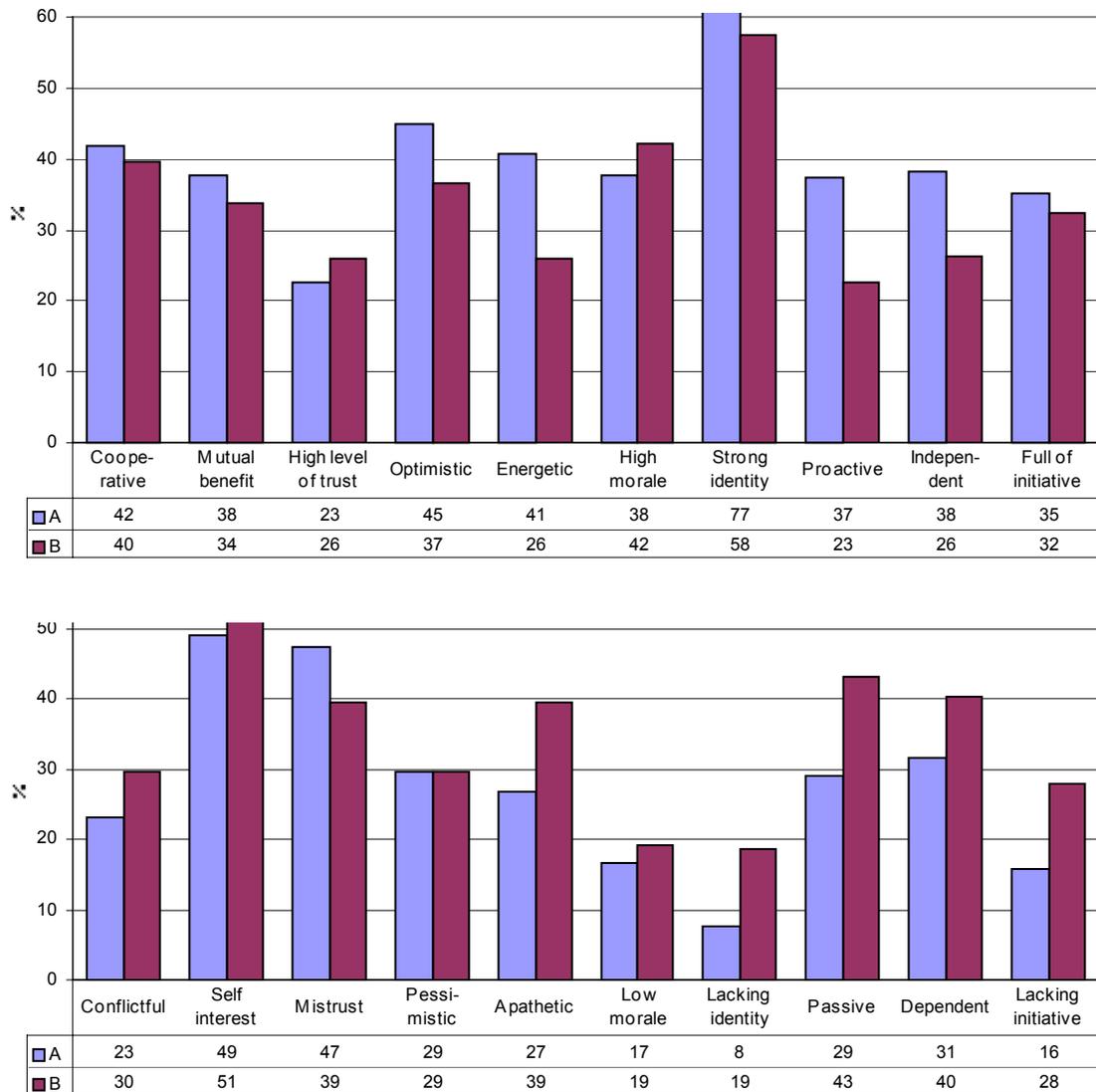
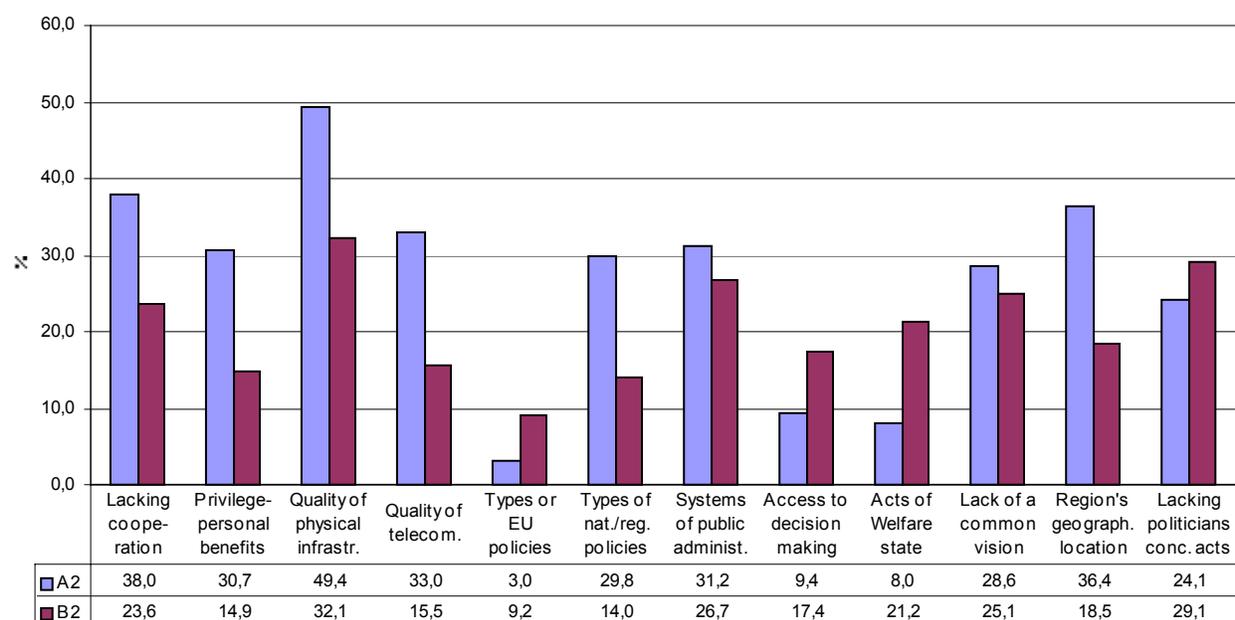


Figure 6.4: Positive and negative culture and attitudes of the institutions, agencies and organisations in case study regions.

Perceptions of Barriers to Regional Development

In an attempt to assess perceptions of the local regional development challenges, the interviewees were asked to consider a range of possible barriers to local and regional development in their region (Figure 6.5). The barriers were scored on a scale from “negligible” to “major obstacle”. Generally the responses were skewed towards the negligible end of the scale, (perhaps suggesting that key barriers were omitted from the choice).

Figure 6.5: Range of obstacles to local and regional economic development



in case study regions.

Obstacles relating to location, such as remoteness, quality of physical infrastructure and telecommunications are still perceived as important barriers in the A regions, and more so than in the more accessible B regions. In the surrounding discussions, respondents emphasised the importance of these issues in an underlying strategic sense. However peripherality seems to have the capacity for both positive and negative impacts upon the governance milieu. Thus, whilst some respondents in A-regions regarded peripherality as a driving force for local and regional economic development, engendering proactivity, initiative and enterprise, others stressed the problems caused by traditional, parochial attitudes in peripheral areas and the neglect of wider opportunities.

The higher frequency of region A respondents identifying a lack of co-operation, and common vision, and the tendency of actors to be motivated by privilege or personal benefit appears to contradict the results presented above (Figure 6.3 and 6.4) and may perhaps be interpreted as indicating a greater sensitivity to such issues, an awareness of the need to do better, rather than a poorer performance in these respects in peripheral regions.

Types of national/regional and also systems of public administration, i.e. how local and regional development policies are actually delivered to intended beneficiaries, were more frequently cited as an obstacle in A-regions than in B-regions. However EU policies were not considered a major obstacle for either type of region. Systems of public administration cited quite frequently in both kinds of region, and slightly more often in A regions. Criticism generally related to the sectoral and inflexible nature of public administration. In general, the respondents seemed more likely to regard EU policies than national/regional policies, as enabling them to progress towards economic development goals

Respondents in both types of regions criticised the abilities of the regional political representatives to promote the development of the region. However, they did not mention any particular reason to this. Probably the background relates to lack of cooperation, to privileged actions of groups and individuals.

Policy measures and incentives

The final aspect of the governance system which was explored through the survey of actors in the case study regions related to attitudes to different kinds of economic development policy measures. Here the objective was to assess the extent to which policy styles varied between the two types of regions, and whether the differences in governance milieu, described above, resulted in different emphases in the choice of different types of measure.

The respondents were asked which of a range of alternative economic development tools and incentives were considered to have been most effective in their region (Figure 6.6). The list of measures included some “traditional” activities, investing in infrastructure, measures to attract inward investment, support for large scale industry, and some “softer” more innovative approaches, such as measures to enhance the regional image, training for the unemployed, cluster policies, and so on.

In reviewing the responses it seems that some of the differences between the scores from the A regions and those from the B regions relate to perceptions of long established regional limitations, whilst others stem from perceptions of realistic future potentials. Thus, for example support for small firms is perceived as the most effective tool in both types of region, whilst support for large scale industry received a rather lower rating overall. However the A region respondents were slightly more likely to rate small firm support, and much less likely to rate large scale industry support, and this simple reflects a degree of realism regarding the probability of attracting large scale industry to a remote area. The greater confidence in small business policies in A Regions is complimented by a higher score on policies for developing regional clusters, and a very much lower rating of inward investment policies. All these results accord with the preference for “bottom up” styles of governance identified earlier.

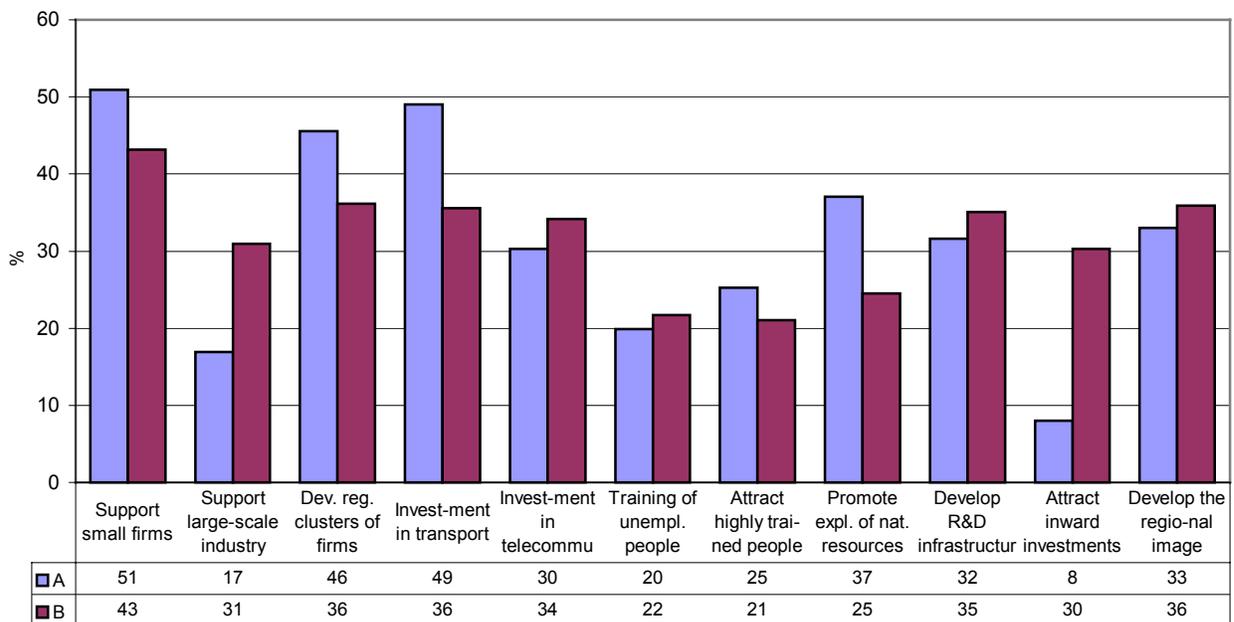


Figure 6.6: Effectiveness of tools and incentives for regional development within case study regions.

Investments in transport infrastructures were highly rated by both types of regions, but (for obvious reasons) especially in the A regions. Interestingly, policies to stimulate investment in telecommunications infrastructure are perceived as less effective, and the A regions showed no particular tendency to embrace this as a solution to their peripheral disadvantage. Measure to stimulate the development of a research and development infrastructure received a similar moderate score, and the

A region interviewees were realistic in that they scored this slightly lower than the B region respondents.

“Softer” approaches, such as the training of unemployed people, and measures to attract highly qualified people, were considered moderately effective in both types of region. Policies relating to the environment, tourism and niche marketing (measures to promote the exploitation of natural resources, the development of a regional image) were rated relatively highly in the more peripheral regions.

CONCLUSIONS

It is perhaps appropriate at this point to return to the three research questions presented earlier in this chapter, to summarise the findings in terms of responses to these questions. The first question was simply factual or descriptive, and concerned the key differences in the governance systems of the A regions and B regions. These may be reiterated as follows:

In terms of the perceived relative importance of a range of different actors, the greatest differences seem to have been between member states, rather than between A and B regions within them. This is no doubt due to the distinct structural evolutions in different member states which in most cases has created a relatively rigid structure, within which the scope for variation is relatively limited. Within these structures local or regional government still drives the process through which the regional vision is formulated, although in certain member states the private sector is increasingly assuming a role, whilst in others regional development agencies play a key role.

However, within the relatively rigid structural frameworks significant differences were found in terms of the policy and implementational milieu of A and B regions. On the whole, the qualitative information gathered pointed to a contrast between the A and B regions in terms of the willingness of the actors to co-ordinate their activities, and to adapt generic programmes/measures to local geographic constraints or opportunities. Thus in the A regions there was a greater likelihood of effective collective decision making, co-ordination between different programmes/measures, and sensitivity to local conditions. This seems to have resulted in more effective governance which supported stronger economic development. In the B regions, the

governance system tended to be more fragmented, and policy less focussed upon the needs of rural areas.

The results of the qualitative analysis of the survey results added support to this conclusion. Thus the A regions were perceived as significantly more bottom up, flexible, person orientated and informal, and slightly more integrative, co-ordinated and decentralised. The B regions were, by way of contrast, more institutionalised, more rigid, more exclusive, more top down, and slightly more formal. Policy implementation in the A regions tended to be more often described in terms of words such as “optimistic”, “energetic”, “proactive”, “independent”, “initiative”, “co-operative” and so on. In the B regions the vocabulary tended to be more negative; “conflictful”, “self interest”, “apathetic”, “low morale”, “lacking identity”, “passive”, “dependent”, and “lacking initiative”.

Moving from process to policy content, geographical location and infrastructural issues were found to be still perceived as major barriers to development in the periphery, but inadequacies of national and regional policy and administrative frameworks were cited as almost as much of a hindrance in both types of region. In terms of perceived effectiveness of different types of measures there were understandable differences between A and B regions, the former tending to favour transport and infrastructure investment, policies for indigenous entrepreneurs (rather than large scale industries or inward investment), and soft policies focussing upon human capital development. IT infrastructural investment was not seen as a particularly effective approach (in either type of region).

In terms of Stoker’s four kinds of power, systemic power seems to have been central to the governance systems of all the study regions, but perhaps especially in the B regions, where the local and regional governments combined it with command and pre-emptive power to dominate the governance milieu, with generally negative outcomes. In the A regions the greater role of coalition power provided a more flexible, creative and positive milieu.

This (admittedly simplistic) characterisation of the A and B regions carries us some way to answering the second and third research questions, which related to the effectiveness of governance in the two types of regions and the benefits for regional economic development. Clearly the governance systems of the A regions have been shown (after allowing for substantial variation between member states) to exhibit

more of the characteristics of Amin and Thrift's "Institutional Thickness" and of Cook and Morgan's "Associational Economy". It is reasonable to assume therefore that the institutional milieu of these regions provides some compensation for the disadvantages of peripherality. Despite the extreme difficulty of measurement the survey has thus provided some support for the concept of governance as an element of AsP.

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CHAPTER 7: SOCIAL CAPITAL

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Introduction

Social Capital in AsPIRE

Social capital is a resource. Theoretically, it constitutes a stock of assets from which flow a set of benefits – economically productive activity, effective management of public affairs, standards of positive social behaviour. The social capital of a region refers to certain features of its economic and social organisation, which facilitate collective action. At the micro level it is represented by the nature and extent of networks of personal and functional relationships (e.g. between individuals or among business firms), together with the shared values, norms and understandings, which underpin these networks and thus foster co-operative behaviour. At the macro level it is reflected in synergistic institutional relationships, which support common agendas for action and effective systems of governance.

The theme of ‘social capital’ was introduced into the AsPIRE project because of its theoretical potential to counter spatial peripherality. Social capital, it was reasoned, can exert benign effects such as helping to engender higher rates of economic development than would normally be associated with geographically remote locations. It was considered that various forms of collaborative networking in civic associations, business networks and public agencies can create productive synergies among different interests involved in local and regional economic development.

The main proposition underlying the application of social capital in the AsPIRE study was that geographically more and geographically less peripheral regions would differ in their stocks of social capital and, further, that there would be differences between the two sets of regions as regards the sources of social capital, the factors which facilitate its creation, and the outcomes it helps to achieve.

Structure of the Chapter

There are four main parts to the following text. The first retraces part of a conceptual paper (Deliverable No.5) by outlining the evolution of the social capital concept, how social capital is created and eroded, and noting some issues in the empirical

application of the concept. The second part describes how social capital was applied in AsPIRE. The third presents the main findings while the fourth and final section draws general conclusions from the study.

Some Conceptual and Empirical Issues

It has long been recognised that the functioning of economic systems is not determined solely by principles of economic rationality. Economic action is influenced by patterns of social relationship and by forms of social and institutional organisation. The basic idea inherent in the social capital concept, – that sociological factors influence economic behaviour – was accepted by the classical social theorists. The ideas of these classical theorists can be traced forward to the recent resurgence of interest in how characteristics of civic, cultural and social organisation influence a range of contemporary societal issues. Researchers in such areas as education, economic development and social exclusion have found that successful interventions are more likely in 'civically engaged' communities. Research in the sociology of economic development has discovered high-performance industrial clusters based on networks of collaboration among workers and small entrepreneurs. (Putnam 1995: 66). There is a recognition that economic behaviour is influenced not only by material incentives and inputs but also by the way concrete personal relations and networks of relationships generate trust, establish expectations, create reciprocal obligations and enforce norms of conduct. In regard to governance, its qualities have been shown to be determined by longstanding traditions of civic culture (or their absence). The norms and networks of civic engagement powerfully affect the performance of representative government (Putnam 1995:66). Theories of local community development stress the positive role of broad-based community involvement by individual citizens in partnership with representatives of voluntary, business and statutory agencies. The process of change is considered to rest on such social ingredients as the promotion of shared values, a common vision, time commitments to collective effort, and decision-making based on trust and the capacity to collaborate in pursuit of common interests.

In recent years these various thought lines have become loosely fused into the term 'social capital'. This term it is claimed signifies a new form of capital (Grootaert and van Bastelaer 2001:7). Whereas financial, physical and human capital are normally private goods, social capital is primarily a public good and, like other public goods, it

will tend to be under produced. Unlike physical capital, social capital can accumulate as a result of its use.

With regard to micro level economic development social capital is reflected in informal networks and local horizontal associations which enable people to gain access to resources and which facilitate their cooperation for mutual benefit. At the macro level social capital is found in institutional arrangements, organizational frameworks and synergistic relationships that enhance information exchange, collaboration and effective decision-making. The general proposition underlying social capital theory is that, other things being equal, communities with higher endowments of social capital will be wealthier, more informed, better governed and less marked by conflict than those with lower stocks of social capital (Woolcock 1998: 154-155).

It will be apparent that the foregoing conceptualisations of social capital advert exclusively to its beneficial attributes; there is an implicit consensus that social capital is a public good. However, a number of writers have sought to correct this bias by attending to the distinctively negative aspects of social capital. Portes and Landolt (1996), for example, draw attention to three such downsides. First, the same strong ties that support members of a group often enable it to exclude outsiders. Dense networks support localism but this may include attitudes resistant to change (Levi 1996.). Second, tight social networks may lead to 'downward levelling' in the way they can restrict individual freedom or individual mobility, and dampen 'non-conforming' business initiative. Third, the same kinds of ties that yield public goods can also produce 'public bads' - such as crime rings, racketeering and business cartels, or other networks of exploitation.

Qualifications to the usage of social capital include the fact that it is a very context-dependent concept; what constitutes social capital in one setting may not do so in another. This has prompted efforts to distil its core features or find 'context-independent' aspects that can be operationalised in any given situation. In addition, as Edwards and Foley (1997) point out that, there is a risk that a heavy focus on this concept may lead sociological analysis to ignore the larger socio-economic and political context in which issues of social capital are located. They add that while concern with civic engagement is to be welcomed, attention must also be paid to the profound impacts of contemporary economic restructuring and of macro economic

forces on the character of civil society. These, it is argued, and not so much social capital, are the determinants of regional economic development. Other limitations of the concept refer to its difficulties for empirical operationalisation, as noted below.

Formation and Erosion of Social Capital

Little research exists on the processes by which social capital may be established or created. Some writers draw attention to inherited or historical factors, e.g. long established civic traditions in Italian regions (Putnam 1993), or the tradition of flourishing civic organisations in nineteenth century Britain (Hall 1999: 419). Putnam emphasised the role of voluntary associations to the relative neglect of the contribution of formal institutions, especially the state. For others writers, such as Fukuyama, government is ill suited to the task of creating social capital (Warner 1999: 374), being a destroyer more than a creator.

On the other hand Warner (1999: 381) suggests that robust and sophisticated public institutions can help form local social capital by, e.g. decentralising power. In particular, the design of specific programme interventions helps to condition social capital building. Hierarchically structured programmes are less likely to build community social capital than decentralised programmes which encourage a high level of citizen participation and which are tailored to meet local needs.

A number of factors have been hypothesised to be conducive to the erosion of social capital. Public policies, through their programme designs and delivery systems, may relate to citizens in such a way as to treat those citizens as clients with little autonomy in relation to the service provider. Forms of technology (private transport, television) reduce dependencies of people on each other, although new technologies have the potential to develop 'weak ties' and loose networks. High rates of geographic mobility reduce attachment to community and limit effective participation in place-based networks.

Empirical Operationalisation

The social capital initiative (SCI) of the World Bank, which sought to define and measure social capital in our dozen countries, provided some useful guidelines in applying the concept empirically (Grootaert and van Bastelaer 2001). It is difficult, if not impossible, to measure directly so the use of proxy indicators is necessary.

Indicators will differ across space, sector and analytical levels. Due to the contextual nature of social capital, it is unlikely that it will ever be possible to use a few indicators that will have universal application. However, broad classes of indicator can be used. The SCI case studies suggest that the focus at macro level should be on these types of proxy indicators: membership in local associations and networks, indicators of trust and the strength of norms of reciprocity, and indicators of collective action. As local and indigenous forms of social capital are replaced by more formed and large –scale networks and institutions it will be necessary to focus on the macro dimension of social capital and rely on national level indications of e.g., conflict/consensus, popular trust in specific institutions, compliance with legal requirements.

Applying Social Capital to AsPIRE

Based on the conceptual evolution of the concept, and especially on the SCI empirical studies, a general framework for relating social capital to socio-economic development has begun to emerge. This is outlined in Grootaert and van Bastelaer (2001: 4-10 and 20-24). It provided the overall framework within which social capital study in AsPIRE was placed.

Overall Conceptual Framework

The framework considers social capital on three main dimensions: (i) the analytical level and related units of observation (the scope of social capital); this level ranges from the micro to the macro and the units of observation expand accordingly; (ii) the forms of social capital, basically whether structural (e.g. networks, institutions) or cognitive (e.g. network participation, adherence to norms, reiporocities); and (iii) the channels or streams of benefits or outcomes. The first two dimensions are drawn in Figure 7.1.

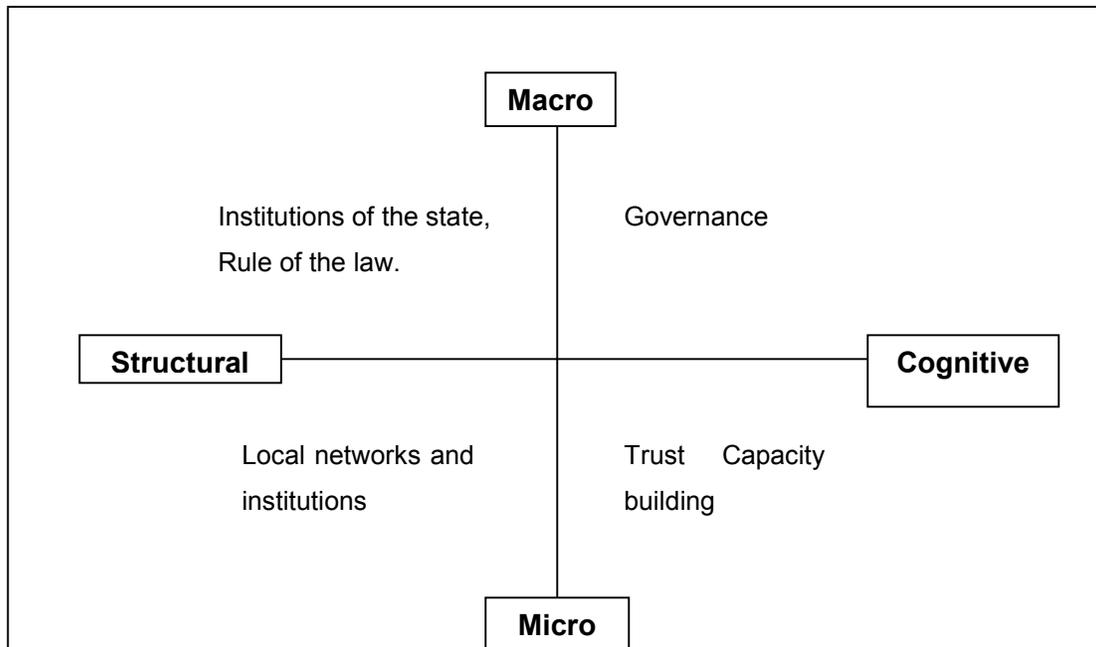


Figure 7.1: Two Main Dimensions of Social Capital

Source: Based on Grootaert and Van Bastelaer (2001)

The ideal approach to studying social capital, as Grootaert and van Bastelaer (2001:20) suggest, would be to embrace all four quadrants. They note however, that in practice most studies in relation to economic development focus towards the micro structural quadrant – because of resource constraints and ‘limitations in the state of the art’. Similar constraints applied to AsPIRE. Even confining attention to the micro level, a full examination of the manner in which social capital functions would require detailed study and intensive tracking of network behaviour. This was not possible and a restrictive methodology was adopted.

Methodology

Given the design of the project (see Preface) two main units of analysis were chosen: local networks and businesses within each study region.

Local Networks

The social capital theme is closely related to the concept of governance – how political power is distributed, exercised and transferred. New ‘styles of governing’ are

evolving which mean changing relationships between the state and civic society: government agencies and non-governmental organisations collaborate to achieve common purpose. In implementing and reporting on the AsPIRE project there were close links between the methodologies used for the social capital and governance themes. Some of the associations selected for the social capital component are in fact forms of partnership between public and non-governmental organisations. Against this background, study teams proceeded on the following basis, in relation to each study region:

Identifying a subset of networks (organisation/association) manifestly concerned with regional economic development and selecting a sample of these. Networks vary in structure from loose, amorphous entities to formalised associations. Informal networks are obviously not listed in any register and so are not readily accessible for sampling purposes. In the AsPIRE study, therefore, the networks of interest are formal structures, typically organisations or associations with a listed or known membership (e.g. Chambers of Commerce) Secondly, networks exist in a whole range of domains but for the purposes of AsPIRE the focus is on those organisations or associations, which have some relationship to the economic development of their regions. Identifying these networks was done in conjunction with the Institutional Survey which included civic, third sector and partnership categories of organisations in each study region.

Identifying 'key informants' in these structures and obtaining data through face-to-face interviews with representatives of selected groups using a semi-structured interview schedule. This schedule contained a mix of open-ended questions and questions requiring the rating (scoring) or weighting of a given list of answers.

A total of 67 organisational representatives, 37 from 'A' and 30 from 'B' regions were interviewed for the social capital component of the Institutional Survey. However, not all questions were answered fully by all units in the survey.

Business and Business Networks

Part of the research focused on the significance of business networks in overcoming the disadvantages commonly associated with location in peripheral regions (Reported separately in Deliverable No 21). An element of this work examined membership and participation of different types of networks on the part of business

managers or business owners. It also asked about their willingness to discuss business ideas with development agencies. A total of 600 businesses were surveyed, 300 from each of the two categories of region.

MAIN FINDINGS

The design of the AsPIRE project provides for the selection of two regions/study areas as case studies. One region ('Region A') is considered to be peripheral and the other ('Region B') 'non-peripheral', in the conventional spatial sense.

The main proposition underlying the research on social capital is that such a non-geographical characteristic will exert benign effects, so that geographically peripheral areas will have better rates of economic development than would normally be associated with spatially remote locations. By comparison, 'B' regions are considered to be underperforming in relation to their location.

In comparing the two case study regions, therefore, it is hypothesised that:

- Region A has higher levels of social capital, as measured by the 'richness' of sources of such capital, the density of its civic infrastructure, and by measurable end benefits.
- In Region A public agencies play a more active role in promoting 'networks of civic engagement' (e.g. through styles of governance, programme design and implementation, developing static/civic society relationships and synergies)
- Synergistic relationships between public, private and civic society are stronger in Region A
- Vertical or extra-territorial interactions are more pronounced in Region A (i.e. it cultivates 'the strength of weak ties')
- Particular features of economic and socio-demographic structures in Region A provide a basis for its higher levels of social capital - and consequently greater incidence of end-benefits (see Table 1).

Local Networks Findings

In presenting the findings below, reference is made to the specific hypotheses suggested in AsPIRE Deliverable 14. The findings are grouped according to the main headings under which information was collected in the interview schedule.

Organisation Origins and Circumstances

Hypothesis: Networks in civic society emerge through 'bottom-up' processes. They will tend to be locally rather than externally instigated.

Perhaps because of the requirement that study teams select formalised organisations that were concerned in some way with local / regional economic development, many of the structures in the sample were not strictly confined to civic society. These were in fact quite different characteristics evident in the organisations in the samples. At least four categories are identifiable.

- Associations of public authorities such as unions of municipalities and communes in Greece
- Forms of partnership established to take advantage of EU or national policy initiatives such as LEADER
- Groups such as Chambers of Commerce, representative associations, or lobby organisations which were established locally but affiliated to national to even EU-wide non-governmental alliances (e.g. national trade union congress)
- Locally-based and rather autonomous structures such as co-operatives or other associations of producers (e.g. in fishing).

Given this configuration of associations in the AsPIRE survey, it may be said that they were locally instigated in a limited sense only. Some processes of local mobilisation were essential, of course, but generally these were in reaction to externally created demands or opportunities which formed an 'enabling' milieu. These enabling factors included policy measures such as EU LEADER, the perceived need for greater co-ordination among different levels of public administration, the need to promote intra-regional networking, the existence of national structures to which locally instigated groups could affiliate. In a minority of cases, specifically local circumstances were the originating circumstances. Examples are:

- the importance of maintaining the fishing sector in the economy of the Northern Isles (of Scotland) which prompted the formation of associations among local fisherman, and
- an association of businesses in L'Alcoia (Spain) which was formed to protect the commercial interests of the businesses.

The influence of these external factors means also that little difference could be detected between the groups across the two sets of regions. Differences between countries were more pronounced due to varying governmental forms, legal and institutional arrangements, and in the organisation of civic society. Greece, for example, contrasted with Scotland in having comparatively few basically civic associations and a preponderance of networks within the public administration.

Organisation Mandate and Legitimacy

Hypothesis: The power or 'mandate to act' in civic society networks comes from the network members rather than from statutory or legislative sources. In some forms of governance, however, they may be accorded special recognition as partners with statutory authorities.

Because of the structural features of the organisations selected (formalised, professionally staffed in most cases and involved in regional economic development) the mandates and legitimacy came from a number of sources.

Firstly, most had significant membership and were empowered by the members to act in their interests. This is clearly the case with trade unions, chambers of commerce or networks of producers. Second, there were organisations – however mobilised locally – that functioned under some kind of statutory mandate such as legislative guidelines. In Ireland, for example the Local Government Act of 2001 provided for non-governmental 'community fora' to participate in strategic planning for county economic, social and cultural development. Thirdly, other local organisations had specific agreements to deliver a programme on behalf of the state (public) sector. An example is that of the Shetland Arts Trust in north Scotland which has a service agreement with the Scottish Arts Council to deliver the Shetland Islands Council's arts programme.

Fourthly, organisations derive legitimacy from the way their members are invited to participate on national consultative or policy-making bodies. In Ireland the concept of 'social partner' is a widely accepted description of the role played by non-governmental organisations in developing a consensus around national policy issues. The Federation of Small Businesses in Ayrshire (Scotland) is affiliated to the FBS National Council which, in turn, has representation on an EU grouping (EUROPMI – the European Committee for SME Independent Companies).

Another factor which strengthens the legitimacy of organisations is the networking created through cross-organisation participation by individuals in leadership roles. In smaller communities it is not uncommon for a local organisation leader to be co-opted or otherwise come to participate actively in a number of other and similar organisations locally.

All these factors – recognition accorded by public authorities, representation on policy making fora, multiple organisation membership - help the flow of information to a wider public. However, it is not possible to say from the AsPIRE data whether these forms of networking show different implications for economic development between the two sets of regions.

Resources, Assets and Membership

Hypothesis: The resources and assets of social capital networks will be limited – mostly to revenues generated by themselves.

As noted earlier the sampled organisations differed considerably as to their structure, composition and civic / public character. This diversity was reflected in the variety of their resources and assets. Annual budgets ranged from less than 100,000 euro (as low as 18,000 euro for a small network of Spanish business persons) to 55 million euro for a partnership of municipalities in Greece. The more common instances, however, were those with annual budgets of approximately € 500,000.

Although financial resources are thus relatively limited, they are not confined to funds generated from within their own memberships. Again, because they are concerned in one way or another with economic development they draw substantial funding (but still the minor part of their finances) from regional, national and EU sources. This has

been possible especially with the expansion of EU activities through LEADER and the Structural Funds.

Organisations surveyed are not rich in assets. Most have limited office facilities often on a rented basis. Similarly, staff numbers are small, although those affiliated to large national or regional structures can avail of services (e.g. literature) provided by central offices with better staffing. Some organisations can draw on 'volunteer officials' at local level. For instance the south-east regional office of the Irish Farmers Association, serving about 6,000 members, has a local staff of four persons but is backed up by the Association's national office with its specialist staff while also being supported by voluntary officers at county level.

Membership of the surveyed organisations is, in nearly all cases, selective, i.e. not open but on condition that some criteria are met (such as being an active producer to be a member of a producers' organisation). Where the organisation is a partnership or some structure involving public authorities the membership criteria are likely to be formally specified in legislation.

Considered in the aggregate membership types are very diverse; they include individuals, businesses, development agencies, other networks (e.g. as when a chamber of commerce is a member of a tourism forum), and public authorities. Networks of public authorities seem to be significant actors in Greece, resulting in quite large structures. One such union, for example, has 134 members in a general assembly (participating mayors, chairpersons of communes, etc) which elects a board of 15 members and three members of a supervisory board (financial administration). There are three permanent employees, two development consultants, and one administrative / executive staff. At the other end of the size spectrum is an organisation that has as few as eight members.

Given this diversity in size, complexity and institutional context, it was difficult to identify differences that could be ascribed to the specific characteristics of the two sets of regions of interest to the study.

Aims and Functions

Hypothesis: The aims and functions of networks centre on achieving benefits for their members.

This is true almost by the definition of social capital networks. Networks in AsPIRE lobby for their members, seek to influence policy or to obtain concessions (e.g. for small businesses). They also provide support services such as legal advice or technical information. Chambers of Commerce, for example, represent the interests of their members to policy makers but they also seek to educate and inform members in a wide sense, on policy developments, economic trends and the possibilities for networking with businesses in other regions / countries. Many of the organisations in the AsPIRE sample are directly or indirectly concerned with promoting regional economic development or involved in public good activities. Some are partnerships (or members of partnerships) set up especially for the purpose (e.g. LEADER groups) while others act as surrogates or complements for statutory agencies in delivering services. A case in point is the Ayrshire Export Partnership (Scotland) which offers various forms of assistance to companies wishing to export (e.g. export market research) – a function by which the Partnership can be considered as a vehicle for delivering national programmes at local level.

Activities and Actions

Hypothesis: Study regions will differ in the extent to which networks engage in activities that are functional for local economic development.

This issue was explored through one of the structured questions in the interview schedule. A list of 12 possible activities was compiled and presented to interviewees who were asked to score each activity on a scale of 0 to 5 to indicate the extent to which their organisation engaged in this. That is, they were to rate the degree to which they spent time, resources or effort on each activity using zero for 'not at all' and 5 for 'highly involved'. For each set of regions (A and B) a possible maximum score was calculated (12 times the number of organisations x 5).

Summing only the scores 4 and 5 for each category of region as a measure of a high level of engagement and taking this sum as a percentage of the total score

possible revealed no significant difference between A regions and B regions. (45.7 per cent and 42.5 per cent).

However, differences were observable for individual activities. This can be seen by comparing the ranking attained by the highest scoring and lowest scoring activities (Table 7.1) in each of the categories of regions.

The top three activities for A Region are somewhat similar to, but not quite the same as for Regions B. For both sets of regions the representation of member interests and dissemination of information ranked highly as activities. For A regions, however, an activity so characteristic of social capital formation, i.e. promoting a sense of common purpose and co-operation, ranked higher than in B regions. At the same time it should be noted that ‘cross – group’ or ‘bridging’ social capital activity (establishing working relationships with similar organisations / groups) was ranked highly in the B regions.

It is also clear that distributing financial supports is not typical of social capital structures, which is understandable.

Table 7.1 Selected Activities and their respective rankings in each category of region

Activity and Number	A Regions	B Regions: Ranking
Representing the special economic or business interests of your members	1	3
Disseminating information	2	1
Promoting a sense of common purpose, co-operation, civic spirit and local identity	3	7
Engaging in strategic planning with other actors	4	6
Establishing working relationships with similar organisations / groups	5	2
Distributing financial supports	12 ¹	12 ¹

¹ Lowest ranking activity

Outcomes and Achievements

Hypothesis (a): Study regions will differ in the extent to which networks achieve outcomes and benefits that contribute to local economic development.

There are several types of outcomes and achievements that networks can accomplish in relation to local or regional economic development. Some could be described as ‘soft’ benefits, e.g. building trust and co-operation among stakeholders or improving local capabilities and skills. Others are ‘hard’ achievements such as developing new or improved services, or generating extra employment. Interviewees were asked to identify their organisation’s three most significant achievements in economic development and their responses were ‘post-coded’ using a pre-determined list of 14 possibilities.

The two categories of regions differed in respect of the achievements that were most frequently noted (Table 7.2). A regions recorded their highest ratings for both ‘soft’ and ‘hard’ achievements. Thus, these regions claimed achievements not only for the typical social capital outcomes such as improvements in the quality of local networking but also for more concrete attainment such as generating new or expanded business. The generation of human capital, in terms of skills and competencies, was evident as significant in B regions only.

Table 7.2: Most frequently noted ‘significant achievements’

A Regions
- Improving the intensity and quality of local networking for local/regional economic development
- Building trust, co-operation and commitment
- Generating new or expanded businesses
B Regions
- Improving the responses of non-public (non-statutory) associations to problems of local / regional economic development
- Developing new or improved services / facilitates
- Lobbying for local / regional economic development
- Improving local skills and competencies
- Promoting the use of new technologies by local business

Hypothesis (b): A main contribution of networks is the generation of human capital, the building of trustful relationships, improving the flow of information and improving the responses of public authorities to problems of local and regional economic development.

These types of contributions were reported by the organisations surveyed but they were accorded different ratings and the orders of priority were not the same for the two sets of regions. This has already been shown in Table 7.2. 'Improving local skills and competencies for economic development' was recorded frequently as a significant achievement in B regions but not in A regions. The latter regions, on the other hand, placed more emphasis on building trustful relationships. While it has been already seen that information dissemination was an important activity (Table 7.1), increasing the flow of information was not considered a significant achievement when placed alongside other possibilities. Seemingly, increasing communication flows is an important function only because it is instrumental to achieving other aims which are more valued as 'outcomes'. 'Improving the responses of public sector agencies' did not rank highly as an achievement in either set of regions, despite the importance which organisations attributed to representing members' interests as noted in Table 7.1. It is likely that the types of representations in question are general, unfocused activities which raise the visibility or profile of the organisations, rather than specific actions aimed pointedly at authorities responsible for regional economic development.

Obstacles to Local / Regional Economic Development

Hypothesis: Weaknesses among networks are obstacles to local / regional economic development and study regions will differ on this basis.

To investigate this hypothesis interviewees were asked to consider a list of 12 possible barriers to economic development in their regions, and to rate each on a scale of 0 (negligible) to 5 (a major barrier). Five of these were included as deficits in social capital (e.g. lack of co-operation and willingness among stakeholders to undertake joint actions). Others related to such obstacles as poor quality infrastructure or types of policies being pursued.

The survey returns revealed three points of interest. First, there were no differences between the two sets of regions when scores 4 and 5 were summated and expressed as a percentage of the total possible (22.8 per cent and 22.6 per cent).

Second, when the calculation was repeated for the five 'social capital' obstacles only, there was still no difference between the two groups of regions (21.9 per cent and 23.0 per cent). Third, the notable difference was between two 'geographical' items and the other items. That is, comparatively high scores were recorded for :

- (i) quality of the physical infrastructure, roads and transport; and
- (ii) location – the geographical position of the region.

In the A regions the relevant percentages were 31 per cent for the infrastructural and location factors combined as against 21 per cent for the remainder. The corresponding figures for the B regions were 35 per cent and 20 per cent. In other words, no real difference existed between the scores for the two groups of regions.

Clearly, while weaknesses in social capital are perceived as obstacles these deficits are overshadowed by the more obvious concrete aspects of regional geography and physical infrastructure.

Perceptions of Local Culture

Hypothesis (a) Lack of or weakness among networks will be related to features of the local cultural milieu.

Hypothesis (b) The 'governance ethos and structure' in the regions will influence the possibilities for the generation of social capital. Study regions will differ on the basis.

Interviewees were asked to rate features of the culture and attitudes of economic development stakeholders in their regions, while bearing in mind the factors that influence enterprise and economic behaviour. This was a structured question in which interviewees were given a list of cultural traits, expressed as polar opposites, and asked to rate each on a scale of 0 (very poor – non existent) to 5 (very much present – very positive). The responses are shown in Table 3, in terms of the 4 and 5 scores combined and expressed as percentages of the total score possible for each item.

Table 7.3: Perceptions of local culture: percentages ‘positive’¹

<i>Trait or Aspect: Negative to Positive</i>	A Regions	B Regions
1. Conflictful or very co-operative	36.3	32.6
2. Pursuing self interest or working for mutual benefit	24.6	13.3
3. Mistrustful or showing high levels of trust	22.2	22.8
4. Pessimistic or optimistic	36.0	24.4
5. Apathetic or energetic	30.0	18.5
6. Low morale or high morale	38.8	46.2
7. No sense of local identity or strong sense of local identity	57.9	37.8
8. Passive or proactive	30.2	24.6
9. Dependent or independent	33.9	16.7
10. Lacking initiative or much initiative	33.8	19.2
Total	33.9	26.0

¹ Based on the summated ‘positive’ scores 4 and 5 on the 0 to 5 scale (very poor to positive)

Responses of a positive kind are higher in the A regions for almost all the features listed. The high percentage indicating a strong sense of local identity is of particular interest.

The same question was asked of those who were interviewed for the governance survey and the responses followed a somewhat similar pattern. However, the overall difference on high ‘positive’ scores between the two sets of regions was not as pronounced as those shown by interviewees in the social capital survey (A regions 38 per cent; B regions 34 per cent). Again the highest positive ratings were recorded for ‘a strong sense of identity with the local region’.

These results point to a more favourable cultural milieu for social capital in the A regions.

Hypothesis (b): The ‘governance ethos and structure’ in the regions will influence the possibilities for the generation of social capital. Study regions will differ on this basis.

This hypothesis is based on the reasoning that the networks of actors involved in regional development and the relationships between them (i.e. in brief, the governance system) can stimulate or stifle the emergence of shared values, common

visions and co-operative behaviour. The thematic report on governance in the AsPIRE study will characterise the governance ethos and structure in the selected regions on the basis of surveys among institutions. For the social capital survey, however, it was necessary to use a rather simple framework to allow respondents describe the governance system. Each interviewee was given a list of descriptive terms, presented as pairs of polar opposites, and was asked to assess the character of their regions governance structure on a scale of 1 to 5.

Table 7.4 shows the summated 'points' under scores 4 and 5 (the more positive tendency) expressed as percentages of the total possible.

It will be obvious that respondents in A regions give their governance systems a more positive rating on the criteria posed in the question. Top-down, rigid, centralised and exclusive structures are not conducive to the generation of various forms of collaborative networking.

The same question was asked of interviewees in the governance component of the institutional survey. The replies followed the same pattern as shown in Table 4 but the percentages were generally higher. The overall figures corresponding to the totals given in Table 4 were A regions 35.1 per cent; B regions 27.4 per cent.

Table 7.4: Perceptions of governance structure: percentages 'positive'¹

<i>Description (negative to positive)</i>	A Regions	B Regions
1. Top down / bottom up	25.0	18.5
2. Rigid / flexible	20.5	18.6
3. Exclusive / integrative	33.9	25.2
4. Fragmented / co-ordinated	30.0	22.8
5. Centralised / decentralised	15.2	9.6
6. Institutionalised / person oriented	33.1	28.8
7. Formal / informal	20.0	17.1
Total	25.2	20.0

¹ based on the summated 'more positive' scores 4 and 5 on the 1 to 5 scale ('negative' to 'positive')

Business Networks Survey Findings – Social Capital Data

In addition to assessing social capital within institutional networks during the AsPIRE project, data was collected from 600 business owners or managers, indicating the

level of participation in local community organisations and sports clubs. These networks were seen as repositories of social capital and a potential resource for the individual respondent.

In general the responses did not differ significantly between the two categories of regions (Table 7.5).

Table 7.5 Comparison of Network Membership

<i>Type of Network</i>	A Regions (%)	B Regions (%)
Sports	26	32
Cultural	34	31
Local Administration	16	18
Commercial	44	48

Interestingly it was found that 71% of businesses located in B regions are willing than to discuss business matters with local regional development agency staff whereas only 58% of their counterparts in A regions would consider doing so. This could be considered a proxy measure of trust.

ASSESSMENT AND GENERAL CONCLUSIONS

The two essential features of social capital are:

- A social structure of some kind (typically a group, network, formal organisation, partnership); and
- Shared values, norms and understanding which facilitate co-ordinate relationships among members of the structure in achieving collective goals. In this sense social capital is a 'productive' asset, with the potential to produce economic and social goods.

The structures of interest in social capital studies may be loosely formed networks or highly structured organisations. Moreover, a single network or organisation may also be involved at another level in a network or grouping of several organisations. Consequently, coordinative relationships may be necessary both within single structures ('bonding' social capital) and across structures ('bridging' social capital).

Given this complexity in degrees of group formalisation, levels of group aggregation and possible domains of study, the social capital survey in AsPIRE must be

considered highly selective. It was linked to a wider institutional survey focussing also on governance; it sampled from formalised structures; and it was confined to structures that were involved in local / regional economic development in the study regions. Furthermore, the total number of units of organisation in the sample was relatively small – of necessity considering the resources available. It is also likely in a cross-national study that differences between two sets of aggregated regions (geographically peripheral and geographically more ‘central’) are obscured or diluted by differences between the countries concerned in their institutional infrastructures and governance systems.

Nevertheless, some conclusions of interest are possible. Contrary to initial expectations, which emphasised ‘bottom up’ initiatives in the creation of social capital structures, the survey revealed the significant role of ‘top down’ or external (to the region concerned) impulses in this regard. These ‘extra – local’ influences derive from EU initiatives (e.g. LEADER) in particular but also from a general trend in governance systems towards co-ordinating and consultative structures, new concepts of partnership in public administration, and the proliferation of representative and lobby groups with national and supranational scales of operation. On this last point it is notable that in both sets of regions ‘representing the special economic or business interests of their members’ was ranked highly as an activity of the organisations surveyed.

In A regions a typical social capital function of promoting a sense of common purpose, co-operation, civic spirit and local identity was given a higher rating than in B regions. On the other hand, the latter regions scored higher on a different expression of social capital, namely, ‘establishing working relationships with similar organisations and groups’. This supports the finding of the business networks survey that shows those in B regions more willing to discuss enterprise related issues with local and regional development bodies than their counterparts in A regions.

Whilst little comparable difference can be detected between the two sets of regions in relation to what they do in building social capital – they simply report their activities in this regard with a somewhat different emphasis.

In a number of other respects, however, differences between the two groups of regions were observable, along the lines hypothesised. The first was in regards of ‘significant achievements’. In the A regions those most frequently cited were

achievements in creating social capital – improving the intensity and quality of networking, building trust, co-operation and commitment for economic development. B regions placed more emphasis on ‘concrete’ achievements, such as developing new or improved services and facilities, lobbying or improving the responses of civic associations to local economic and regional development.

Second, in the perceptions of interviewees, local cultural and attitudinal dispositions influencing economic development were clearly more positive in A regions than in B regions (Table 3). This was confirmed by respondents in the governance survey who were asked the same question.

Third, on the reasoning that certain types of governance systems facilitate collaborative networking among actors in regional economic development, respondents in A regions reported having the more positive systems. That is, they were more flexible, decentralised and co-ordinated.

Somewhat surprisingly, the two groups of regions did not differ in the ratings given to specific items considered to be deficits in social capital as obstacles to economic development. However, these deficiencies seemed to fade out in significance when placed alongside two other obstacles – the quality of the physical infrastructure and geographical location.

Overall, therefore, the returns from the social capital survey lend some support, but not clear-cut and comprehensive evidence, for a main proposition at the AsPIRE study, i.e. that regions differ in their endowments of social capital and in the extent to which social capital factors help to overcome the disadvantages of geographically peripheral location. Location and physical infrastructure deficits remain as major obstacles to their economic development. However, the geographically peripheral A regions were given a clear and positive rating as having a culturally supportive milieu and a favourable governance context for collaborative networking and the generation of greater stocks of social capital.

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CHAPTER 8
THE ROLE OF TOURISM IN PERIPHERAL REGIONS

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Introduction

Although peripheral regions may possess characteristics that have traditionally been considered a constraint on economic activity (such as high cost of travel, lack of agglomerative advantages, distance from markets), the economic dimension of tourism demands destination features often associated with remote areas. On the one hand, the material nature of the production and consumption of tourism converts peripheral characteristics into components of socio-economic development, to be used as a means of reducing or overcoming peripheral disadvantage. Conversely, the symbolic nature of the tourist production and consumption system means that conventional peripherality and its associated characteristics can acquire a distinct meaning and, in certain situations, can constitute the basis of specific tourist products or represent an added value for certain tourist activities (Gomez Martin & Lopez Palomeque, 2001).

This contradiction, highlighted by a number of authors (Ball, 1996; Fennell, 1996; Blomgren and Sorensen, 1998) in the tourism literature, forms the two-fold rationale for the inclusion of tourism as an explanatory theme in AsPIRE. Firstly, tourism provides us with an example of the positive utilisation of perceptual features associated with peripherality i.e. intangible factors, and secondly tourism is an increasingly important sector in rural and peripheral areas.

The Conceptual Framework

The transition from an industrial economy towards a service economy presents new opportunities for tourism sector growth, particularly in rural and peripheral areas where returns from the traditional primary industries (for example farming and fishing) are limited or fluctuating (Ravenscroft, 1994). It is widely acknowledged (Wanhill, 2000; Swarbooke, 1992; Butler et al, 1998; Bryden and Bollman, 2000) that the tourism sector, through capitalising on the natural environment, is one of few development opportunities open to rural areas, as they undergo a significant restructuring and diversification process. Underdevelopment has favoured the preservation of unique landscapes, environmental features, culture and tradition, which are being re-valued in post-modern society (Cloke, 1993) at the same time as reduced travel time and cost has deconstructed spatial notions of distance from the core (Burns, 1999:50).

The culture economy approach - a discourse outlining means by which local identities can be used in development, is championed by Ray (1999). Embedded in peripheral localities are local identities which form the 'culture' or 'essence' of an area and effectively provide further resources available for development by local actors. These resources are inextricably linked with the local territory and can be strategically used to add value to local products and services, and to create positive images that motivate people to visit. Territorial marginality can be embodied as cultural difference or distinctiveness in a range of goods (speciality and distinctive foods) and services (such as tourism) (Slee, 2001). At its most extreme, we are witnessing the commodification of the less tangible aspects of an area through a process of the social and cultural re-evaluation of the attributes of marginality (Gomez Martin & Lopez Palomeque, 2001).

The political and economic climate has encouraged rural areas to market themselves just as urban areas have done in the past. "The importance of the image of rural areas has only recently been appreciated, and major efforts have been made in a variety of settings to deliberately improve, establish and change the allure of rural areas through the creation and recreation of specific images" (Butler, 1998:14). While the overall image of rural areas in the developed world tends to be a very positive one, these images may not always be authentic or correct, but they are powerful enough to create demand for access to, and in some cases acquisition of, parts of the rural landscape.

Thus, what we see developing is that peripherality can be defined, and behaviour influenced, by the subjective perceptions of a place and not just by objective criteria i.e. distance from the core. The key is to develop our understanding of the positive perceptions of peripheral areas held by potential consumers because the effective harnessing of such perceptions may go some way towards the amelioration of the commonly associated negative implications of peripherality. Also, underpinning concepts that attempt to explain the various influences that affect tourist behaviour apply equally to other consumers of the periphery. Businesses, residents and the public sector (both within the periphery and the core) also hold individual perceptions of peripherality. In particular, potential entrepreneurs may base business location decisions on subjective perceptions, in addition to economic factors.

However, whilst peripheral areas may have tourism assets from which to harvest opportunities, the preconditions for effective peripheral area tourism development

may contain within them the potential seeds for their destruction (Slee, 2001). Therefore, the type of tourism activity promoted can influence the effectiveness of peripheral localities in deriving benefits from the phenomenon. As such, the success of tourism in peripheral areas can be said to reflect both the strategic management of an appropriate tourism product, and the ability of the tourism sector to overcome the implicit challenges of inaccessibility.

In order to reduce the detrimental effects often associated with large-scale mass development, experts advocate soft tourism models (WTO, 1998:131). Soft tourism emerged as one of the multiple forms of sustainable tourism in the late 1980s and early 1990s, particularly favoured by peripheral areas. Such models coincided with conditions of increased economic wellbeing coupled with decreased travel costs, and sensitivity to the detrimental effects of mass tourism on the socio-cultural and environmental milieu. Soft tourism is characterised by small-scale endogenous development, comprising activity that makes use of local products, employs local people, does not place unacceptable burdens on the environment and respects local traditions and ways of life (Lane, 1994). It's antithesis is hard tourism which is typified as large-scale developments, often controlled by external actors, with neither little cognisance of the impacts on local cultures and environments nor little connection to them (Slee, 1998). Hard tourism systems are likely to be weakly connected to the local economy due to foreign business ownership and supply chains. Relationships with external suppliers, distributors and retailers may results in 'leakages' from the local economy.

The advocacy of the soft tourism model coincided with a growing interest in endogenous approaches to rural development, "favouring local control and direction and more integrated strategies based on combined and sustainable economic, social and environmental development" (Bryden & Dawe, 1998:5). Yet, in reality, tourism necessitates development networks that exhibit both exogenous and endogenous features. Whilst, endogenous development set within the local framework is particularly important from a tourism in peripheral areas perspective, exogenous forces must also play a role in tourism development as the locality must be linked in some way to a global network. Traditionally tourism intermediaries have played a pivotal role in this, particularly the mass movement of people, achieved through the standardisation of product, economies of scale and horizontal, vertical and diagonal integration (Poon, 1993).

Problems occur when exogenous forces control tourism flows and development to and within an area. Exogenous approaches to tourism development are more likely to lead to dis-embedded activity and little local control over resources. This may lead to an over-reliance on tourism that substitutes other forms of economic activity possibly leading to greater competition for resources as opposed to complementary activity in development. Conversely, an area exhibiting a high degree of local control over tourism development through the empowerment of local actors may also aim to increase the embedded nature of the product, and integrate tourism more fully into the local economy.

Thus, the extent to which the tourism industry is vertically integrated reflects the extent to which a locality has global tourism linkages. However, once tourists are within a locality, the scope for them to experience the embedded products, activities and services of that locality is dependent on the degree to which horizontal integration of the local tourist industry has taken place – characteristic of the soft tourism model.

The Research Questions

The relationship between peripherality and tourism is investigated from two theoretical perspectives that reflect this conceptual background. Firstly, the demand-based perspective i.e. subjective perceptions of peripherality as a basis for decision-making; and secondly, the suitability of various approaches to tourism development in the periphery (the supply-side perspective).

The 'subjective perception's' aspect of the study investigates the positive perceptions of the peripheral study regions held by consumers i.e. those that may compensate for the inaccessibility (in conventional terms) of the area by motivating individuals to travel. The images of the peripheral and accessible areas are explored as is the extent to which local identity is used to add value to the tourism product. It is anticipated that certain destination attributes motivating tourists will differ between peripheral and accessible areas, as will the propensity of different market segments to visit the periphery. These research propositions are formulated as the following hypotheses:

- The images of peripheral study region (A) will draw upon local identity to add value to the tourism product whereas conversely the images of the more

accessible study region (B) will pay less attention to local identity and present images that are distanced from the milieu of the area.

- Destination attributes that motivate tourists to visit peripheral study region (A) will differ from those present in more accessible study region (B).
- Potential and actual tourists will associate particular destination attributes with perceived distance (proximity / inaccessibility) from the core.
- Perceptions of peripherality will differ between market segments and this will lead to differing propensities to visit the periphery.

The 'development approaches' perspective of the research considers the issue of tourism development within the context of the areas and investigates how the motivations of tourists are encouraged (via promotion) and ultimately met (via provision). In other words, what form does tourism development take in order to meet the requirements of tourists and is this development appropriate, in terms of scale and benefit, to the locality? Thus, the following hypotheses are generated:

- There will be greater evidence of horizontal and vertical integration in study region (A) as compared to study region (B).
- The tourism product in study region (A) are likely to be characteristic of 'soft' tourism i.e. specialised processes and a 'dedicated' product, whereas the tourism product in study region (B) will be characteristic of 'hard' tourism i.e. standardised processes and a 'generic' product.

The above hypotheses were used to generate theoretically informed research questions that constituted the bases of the consumer (visitor and intermediary), producer (tourism business), and organisational surveys.

The Tourism Surveys

For the tourism element of the ASPIRE case-study region fieldwork, four primary data collection instruments were used in each of the case study areas: consumer surveys (visitor and intermediary surveys), a business survey and an organisational survey. The objective of the two consumer surveys was to investigate perceptions of peripherality and identify peripheral characteristics (tangible and intangible) affecting the decision to travel to remote areas. This was complemented by the business and institutional surveys, both of which aimed to gain an insight into the type, nature and development of the tourism product in the study areas and attain perceptions of peripherality in terms of the benefits and barriers to tourism development.

Brief Description of the Survey Instruments

A face-to-face visitor survey (Consumer Survey 1) was conducted with fifty visitors in each study region. Both factual and perceptual information was sought from visitors with questions (largely closed) targeted at the collection of behavioural and attitudinal data and that for purposes of classification. Likert rating scales (relating to designative attributes of the areas) and verbal bi-polar scales (relating to evaluative attributes of the areas) were included.

There was limited information available regarding the numbers and nature of visitors to the study regions i.e. an absence of an all-encompassing, coherent sampling frame. Hence the surveys were dependent on using a range of sample sources available in the study areas, namely visitor attractions, transport terminals and accommodation providers. These sample sources were obviously subject to seasonality constraints and visitor movements, therefore combinations of quota and purposive sampling techniques were adopted. A distinction was made between different segments of the market and given the information available, an approximate representative (quota sample) was used. The gender breakdown of respondents in A and B regions was similar with slightly more females in both samples (52% and 53% respectively).

The intermediary survey (Consumer Survey 2) entailed interviews with organisations who 'package' the study areas in some way i.e. they act as an intermediary between the area and the potential tourist. As in the visitor survey, factual and perceptual information was solicited and a number of questions were common to both surveys. In the absence of a rigorous sampling frame, a combination of purposive and quota sampling was used to identify intermediaries resulting in between two and five interviews per study area. The interviews were face-to-face where possible but by telephone or post where (for reasons of distance or convenience) that was not possible.

The business survey utilised a questionnaire for face to face interviews with entrepreneurs in the study areas. Areas of questioning for tourism-related businesses were opinions on selling features of the area, types of tourism business networks, and service characteristics. A minimum sample of 10 tourism businesses (Tier 1 or

Tier 2²) was stipulated for each study region. The organisational survey was designed to encompass both public/statutory, quasi-public, and third sector organisations involved with the promotion and/or development of tourism in the study regions. The selection, and quantity, of interviewees was dependent upon the way in which the community of economic development institutions was structured and functioned within each national context and each case study area. As such, the number of organisations interviewed varied between one and six in the study regions.

² Tier 2 businesses are those that service the requirements of local residents and tourists, for example restaurants, art galleries, museums, as opposed to existing specifically for the purposes of tourists (Smith, 1995).

Data and Basic Analysis

Given the large amount of quantitative and qualitative data generated by the four surveys, a prescriptive framework for basic analysis was provided to research partners. This resulted in a number of coded data files and technical notes. A summary of all of the data collected and the basic analysis completed is summarised in Table 8.1

Table 8.1: Tourism Data Summary

Survey	Interviews (total)	Basic analysis
Visitor	600	Excel/SPSS data sheets (6) Technical Notes (6)
Intermediary	45	Excel data sheets (6) Technical Notes
Business	123	Tourism business data (SPSS)
Institutional	45	Excel data sheets (6) Technical Notes (6)

Findings: Product and Market Characteristics

Both A and B regions capitalised to varying degrees on the natural and cultural resources present in the area. For example, in terms of the peripheral A regions, the county of Rottal-Inn, situated on the Austrian border in South-east Germany, offered a traditional farming landscape and culture, and also benefitted from being part of a 'spa-triangle' in eastern Bavaria. The Shetland Isles (northernmost Scotland) had developed a specialist niche market that drew upon the abundant wildlife and birdlife on the islands. A combination of outdoor recreation and built heritage was evident in Co. Clare in the Mid-west of Ireland. The mountainous Greek area, Evrytania, had a product bias towards the provision of 'wilderness' sport. The B regions utilised similar resources in terms of their tourism product – the dramatic landscape in Bitburg-Prum (Germany), mountains and lakes in Achaia (Greece), beaches and the marine environment in Southeast Ireland. East Ayrshire (Scotland), Satakunta (Finland) and El Camp de Morvedre in Spain were more dependent on historical and cultural features and events to boost their tourism industry. This was largely attributable to the legacy of heavy industry in these areas (e.g. mining, heavy good manufacture and shipbuilding, and the mining of iron ore, respectively).

The embodiment of 'local identity' within the product was present in both peripheral and accessible regions. As stated, product themes of landscape, the environment, natural and cultural heritage and outdoor recreation (i.e. the use of resources linked to the territory) were common throughout and not unexpected given the predominantly rural status of the areas. As shown in Table 8.2, natural resource endowments of the regions were the most important selling feature overall, although there was slight variance in the perceptions of other unique selling points. Culture and tradition assumed greater importance in the peripheral product portfolio, as compared to historical features in that of the more accessible areas.

Table 8.2: Unique Selling Features Identified by Firms

Regions	Nature	History	Architecture	Culture	Facilities	Other
A Regions						
Shetland	9	4	3	8	3	8
Evrytania	10	3	-	5	7	-
Keski-Suomi	9	3	4	3	6	2
L'Alcoia	10	4	3	7	6	1
Clare	11	4	1	8	8	1
Rottal-Inn	6	1	2	4	4	2
Total (no.)	55	19	13	35	34	14
Total (%)	89	31	21	57	55	23
B Regions						
East Ayrshire	4	5	1	2	4	4
Achaia	9	9	-	8	1	-
Satakunta	10	6	-	3	4	2
Camp de M	9	7	6	6	4	1
Wexford	6	1	4	5	2	1
Bitburg-Prum	10	2	3	-	6	4
Total (no.)	48	30	14	24	21	12
Total (%)	81	51	24	41	35	20

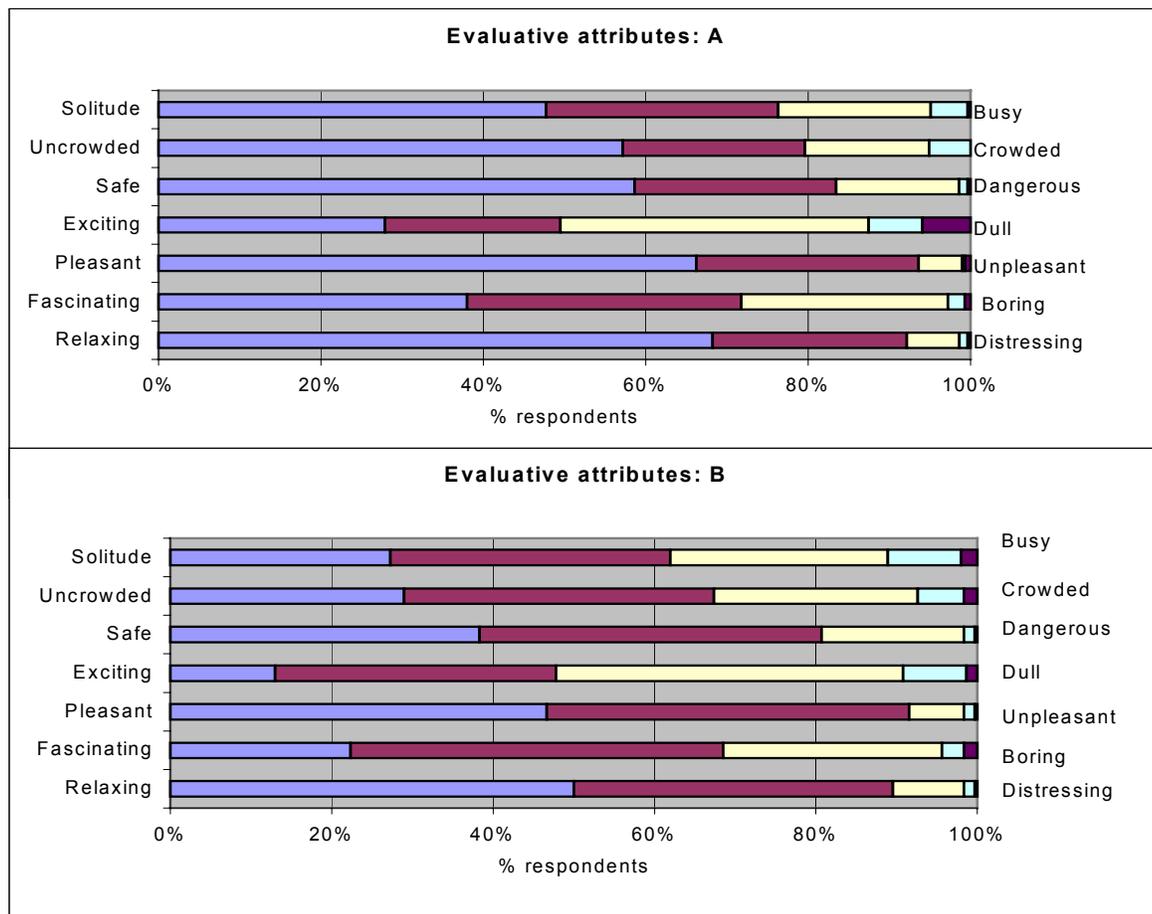
The activities of visitors reflected these 'rural' product mainstays (Table 8.3). There was a clear reliance among visitors, in both accessible and peripheral areas, on private car for transportation. In addition to its transit role, the car also reflected the type of product on offer, in that the components of landscape, scenery and remote attractions necessitated some form of mobility on behalf of the traveler. The act of travel within the destination was effectively part of the product.

Visitor perceptions of the product offerings differed. A comparison of the components of destination image shows that the main differences between our A and B regions lied within the perceptions of the psychological characteristics of the areas. Whilst the perceptions of the core group of functional traits on which all destinations are

commonly rated, for example, attractions and activities, accommodation, transport infrastructure, cost and quality, were not significantly different (Table 8.4), perceptions of the intangible aspects of the products varied between A and B areas.

Table 8.3 Reasons to Visit (No. Visitors)

Visitor activities undertaken:	A Regions	B Regions
General interest	77	52
Outdoor recreation	21	24
Visiting natural sites	27	5
Rest / relaxation	21	31
Sun and beach	-	28
Visiting friends/relatives	58	54
Cultural tourism	28	25
Proximity / remoteness	10	33
Part of tour	8	10
Special interest	9	-
Theme park	5	15
TOTAL	264	277



Figures 8.1 Visitor Perceptions of Area Attributes

Visitors to both regions were asked to consider the evaluative attributes of the areas on a bi-polar (1-5) scale with opposing descriptors at each end of the scale (the colours in Figure 8.1 represent points on this scale). The data for the A regions was clearly biased towards all of the descriptors on the left of the Figures, thus the emotive elements of the holiday experience in the peripheral regions appeared to be stronger than those experienced by respondents in the more accessible regions. The safety, pleasantness and relaxation attributes of the peripheral destinations were particularly pronounced. The qualitative data and anecdotal evidence taken from the surveys suggests that there was a relationship between the perceptions of these attributes and visitors' perceptions of distance from the core.

Table 8.4 Visitor Ratings of the Tourism Product

Aspect of product:	A Regions Mean % of visitors agreeing with statement	B Regions Mean % of visitors agreeing with statement
Good recreational opportunities	71	86
Good sporting activities	55	68
Attractive natural landscape	94	92
Interesting industrial heritage	47	48
Appealing historic sights	74	83
Interesting local culture/traditions	78	75
Friendly local people	93	95
Interesting wildlife	73	68
Appealing summer climate	82	74
Appealing winter climate	40	39

Product mainstays were similar, however, there were subtle differences in the ways that resources were utilised by A and B regions. The development of niche markets was particularly apparent among the peripheral regions, evident in aspects of product promotion and in the specialist activities of intermediaries. Niche marketing placed a greater emphasis on product differentiation and less on price minimisation. Specialist products (such as, wildlife, sport, and health related) were targeted at individuals with greater spending power (low volume-high value markets). Vertical linkages (i.e. business relationships with firms from outside the area for the provision of customers) were present in both areas. However, intermediary activity associated with traditional (price differentiated) tours, was more prevalent in the accessible region data whereas product differentiated (specialist, low volume-high value) operations were largely associated with the peripheral areas.

Related directly to this, market characteristics accorded to the regions varied. Available secondary information (Table 8.5) showed large variations in the volume of visitor traffic within the country context, although B regions tended to command a

greater share of the traffic received, as compared to A regions. Aggregated A and B results showed a very similar domestic / international breakdown, with trends on a regional level and the presence of the day trip market as opposed to the holiday market also case specific. Survey data showed that with one exception, the dominance of the independent market across all of the regions was clear, though more marked among the more accessible areas. This said, differences in visitor profiles of the two regional types were seen clearly in terms of the type of party in which the visitor undertakes the trip.

Table 8.5: Volume of Trips in Case-study Regions

Country	Study region	Trips (actual)				Trips (% total)	
		Domestic	Inter-national	Total	% of national	Domestic	Inter-national
A Regions							
Scotland	Shetland	37,743	9,435	47,178	0.23	80	20
Greece	Evrytania	46,253	745	46,998	0.36	98	2
Finland	Keski-Suomi	440,218	63,488	503,706	5.9	87	13
Spain	L'Alcoia	n/a	n/a	n/a	n/a	n/a	n/a
Ireland	Clare	709,000	1128,000	1,837,000	14.2	38	61
Germany	Rottal-Inn	127,324	5,235	132,559	0.12	96	4
B Regions							
Scotland	Ayrshire & Arran	0.9m	0.1m	1.0m	4.83	90	10
Greece	Achaia	162,707	75,036	237,743	1.82	68	32
Finland	Satakunta	163,208	18,061	181,269	2.13	90	10
Spain	El Camp de M.	n/a	n/a	n/a	n/a	n/a	n/a
Ireland	Wexford	1,592,238	1,153,000	2,745,238	21.28	58	42
Germany	Bitburg Prum	208,726	91,882	300,608	0.28	69	31

Note: the year to which the data refer is as follows. Scotland, 2000; Greece, 1998; Finland, 2000; Spain, 1999; Ireland, 1999; Germany, 2001 with the exception of Bitburg Prum, 2000.

Market segments differed with a greater number of family groups visiting the more accessible areas whereas visitors to the peripheral areas were more likely to be travelling alone or as a couple. Consistent with this, the predominant age group of visitors to the accessible areas was 35-44, with a much older profile associated with the peripheral areas. Higher income earners were also more likely to visit the peripheral regions (Figures 8.2).

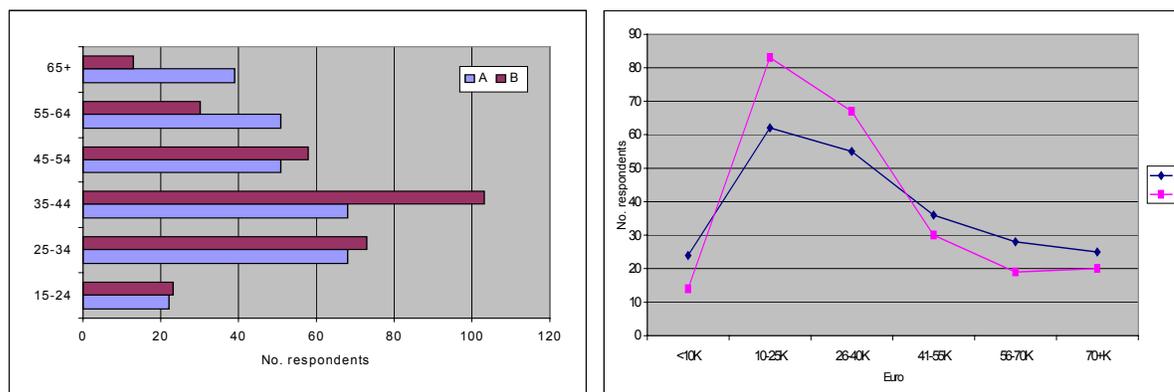


Figure 8.2: Age and Income Categories of Visitor Respondents

Differences in market segments were reflected in accommodation choice, with overnight visitors showing a preference for serviced accommodation (hotel, bed and breakfast) in the peripheral regions and a greater proportion utilising unserviced, budget accommodation (caravan, tent, hostel) in the more accessible regions.

The data gathered suggested that previous visits and word of mouth recommendation were the main factors affecting the decision to visit to both regional types. Other forms of advertising (brochures, press advertising, promotional web-sites) were reaching the target market particularly in terms of promotion of the peripheral areas. A greater number of respondents in the peripheral areas (as compared to those in the accessible areas) cited various promotional tools as being influential. It seems that the peripheral areas worked harder and were more effective at promoting themselves to overcome awareness and distance barriers than their more accessible counterparts. However, the presence of horizontal linkages (such as informal relationships among local businesses and proactive relationships between businesses and institutions for the promotion of tourism) were more apparent among actors in the accessible regions.

Table 8.6: Visitor Perceptions of Accessibility and Cost (No. Visitors)

	Goods and services			Location	
	Expensive	Good value	Quality	Accessible	High travel costs
A Regions					
Shetland	23	40	44	26	35
Evrytania	16	30	40	41	13
Keski-Soumi	24	28	35	45	19
L'Alcoia	4	40	38	40	5
Clare	20	36	45	46	15
Rottal-Inn	6	35	41	47	5
Sub-total	93	209	243	245	92
B Regions					
E. Ayrshire	33	49	48	47	29
Achaia	12	40	44	45	2
Satakunta	29	26	36	41	16
El Camp de M	26	43	47	47	6
Wexford	25	37	41	46	14
Bitburg Prum	18	41	46	45	4
Sub-total	143	236	262	271	71

In terms of value for money and quality the assessments of visitors did not vary greatly between regions and were largely positive (Table 8.6). The perceptions of the cost of goods and services once in the regions tended to show the peripheral areas as less expensive. The cost of travel was perceived by visitors to be higher for the three most peripheral regions (in the conventional sense) as compared to their

more accessible counterparts. Given the majority positive satisfaction rating accorded to the tourism product in these areas, it can be assumed that there are elements of the product that compensated for the higher travel cost. To seek some explanation, it is worth considering the role of spatial and aspatial factors.

Locational Factors

The perceived influence of location on the tourism product, its development and management, is outlined in Tables 8.7 and 8.8. These contain a summary of the immediate effects of location as summarised by organisational representatives. The influences were considered to be both positive and negative and relate to the causal, contingent or associated aspects of peripherality (see Chapter 2). For example as in Table 8.7, many of the perceived barriers can be linked directly to increased travel cost or lack of agglomerative advantage. Equally the perceived benefits of location are characteristics that can be described as, contingent on, or associated with, peripherality.

Table 8.7: The Influence of Location on the Tourism Product and Market (A Regions)

Influence of Location	Benefits	Problems
Shetland	Little in the way of impacts as small volume Location – remoteness, getting away, useful for developing niches Community involvement (strong) Landscape attraction	Expensive to travel Little in the way of sustainable business i.e. stand-alone tourism Lack of awareness (education among markets) re location / access Staffing problems
Evrytania	Long staying tourism Good horizontal networks and developing vertical networks Strong image as a recreation area	Low level of infrastructure and services Remoteness from major urban centres
Keski-Suomi	Potential domestic markets easily accessible Natural landscape is the main attraction Easier to get financial support (peripheral status)	Foreign visitors use air/ boat traffic – increases cost of the area Unawareness of the area among potential markets
L'Alcoia	Attractive natural landscape Proximity to mass tourism in coastal areas (day-visitor market)	Poor infrastructure: roads are a bottleneck
Clare	Scenery is deemed to be attractive	Uncertainty re the weather Poor roads Crowded facilities and short season Trade dominated by large companies
Rottal-Inn	Proximity of attractive foreign tourism destinations	Emphasis on one area (Bad Birnbach, a natural spa)

Undoubtedly the location of the study regions affected the management of the product. The maturity of the product and the way in which the product has developed also tells us something of the influence of access and location. Whilst at first glance the product attributes in the regions appeared similar, the means by which they have been developed differ considerably. In Clare (Region A, Ireland), the existence of Shannon International Airport allowed the development of a high volume market, dominated by operators (of US and European origin). However this created problems in terms of undesirable impacts, such as overcrowding and pressure on

local utilities. A positive slant on this is the economic benefit to be derived from large-scale tourism activity. This said, it was acknowledged in the organisational survey that the distribution of these benefits among local businesses was unequal. The public sector organisations responsible for promotion and development were keen to distribute economic benefits more evenly between large and smaller providers (as currently trade is dominated by large hotels and coach tours).

The other relatively accessible type A region is Rottal-Inn (Germany). Here the product had developed steadily over a period of three decades, focussing upon the themes of 'health and wellbeing' and servicing both operators and independent travellers. The dispersion of these visitors (and thus the benefits to be derived from them) was much dependent upon the motorisation of tourists so once again attempts were being made to 'integrate' the product more fully into the wider economy of the area. The proximity of Rottal-Inn to potential markets in Austria and Czechia was also deemed to have potential for development. Thus whilst the cases in Ireland and Germany were at different stages of maturity, they showed similar characteristics in terms of access to markets and the associated challenges.

At the opposite end of the peripherality scale were Shetland and Evrytania. In both cases, the product was low volume, and, as has already been shown, drew upon the 'remoteness' of the regions in a favourable sense for purposes of promotion. Tourist infrastructure and service provision was deemed problematic in both areas, with the sustainability of wholly tourism businesses being questionable. Thus what tended to evolve were more specialist products targeted towards small-scale, niche markets. The nature of tourism in these areas appeared more integrated with other sectors of the economy. Both areas had established links with intermediaries in recent years for the provision of tourists. The intermediaries tended to be national in relation to the regions, small scale, and specialist.

The influence of location on the product in the B regions (Table 8.8) was that the product tended to be a derivative of accessibility to urban centres. The tendency in these regions was that the tourism industry was dependent on a fairly localised urban market (largely independent day-trippers), as seen in East Ayrshire (Scotland), Wexford (Ireland), Kalavryta (Greece), Satakunta (Finland) and Bitburg Prum (Germany). The problems faced by the industry in these areas were more characteristic of wider economic issues faced by the regions. For example the narrowly based product in East Ayrshire could not compete with that of its

neighbouring areas, exemplified by deficiencies in the range and quality of tourist accommodation, attractions and facilities. The main attraction in the area catered wholly for the day-trip market and therefore spin-off spend was minimal. A lack of product integration and service quality was also highlighted as problematic in the Greek region of Kalavryta.

Table 8.8: The Influence of Location on the Tourism Product and Market (B Regions)

Influence of Location	Benefits	Problems
East Ayrshire	Proximity of main markets Flexible mode of transport	Area has problems (depressed industrial area) that are visible to tourists Lack of recognition/ awareness of area Less in the way of product (tends to be bypassed en route to other destinations) Local politics - problematic
Achaia	Proximity to major urban centres Good infrastructure	Reliance on a day-trip market Low level of human capital – lack of training and experience Reliance on external resources for human/financial capital
Satakunta	-	Some public health issues
Camp de M	Not a well developed sector currently Benefits only for seen if a quality product is pursued	Some environmental impacts (wetlands, coastal ecosystems) Lack of integration with other policies
Wexford	Proximity to the Dublin market	Passengers arriving through the ports tend to bypass the area Celtic Tiger influence on the demand for labour Influx of second home owners – increased housing costs
Bitburg-Prum	Less than 1 hour drive time from a number of German & European agglomerations Proximity provides international flair to product & additional tourist attractions	Congested through route Sparse public transport network Wind power farms (negative landscape feature)

Issues of accessibility and characteristics ‘associated’ with peripherality played an important role in the decisions of firms to locate and/or operate in a given area. Firms in the peripheral regions of L’Alcoia, Clare and Rottal-Inn were more likely to state that accessibility was an important aspect of their business location, whereas this was less important in the extreme peripheral regions (Table 8.9). Unsurprisingly, accessibility was deemed particularly important to firms located in the more accessible B regions.

Table 8.9: Important Aspects of Business Location

Aspect of region	Accessibility	Regional image	Local culture	Landscape and nature
	% of firms stating that the factor is decisive to business location			
A regions				
Shetland	25	58	58	83
Evrytania	50	80	20	80
Keski-Suomi	27	18	27	54
L'Alcoia	60	40	40	60
Clare	100	73	82	100
Rottal-Inn	57	71	85	100
Sub-total (no)	(32)	(34)	(31)	(49)
B regions				
East Ayrshire	86	28	29	57
Achaia	80	60	40	80
Satakunta	20	-	-	40
El Camp de M	80	50	20	50
Wexford	91	25	42	91
Bitburg Prum	60	60	60	10
Sub-total (no)	(41)	(22)	(19)	(41)

A higher percentage of firms in the peripheral areas (as compared to the more accessible areas) stated that place-specific attributes, such as image, culture and landscape, were significant location factors. As correlates with previous findings, the significance of landscape and nature to the product offerings was apparent in both samples.

Role of Spatial and Aspatial Peripherality

Comparable data in official statistics is effectively not available therefore a 'true' contrast in terms of the economic contribution of tourism to the economies of our study regions is very difficult to determine. This also begs the question as to how the measurement of 'successful' tourism can be undertaken in a meaningful way. Existing indicators tend to focus on the economic impacts of tourism, yet the social, cultural and environmental impact is of equal importance to the sustainability and longevity of the industry; hence should be incorporated into any measure of 'success'. For purposes of this research, the perceived importance of the sector in the local economy was ascertained (according to public sector organisations), indicators of the performance of tourism businesses were sought as was the satisfaction of visitors as to particular aspects of the product.

The results across the surveys were largely consistent in the assessment of the role of tourism in the regional economies. In five of the six peripheral regions, tourism was considered to be an important sector. This was particularly marked in terms of organisations from the three (conventionally) more peripheral areas of the group, and a higher percentage of firms in these areas also reported growth in profit margins, sales and investments. Tourism was considered relatively less important to the local economy in half of the accessible (B) regions and a much lower proportion of tourism firms reported growth in the B regions. Visitor satisfaction appeared high in terms of value for money and quality and did not vary greatly between accessible or peripheral regions in spite of perceptions of higher travel costs to the more peripheral of the areas.

It appears therefore that that the peripheral regions and their constituent businesses had created some form of competitive advantage that assisted in overcoming the conventional barriers associated with their location. These could take the form of competing through low prices, but predominantly took the form of differentiation (being different from the competition in a manner which consumers value and for which they are prepared to pay). The peripheral areas tended to follow a differentiation approach, frequently focussing on a particular niche or segment of the market. We have witnessed examples of both 'supply-side' or 'demand-side' based differentiation in the peripheral products. Supply-side differentiation comes through a firm's ability to add uniqueness to the products or services it supplies e.g. the development of wildlife tourism. These opportunities arose through the methods of production or delivery, the quality of the human resource, the level of customer service or the quality of management activities including marketing. Demand-side differentiation relies on a firm's ability to understand customer and consumer demand and to match a demand for difference with its own product or service and associated marketing mix (features of the product, its pricing, promotion and means of sale). For example, the peripheral regions' edge in terms of the psychological product attributes, such as safety, remoteness, and wilderness. The latter is therefore dependent on an understanding of customers and consumers and their needs and wants (often gained through either formal or informal market research).

Literature has shown that peripherality as a concept is subject to different interpretations, and although a number of indicators exist that relate to conventional peripherality (such as accessibility indicators derived from travel time and cost models) measurements of other characteristics of peripherality are less prevalent.

This is supported by the results of the tourism element of AsPIRE. Within this context therefore, Figure 8.3 attempts to categorise peripheral elements into three main groups: locational, associated and perceived (ranging from the objective, as in conventional peripherality, to the subjective, as in those area attributes associated with peripherality). Linkages between each of these can be termed substantive, in that they are objective and easily identifiable or subjective in that they are experiential, lying in the eye of the beholder.

Peripherality characteristics are considered in terms of their supply-side or demand-side orientation (Figure 8.3). For example, classifying a product according to location and distance from main markets will generate characteristics that are fixed, and dependent on the product being available at that location i.e. in terms of conventional peripherality, spatial or territorial characteristics. Alternatively, characteristics aiming to generate attraction, such as relaxation, safety and solitude, are market-orientated and, as such, are dependent on the producer's ability to understand their consumer i.e. aspatial. There is clearly a linkage between these categories. For example, features of attraction designed to generate a feeling of 'well-being' and 'getting away from it all' may originate from the location or environment of the attraction or provider. Thus the sourcing of competitive advantage from supply-side phenomenon cannot always be seen as distinctive and separate from demand-side issues.

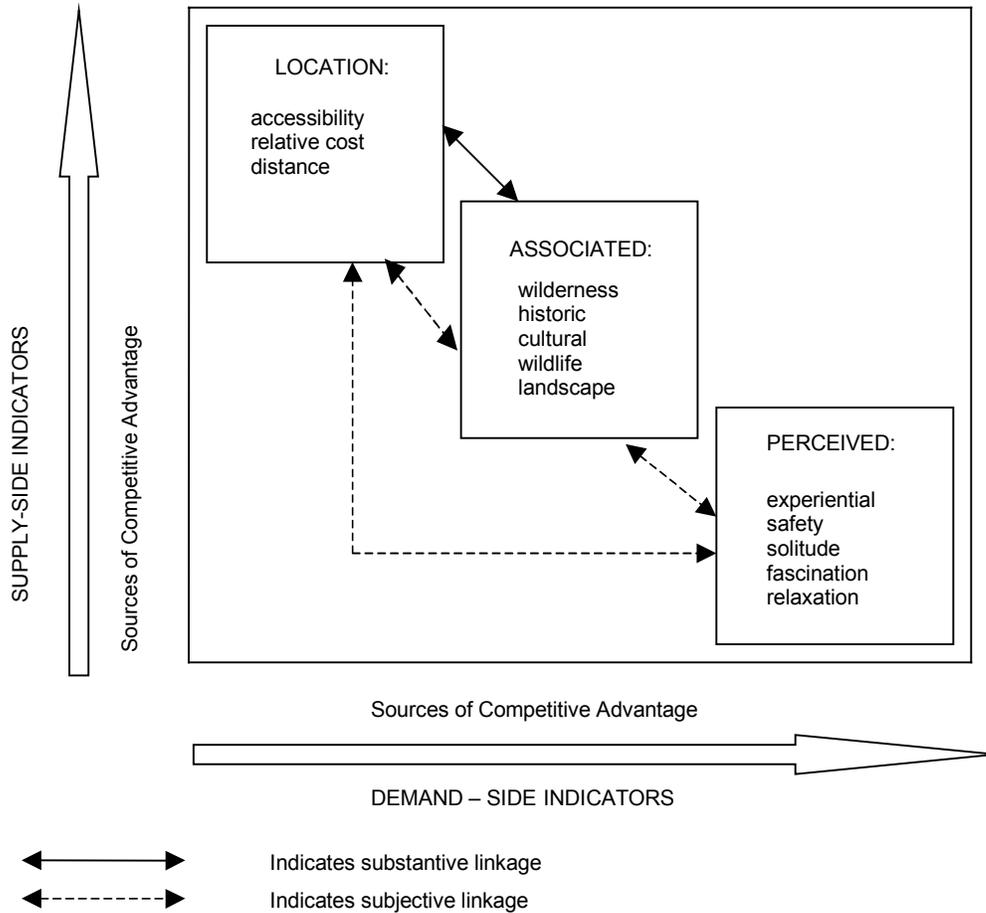


Figure 8.3 Peripherality and the Sourcing of Competitive Advantage

Within the various products, the utilisation of the regions’ ‘peripherality’ or ‘accessibility’ differed considerably with the respective influences on the product and its promotion becoming more apparent as the ‘pictures’ of our areas evolved. Whilst product attributes appeared similar, the location of the study areas affected the development and management of the product. As we have seen in the peripheral group of study areas, the responses to the problems of ‘peripheral’ status were dealt with in different ways with varying emphasis on spatial and aspatial characteristics adopted.

Of the A regions, the two relatively (to the group) more accessible areas tended to play up the accessibility aspects of the area through proximity to main markets or transport infrastructure. Conversely, the more peripheral areas used the (aspatial) characteristics of the regions’ associated with peripherality (and perceived distance from the core) to add value to the product (particularly in terms of product promotion).

Hence some of the peripheral regions adopted conventional approaches to the amelioration of peripheral disadvantage whilst others overcame the barriers of inaccessibility through harnessing (intangible) elements of their peripheral status.

Yet both approaches bear their own challenges. Ironically, the hallmarks of one approach tended to be the failings of the other. For example, the provision of tourist infrastructure and service was problematic in areas with few visitors (despite a high spend by these visitors), thus the sustainability of wholly 'tourism' businesses was highly questionable. At the opposing end of the development scale, high volume visitor traffic created problems in terms of undesirable impacts, such as overcrowding and pressure on local utilities, impacts that detracted from the psychological attributes of the product.

The approaches to the development of tourism in the regions raises further issues, one question being the nature of the causal elements of these relationships. Is a tourism sector that is small scale, integrated and endogenous in nature, a consequence of a focused management effort in terms of destination strategy and development or is it simply the only, viable approach available to remote and peripheral areas? Comprehensive measurement of the characteristics of soft versus hard tourism has proved problematic. Drawing upon the case-study material, there are signs that some of our areas made attempts to pursue tourism strategies that tended towards 'softer' approaches to development. Such strategies utilised distinctive aspects of the economic, social and cultural environments for tourism purposes to raise the profile of the locality, yet failings were demonstrated in terms of the integrated nature of such developments i.e. a lack of active horizontal linkages.

To conclude, tourism is multi-faceted and what is clear is the complex nature of 'aspatial' variables and the relationships between them. In spite of conventional peripherality, the associated development barriers, and a similar product base in all regions, the more peripheral areas appeared to be performing equally as well as the more accessible areas. This can, in part, be attributed to understanding the motivations of tourists and encouraging (via promotion) and meeting (via provision) their requirements through harnessing intangible (aspatial) product attributes. However, the ability to undertake this approach and sustain it is dependent on a plethora of additional factors, the interaction of which serve to shape an area. Particular styles of governance, the presence of vertical and horizontal business networks, the exploitation of social capital, and the take-up and role of information

technologies (other themes investigated under the auspices of AsPIRE) all interact to form the dynamics of a region. Approaches to local and regional economic development (through strategies such as those provided by tourism) influence and are influenced by a number of 'aspatial' characteristics, it is important therefore not to consider these characteristics in isolation, but acknowledge the role that each has to play.

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CHAPTER 9
TOWARDS AN INTEGRATED VIEW OF ASP

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Introduction

The purpose of this short concluding chapter of Section B is to draw out certain key conclusions and observations from the case study results of the preceding chapters, before proceeding to a discussion of what secondary data can tell us about patterns of AsP across Europe in Section C. The first observation relates to the need to view AsP in an integrated way, rather than theme by theme. The second is to attempt to put the concept of AsP into the context of the literature relating to other synthetic interpretations of regional business environments. The chapter concludes with a discussion of some of the lessons learned through the case study phase of the AsPIRE project.

The Need for an Integrated Approach

The idea that various soft and aspatial factors can (acting collectively) account for variations in economic performance in peripheral regions forms the basic concept upon which the AsPIRE project was based. In Section A it was hypothesised that recent changes in transport and communications technology would tend to increase the combined impact of such factors relative to more traditional locational effects, and hence progressively disrupt core-periphery processes and patterns which have for many years been fundamental to the explanation of regional disparities within Europe, and to the policy response. However, the need for a practicable research design necessitated the decomposition of the holistic/synthetic concept of AsP into a series of (not necessarily comprehensive) separate themes; the role of IST, business linkages, governance and social capital. The results of these separate thematic analyses are presented above (chapters 4-7). Although necessary for practical reasons this partial approach has the disadvantage that it may under-emphasise the potential for synergy between the various components of AsP. The importance of interaction between different components of AsP was very evident to the researchers. To some extent the sectoral case study of tourism (chapter 8) provided an opportunity to explore the role of AsP in a more holistic way. Further evidence of the importance of synthesis may be found in the Regional Reports, which are available for download via the project web site (<http://ww.sac.ac.uk/AsPIRE>). The purpose of the current chapter is to highlight the main thematic inter-relationships, and to discuss the theoretical implications for the concept of AsP.

Inter-theme relationships highlighted by the fieldwork

Even despite their thematic rather than holistic orientation, chapters 4-7 contain a number of references to the importance of interactions between different aspects of AsP. For instance, in his discussion of the role of IST policy, Grimes (p54) recognises the role of governance when he argues that successful promotion/implementation of new information and communications technologies is very much dependent upon the quality and dynamism of the local development agencies. Furthermore he stresses the increasing recognition that information technology cannot provide a solution to locational disadvantage without supporting adjustments in human and social capital, (including capacity to accept innovation, new ways of working, and a vigorous entrepreneurial culture).

In the business networks chapter (chapter 5) Skuras places horizontal business linkages within the context of innovative milieu. Tödting and Kaufmann (1999,2000), have argued that informal linkages - (what Storper terms “untraded interdependencies”) generally closely parallel formal transactional ones. From a sociological perspective the former may be seen as an element of social capital. Thus Skuras’s discussion of innovative milieu (p84ff) points to a close relationship between horizontal business networks and social capital.

Similarly, in the discussion of governance (chapter 6) Kahila, Lakso and Suutari introduce the concepts of “institutional thickness” and the “associational economy”, which illustrate the very close relationship between governance and social capital as elements of AsP. Thus institutional thickness derives at least some of its power to stimulate regional economic performance by enhancing interaction between the public and private sectors, and the “associational economy” stresses the importance of a strong “third sector”.

Finally, the social capital theme exhibits perhaps the strongest recognition of the synergistic nature of AsP. Thus Commins and Meredith argue that social capital can be recognised at a range of scales, from micro (business networks) to macro (governance). Although the AsPIRE Social Capital analysis was distinguished from that relating to Business Networks and Governance by its focus upon third sector organisations, the degree of close collaboration in respect to survey work and interpretation is indicative of the fact that these distinctions are artificial and driven by

operational research considerations rather than theoretical ones. An example of the way in which style of regional governance may impact upon the development of social capital is given on p140, where it is shown that “top-down rigid, centralised and exclusive (governance) structures are not conducive to the generation of various forms of collaborative networking”.

Some theoretical Implications

It is clearly important to treat AsP in an integrated, holistic way. Attempting to account for differences in regional economic performance by focusing on any single aspect without an appreciation of the inter relationships with other elements is likely to be misleading. A regional development policy which addresses one aspect of AsP alone may yield unexpected impacts. Figure 9.1 is an attempt to illustrate the relationship between SP and AsP and the components within them in a “Type A” (dynamic but peripheral) region.

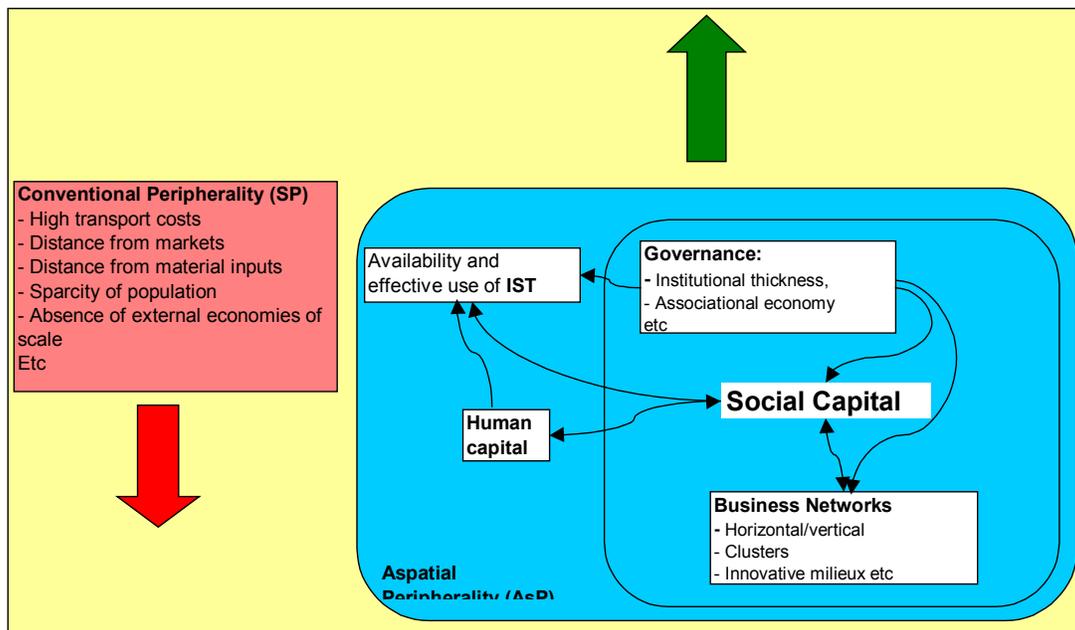


Figure 9.1: The Concepts of SP and AsP in a Type A Region

In such a region SP has a generally negative impact on economic performance, as signified by the pink colour of the left hand box, and the downward red arrow. The rectangular shape indicates that SP is composed of “hard” economic factors. These are a selection of the elements of conventional peripherality shown in Figure 2.1.

On the right of the diagram, AsP is represented by a rounded shape because most of the elements of AsP are “soft” factors. The blue colour and the green upward arrow show that in a type A region AsP factors are generally benign. Within AsP three major elements are shown, IST, Social Capital and Human Capital. The last of these has not been studied within the AsPIRE project. Governance and business networks are shown as aspects of Social Capital, which is taken in its broadest sense (following Commins and Meredith). The arrows between the different components of AsP are intended to illustrate the inter-relationships between elements which have been discussed above, and in Chapters 4-8.

Figure 9.2 is an attempt to illustrate a simple SP/AsP typology of regions. The two left hand boxes represent accessible rural regions, whilst the two on the right represent peripheral regions. In each box the colour and the sign in each SP and AsP symbol represent whether they are generally positive or negative. This the region in the top right combines negative SP with generally positive AsP, and is thus a “Type A” region in the terminology of this project. The region on the bottom left combines relative positive hard locational characteristics with negative soft/aspatial ones and is therefore termed a “Type B” region.

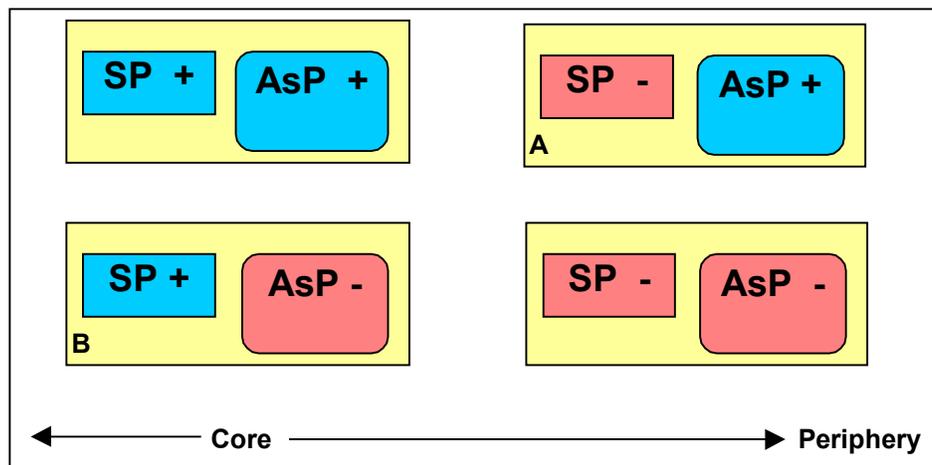


Figure 9.2: A simple SP/AsP regional Typology

Figure 9.3 illustrates the hypothesised long term change in the relative balance of SP and AsP in type A and B regions. The top two quadrants of the diagram represent the situation in B and A regions prior to improvements in transport and communications infrastructure, perhaps the 1950s or 1960s in N Europe, the 1970s in parts of the

south. Locational advantages/disadvantages are far more important and influential than differences in soft/aspatial factors.

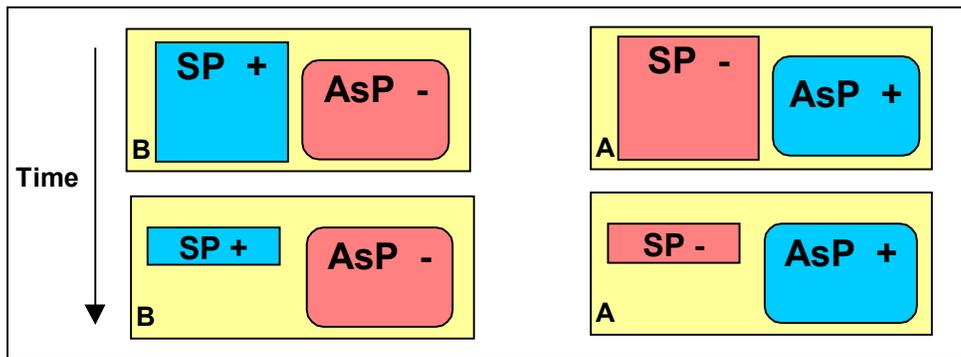


Figure 9.3: The Changing relationship between SP and AsP

The bottom two quadrants show the situation after improvements in transport and communications. SP characteristics are hypothesised to be less influential over regional economic development than soft/AsP characteristics. The future of these two regions would then seem to depend very much upon the nature of their AsP characteristics. Essentially the A regions are likely to use their various (positive) soft factors to exploit new opportunities within a globalised market environment, and have the potential to become innovative milieux. The B regions, not having the requisite local capacity are more likely to suffer a “pump effect”, and to suffer fierce competition from regions (accessible and peripheral alike) which have stronger business networks, better social capital, greater institutional thickness, and so on.

Why add AsP to the already complex and confusing terminology of Regional Development?

Just as the AsPIRE project has used existing research literature as the basis around which to build thematic analysis, there are also a number of existing synthetic explanations of regional economic development which incorporate many of the elements of AsP. It will perhaps be helpful at this point review these more holistic approaches, and to explain why the concept of AsP is distinctive, and what it adds to the debate.

Although we are concerned with explanations which draw together a range of aspects of the regional environment, it is true to say that most of them have a “starting point” or perspective from one or other of the themes dealt with in Chapters 4-7. Thus chapter 5 (Business linkages) referred to the “innovative milieu” literature,

Chapter 6 (Governance) referred to “institutional thickness” and the “associational economy”, and Chapter 7 (Social Capital) mentioned “industrial districts” and “embeddedness”. However, with the exception of the two governance “theories”, most are primarily focussed upon firms, as the key drivers in the regional economy, other actors, (especially the institutions) having contextual roles.

Before attempting to justify adding new terminology to this already complex area where there are many near synonyms in the terminology, it will perhaps be helpful to briefly review the “conceptual landscape”. One way to organise the wealth of material is through two key questions:

- Is the strength of the relationships between firms seen predominantly in terms of rivalry or in terms of co-operative behaviour?
- Are those relationships mainly physical/formal business transactions, or are informal links and the sharing of knowledge/information more important?

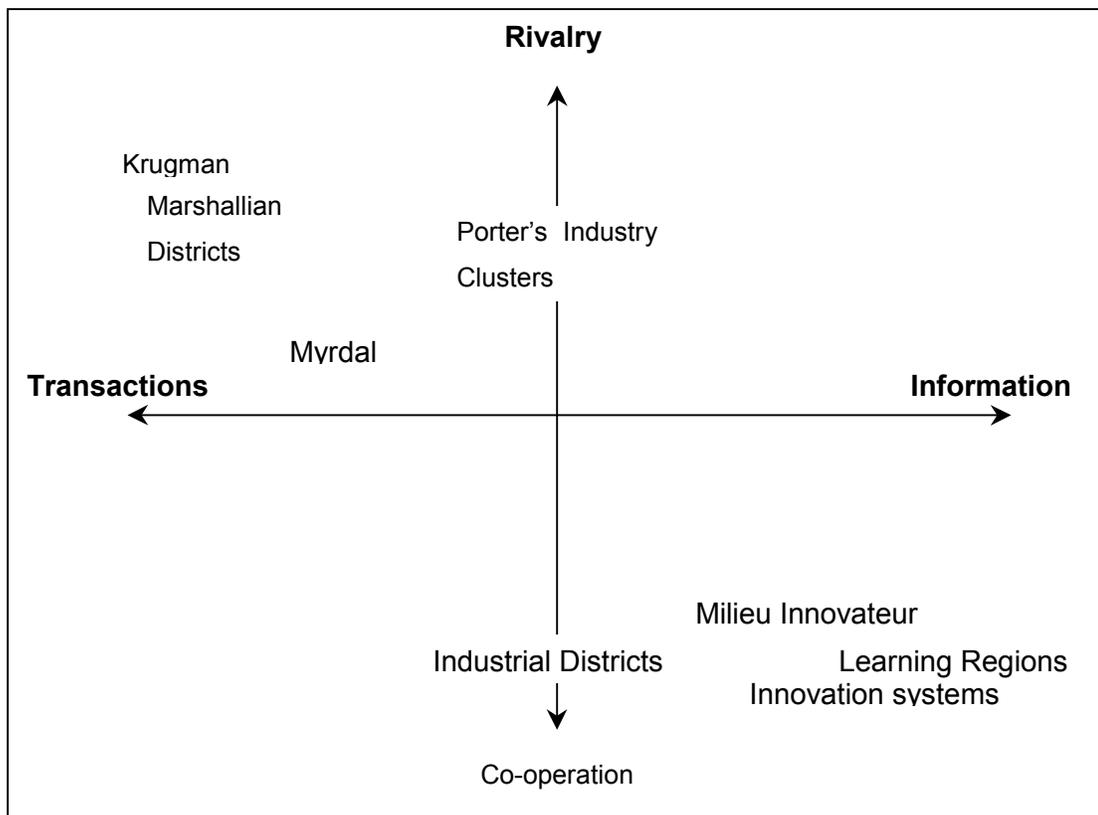


Figure 9.4: A selection of holistic explanations of regional economic performance

These are illustrated as two axes in Figure 9.4. (The relative positions of different schools of thought are broadly indicative, no precision is implied.) A third axis (which is omitted for the sake of clarity, is that of geographical scale. Some of the concepts

shown in Figure 9.4 (such as Porter's industry clusters, or the Myrdal cumulative causation model), although essentially geographical, are generally associated with relatively large regions or even national space. Others, particularly the "industrial district" school are much more localised in focus. Others still can be viewed as less scale dependent.

The various schools of thought may be discussed under two broad headings, those which are located on the top left quadrant of the diagram, and which are generally earlier in origin, and emphasize transaction linkages and competition, and the more recent, "softer" concepts located on the bottom right, stressing information linkages and co-operation.

Marshallian Districts, Cumulative Causation, Industry Clusters and the New Economic Geography

Alfred Marshall (1920) is generally attributed with first focussing on the importance of transaction linkages between firms. He pointed out that the cost advantages of locating relatively close to "upstream" and "downstream" firms, can lead to the development of "Marshallian Districts" populated by firms tied into a mesh of formal contractual relationships and physical transactions.

During the mid 1950s evolutionary economists such as Myrdal (1957) extended the argument by suggesting that cumulative growth within industrial regions is nurtured by the presence of a broader range of "agglomerative advantages" or "external economies of scale". These include the development of shared commercial and public sector support services, specialised education, training and research institutions, and the accumulation of skills and "tacit knowledge" within the workforce.

The term "industrial cluster" is generally associated with the work of Michael Porter (1990, 1995), who elaborated and extended the ideas of Marshall and the evolutionary economists. He suggested that regional competitiveness develops best within a network of firms in related and supporting industries. He argued that lower transaction costs were not a sufficient explanation for "clustering", but that opportunities for the diffusion of innovations and knowledge, the development of local workforce skills and specialist infrastructure, together with a supportive political/institutional environment, were also important. Nevertheless he continued to lay stress on the need for "effective rivalry" as a precondition for competitiveness.

The “new economic geography” of Paul Krugman (Fujita Krugman and Venables 1999), (or rather the elements of it which relate to business networks) builds on all the ideas summarised above. Krugman’s contribution is mainly in terms of their expression/proof in terms of mathematical models. In order to do so, however, simplifying assumptions are required. Amongst these are the assumption that networks or clusters are structured around formal transactions alone, and that chance is responsible for “seeding” clusters in particular locations (Pinch and Henry 1999).

Industrial Districts, Milieu Innovateur, Learning Regions and Regional Innovation Systems

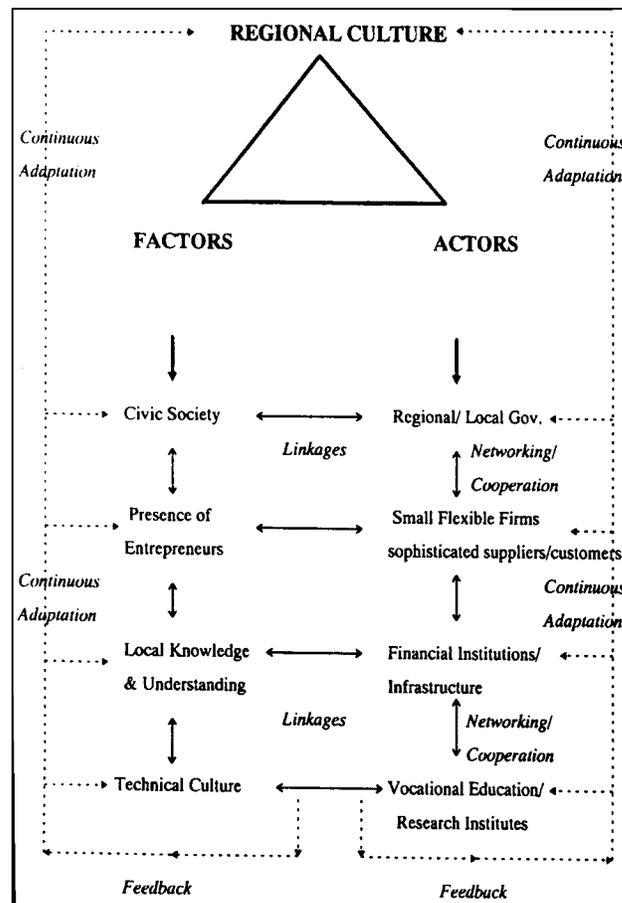
In the mid 1980’s the existence of rather “tighter” territorially-based networks of small firms, often known as “industrial districts”, received a great deal of attention as part of a debate regarding the decline of the “Fordist” model of production, and the rise of “flexible specialisation” (Piore and Sable 1984, Belussi 1996). The distinctive feature of the “industrial districts” (which are generally associated with clothing and footwear production in North-East-Central Italy), was the importance of strong but informal links, (often based on familial or social ties), between small highly specialised enterprises,. These allow rapid transfer of information, and encourage collaboration, to the mutual benefit of the participants.

A recent refinement of the industrial district idea has been termed the “milieu innovateur” (EU Commission 1995). This stresses the importance of a technical or entrepreneurial culture, managerial and technical competencies, and supportive regional institutions, which form a coherent context within which the network of interacting small firms prosper. The most extreme proponents of this view argue that regions (or rather the firms and institutions within them) can be so well integrated that they function as an organic whole, and that such regions will see economic growth associated with high rates of innovation and entrepreneurship (Maillat 1998).

The “Learning Regions” school stresses the crucial role of information in the modern economy, and suggest that regional competitiveness is bound up with the local business/institutional network’s ability to absorb, disseminate, and effectively utilize technical and market intelligence (Morgan 1997, Asheim 1996, Hallin and Malmberg 1996, and Keeble *et al* 1999). The characteristics of an learning region include;

- good links with appropriate research and development (R and D) institutions, to support technology transfer;
- R and D capabilities within local firms (social capital);
- the ability of the local network to interact with global markets/information sources;
- effective dissemination of new information between local firms through both formal and informal linkages;
- a collective innovative ethos.

The conceptual framework which is perhaps closest to that which underlies AsPIRE is the “Regional Innovation System” (Doherty 1998). Based on ideas developed at the national level, Doherty approach stresses the importance of “regional culture”, which is determined by the interaction on factors and actors at four levels, governance, business networks, financial institutions and education/training/R and D (Figure 9.5).



Source: Doherty 1998

Figure 9.5: An Innovation System

Doherty used this framework as the basis of a qualitative assessment of the strength of the regional innovation systems of Ringkjøbing county in Denmark, and the Mid-west region of the Republic of Ireland. Similarly Tödtling and Kaufmann (1999) used

the innovation system framework in a comparative analysis of several European regions.

Clearly the AsP concept owes much of its content to the above evolution of ideas. However, its distinctiveness is derived from adaptation to the specific context of peripheral regions, and its emphasis upon the way in which spatial processes associated with improvements in transport and communication technology/infrastructure have the potential to change the spatial organisation of economic activity in Europe. As we shall see in Sections C and D, the AsP concept is also fundamentally comparative, it leads to practical attempts to measure and benchmark, and hence to provide a basis for a policy response.

Lessons Learned through the AsPIRE Case Study Work

The detailed findings of the AsPIRE fieldwork are presented, theme by theme, in Chapters 4-8. The following remarks are concerned first with considerations of research design, and secondly with a general observation in relation to the overall relative importance of AsP, and the extent to which core-periphery processes have been superseded in Europe.

Issues relating to research design

As explained in Chapter 3 the AsPIRE data collection plan was designed to meet the need for truly comparative analysis by theme, and although this was largely successful, a need was identified for regional reports which took a more holistic view, and facilitated the consideration of qualitative information within its context. The use of national languages for these reports (which are not a formal project deliverable) was to some extent a barrier to their use by theme leaders, although English executive summaries went some way towards solving this problem.

A second, more fundamental issue related to the choice of study regions. Whilst in some participating member states there were obvious candidates for A (peripheral dynamic) and B (accessible lagging) regions, in others the choice was rather more difficult. Furthermore the A/B typology was perhaps unnecessarily complex, and a comparison between two peripheral regions (one dynamic one lagging) may have yielded more easily interpretable results.

In all the thematic analysis, but especially in Governance and Social Capital it soon became clear that simple comparison of aggregated A region results and B region results was hampered by the fact that differences between member states were often as great as, or greater than differences between member states. Solutions to this problem varied from theme to theme, but it underlines the need for very careful consideration of selection of case study regions, sampling, and analysis arrangements at an early stage.

Some Preliminary observations on the Relative Importance of AsP and SP.

A review of the evidence presented in chapters 4-8 suggests, on balance that the spatial transformation described in chapters 1 and 2, and earlier in this chapter, - whereby the core-periphery pattern based upon the dominance of SP is superseded by a more polycentric pattern determined by variations in AsP, - has not proceeded as far as the more optimistic proponents of information technology might suggest. Thus, whilst there are many anecdotal examples to suggest that various soft/aspatial factors have a profound effect upon the economic performance of peripheral regions, there is also much evidence for the continuing influence of conventional spatial peripherality. Thus in Chapter 4 (IST), for instance, lack of volume demand continues to be a barrier to provision of broadband network access in many remote and sparsely populated areas of Europe. Similarly, in Chapter 5 (Business Networks), high transport costs discouraged the development of vertical linkages in peripheral areas, and horizontal networks were dominant. In Chapters 6 and 7 (Governance and Social Capital) geographical disadvantage continues to be perceived as a key issue by agency staff and traditional infrastructure policies are still seen as one of the most important solutions.

Thus it seems reasonable to conclude, on the basis of the evidence collected from the AsPIRE case study regions that European periphery has, at most, reached the point at which the tide, (between SP and AsP) is beginning to turn. Whether future spatial reorganisation is either rapid or thorough depends largely upon the strength of certain forces of inertia. For instance provision of broadband infrastructure in peripheral areas will always lag behind that in the core due to lack of volume demand. The latter is itself exacerbated by the fact that the periphery has an industrial structure adapted to a form of comparative advantage based on horizontal networks. It is not yet clear to what extent peripheral regions will be able to use

quality of life advantages and the resulting migration of both people and economic activity to begin to break down this vicious circle. However it seems reasonable to assume that those peripheral regions which will begin to form dispersed dynamic subsidiary cores of economic activity will be those which, for whatever reason possess advantages in terms of soft factors; strong social capital, effective business networks, institutional thickness, and so on. Thus whatever the precise trajectory of change over future decades it is hard to escape the conclusion that AsP will play a very important role in the spatial organisation of economic activity in Europe.

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SECTION C:
IDENTIFYING THE ROLE OF ASP FROM SECONDARY DATA

CHAPTER 10
THE SPATIAL DIMENSION
OF ASPATIAL PERIPHERALITY INDICATORS

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Introduction

In the preceding chapters the various themes of aspatial peripherality (ICT, business networks, social capital, governance and tourism) have been conceptualised and then investigated in selected case study regions in the EU. While the importance of these factors has been proven for the case study regions, the crucial question remains whether these findings can be generalised to the wider EU territory. More critically even, one has to ask whether the endowment with these 'aspatial' factors differs between all regions randomly or whether spatial patterns can be distinguished. This calls for an analysis of the spatial dimension of aspatial peripherality indicators.

Since the AsPIRE project concentrates particularly on the rural regions of Europe this spatial analysis should also focus on rural regions, while of course also comparing them with all other regions in Europe. For this it is necessary to first define what constitutes a 'rural region'. Subsequently various indicators that operationalise the five AsPIRE themes are presented, their corresponding datasets statistically described and spatial patterns discussed using cartographic presentations of selected indicators. The chapter concludes with a summary that focuses on the overall results emerging from the analysis of all five AsPIRE themes.

Definition of Rural Regions

The concept of 'rurality' is far from being clearly defined. In some countries, regional units (provinces, counties etc.) are classified as rural in relation to the predominant type of land use or the share of employees working in the agricultural sector; in others, rurality is associated with a set of socio-economic variables such as the ratio of active and inactive population, the use of public transport or penetration rate of phone contracts (Bengs and Schmidt-Thomé, 2003). According to the OECD (1994), there are also countries where "an official definition of 'rural' does not [...] exist" (p. 17, quoted in Shucksmith et al., 2001).

Hence it is not surprising that "several attempts at formulating a single and common international definition of rural areas or rurality have been made, without success, since national conditions and interests are very different." (Shucksmith et al., 2001, p. 10). There exist, however, some first proposals by international organisations and research groups to define features and thresholds of rurality to be used in cross-national comparisons:

- According to a categorisation by the OECD, a region can be classified as ‘predominantly rural’ if more than 50% of its inhabitants live in rural (sparsely populated) municipalities. A rural municipality in turn is characterised by a population density of less than 150 inhabitants per square kilometre (Meyer 1996). This typology was used in ESPON Project 2.1.3 when analysing the territorial impact of CAP and rural development policy (Arkleton Centre, 2003)
- In contrast, Eurostat defines rural areas as a group of municipalities with a population density of less than 100 inhabitants per square kilometre. In addition, rural areas are marked by a small total number of inhabitants (usually less than 50,000) and are expected not to border upon a densely populated area (> 500 inhabitants per square kilometre) (Mouqué 2002).
- The most recent typology of rural areas in the EU was developed by ESPON Project 1.1.2 on urban-rural relations in Europe. It is based on three types of indicators: land use, population density and “degree of urban integration”, derived from a hierarchical ranking of functional urban areas (FUA) developed in ESPON Project 1.1.1. The application of the three indicators led to a typology of 10 classes, six of which are classified as in some way rural (Bengs and Schmidt-Thomé, 2003)

All three definitions include the indicator of population density, though they differ with regard to the proposed threshold of rurality (100 v. 150 inhabitants per square kilometre), the level of observation (municipalities v. regions) and the additional indicators considered. For the purpose of the AsPIRE Project, we adopt the threshold proposed by the OECD and define rural areas as those NUTS-3 regions with a total population density of less than 150 inhabitants per square kilometre. However, other than in the OECD classification, the density is calculated at the regional instead of the municipal level. In addition, a second criterion is used: Rural areas shall not dispose of a centre of more than 100,000 inhabitants (cf. BfLR, 1997). This incorporates the criticism formulated by Shucksmith et al. (2001) that the sole use of population density in defining rural areas is problematic “since densities which might be appropriate to England or France (e.g. below 100 or 150 inhabitants per square kilometre for rural regions) include even most of the larger towns, and even cities, in sparsely populated countries like Finland and Sweden” (Shucksmith et al., 2001, p. 10). In order to reflect the case study work of the AsPIRE project, all NUTS-3 regions which contain a case study region (often covering only a part of a NUTS-3 region) are also classified as rural for this study.

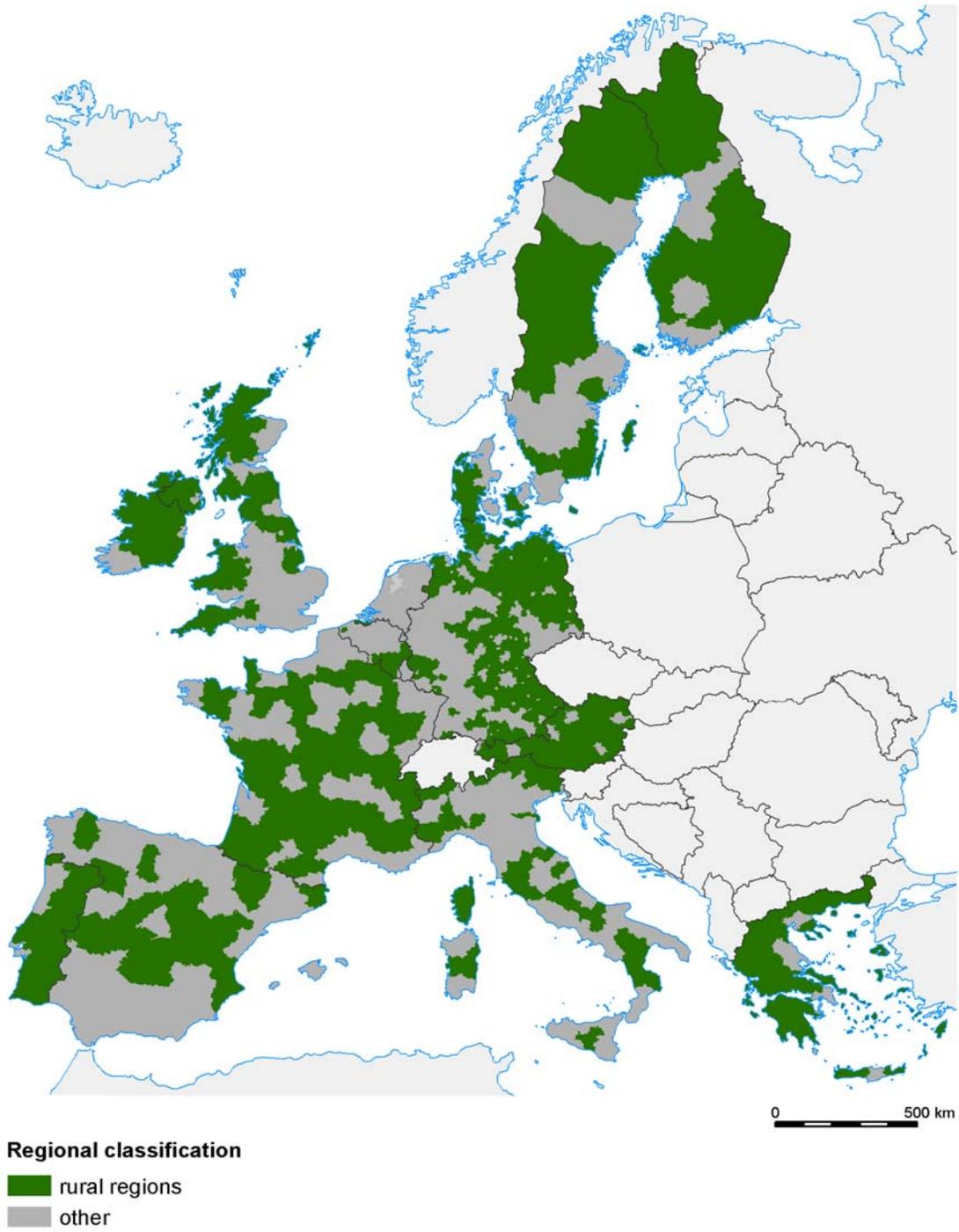


Figure 10.1. AsPIRE definition of rural NUTS-3 regions in the European Union.

ICT Indicators

Deliverable D18 conceptualised, identified and described statistical indicators on information and communication technology (ICT). These indicators were grouped under the headings ICT infrastructure, spread of websites, ICT prices, ICT expenditure, use of ICT (by households, by governments, by businesses) and the focal issue of e-commerce. 22 ICT indicators were selected for further analysis.

Table 10.1. presents these ICT indicators focussing on basic statistical characteristics of the data. The table shows the maximum, minimum and arithmetic mean as well as the standard deviation of each indicator. These measures were calculated and presented in the table for (a) all 1085 NUTS 3 regions and (b) the 442 rural regions of the European Union. Comparing the values of (a) and (b) yields the following results:

- For 18 of the 22 indicators the mean of the rural regions is lower than the mean of all regions. This confirms that overall the conditions and the use of ICT in rural regions is lagging behind non-rural regions.
- For 11 of the 22 indicators the standard deviation of the rural regions is higher than the standard deviation of all EU regions. This indicates that in regard to ICT the differences between rural regions are about the same as among the non-rural regions.

As regards the spatial distribution of the ICT data, European maps were produced for each indicator. Analysing these maps showed that most ICT indicators display a similar pattern: The best ICT infrastructure and most advanced use of IC technologies is usually found in the Scandinavian countries, followed by the Netherlands, other central European countries, Ireland and the UK. Southern European countries tend to have the lowest ICT endowment and use. The differences are often remarkable, for example Greece's computer density (number of computers per inhabitant) is less than one fifth of that of Sweden.

Figure 10.2 shows an example of these spatial patterns. The map displays the share of households that have access to or use online services in 1996. Even though this share has surely increased significantly since 1996, it is probably a safe assumption that the overall patterns of advanced, 'pioneering' regions and 'laggard' regions persist. The resulting international patterns are as described above. Within countries

differences are in some cases also very significant (e.g. in Germany and the UK), clearly highlighting the advantage of the urban agglomerations of a country.

These urban-rural differences are even more pronounced in Figure 10.3. The map shows macroeconomic impacts of ICT, namely the share of employees in the IT sector on total employment. Again the leading roles of Scandinavia, the UK, Ireland and the central European countries are obvious. The map also highlights that IT related business activities are concentrated in the urban agglomerations of each country.

Table 10.1: Statistical characteristics of ICT indicators

		All regions (1085)				Rural regions (442)			
		Minimum	Maximum	Mean	St.deviation	Minimum	Maximum	Mean	St.deviation
I2	ISDN subscriptions per capita	0.00	0.22	0.10	0.10	0.00	0.22	0.10	0.10
I4	Cable modem/DSL connections	0.00	2.70	0.93	0.68	0.00	2.70	0.87	0.66
I5	Internet access prices ADSL	27.07	113.2	33.81	10.38	27.07	113.2	33.99	11.62
I7B	Price of fixed line telephone call	0.11	0.57	0.42	0.10	0.14	0.57	0.43	0.10
I13	Households using computers	11.00	61.00	29.15	8.93	11.00	61.00	27.00	8.25
I14	Households with Internet access	10.00	64.00	38.24	10.86	10.00	64.00	35.81	11.87
I15	People using E-mail	50.00	85.82	67.29	7.25	50.00	85.82	65.99	8.73
I16	Internet users per capita	0.13	0.52	0.33	0.08	0.13	0.52	0.32	0.09
I17	PCs per 100 inhabitants	8.00	56.00	31.87	9.60	8.00	56.00	30.27	11.09
I22	Employment in IT sector	0.30	5.30	1.59	0.54	0.40	3.20	1.49	0.49
I25	Computer professionals per 1,000 inhabitants	1.33	16.19	7.60	3.09	1.33	16.19	6.95	2.92
I26	IT enterprises per 1,000 population	0.35	2.71	1.03	0.65	0.35	2.71	0.95	0.59
I27	% GDP of IT sector	2.49	7.43	4.20	1.25	2.49	7.43	4.08	1.24
I28	Turnover in the ICT / GDP	0.00	22.57	10.53	3.99	0.00	22.57	10.06	4.83
I33	SMEs using e-government	40.00	131.0	68.41	12.43	40.00	131.0	67.77	14.62
I38	Secure servers / million inhabitants	17.00	155.0	70.71	37.28	17.00	142.0	67.29	38.84
I40	Online sales / total sales	0.06	0.68	0.25	0.12	0.06	0.68	0.24	0.12
I42	Online buyers	0.40	4.70	1.97	0.94	0.40	4.70	1.87	1.08
I46	Internet domains per capita	0.02	0.22	0.06	0.04	0.02	0.22	0.06	0.05
I53	ICT expenditure as % of GDP	4.41	9.85	6.82	1.16	4.41	9.85	6.62	1.13
I54	Households using modem	0.65	24.29	4.56	3.44	0.65	17.44	3.93	3.09
I55	Households using online services	0.44	30.00	6.95	4.66	0.44	20.50	5.77	4.17

(blue = higher, red = lower values compared to corresponding values of all EU regions)

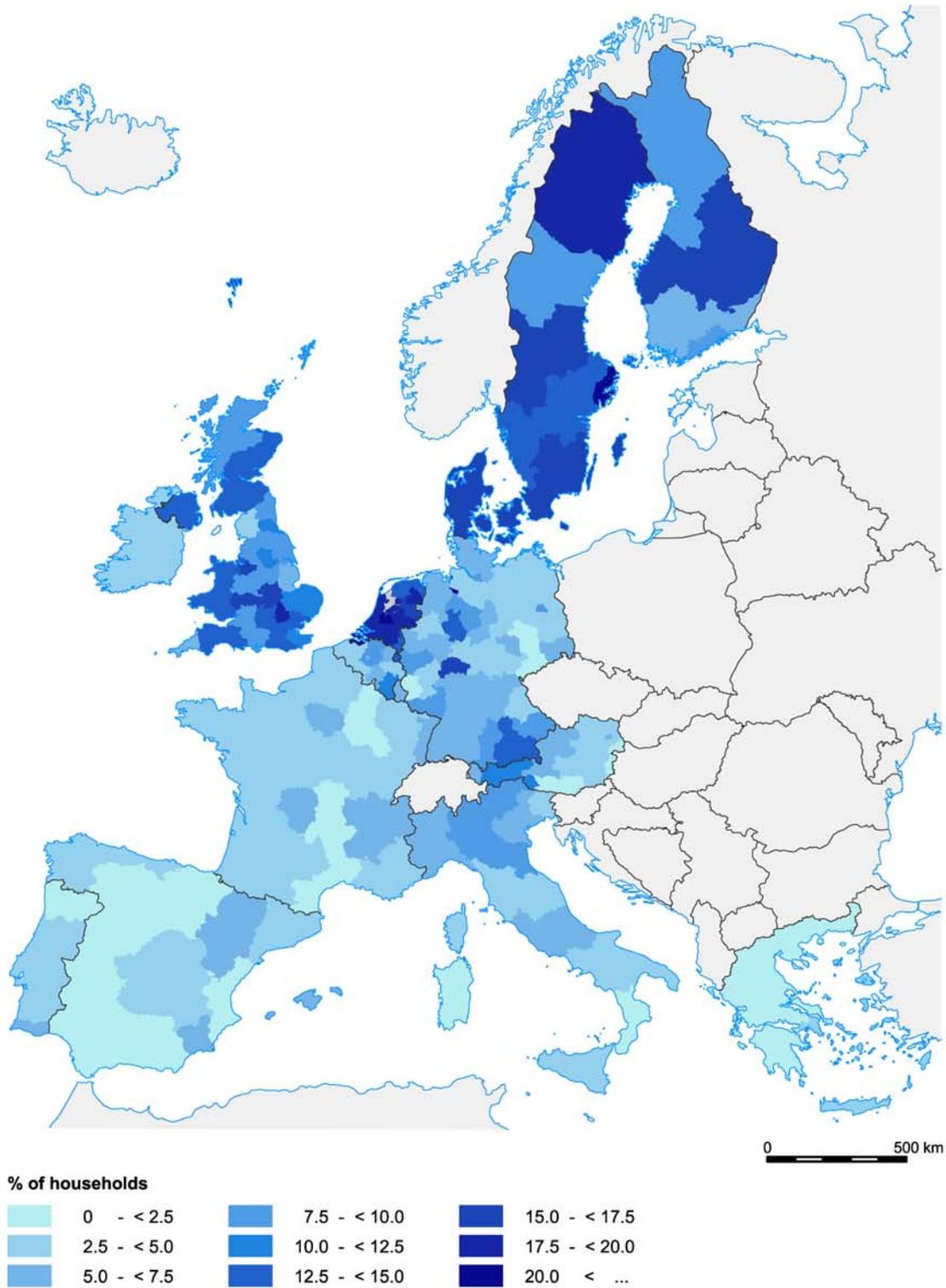


Figure 10.2. Households using online services in 1996 (Eurobarometer 44.2bis)

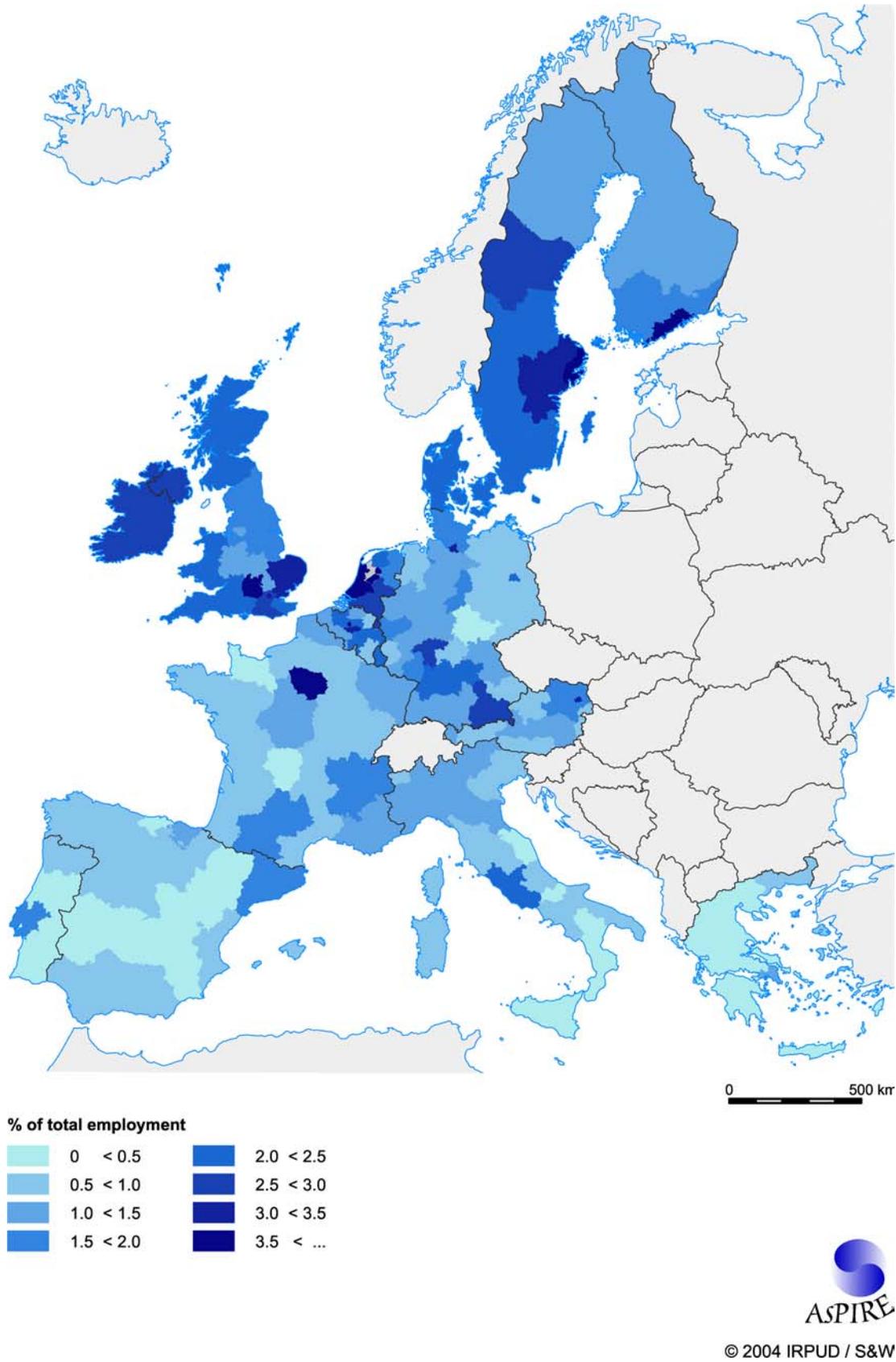


Figure 10.3. Share of employment in the IT sector in 1999 (Emergence 2003)

Business Networks Indicators

Indicators on business networks can be grouped under the headings innovation networks, capital networks, horizontal business networks (clusters), vertical business networks and formal business networks. Owing to the elusive nature of the (often informal) business networks Deliverable D18 could only identify a limited number of indicators and corresponding datasets, most of which reflect on preconditions for the emergence of business networks and not on business networks themselves. The following indicators were chosen for further statistical analysis.

Table 10.2: Statistical characteristics of business networks indicators

		All regions (1085)				Rural regions (442)			
		Minimum	Maximum	Mean	St.deviation	Minimum	Maximum	Mean	St.deviation
B1	% manuf. SMEs in innovation coop.	4.5	37.4	13.03	5.37	4.5	37.40	12.98	5.96
B2d	Participation in EU innovation programs	0	1	0.41	0.49	0	1.00	0.43	0.50
B3	% venture capital	0.07	0.41	0.21	0.09	0.07	0.41	0.19	0.07
B4	% firms with high location coefficient	0	19.55	1.71	3.71	0	19.55	2.12	4.36
B5	Number of regional clusters	0	5	0.16	0.50	0	3.00	0.09	0.34
B6a	% SMEs with int. business (1999)	21	56.5	24.72	4.37	21	56.50	25.65	5.38
B6b	% SMEs with int. business (2001)	18.5	61.5	29.41	7.20	18.5	61.50	29.83	8.56
B9	Business incubators per 100,000 pop.	0	4.62	0.21	0.47	0	4.41	0.18	0.46
I55	Households using online services	0.44	30.00	6.95	4.66	0.44	20.50	5.77	4.17

(blue = higher, red = lower values compared to corresponding values of all EU regions)

Table 10.2. above presents the selected business networks indicators allowing to compare the values of all EU regions with rural regions. The following overall observations can be made:

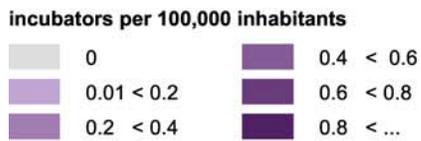
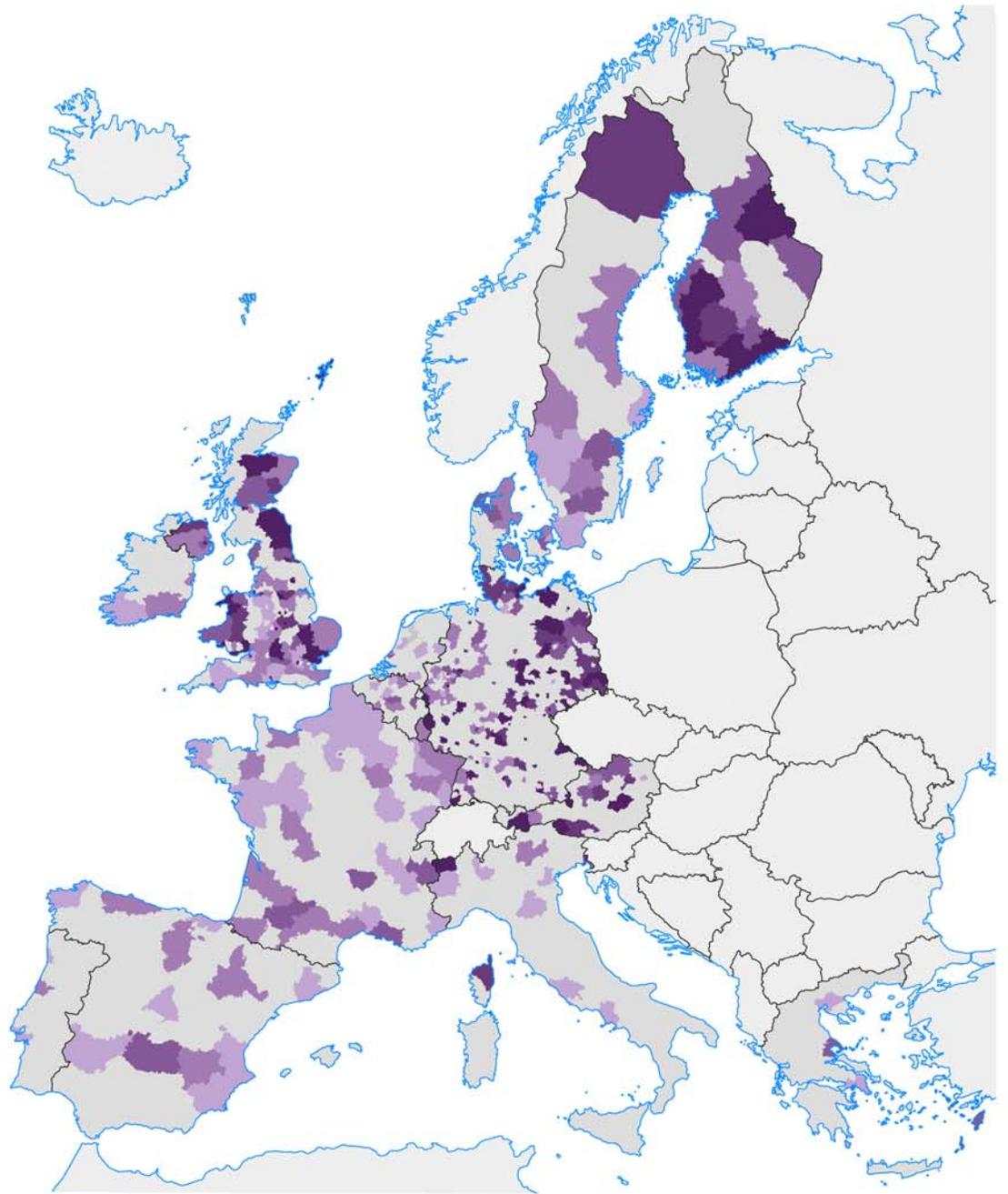
- For five of the seven indicators the mean of the rural regions is only slightly higher or about the same as the mean of all regions. Only one indicator (B4) has a significantly higher mean for rural regions as compared to all regions. Overall this may indicate that the conditions for business networks to emerge are similar and do not differ so much across the EU territory.

- For five of the seven indicators the standard deviations of rural regions are higher than the standard deviation of all regions together. The conclusion is that business network conditions are more heterogeneous in rural regions than in urban regions.

As regards the spatial distribution of the business networks indicators, there are quite significant differences between them. This is partly due to the fact that some indicators reflect on government policies (e.g. participation in EU regional innovation programmes) while others measure existing economic preconditions for the emergence of business clusters (e.g. firms belonging to a branch with high location coefficient).

The following example shows how only very general spatial tendencies on business network conditions can be observed. Figure 10.4 presents the location and concentration of business incubators in the EU member states, assuming that in and around such facilities business networks flourish. Drawing on a comprehensive database containing more than 700 business incubators the map may not show all but certainly surely a large proportion of incubators existing in Europe. The overall impression is that many regions have at least one, but equally many (especially in southern Europe) do not have a single business incubator. Concentrations of incubators can be found in Austria, Germany, the UK and Finland, relatively few in southern Europe. Most regions with concentrations of incubators seem to be rural, while a substantial number of business incubators can also be found in urban regions. Thus the spatial analysis of this dataset alone does not lead to entirely conclusive results.

However, figure 10.5 presents an indicator that directly measures the incidence of business networks, namely the share of manufacturing SME's involved in innovation co-operations. Even though it reflects only one type of networks and is available only at the country level, one easily recognises a clear – and familiar – spatial pattern: northern European countries are in the lead, followed by central European countries, while southern European countries have the lowest values. Thus, while other data on different types of business networks are not available, combining all existing data on network preconditions and this particular business network type points in the direction of this north-central-south pattern.



0 500 km



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Figure 10.4. Business incubators per 100,000 inhabitants (DG Enterprise 2004)

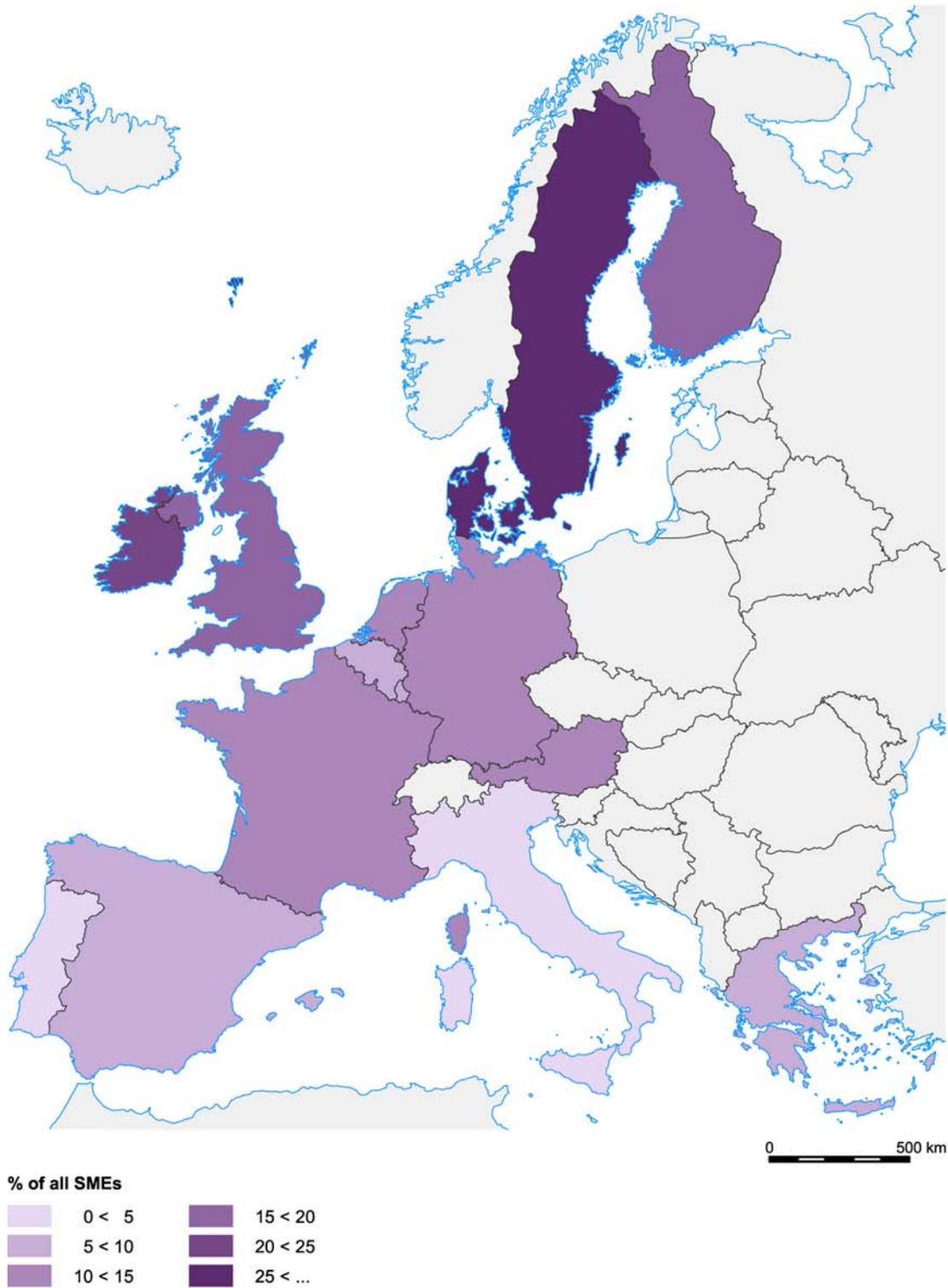


Figure 10.5. Manufacturing SMEs involved in innovation co-operations (Eurostat 2002)

Governance Indicators

'Regional governance' can be conceptually divided into governance processes (public participation, government intervention in the economy) and governance outputs (government efficiency, public law and order, political stability). As with business networks it is difficult to obtain statistical data on an elusive concept like governance which refers to the interrelations between the state, economy and civil society. Nevertheless D18 succeeded in identifying indicators that directly or indirectly characterise regional governance. These are analysed statistically below.

Table 10.3: Statistical characteristics of governance indicators

		All regions (1085)				Rural regions (442)			
		Minimum	Maximum	Mean	St.deviation	Minimum	Maximum	Mean	St.deviation
G1a	Political stability index (2000/01)	0.79	1.61	1.13	0.19	0.79	1.61	1.13	0.20
G1b	Political stability index (2002)	0.73	1.63	1.00	0.21	0.73	1.63	1.02	0.23
G7a	Accountability index (2000/01)	1.10	1.69	1.35	0.16	1.10	1.69	1.33	0.17
G7b	Accountability index (2002)	1.05	1.72	1.41	0.17	1.05	1.72	1.38	0.18
G8a	Regulatory quality (2000/01)	0.58	1.50	1.00	0.27	0.58	1.50	0.96	0.26
G8b	Regulatory quality index (2002)	1.13	1.93	1.52	0.21	1.13	1.93	1.49	0.22
G9a	Government efficiency (2000/01)	0.65	1.86	1.46	0.38	0.65	1.84	1.39	0.40
G9b	Government efficiency (2002)	0.79	2.14	1.66	0.37	0.79	2.14	1.58	0.39
G12a	Trust in justice system	21.05	85.71	56.09	11.63	27.40	85.44	56.66	12.11
G12b	Trust in police	21.05	85.71	56.09	11.63	27.40	85.44	56.66	12.11
G12c	Trust in civil service	20.59	76.00	48.10	10.53	20.59	76.00	47.38	10.04
G12d	Trust in national government	18.42	81.96	48.05	10.57	18.42	81.96	47.61	10.11
G13a	Rule of law (2000/01)	0.62	1.86	1.39	0.34	0.62	1.86	1.36	0.39
G13b	Rule of law (2002)	0.79	2.00	1.55	0.36	0.79	1.99	1.51	0.39
G14a	Corruption control. (2000/01)	0.63	2.25	1.37	0.41	0.63	2.25	1.33	0.41
G14b	Corruption control (2002)	0.58	2.39	1.65	0.43	0.58	2.39	1.58	0.48
G15	Influence on government	0.51	17.16	5.24	3.71	0.51	17.16	4.96	3.42
G16	Satisfaction with democracy	1.93	3.22	2.37	0.25	1.93	3.00	2.37	0.24
G18	Voter turnout national elections	55.23	94.92	75.56	8.86	55.31	93.92	75.29	7.97
G19	Voter turnout regional elections	35.30	95.29	64.86	10.57	36.90	93.65	66.48	9.70

(blue = higher, red = lower values compared to corresponding values of all EU regions)

Table 10.3. above presents the governance indicators and some basic statistical measures describing the datasets. Comparing the values of all EU regions with only the rural regions, the following overall observations can be made:

- For 14 of the 20 indicators the means of the rural regions are lower than the means of all regions. Thus the governance conditions in rural Europe seem to be worse than in urban regions.
- For 13 of the 20 indicators the standard deviations of rural regions are higher than the corresponding values of all EU regions. This indicates that rural regions are more heterogeneous in regard to governance than urban regions.

The spatial patterns of the governance data resemble those found in the previous AsP themes. Whether the focus is on government efficiency, corruption control, political stability or any other aspect, always the northern and central European countries are ahead of the southern European countries. These results are quite reliable as they are mostly based on composite indicators that combine between 18 and 60 individual indicators from several sources. The overall conclusion is that the interface between state, civil society and the private sector is more developed in the north than in the south of Europe.

Figure 10.6 illustrates this graphically by focusing on one particular state function, namely the police service. It can be seen that more citizens in northern and central Europe give the police in their regions positive ratings than in southern Europe. Regional assessments of the justice system or civil service in general yield very similar results.

Figure 10.7 focuses on another aspect of citizen-state relations, the voter turnout for the latest national legislative elections. In this case Finland, the UK and Ireland show relatively low turnout rates, while northern Italy has high participation rates. The overall picture is that of high public participation in central regions of Europe and lower participation in more peripheral regions. This also holds true for most sub-national differences. While these voting patterns thus differ somewhat from other indicators, the differences are only due to a few countries; all other data are still consistent with the familiar north/central v. south patterns.

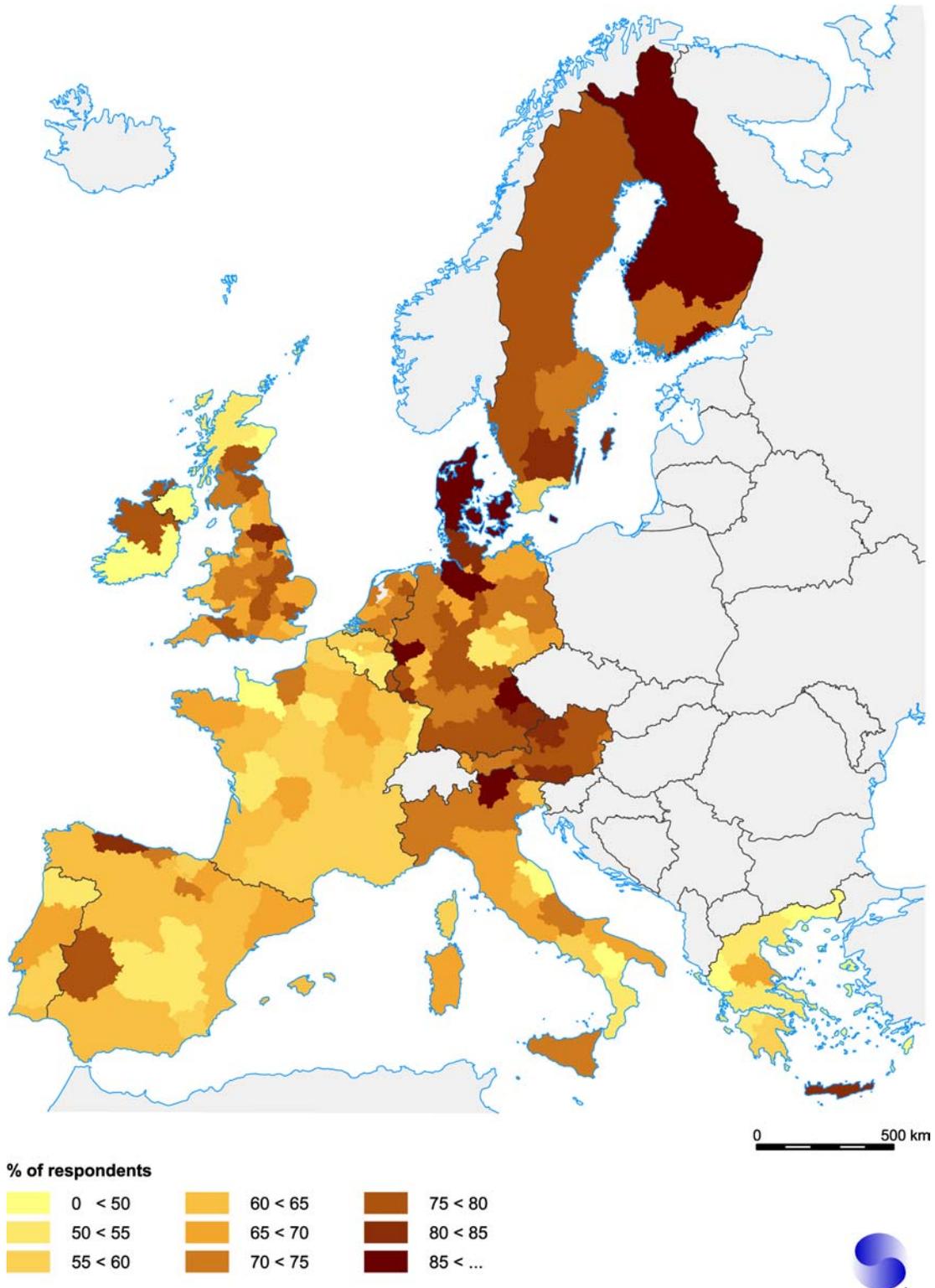


Figure 10.6: Trust in the police 1999-2002 (Eurobarometer)

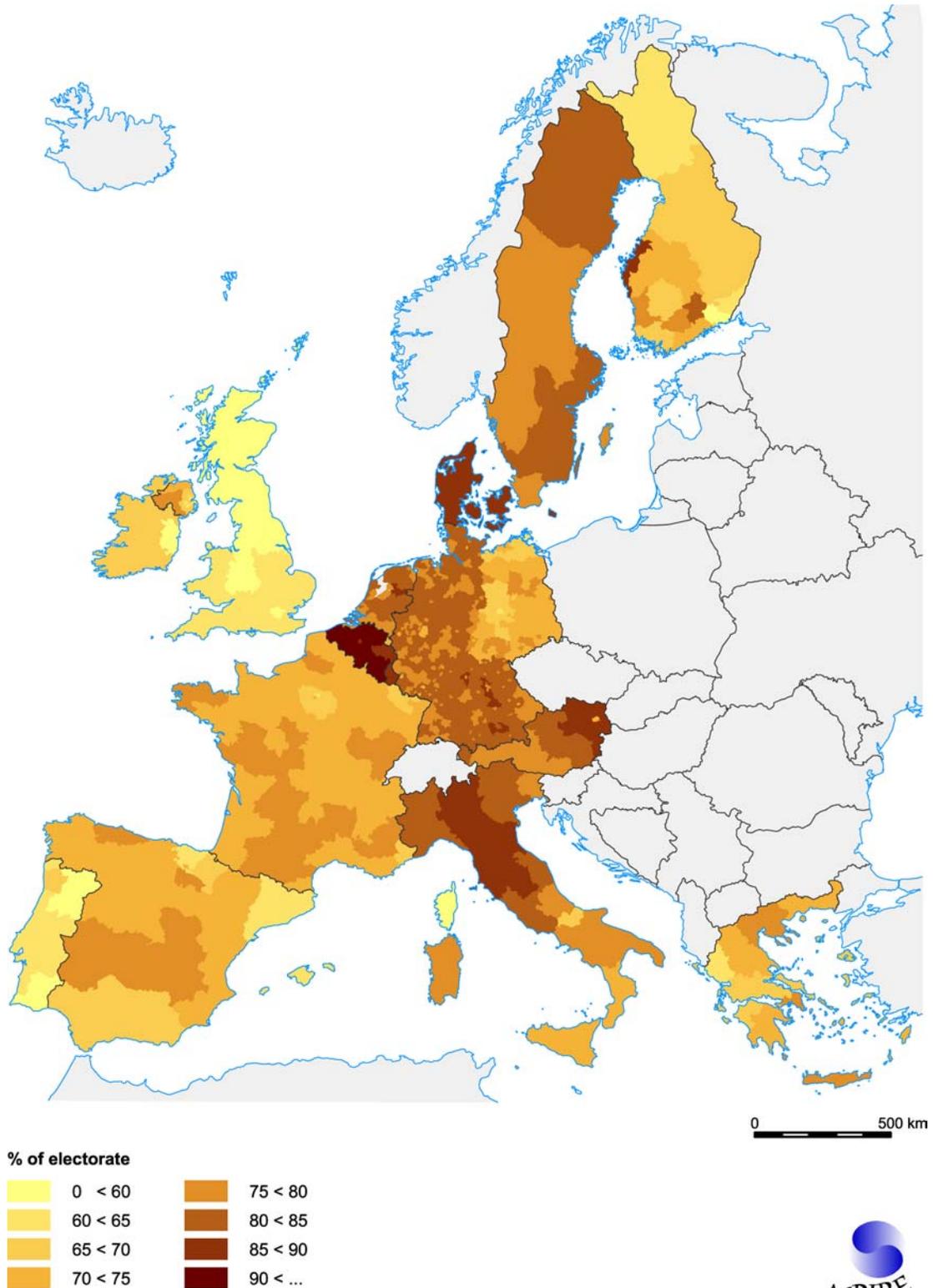


Figure 10.7. Voter turnout at latest national election (various national sources)

Social Capital Indicators

Social capital indicators can be categorised into those relating to antecedents of social capital (social embeddedness, societal awareness, attachment to area of residence), civic engagement (membership in civic organisations, political participation, voluntary work) and outcomes of social capital (trust, values and norms). The following indicators (described in Deliverable D18) reflect on these various aspects of social capital:

Table 10.4: Statistical characteristics of social capital indicators

		All regions (1085)				Rural regions (442)			
		Minimum	Maximum	Mean	St.deviation	Minimum	Maximum	Mean	St.deviation
S2a	Watching TV-news daily	41.61	92.45	72.07	10.42	41.61	90.20	71.67	10.15
S2b	Reading newspapers daily	11.73	83.23	54.02	17.52	11.73	83.23	51.80	19.53
S2c	Listening radio-news daily	9.49	83.33	45.14	15.46	9.49	83.33	44.52	17.63
S5a	Attachment to town/village	2.18	4.00	3.32	0.24	2.60	4.00	3.35	0.25
S5b	Attachment to region	2.09	3.90	3.28	0.25	2.55	3.90	3.34	0.25
S5c	Attachment to country	2.60	3.87	3.32	0.25	2.65	3.87	3.37	0.25
S5d	Attachment to EU	1.50	3.75	2.65	0.33	1.50	3.75	2.66	0.32
S8b	Frequent political interest	5.73	21.19	16.33	3.90	5.73	21.19	16.65	3.89
S8c	Occasional political interest	43.52	65.99	59.15	6.32	43.52	65.99	58.53	6.79
S8g	Combined political interest indicator	0.27	0.51	0.46	0.06	0.27	0.51	0.46	0.06
S9b1	Time spent with colleagues	11.54	32.98	15.81	5.23	11.54	32.98	16.74	6.30
S9c1	Time spent at church	3.32	39.48	13.02	5.20	3.32	39.48	12.64	5.86
S10	Trust in other persons	8.33	82.35	32.46	13.11	8.65	70.73	32.22	13.89
S11	Trust in persons from other countries	38.57	97.62	71.23	9.91	38.57	97.62	71.64	9.38
S12a	Trust in institutions (European)	0.00	81.25	23.76	13.15	0.00	81.25	22.88	12.66
S12b	Trust in institutions (National)	0.00	80.56	44.58	15.67	0.00	80.56	46.53	15.71
S17	Political discussion	0.82	26.57	10.14	4.20	0.82	26.57	10.07	4.23
S18	Openness to foreigner	21.05	78.57	51.15	9.71	21.05	78.57	50.60	10.14
S19	Social more important than economic issues	20.97	85.17	55.75	10.15	26.28	85.17	57.65	10.42
S20	Voluntary engagement	6.25	70.00	28.85	11.31	6.25	70.00	28.11	11.14
S21	Membership in organisations	17.24	100.0	49.89	17.68	17.24	100.0	48.93	17.04

(blue = higher, red = lower values compared to corresponding values of all EU regions)

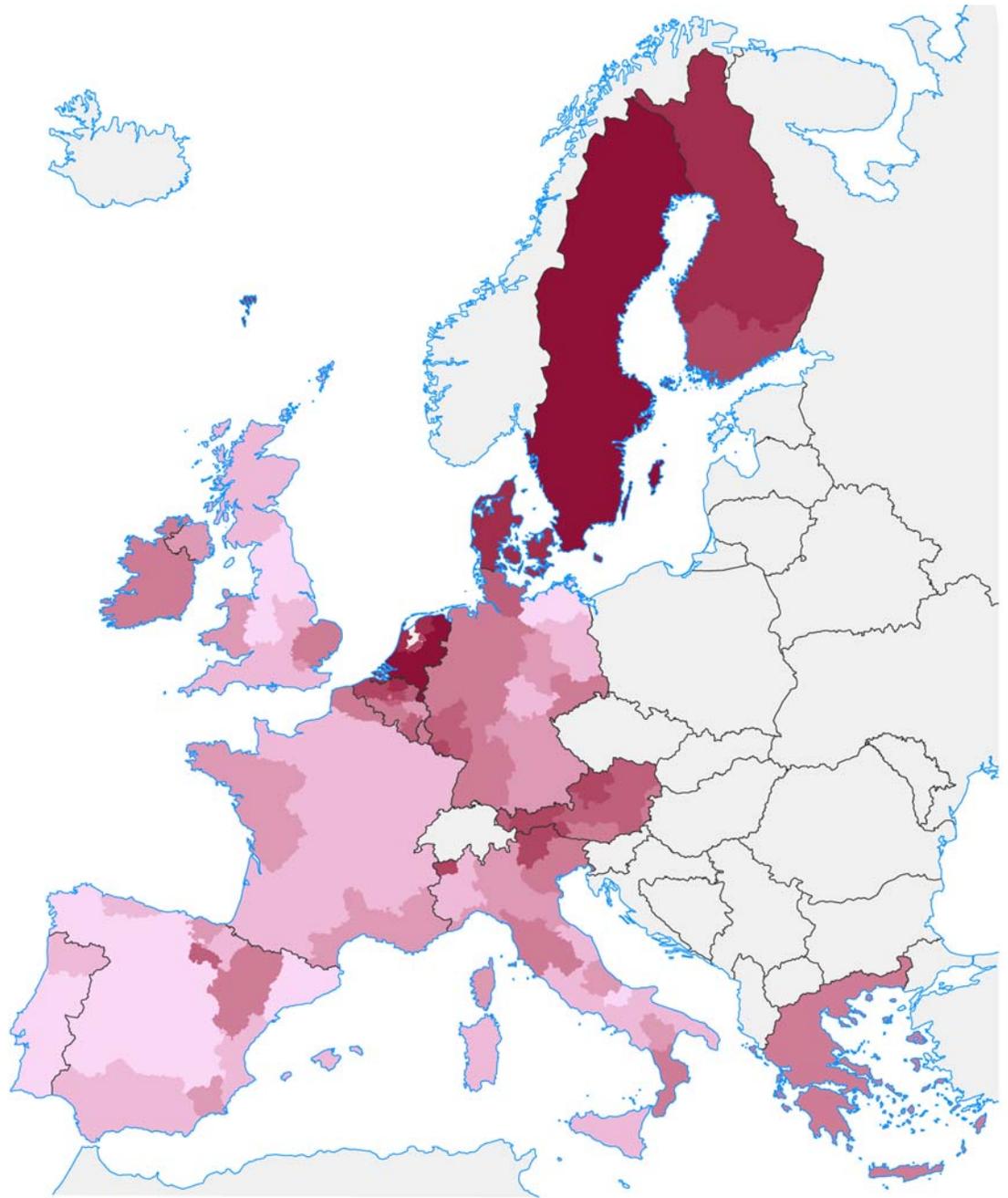
Table 10.4 presents the social capital indicators used in this study and basic statistical measures describing the respective datasets. Comparing the values of the rural regions with those of all EU regions, the following observations can be made:

- For 13 of the 21 indicators the arithmetic means of the rural regions are lower than those of all EU regions, however, in most cases only slightly lower. The same is true for the other 8 indicators for which rural regions have the same or slightly higher values. It thus seems that the quality or degree of social capital does not differ much between rural and urban regions of the EU.
- For 11 of the 21 indicators the relative standard deviation for rural regions is higher than the one for all EU regions. For all other indicators the differences are mostly marginal. However, for two important antecedent indicators (S2b, S5a) and the very important output indicator 'trust in other persons' (S10) rural regions have significantly higher standard deviations. This again indicates that there is greater variability among rural regions than among urban regions.

The spatial distribution of the social capital indicators in general resembles the already familiar north-south pattern, albeit with slight variations and deviations. Overall there seem to be better conditions for the emergence of social capital in the north than in the south of Europe. When focussing on the sub-national level more peripheral regions often have higher social capital scores than more central regions. This may perhaps be due to more in- and out-migration in urban regions.

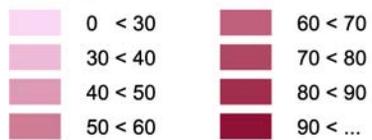
Figure 10.8 depicts the spatial distribution of an indicator showing civic engagement, namely the share of people who are members in civic organisations. The Nordic countries and the Netherlands exhibit high membership rates, followed by other central European countries, Ireland and – interestingly – Greece. All other southern and western European countries have relatively low membership rates. While an overall north-south decline can still be observed, the modest or even low membership levels in Germany and the UK are deviations from this classic pattern.

Figure 10.9 presents the major social capital indicator 'trust in other persons'. The international spatial pattern is similar to the previous indicator, but Spain and the UK have somewhat caught up and show medium levels of trust. Focussing on the sub-national level significant differences within each country can be observed, e.g. in Germany, Spain, Italy and the UK. In these cases more peripheral regions show a higher level of trust which seems to be related to specific, historically grounded regional identities (Scotland, Catalonia, Alto Adige and Eastern Germany).



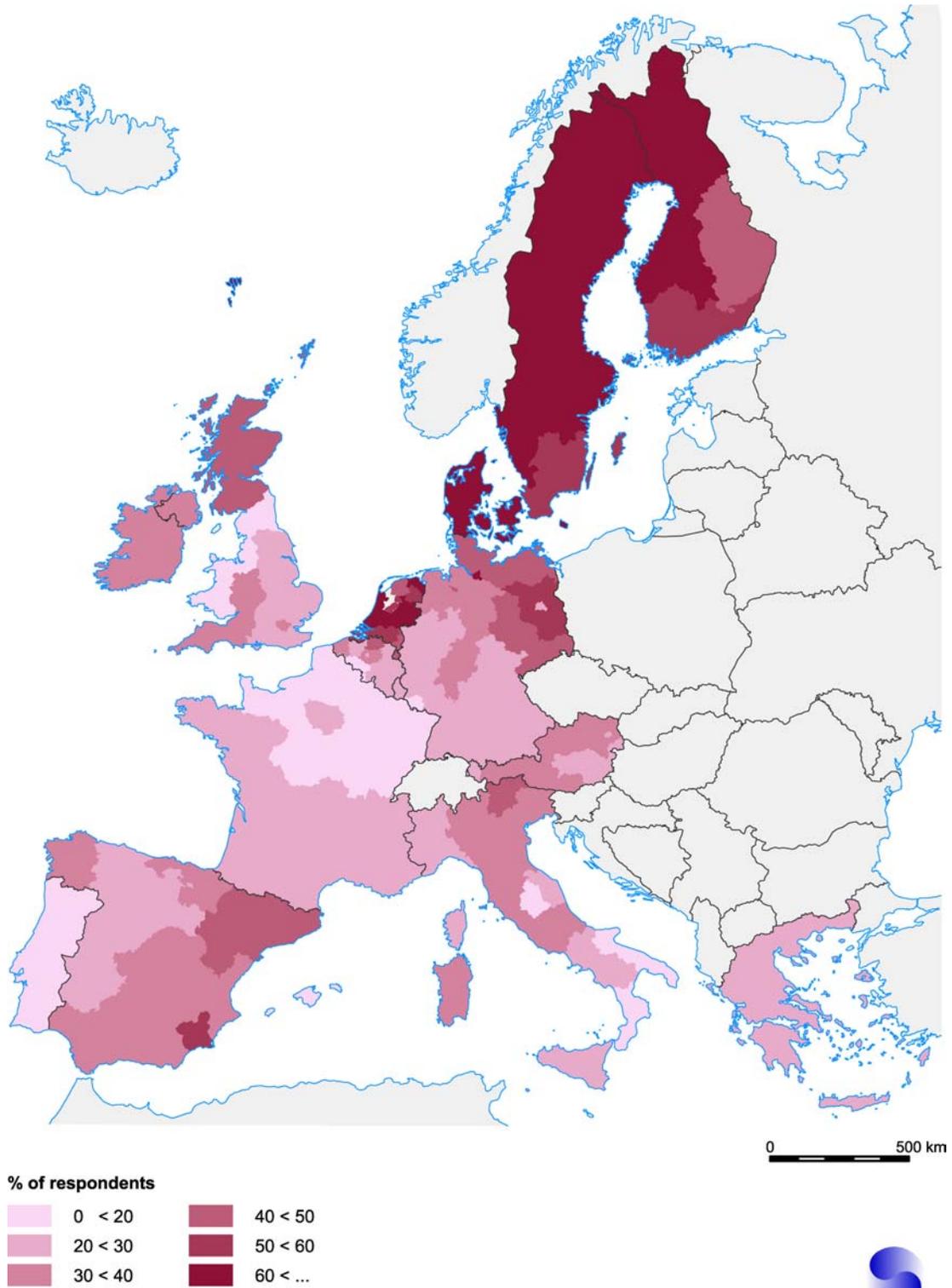
0 500 km

% of respondents



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Figure 10.8. Membership in civic organisations (EVS 1999/2000)



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Figure 10.9. People who have trust in other persons (EVS 1999/2000)

Tourism indicators

Following Deliverable D18 tourism indicators can be broken down into supply-side indicators (physical and cultural attractiveness, gastronomy and accommodation services) and demand-side indicators (tourism arrivals and overnight stays). Of the identified tourism indicators and corresponding indicators, 11 were selected for further analysis.

Table 10.5: Statistical characteristics of tourism indicators

		All regions (1085)				Rural regions (442)			
		Minimum	Maximum	Mean	St.deviation	Minimum	Maximum	Mean	St.deviation
T1	Annual solar radiation	1.35	5.00	3.25	0.67	2.20	5.00	3.40	0.72
T2	Elevation difference	0.00	4,260	674.3	777.5	2.00	4,260	903.9	859.8
T3	Slope gradient	0.00	37.40	7.59	6.34	0.00	37.40	9.34	7.57
T4	Coastline	0.00	111.1	2.68	7.69	0.00	57.94	2.66	7.24
T5	Attractive towns	0.00	16.00	1.58	1.97	0.00	16.00	1.73	1.95
T9	Accommodation establish. per cap.	0.01	62.89	1.39	3.50	0.07	62.89	2.17	4.31
T11	Hotel beds per capita	0.00	0.03	0.00	0.00	0.00	0.03	0.00	0.00
T16 +17	Overnight stays per capita	0.31	86.71	5.21	6.40	1.14	64.37	6.32	7.73
T19	Lakefront	0.00	31.60	0.74	3.00	0.00	24.94	0.51	2.06
T20	Riverfront	0.00	36.03	3.99	4.64	0.00	12.90	2.62	2.24
T21	Mountain area	0.00	100.0	25.91	35.45	0.00	100.0	35.56	39.15

(blue = higher, red = lower values compared to corresponding values of all EU regions)

A rough statistical analysis of the 11 indicators yielded the following results:

- For eight of the 11 indicators the arithmetic mean for the rural regions is about the same, higher or even significantly higher than the mean for all EU regions. This means that in terms of tourism attractiveness and infrastructure as well as tourism demand rural regions outperform urban regions.
- For seven of the 11 indicators the standard deviations of the rural regions are higher than the respective values of all EU regions. This means that rural regions are much more heterogeneous than their urban counterparts. Perhaps it is precisely this great variety that makes rural regions attractive to (urban) tourists.

As regards the spatial distribution of the tourism indicators the emerging patterns are very different from those of all previous indicators. This is mostly due to the fact that many tourism indicators measure physical realities, while other AsP themes like governance, social capital etc. address 'man-made' factors which are shaped by completely different forces. Such physical indicators like the location of mountains, coast lines or the annual solar radiation are very important for tourism. While solar radiation also exhibits a north-south pattern, it is completely the reverse of all previous indicators: high values in the south and low values in the north. Likewise mountainous areas are mostly concentrated in south central and southern Europe. In contrast most of the highly urbanised areas of central and northern Europe are not mountainous. As regards coastlines, even though geographically coasts are by definition situated 'on the edge' of the continent, many coastal regions are not necessarily peripheral or rural because they have been traditionally densely populated because of their important access to maritime transport routes.

Clearly the number of bed-places per 1000 inhabitants as depicted in Figure 10.10 reflects the physical factors mentioned above. The map shows high concentrations of bed-places in mountainous and coastal areas. While some urban centres can be detected (e.g. Stockholm, Rome, Venice) most of the accommodation infrastructure seems to be located in rural areas. However, the degree of concentration is very high, leaving most rural regions with relatively low accommodation levels.

Finally Figure 10.11 presents overnight stays per inhabitant, the most important demand-side indicator for tourism. The overall pattern is very much like the one in the previous map, only the southern European coasts are benefiting even more from tourism than their accommodation potentials would suggest. While in general coasts and mountain areas are clearly attracting most of the tourism business, all other rural areas are also participating significantly, catering perhaps more to short-term visitors from not too distant urban areas.

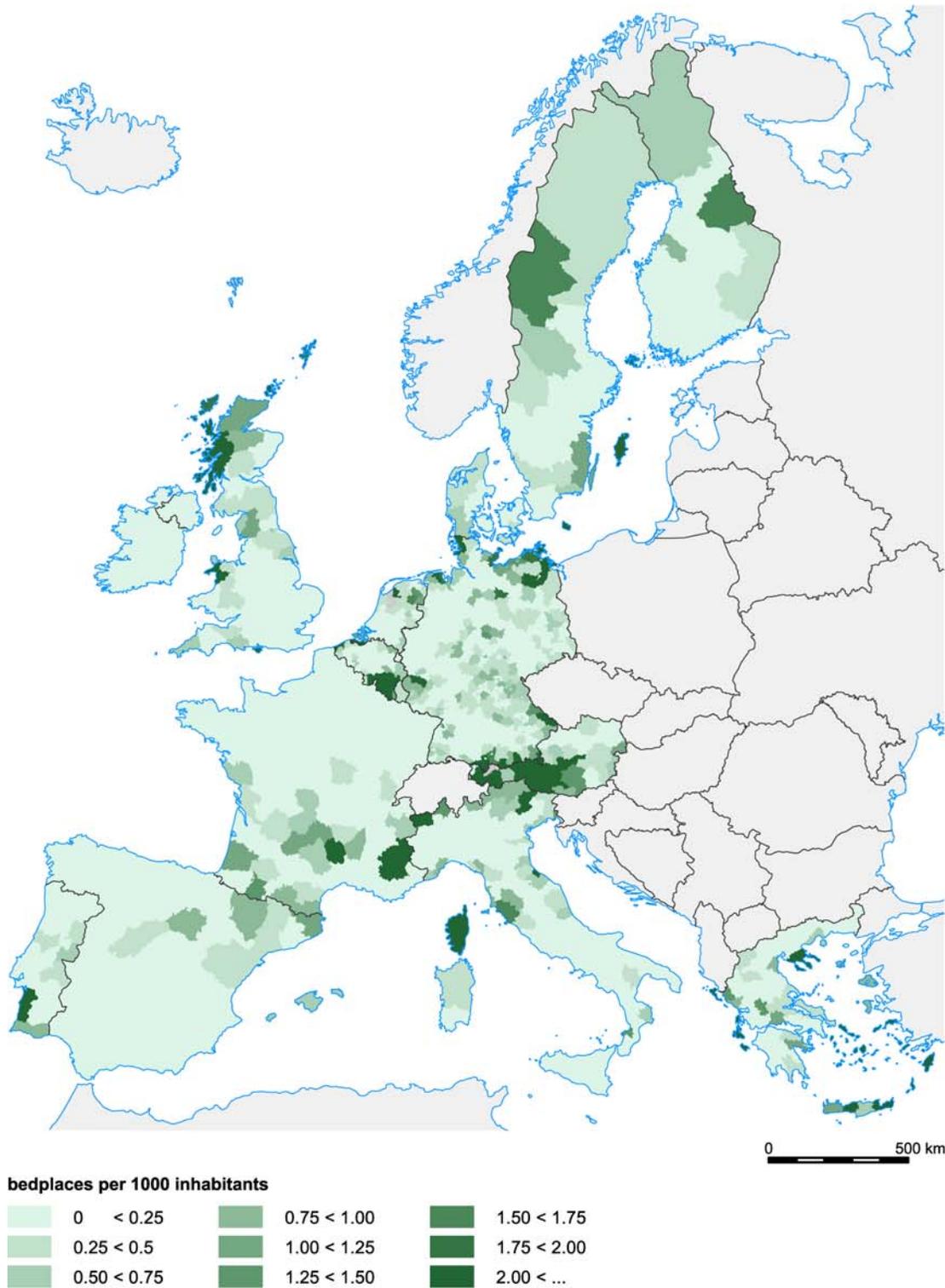
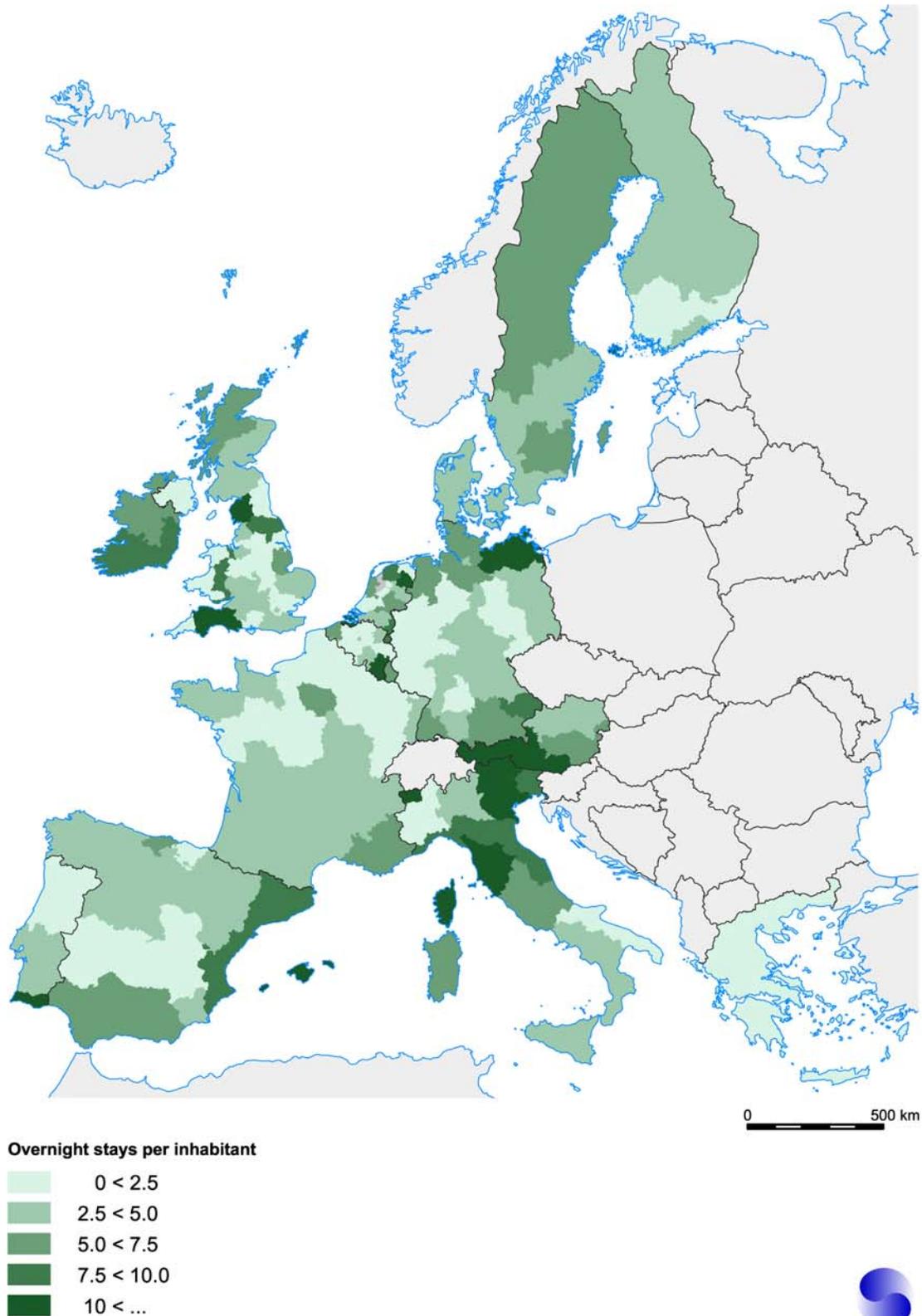


Figure 10.10: Bed-places per 1000 inhabitants (Eurostat 2003)



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Figure 10.11. Total overnight stays per inhabitant (Eurostat 2003)

Summary

Building on a clear definition of rural regions this chapter statistically and cartographically analysed the indicators for the five AsPIRE themes (ICT, business networks, governance, social capital and tourism). The presented results are only a summary of a more comprehensive analysis described in more detail in Deliverable 28. Likewise the conceptualisation, identification and justification of the underlying indicators was presented in more detail in Deliverable D18 of the AsPIRE project. Drawing on all these components, this chapter presented the emerging overall results which may be summarised as follows:

Soft location factors have a spatial dimension

In a situation where relative location can explain only part of regional economic performance, non-spatial issues and soft location factors come into play. Within the AsPIRE project these factors are called aspatial peripherality (AsP) factors as they seem not to vary systematically across space. A wide range of indicators for the AsP factors have been collected and have been presented in a set of unique maps showing the spatial distribution of AsP variables across Europe. The maps demonstrate that these soft location factors do have a spatial dimension, however, the spatial distribution depends very much on the AsP theme and the AsP indicators considered.

Urban regions benefit from a slightly lower 'aspatial peripherality'

The cartographic analysis of the factors constituting 'aspatial peripherality' has revealed that urban areas are mostly ahead concerning the endowment with 'soft factors'. The majority of indicators show that the provision with ICT, business networks, governance and social capital is lower in rural areas. The only exceptions were business network indicators, many of them directly or indirectly reflecting government policies which may be specifically targeted at rural regions, and tourism related indicators which show in general higher values for rural areas.

Rural regions show a higher diversity in AsP factor endowment

The standard deviations in AsP factors endowment are generally higher, sometimes even substantially higher for rural regions (n=442) than for the EU regions in total (n=1085). This implies that in terms of AsP rural regions are more heterogeneous than their urban counterparts.

Southern Europe is marked by a higher degree of 'aspatial peripherality'

As regards spatial distributions of AsP indicators, the prevailing pattern shows high values for northern and central Europe and lower values for southern (and western) Europe. However, while this north-south decline is the dominant pattern, sometimes there are more complex variations and deviations from this general distribution.

At the sub-national level differences between peripheral and central regions prevail

The second most important pattern occurred at the sub-national level and divided peripheral from more central regions, with the high/low attributes depending on the particular indicator. For instance 'attachment to town or village' was higher in peripheral regions than in central regions, while for instance most ICT indicators showed urban regions in the lead and rural regions lagging behind.

To conclude, in contrast to expectations, rural regions of the European Union are not better endowed with AsP factors (which could compensate for their peripheral location) and they are also not more homogenous but more heterogeneous in regard to the analysed AsP indicators than Europe's urban regions. It will be the task of the next chapter to investigate how the AsP indicators relate to traditional 'hard' location factors and, finally, economic output indicators.

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CHAPTER 11
ASPATIAL PERIPHERALITY INDICATORS
AND REGIONAL ECONOMIC PERFORMANCE

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The preceding chapter has revealed that most of the factors constituting “aspatial peripherality” are distributed over the European territory rather heterogeneously. According to the basic hypothesis of the AsPIRE project, these differences might contribute to the explanation of differences in economic performance of rural regions in Europe (see D1). In order to test this assumption, the following section analyses the statistical correlations between the AsP indicators identified for each of the five AsPIRE-themes – ICT, business networks, governance, social capital and tourism – and a selection of economic output variables. Subsequently, a choice of variables from all five AsP themes is jointly entered into multivariate regression analyses and tested against the explanatory power of traditional hard factors.

Method

The case study work has shown that the relevance of the five AsP-factors for regional economic development varies significantly depending on the specific regional circumstances. In order to attain more generalisable results, this chapter extends the analysis to the whole of the European territory by shedding light on the statistical interdependencies between the AsP indicators presented in the previous chapter and eight economic output variables. This analysis is carried out for both the whole 1085 European NUTS-3 regions of the current 15 EU member states and for a subset of 442 regions defined as rural (see Chapter 10).

In this chapter, the economic relevance of the five AsP factors is first analysed by using bi-variate correlations and multivariate regression analyses. Then the five AsP factors are analysed together and also together with 'hard' location factors to explain the differences in economic performance of the regions in Europe.

Explanatory Power of AsP Themes

Out of the 82 AsP indicators of the AsP database 60 variables selected from all five AsP themes were correlated with two different output variables: first, regional GDP per capita, and second, the residual between regional GDP per capita and regional accessibility, both standardised to the average accessibility of the European Union. The Pearson correlations coefficients were calculated separately for all of the 1085 EU NUTS-3 regions and for the subset of 442 regions defined as rural (see Chapter 10). Out of the pairs of correlated factors, a series of scatter diagrams were plotted to

visualise some of the stronger correlations – both positive and negative ones – between selected AsP and economic variables.

Then all indicators of each AsP theme were used as independent variables in additive multivariate regression models explaining the variance of eight dependent variables:

gdpc1	GDP/capita in agriculture
gdpc2	GDP/capita in manufacturing
gdpsc3	GDP/capita in construction
gdpc4	GDP/capita in trade, transport, tourism
gdpc5	GDP/capita in financial services
gdpc6	GDP/capita in other services
gdpc7	Total GDP per capita
gdpc8	Residual GDP/accessibility

The coefficients of determination derived from the OLS stepwise regressions are displayed for both the total 1085 regions and the 442 rural regions.

Explanatory Power of AsP and 'Hard' Location Factors

Selected AsP indicators were combined with a selection of traditional 'hard' location factors to examine the relative contribution of AsP and 'hard' factors to explaining the differences in economic performance of the regions in Europe. The selected subset of AsP variables was:

ICT	I2	ISDN subscriptions per capita
	I14	% households with Internet access
	I22	% employment in IT sector
	I26	IT enterprises per 1,000 population
	I27	% GDP of IT sector
	I40	% of online sales
	I42	% online buyers
	I46	Internet domains per capita
	I54	% households using modem
	I55	% households using online services
	Business networks	B1
B2d		EU innovation programmes
B3		% venture capital
B4		% firms with high location coefficient
B5		Number of regional clusters
B6a		% SME with increasing international contacts
B9		Business incubators
Social capital	S2b	% reading newspapers daily
	S5a	Attachment to town/village
	S5b	Attachment to region
	S8g	Combined political interest indicator

	S10	% trust in other persons
	S17	Political discussion
	S18	Openness to foreigner
	S19	Social more important than economic issues
	S20	Voluntary engagement
	S21	Membership
Governance	G1b	Political stability index
	G8b	Regulatory quality index
	G9b	Government efficiency index
	G12a	Trust in institutions: Justice
	G12b	Trust in institutions: Police
	G12c	Trust in institutions: Civil service
	G14b	Control of corruption index
	G15	Influence of citizens on government
	G16	Satisfaction with democracy
	G18	Voter turnout at national elections
	G19	Voter turnout at regional elections
Tourism	T1	Annual solar radiation
	T2	Elevation difference
	T3	Slope gradient
	T4	Coastline
	T5	Attractive towns
	T11	Hotel beds per capita
	T17	Overnight stays per capita
	T19	Lakefront
	T20	Riverfront
	T21	% Mountain areas

The selected 'hard' location factors were taken from the databases of the EU projects

IASON and ESPON 2.1.1:

Economy	shag1	% GDP of in agriculture
	shag2	% GDP in manufacturing
	shag3	% GDP in construction
	shag4	% GDP in trade, transport, tourism
	shag5	% GDP in financial services
	shag6	% GDP in other services
Accessibility	acc91	Accessibility, road/rail, travel
	acc92	Accessibility, road/rail/air, travel
	acc93	Accessibility, road/rail, travel/freight
	acc94	Accessibility, road, freight
	acc95	Accessibility to regional labour
	L1	Baseline peripherality indicator
	L2	National peripherality indicator
Endowment	soilq	Soil quality
	pdens	Population density
	devld	% developable land
	rdinv	R&D investment (% of GDP)
	eduhi	% higher education
Subsidy	subag	Agricultural subsidies (Euro/capita)
	subeu	European subsidies (Euro/capita)
	subna	National subsidies (Euro/capita)

These NUTS-3 data were used to predict regional GDP per capita for six industrial sectors and total GDP per capita using a regional quasi-production function of the form

$$q_r = A_{1r}^{\beta_1} A_{2r}^{\beta_2} \dots B_{1r}^{\gamma_1} B_{2r}^{\gamma_2} \dots e_r^{\delta}$$

where q_r is GDP per capita in region r , the $A_{.r}$, are AsP indicators and the $B_{.r}$ are the traditional 'hard' production factors and the β , γ and δ are parameters to be estimated. The eight dependent variables to be estimated were the same as above:

gdpc1	GDP/capita in agriculture
gdpc2	GDP/capita in manufacturing
gdpsc3	GDP/capita in construction
gdpc4	GDP/capita in trade, transport, tourism
gdpc5	GDP/capita in financial services
gdpc6	GDP/capita in other services
gdpc7	Total GDP per capita
gdpc8	Residual GDP/accessibility

For each of the above eight dependent variables two sets of regressions were performed. One set of regressions used the data of all 1085 NUTS-3 regions of the European Union. The other set of regressions used only data of the 442 regions classified as rural in AsPIRE. In each set, three different kinds of regressions were performed: The first type used only the above 48 AsP variables as predictors. The second kind used only the above 21 'hard' variables as predictors. The third kind used all 69 variables as predictors. So for each of the eight dependent variable six regressions were performed:

- 1085 regions, only AsP variables
- 1085 regions, only 'hard' variables
- 1085 regions, all variables
- 442 regions, only AsP variables
- 442 regions, only 'hard' variables
- 442 regions, all variables

This resulted in 8 x 6 or altogether 48 regressions. The regressions were run as stepwise multiple regressions in which predictor variables were selected or deselected depending on their contribution to the F-level of the estimation.

Explanatory Power of AsP Themes

In this subsection, selected AsP variables from the five AsP themes are first individually correlated in bi-variate regressions with eight economic variables and then combined in stepwise multiple regressions.

Key Economic and ICT Indicators

The set of ICT indicators includes 21 ICT indicators. In the following we concentrate on a choice of 16 indicators (see Table 11.1). Despite the fact that most of the indicators are available only at NUTS-0 level, relatively high correlations to the economic output variables can be observed: In nearly half of the cases, the correlation coefficients exceed the 0.3 threshold. The highest correlations can be found in the rural sample (n=442) with regard to GDP per capita as correlated variable. According to the expectations, the only notable negative correlations exist between the telecommunication price variable (I7B) and the economic variables.

Table 11.1: Bi-variate correlations: ICT and GDP/capita

		All regions (1085)		Rural regions (442)	
		Total GDP per capita	Residual GDP accessibility per capita	Total GDP per capita	Residual GDP accessibility per capita
I2	ISDN subscriptions per capita	0.17(**)	-0.23(**)	0.08	-0.48(**)
I7B	Price of fixed line telephone call	-0.23(**)	-0.21(**)	-0.52(**)	-0.56(**)
I13A	% households who use computer	0.29(**)	0.03	0.66(**)	0.30(**)
I14	% households with Internet access	0.37(**)	0.08(**)	0.67(**)	0.26(**)
I15	% people using E-mail	0.32(**)	0.19(**)	0.56(**)	0.23(**)
I16	Internet users per capita	0.36(**)	0.08(*)	0.50(**)	0.13(**)
I17	PCs per 100 inhabitants	0.42(**)	0.03	0.65(**)	0.17(**)
I22	% employment in IT sector	0.32(**)	0.05	0.65(**)	0.36(**)
I26	IT enterprises per 1,000 population	0.20(**)	0.25(**)	0.44(**)	0.56(**)
I27	% GDP of IT sector	0.25(**)	0.14(**)	0.35(**)	0.19(**)
I38	secure servers / million inhabitants	0.34(**)	0.17(**)	0.53(**)	0.24(**)
I40	% of online sales	0.30(**)	0.06(*)	0.35(**)	0.11(*)
I42	% online buyers	0.33(**)	0.09(**)	0.48(**)	0.19(**)
I46	Internet domains per capita	0.14(**)	0.15(**)	0.45(**)	0.45(**)
I54	% households using modem	0.33(**)	0.08(**)	0.50(**)	0.28(**)
I55	% households using online services	0.37(**)	0.10(**)	0.59(**)	0.32(**)

* significant at 0.05 level (2-sides)

**significant at 0.01 level (2-sides)

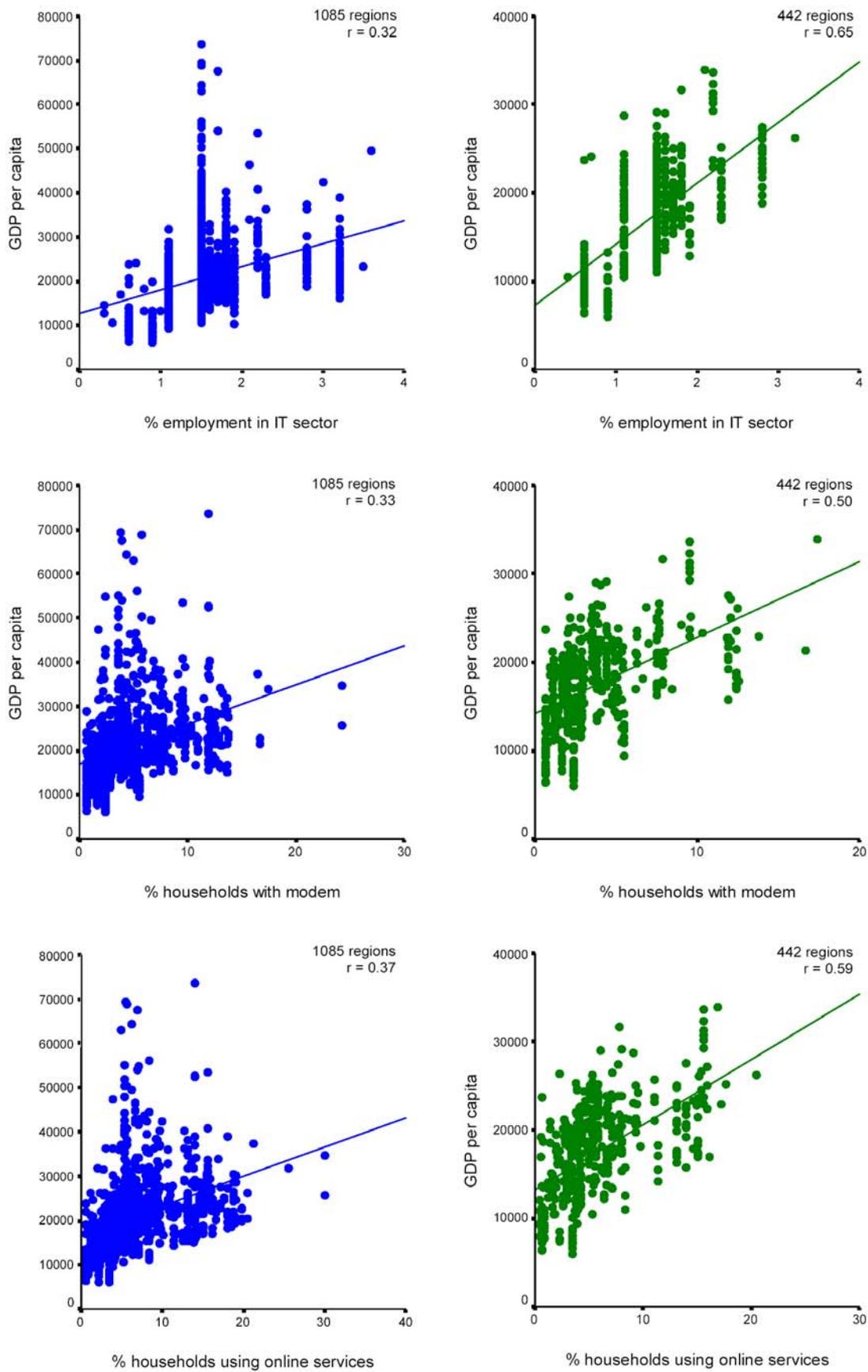


Figure 11.1. Bi-variate correlations, selected ICT-indicators and GDP per capita

Table 11.2: The explanatory power of ICT variables

Dependent variable	Coefficient of determination (r^2)	
	All regions (1085)	Rural regions (442)
GDP in agriculture	0.47	0.49
GDP in manufacturing	0.25	0.41
GDP in construction	0.38	0.56
GDP in trade, transport, tourism	0.23	0.51
GDP in financial services	0.23	0.50
GDP in other services	0.31	0.66
Total GDP	0.27	0.63
Residual GDP/accessibility	0.24	0.57

Altogether, the use and infrastructure of ICT is clearly positively related to wealth expressed by GDP, and seems to be particularly linked to the economic success of rural regions. The “share of households using online services” alone explains about one third of the GDP variance in rural regions (see Figure 11.1). Together, the ICT factors attain a coefficient of determination (r^2) ranking from 0.23 (GDP in financial services, 1085 regions) to 0.66 (GDP in other services, 442 regions).

The multivariate analysis confirms one of the main results obtained by the bi-variate one: ICT factors are particularly suited for the explanation of GDP level differences in rural regions. In general, they appear more often and with higher absolute values in the “rural” regression models than in the ones run with a sample of 1085 regions.

Key Economic and Business Networks Indicators

Contrary to the ICT indicators, the business networks indicators are hardly correlated with the two GDP variables. The “share of manufacturing SMEs involved in innovation cooperations” (B1) is the only variable clearly connected to the regional wealth level (see Table 11.3). Moreover, the variables B3 (share of venture capital), B5 (number of clusters cited in literature) and B9 (business incubators per 100,000 inhabitants) are modestly, but positively correlated with GDP. In contrast, regions participating in the EU innovations programmes (B2d) as well as regions with increasing international contacts (B6a) are generally marked by below-average GDP levels.

Table 11.3: Bi-variate correlations: business networks and GDP/capita

		All regions (1085)		Rural regions (442)	
		Total GDP per capita	Residual GDP accessibility per capita	Total GDP per capita	Residual GDP accessibility per capita
B1	% manuf. SMEs in innovation coop.	0.36(**)	0.19(**)	0.60(**)	0.31(**)
B2d	EU Innovation Programs (B2a-c)	-0.19(**)	0.01	-0.23(**)	0.02
B3	% venture capital	0.19(**)	0.03	0.23(**)	0.18(**)
B4	% firms with high location coefficient	-0.10(**)	-0.08(**)	-0.16(**)	-0.26(**)
B5	Number of regional clusters	0.16(**)	0.09(**)	0.11(*)	0.13(**)
B6a	increasing internat. contacts (1999)	-0.07(*)	0.21(**)	-0.05	0.32(**)
B9	Business incubators per 100,000 pop.	0.18(**)	0.23(**)	0.13(**)	0.12(**)

* significant at 0.05 level (2-sides)

**significant at 0.01 level (2-sides)

This may not be too surprising: Both indicators represent a kind of business network (innovation networks, vertical networks); but they also stand for an economic disadvantage: In general, areas benefiting from (any kind of) funding can be thought of still lagging behind. Similarly, those regions whose international contacts increase the fastest probably depart from a low start level. However, a really unexpected result is constituted by the slight, but significant and negative correlation coefficients of B4: Apparently, regions with businesses in branches with high location coefficients cannot benefit from these "potential clusters". One should yet keep in mind that the mere concentration of businesses, mirrored by location coefficients, does not necessarily imply inter-firm cooperation and networks.

As shown in the scatter diagrams, the different business networks variables available at regional level hardly explain the GDP variance in the European regions (see Figure 11.2). Even all business networks variables taken together explain only between 10% (GDP in agriculture, 1085 regions) and 43% (total GDP, 442 regions) of the regional variance in GDP. It is noticeable that the coefficients of determination are clearly higher in the rural than in the total sample (see Table 11.4).

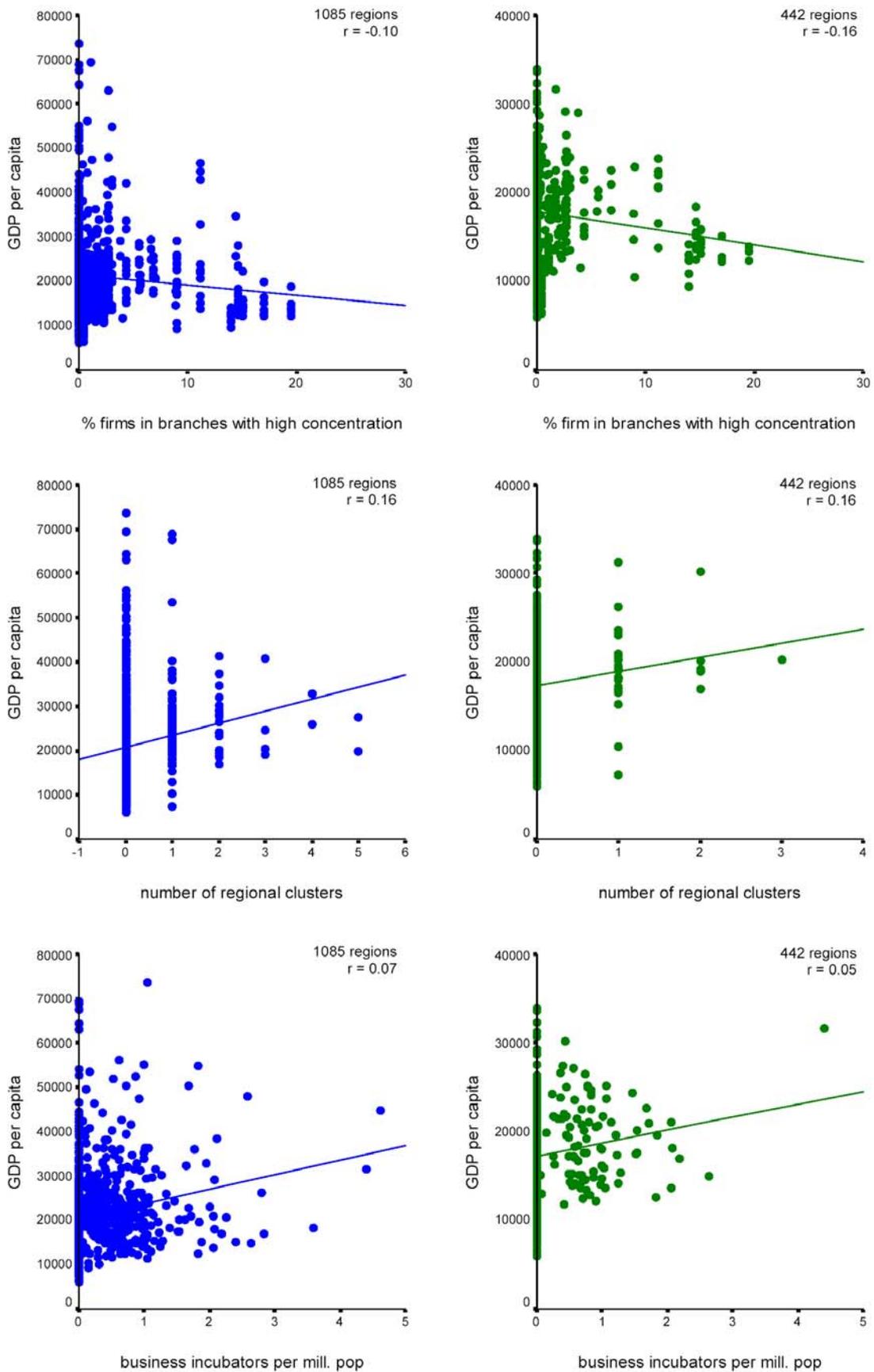


Figure 11.2. Bi-variate correlations, selected business network indicators and GDP/capita.

Table 11.4: The explanatory power of business networks variables

Dependent variable	Coefficient of determination (r^2)	
	All regions (1085)	Rural regions (442)
GDP in agriculture	0.10	0.12
GDP in manufacturing	0.13	0.30
GDP in construction	0.27	0.38
GDP in trade, transport, tourism	0.10	0.12
GDP in financial services	0.10	0.21
GDP in other services	0.18	0.36
Total GDP	0.20	0.43
Residual GDP/accessibility	0.12	0.26

Key Economic and Governance Indicators

The governance indicators are partly available at national level (NUTS-0), partly at regional level (NUTS-2). Interestingly, most of the “national variables” display higher bi-variate correlations with the GDP variables than the regional ones. Among the indicators with the clearest relation to GDP are the “voice and accountability index” (G7b), the “government efficiency index” (G9b), the “rule of law index” (G13a) and the “control of corruption index” (G14b). The high scores of these (national) indicators can be explained in two ways: First, they all are composite indicators, hence they combine a large set of indicators and might have a higher explanatory power here than single indicators. Second, the result corresponds to the estimation that the international differences in the governance systems (e.g. tax systems, administrative structures, budget allocations) prevail over the regional ones.

Out of the indicators available at regional level, the highest correlation coefficients are attained by the indicators on “trust in institutions” (G12a-c) and by the “voter turnout at national elections” (G18) (Figure 11.3). In contrast, the “satisfaction/dissatisfaction with democracy” (G16, G17) and the “voter turnout at regional elections” are not significantly related to GDP. The “influence of citizens on government” (G15) even seems to exert a slightly negative effect on wealth (see Table 11.5). Generally, the Governance indicators attain higher correlations in the rural sample of analysis than in the one for all European NUTS-3 regions.

The aggregated explanatory power of all governance indicators varies with the dependent variable, ranking from a coefficient of determination of 0.15 (GDP in trade

transport and tourism) to a maximum of 0.6 (GDP in other services). Again, the coefficients of correlation are notably higher in the rural areas (see Table 11.6).

Table 11.5: Bi-variate correlations: governance and GDP/capita in rural areas

		All regions (1085)		Rural regions (442)	
		Total GDP per capita	Residual GDP accessibility per capita	Total GDP per capita	Residual GDP accessibility per capita
G1b	Political stability index (2002)	0.09(**)	0.02	0.15(**)	0.13(**)
G7b	Voice & accountability index (2002)	0.34(**)	-0.03	0.47(**)	0.05
G8b	Regulatory quality index	0.29(**)	0.04	0.42(**)	0.11(*)
G9b	Government efficiency index	0.35(**)	-0.02	0.55(**)	0.06
G10	IMD Government efficiency Index	0.26(**)	0.24(**)	0.52(**)	0.33(**)
G11	Global Current Competitiveness Index Rank (2001) (75 countries),	-0.40(**)	0.08(*)	-0.55(**)	0.05
G12a	Trust in institutions: Justice	0.18(**)	0.05	0.18(**)	0.05
G12b	Trust in institutions: Police	0.33(**)	0.10(**)	0.44(**)	0.04
G12c	Trust in institutions: Civil service	0.18(**)	0.02	0.27(**)	0.11(*)
G13a	Rule of law (2000/01)	0.36(**)	-0.01	0.52(**)	0.02
G14b	Control of corruption index (2002)	0.34(**)	0.03	0.53(**)	0.12(*)
G15	Influence of citizens on government	0.07(*)	-0.18(**)	-0.14(**)	-0.36(**)
G16	Satisfaction with democracy	-0.08(**)	0.10(**)	-0.04	0.22(**)
G17	Dissatisfaction with democracy	-0.03	0.02	-0.02	-0.02
G18	Voter turnout at national elections	0.12(**)	-0.23(**)	0.32(**)	-0.24(**)
G19	Voter turnout at regional elections	-0.07(*)	-0.02	0.06	-0.05

* significant at 0.05 level (2-sides)

**significant at 0.01 level (2-sides)

Table 11.6: The explanatory power of governance variables

Dependent variable	Coefficient of determination (r^2)	
	All regions (1085)	Rural regions (442)
GDP in agriculture	0.30	0.41
GDP in manufacturing	0.25	0.42
GDP in construction	0.37	0.53
GDP in trade, transport, tourism	0.15	0.37
GDP in financial services	0.21	0.55
GDP in other services	0.29	0.60
Total GDP	0.22	0.52
Residual GDP/accessibility	0.20	0.44

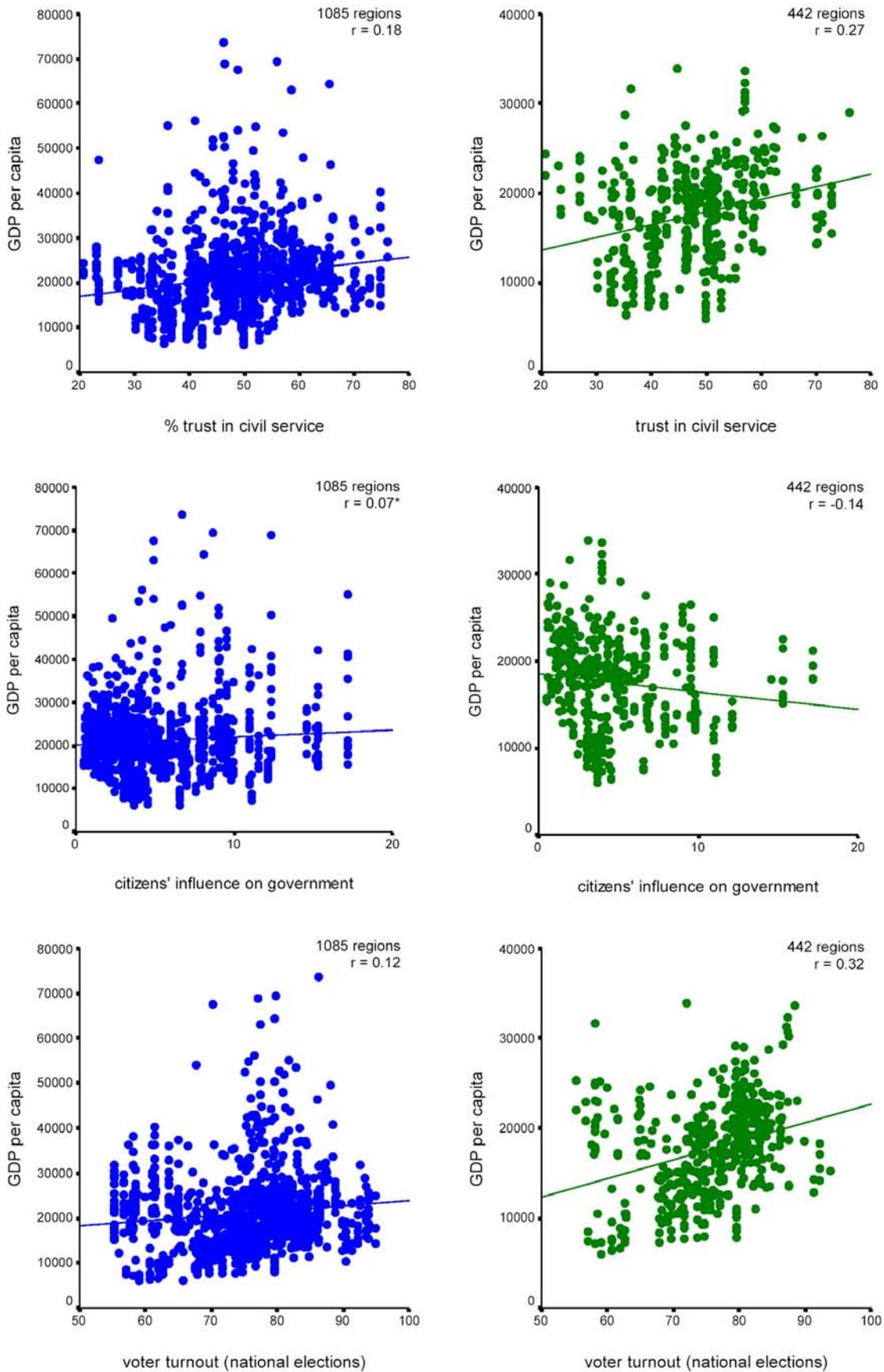


Figure 11.3. Bi-variate correlations. selected governance indicators and GDP per capita

Key Economic and Social Capital Indicators

In the subsequent analysis, social capital and social networks are covered by ten variables. Three indicators stand for the “antecedents” of social capital: the share of people regularly reading newspapers (S2b) and the attachment to town/village or region (S5a/b). Four indicators mirror values and norms such as political interest (S8g, S17), openness to foreigners (S18) and the importance of social values compared to economic ones (S19). Finally, the selection contains two classic network indicators (membership and engagement in associations, S20, S21) and “trust in other persons” as immediate outcome of social networks (S10).

Altogether, the bi-variate correlations with GDP per capita and the residual from accessibility and GDP per capita are rather low. Only in the rural sub-sample a couple of coefficients are above the 0.3 level (see Table 11.7). Interestingly, the networks and trust indicators show the highest interdependencies with the GDP variables, while most other variables are only insignificantly or even negatively related to regional wealth. The high scores of the trust and engagement variables are in line with previous research on social capital. This is also mirrored in the scatter diagrams (see Figure 11.4).

Table 11.7 Bi-variate correlations: social capital and GDP/capita in rural areas

		All regions (1085)		Rural regions (442)	
		Total GDP per capita	Residual GDP accessibility per capita	Total GDP per capita	Residual GDP accessibility per capita
S2b	% reading newspapers daily	0.30(**)	0.02	0.47(**)	0.01
S5a	Attachment to town/village	-0.22(**)	-0.03	-0.36(**)	-0.25(**)
S5b	Attachment to region	-0.25(**)	0.03	-0.46(**)	-0.14(**)
S8g	Combined political interest indicator	0.20(**)	-0.09(**)	0.26(**)	-0.20(**)
S10	% trust in other persons	0.16(**)	0.15(**)	0.41(**)	0.31(**)
S17	Political discussion	-0.16(**)	0.07(*)	-0.17(**)	0.18(**)
S18	Openness to foreigner	-0.19(**)	-0.10(**)	-0.38(**)	-0.16(**)
S19	Social more important than economic	-0.28(**)	-0.11(**)	-0.43(**)	-0.16(**)
S20	Voluntary engagement	0.15(**)	0.15(**)	0.29(**)	0.45(**)
S21	Membership in associations	0.16(**)	-0.04	0.33(**)	0.24(**)

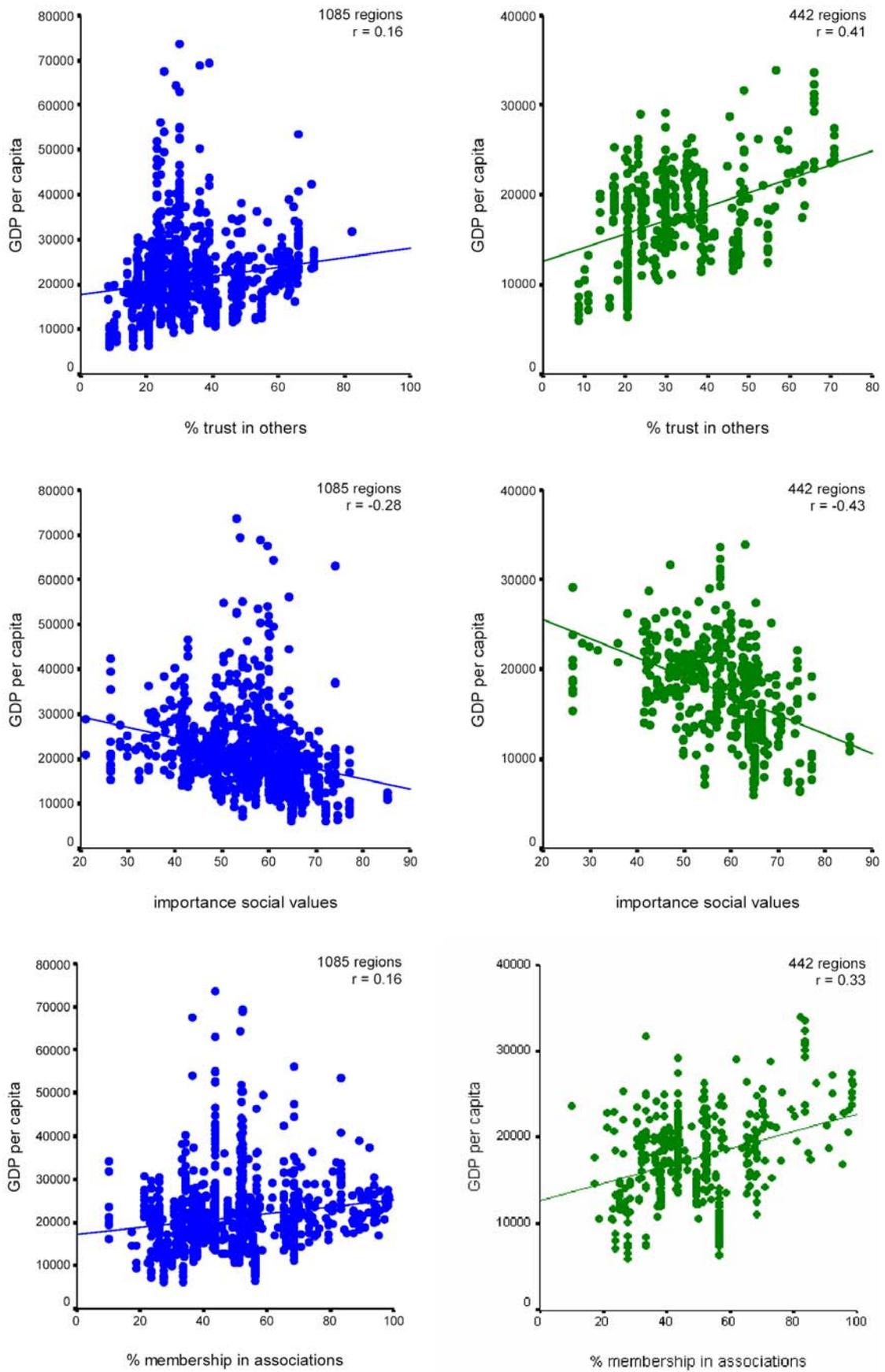


Figure 11.4. Bi-variate correlations. selected social capital indicators and GDP per capita

Taken together, the social capital variables are hardly suited to explain disparities in GDP/capita among the 1085 European regions. However, if the regressions are run for the sample of rural regions (n=442), the social capital indicators can explain about one third of the variance in GDP (see Table 11.8).

Table 11.8: The explanatory power of social capital variables

Dependent variable	Coefficient of determination (r^2)	
	All regions (1085)	Rural regions (442)
GDP in agriculture	0.23	0.28
GDP in manufacturing	0.20	0.35
GDP in construction	0.31	0.43
GDP in trade, transport, tourism	0.15	0.32
GDP in financial services	0.17	0.39
GDP in other services	0.17	0.37
Total GDP	0.20	0.50
Residual GDP/accessibility	0.08	0.37

Key Economic and Tourism Indicators

The indicators chosen for the tourism sector cover both the supply side (e.g. attractive towns, mountain areas) and the demand side (e.g. accommodation establishments). Interestingly, except from the indicators on lakefront and riverfront, none of the tourism variables included in the analysis is positively related to regional wealth (Table 11.9). The three indicators displaying the regional relief profile (T2, T3, T21) as well as the indicator annual solar radiation (T1) are even negatively correlated to GDP.

However, the described bi-variate correlations do not allow for the simple conclusion that tourism does not matter. They rather mirror the problems of finding adequate, solely tourism-related indicators. While a high annual solar radiation favours the tourism sector, it may also counteract other types of economic activity. Similarly, regions with a high share of mountainous areas are attractive for some kinds of tourism, but may hinder the establishment of e.g. manufacturing plants. Also the positive correlation found in the case of the river front indicator (see Figure 11.5) is at least two-sided: On the one hand, rivers represent tourist attractions; on the other hand, they can be classified as important transport infrastructures. Hence, it is

difficult to deduce the economic relevance of tourism indicators from simple bi-variate analyses. However, even the multivariate regressions do not lead to clear results in the case of tourism. The achieved coefficients of determination are relatively low (see Table 11.10).

Table 11.9: Bi-variate correlations: tourism and GDP/capita

		All regions (1085)		Rural regions (442)	
		Total GDP per capita	Residual GDP accessibility per capita	Total GDP per capita	Residual GDP accessibility per capita
T1	Annual solar radiation	-0.38(**)	0.08(*)	-0.53(**)	-0.02
T2	Elevation difference	-0.26(**)	0.14(**)	-0.13(**)	0.16(**)
T3	Slope gradient	-0.21(**)	0.11(**)	-0.09	0.11(*)
T4	Coastline	-0.04	0.18(**)	0.00	0.26(**)
T5	Attractive towns	-0.08(*)	0.17(**)	0.13(**)	0.34(**)
T9	Accommodation establishments / cap.	-0.03	0.11(**)	0.21(**)	0.17(**)
T11	Hotel beds / cap.	-0.08(*)	0.08(**)	0.07	0.09
T17	Overnight stays / cap.	0.01	0.18(**)	0.13(**)	0.15(**)
T19	Lakefront	0.20(**)	0.06(*)	0.09	0.27(**)
T20	Riverfront	0.36(**)	-0.04	0.11(*)	-0.22(**)
T21	% Mountain areas	-0.30(**)	0.07(*)	-0.22(**)	0.07

* significant at 0.05 level (2-sides)

**significant at 0.01 level (2-sides)

Table 11.10: The explanatory power of tourism variables

Dependent variable	Coefficient of determination (r^2)	
	All regions (1085)	Rural regions (442)
GDP in agriculture	0.13	0.13
GDP in manufacturing	0.19	0.29
GDP in construction	0.20	0.29
GDP in trade, transport, tourism	0.19	0.29
GDP in financial services	0.20	0.11
GDP in other services	0.20	0.25
Total GDP	0.26	0.39
Residual GDP/accessibility	0.08	0.27

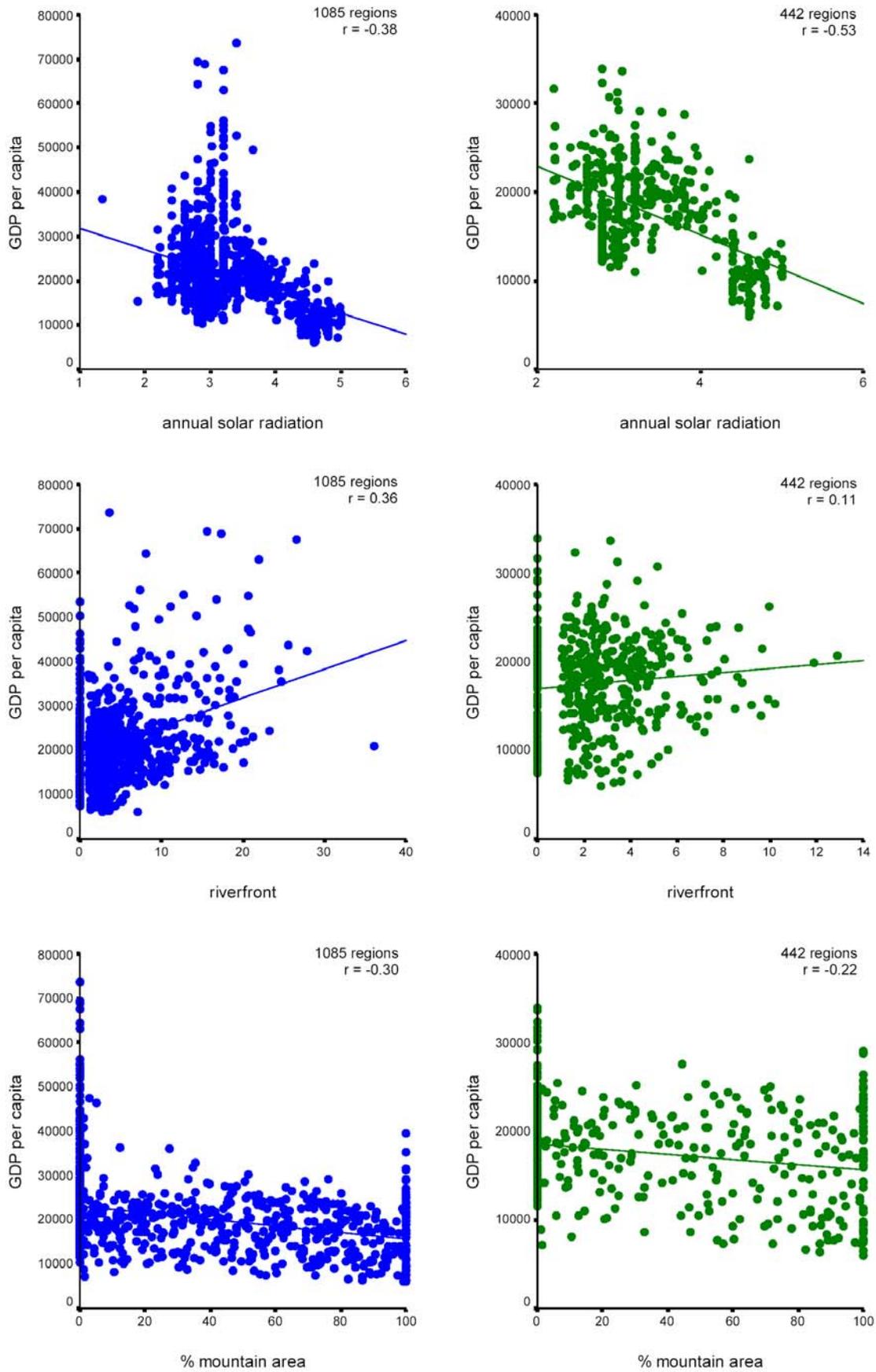


Figure 11.5. Bi-variate correlations, selected tourism indicators and GDP per capita

Explanatory power of AsP and 'hard' location factors

In this subsection the results of the 48 stepwise multiple regressions conducted with both AsP and 'hard' location factors are summarised. Figure 11.6 to 11.13 present the results of the six regressions performed for the last two economic variables, total GDP and residual GDP/accessibility as scatter diagrams showing the correlation between observed and predicted values of GDP per capita. Table 11.11 summarises the results in terms of the coefficient of determination or r^2 .

Table 11.11: Comparison of regression results

Dependent variable	Coefficient of determination (r^2)					
	All regions (1085)			Rural regions (442)		
	Only AsP variables	Only 'hard' variables	All variables	Only AsP variables	Only 'hard' variables	All variables
GDP in agriculture	0.47	0.85	0.91	0.59	0.85	0.91
GDP in manufacturing	0.35	0.77	0.85	0.56	0.85	0.93
GDP in construction	0.47	0.58	0.70	0.59	0.71	0.80
GDP in trade, transport, tourism	0.36	0.61	0.71	0.58	0.71	0.86
GDP in financial services	0.33	0.86	0.90	0.69	0.85	0.93
GDP in other services	0.36	0.69	0.78	0.69	0.69	0.83
Total GDP	0.38	0.61	0.70	0.70	0.61	0.79
Residual GDP/accessibility	0.36	0.58	0.67	0.61	0.77	0.88

Figures 11.6 to 11.13 and Table 11.11 show a clear pattern: The estimations (expressed by the coefficient of determination r^2) improve as one moves from top to bottom and from left to right in the two figures and from left to right in the table. The interpretation is as follows:

- If the AsP variables are taken alone (as in the top row of Figures 11.6 to 11.13), the estimations are poorer than in all other cases. In particular the economic performance of large cities, such as London (UKI11), Paris (FR101), Berlin (DE301) or Munich (DE21H), is underestimated. The worst estimations are for GDP in manufacturing ($r^2=0.35$), trade, transport, tourism ($r^2=0.36$), financial services ($r^2=0.33$), other services ($r^2=0.36$), total GDP ($r^2=0.38$) and residual GDP/accessibility ($r^2=0.36$).

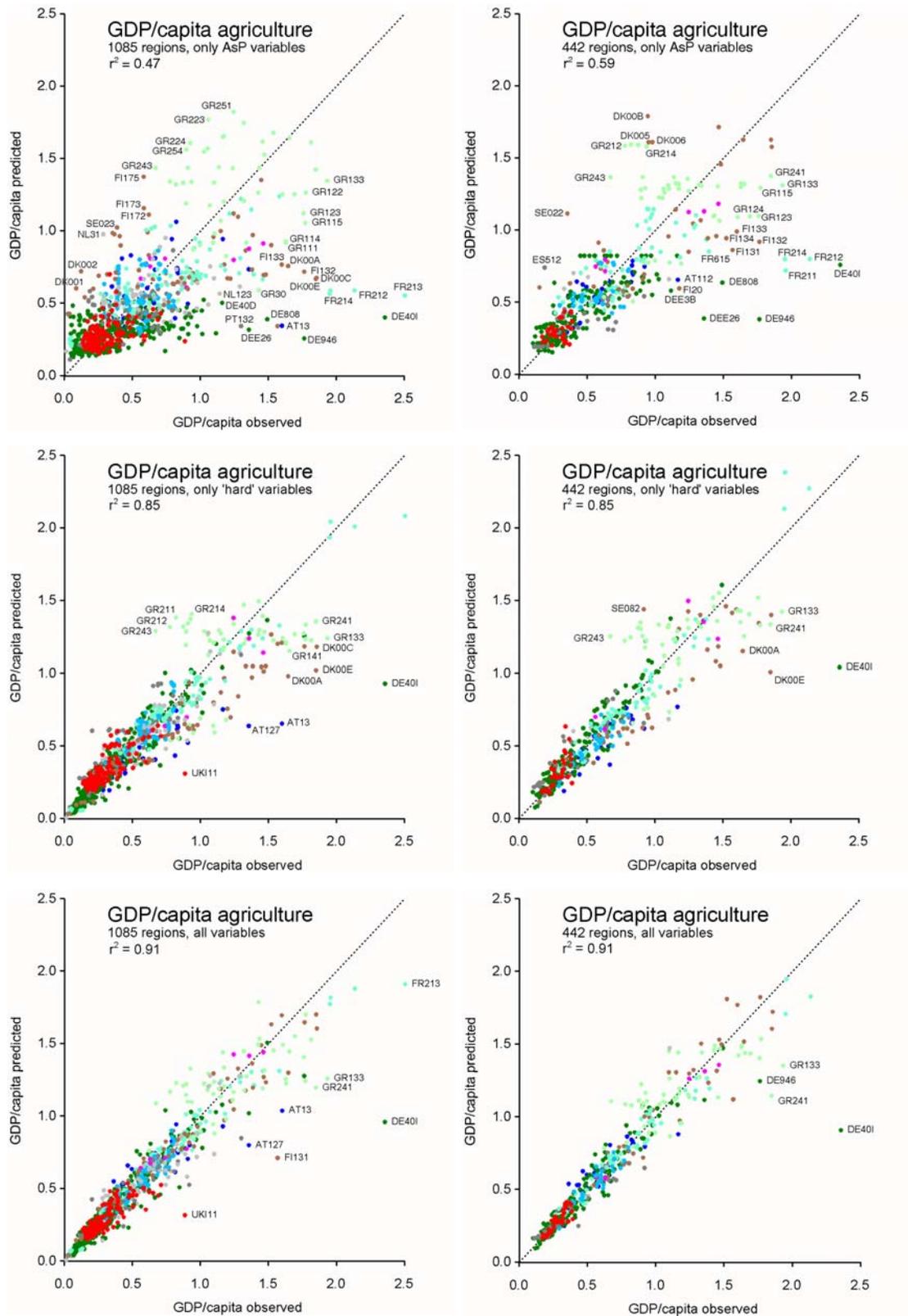


Figure 11.6. Comparison of regressions: GDP in agriculture

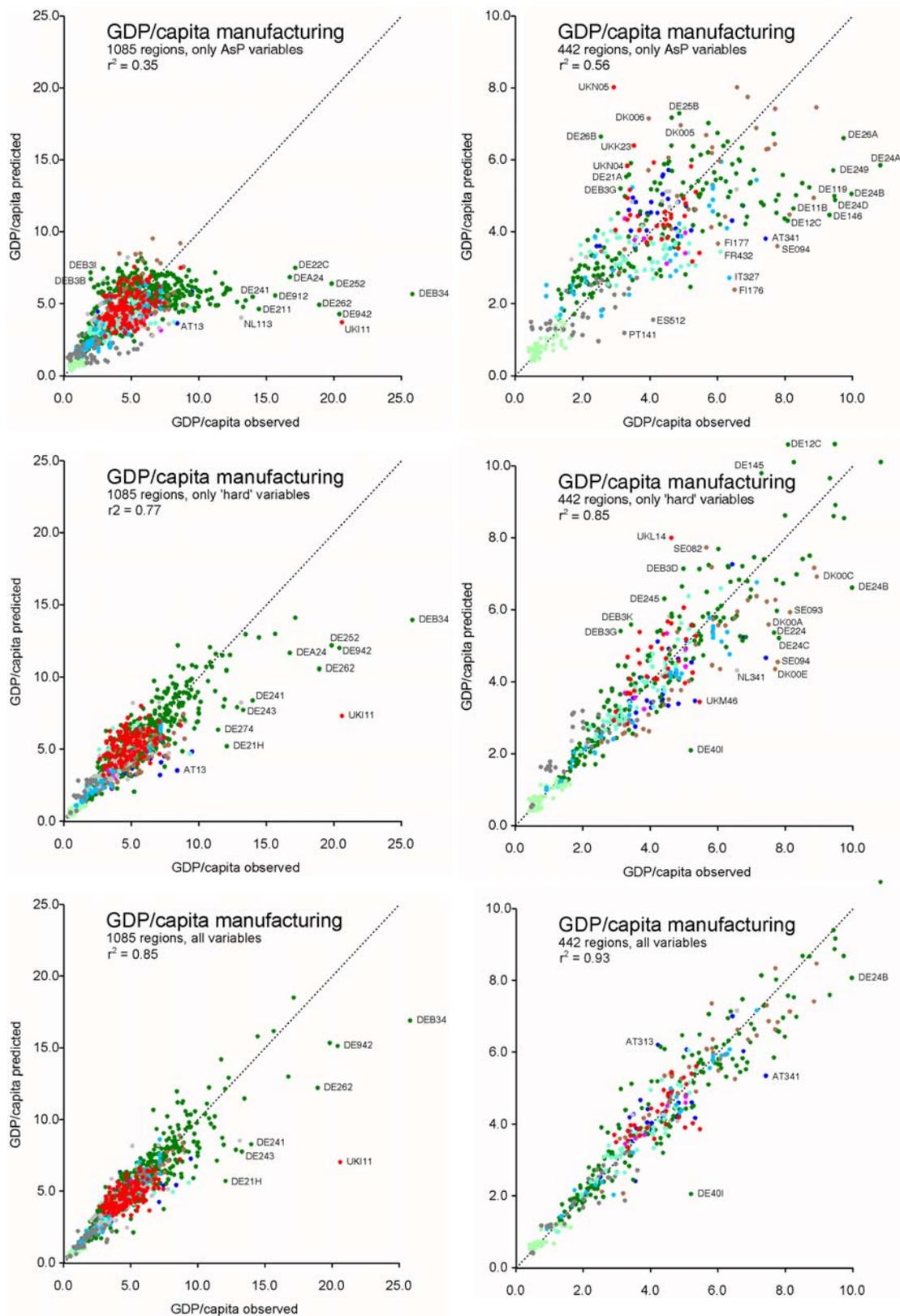


Figure 11.7. Comparison of regressions: GDP in manufacturing

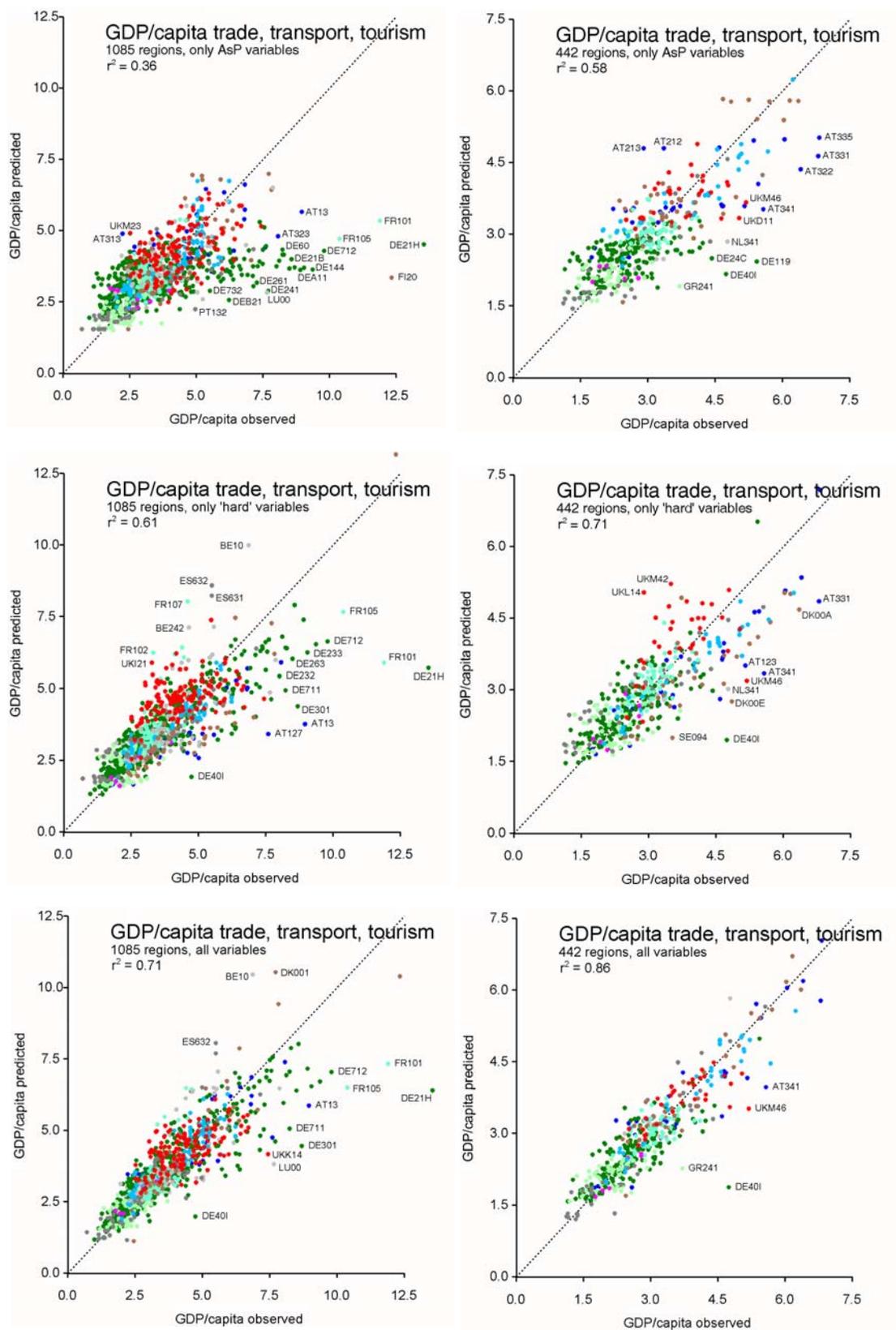


Figure 11.9. Comparison of regressions: GDP in trade, transport, tourism

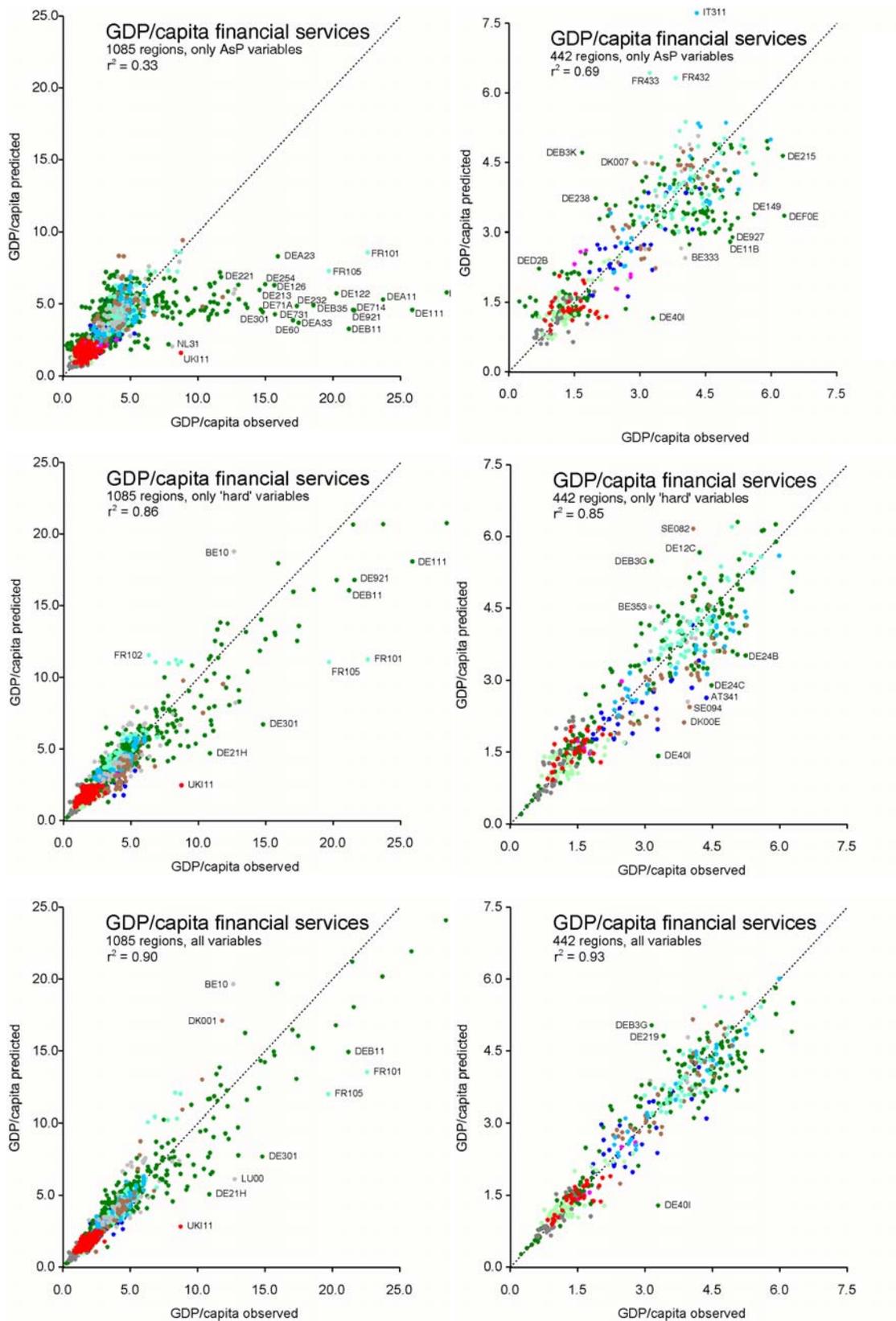


Figure 11.10. Comparison of regressions: GDP in financial services

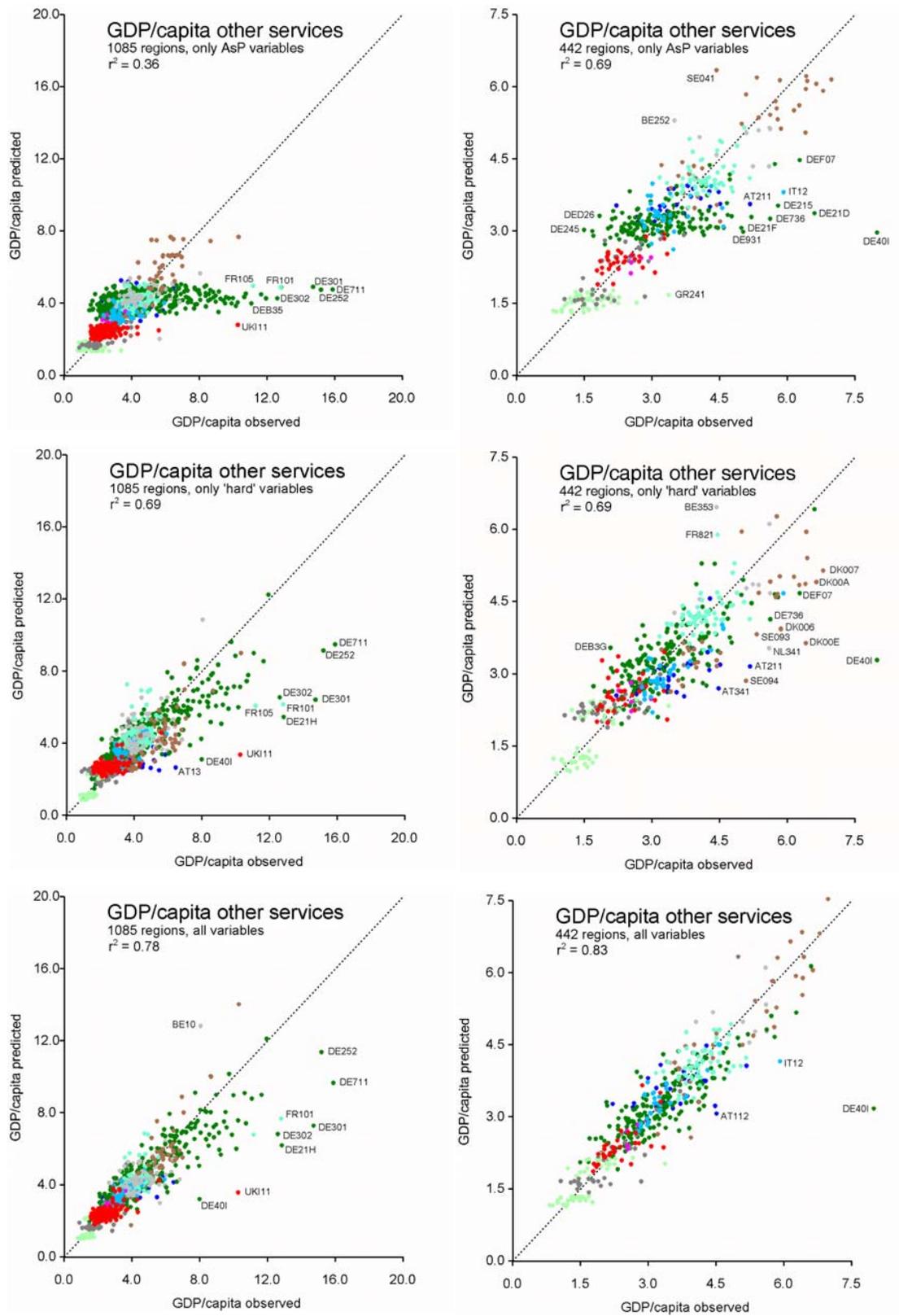


Figure 11.11. Comparison of regressions: GDP in other services

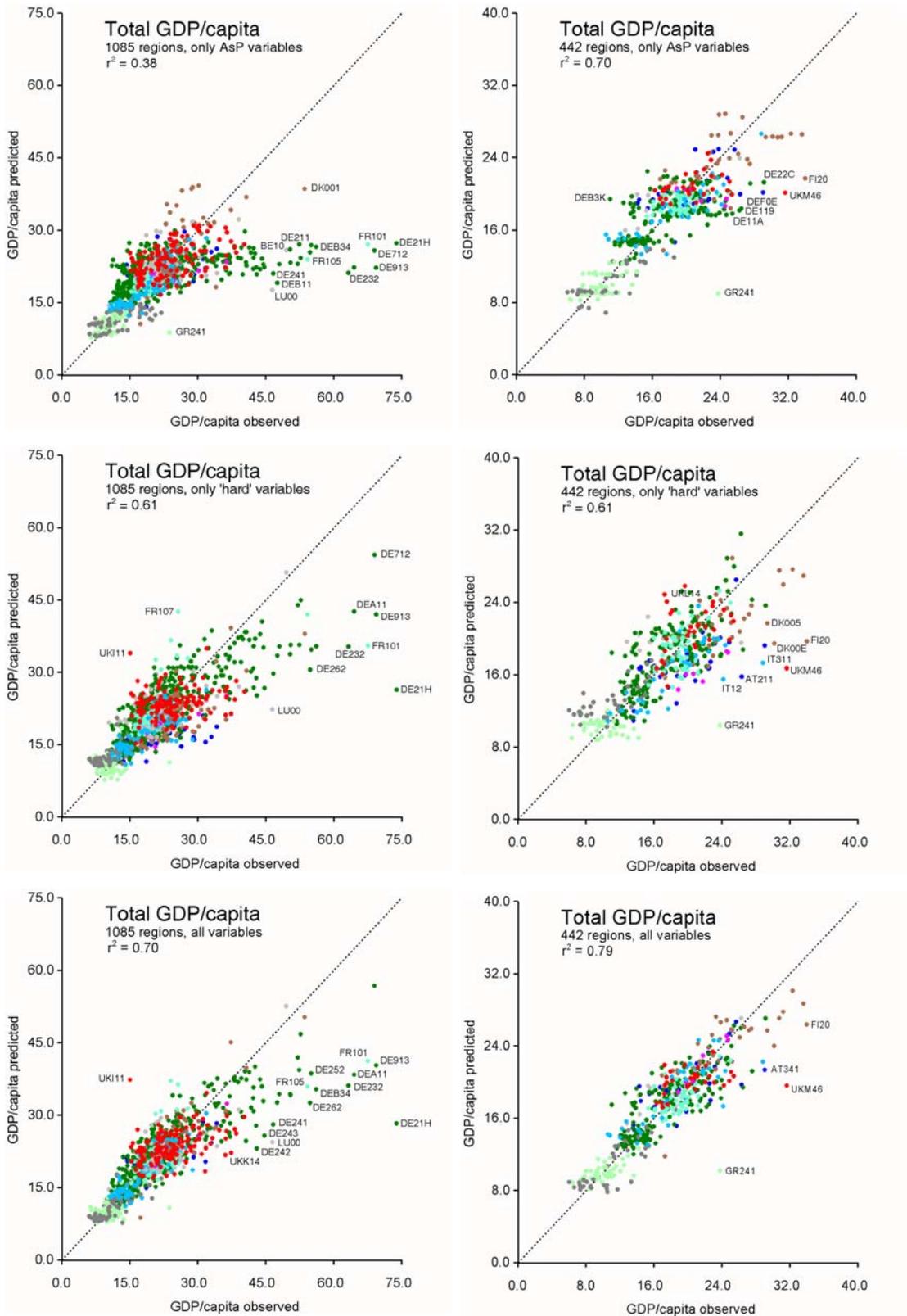


Figure 11.12. Comparison of regressions: total GDP

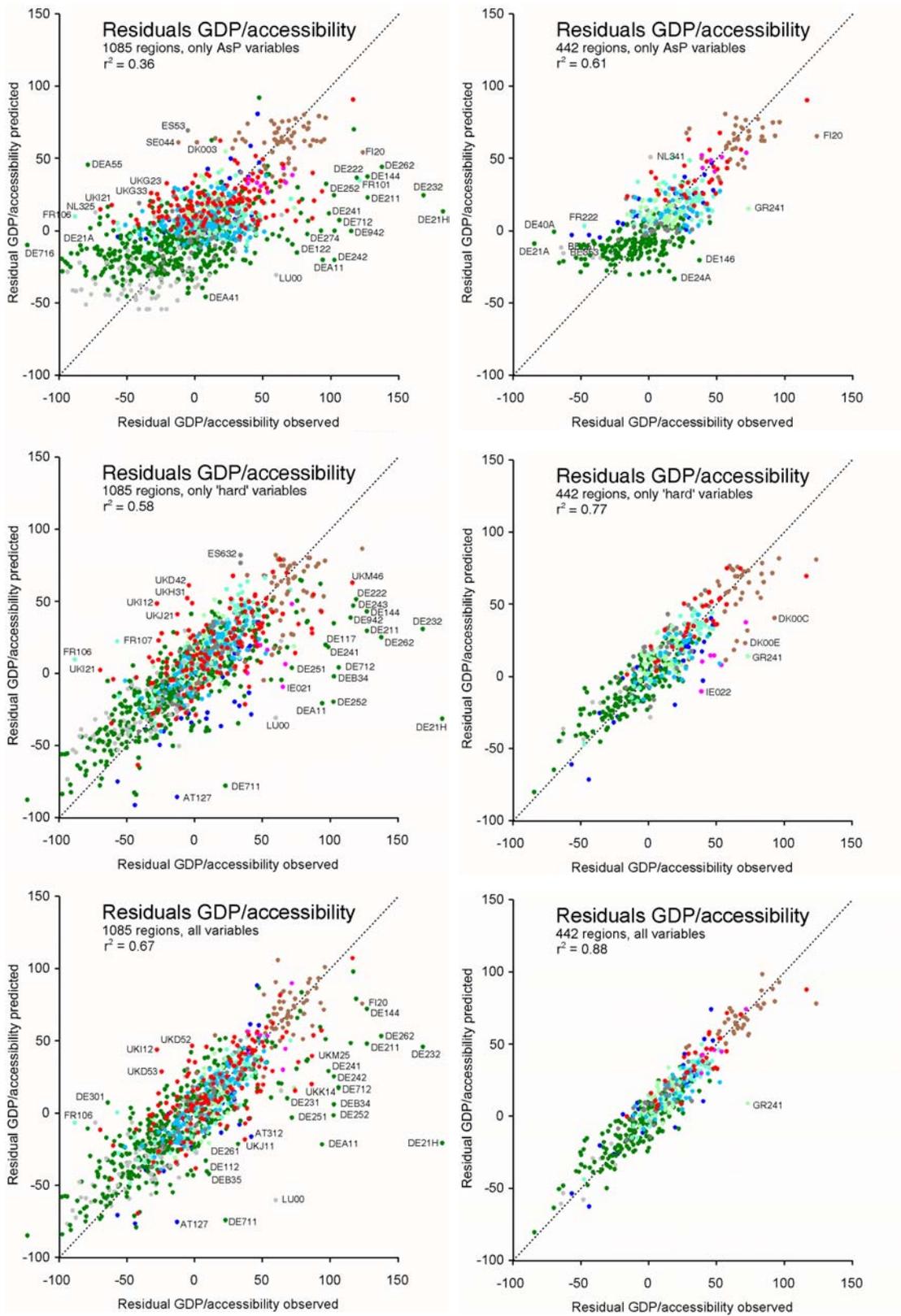


Figure 11.13. Comparison of regressions: residuals GDP/accessibility

- If only the 'hard' variables are entered into the regression, the estimations are significantly better. Now coefficients of determination of between 0.58 and 0.86 are achieved. GDP in agriculture ($r^2=0.85$) and financial services ($r^2=0.86$) are explained best, whereas GDP in trade, transport, tourism ($r^2=0.61$) is more difficult to predict. However, the r^2 achieved are in general almost twice as high than if only AsP variables are taken into account.
- The best estimates are achieved if all variables, i.e. both AsP and 'hard' variables are included in the regression. Now r^2 of between 0.67 and 0.91 are achieved.
- If the regressions are conducted not for all 1085 NUTS-3 regions in the European Union but only for the 442 regions classified as rural in AsPIRE, the estimation results improve. This can be attributed to the fact that the rural regions are more homogenous among themselves than the whole set of regions, which include also highly urbanised regions.
- In general the estimation results are superior for individual sectors than for total GDP. This can again be explained by the fact that the location preferences of individual sectors are more homogenous than those of all sectors taken together. Probably for the same reason, the explanation of the residuals between standardised GDP per capita and standardised accessibility results in lower r^2 than those for individual sectors.

A second way of analysing the results is to examine which of the 69 variables entered into the regressions had the greatest explanatory power. This was done by counting how many times each variable was selected in one of the 48 regressions conducted. Notwithstanding the fact that stepwise multiple regression is a heuristic procedure with a certain amount of randomness, it can be assumed that those variables that were selected most frequently contribute most to explaining the variation in the dependent variables.

The results of this analysis are presented in Tables 11.12 and 11.13. Table 11.12 shows the frequency counts of the 48 AsP variables tested. As each variable was included in 32 regressions, a variable can be selected a maximum of 32 times. Variables that were selected in at least half of the 32 regressions in which they were included are highlighted in grey in the table. It can be seen that the five AsPIRE themes contribute not evenly to the explanation:

Table 11.12: Frequency of representation of AsP variables in regressions

			Number of regressions								
			GDP in agriculture	GDP in manufacturing	GDP in construction	GDP in trade, transport, tourism	GDP in financial services	GDP in other services	Total GDP	Residual GDP/accessibility	Total
ICT	I2	ISDN subscriptions per capita	2	1	1			2	1	2	9
	I14	% households with Internet access		1						1	3
	I22	% employment in IT sector		1	1		1	2	3	1	9
	I26	IT enterprises per 1,000 population	2		2		2	1	1		8
	I27	% GDP of IT sector	1	1		1	1	2	2	2	8
	I40	% of online sales	1	2	3	1	1	1	1		10
	I42	% online buyers	2	2		1	1	1		1	8
	I46	Internet domains per capita	2	1		1	1	2			7
	I54	% households using modem	4	3	1	2	1	1	2		14
	I55	% households using online services	2	1		2	3	2	3		13
Business networks	B1	% SME in innovative co-operation	1	1	2	2	1	2	1	4	14
	B2d	EU innovation programmes	1	1	1		1				4
	B3	% venture capital	2	2	3	3	3	1	2	2	18
	B4	% firms with high location coefficient	2	2		2	1	2	2	2	13
	B5	Number of regional clusters		2	1	2	2	1	2		10
	B6a	% SME with international business			1	1	2	1	2		7
	B9	Business incubators	1	2	2	2	2	3	2	4	18
Social capital	S2b	% reading newspapers daily	3	1			2	2	1	1	10
	S5a	Attachment to town/village	2	1	1	2	1	1		2	10
	S5b	Attachment to region	1	2	1	1	2	1	4		12
	S8g	Combined political interest indicator	4	2	2	3	3	1	3	1	19
	S10	% trust in other persons	3	3	3	3	4	2	1	3	22
	S17	Political discussion		1					2	1	4
	S18	Openness to foreigner	1	1		1	1	1			5
	S19	Social more important than economic		2			1		2		5
	S20	Voluntary engagement	1	1	2	2	2		2	1	11
	S21	Membership				1	2	1		3	7

Table 11.12: Frequency of representation of AsP variables in regressions (continued)

			Number of regressions								
			GDP in agriculture	GDP in manufacturing	GDP in construction	GDP in trade, transport, tourism	GDP in financial services	GDP in other services	Total GDP	Residual GDP/accessibility	Total
Governance	G1b	Political stability index	2		1	2	1	1	3	1	11
	G8b	Regulatory quality index	1	2	1	1	1	2		1	9
	G9b	Government efficiency index	1	2	2	2	1	1	1		10
	G12a	Trust in institutions: Justice	2		1	1					4
	G12b	Trust in institutions: Police	1	1	1	3	2		2	1	11
	G12c	Trust in institutions: Civil service	3	1	1			1			6
	G14b	Control of corruption index	2	1		1	1	1			6
	G15	Influence of citizens on government					1				1
	G16	Satisfaction with democracy	2	2	1	1	2				8
	G18	Voter turnout at national elections	2	4	2	2	3	3	2	2	20
	G19	Voter turnout at regional elections			1		1	1			3
Tourism	T1	Annual solar radiation	3	2	2	2	1	1		1	12
	T2	Elevation difference		1		1	1		3		6
	T3	Slope gradient								1	1
	T4	Coastline		2	1	1	1	1	1	1	8
	T5	Attractive towns	2	1	1	2	1	1	2		10
	T11	Hotel beds per capita	2	2		2	2		1		9
	T17	Overnight stays per capita	3	2	4	4	4	4	4	3	28
	T19	Lakefront									0
	T20	Riverfront	1	2	2	1	1	2	1	2	12
	T21	% Mountain areas	2		1	1	2	1		1	8

Table 11.13: Frequency of representation of 'hard' variables in regressions

			Number of regressions								
			GDP in agriculture	GDP in manufacturing	GDP in construction	GDP in trade, transport, tourism	GDP in financial services	GDP in other services	Total GDP	Residual GDP/accessibility	Total
Economy	shag1	% GDP of in agriculture	4	3	3	3	3	3	3		22
	shag2	% GDP in manufacturing		4			1		1	1	7
	shag3	% GDP in construction	4	4	4	4	4	4	4	4	32
	shag4	% GDP in trade, transport, tourism	1	1	1	4	1	1	1	1	11
	shag5	% GDP in financial services	1	2	2	2	4	3	1	3	18
	shag6	% GDP in other services	3	2	4	4	2	4	3	3	25
Accessibility	acc91	Accessibility, road/rail, travel	2	2	3	3	3	2	1		16
	acc92	Accessibility, road/rail/air, travel							1		1
	acc93	Accessibility, road/rail, travel/freight	2	2	3	3	3	2			15
	acc94	Accessibility, road, freight	2	1			2	1	1	1	8
	acc95	Accessibility to regional labour	2	1	1	2	2	1	1		10
	L1	Baseline peripherality indicator		1	1	1		1	2	4	10
	L2	National peripherality indicator							1		1
Endowment	soilq	Soil quality	1	1	2	2	1	1			8
	pdens	Population density	2	2	2	2	2	2	3	2	17
	devld	% developable land		2	2	2	1	1	2	2	12
	rdinv	R&D investment (% of GDP)			1			1	2	1	5
	eduhi	% higher education	2	1	2	2	1	1	3	3	15
Subsidy	subag	Agricultural subsidies (Euro/capita)								1	1
	subeu	European subsidies (Euro/capita)	3	3	2	3	2	3	3	3	20
	subna	National subsidies (Euro/capita)		1	2	1		1	2	1	8

- *ICT*. Surprisingly, none of the ten ICT variables reaches the score of 16 selections, although variable I54 (% households using modem) and I55 (%households using online services) almost do.
- *Business networks*. Two of the business-networks variables are selected more than half of the maximum times possible: B3 (% venture capital) and B9 (Business incubators). This result underlines the importance of favourable business conditions for new firms.
- *Social capital*. Two variables qualify in this section: S8g (Combined political interest indicator) and S10 (% trust in other persons) indicating the importance of community spirit and personal relationships.
- *Governance*. Only variable G18 (Voter turnout at national elections) has the necessary score to get highlighted, a variable that seems related to the political interest indicator highlighted in the previous section.
- *Tourism*. Variable T18 (Overnight stays per capita) is the clear leader in this theme. This seems obvious because many visitors with overnight stays are a clear indicator of the attractiveness of a region for business travellers and tourists.

In summary, only six of the 48 AsP variables were selected in a regression more than 16 times. In contrast to this, seven of the 21 'hard' variables reached that score, as Table 11.13 shows:

- *Economy*. Economic structure seems to continue to be a determining factor for the economic development of a region: four out of the six variables indicating the share of a sector in total regional GDP were selected 16 or more times. This result contradicts the frequently expressed opinion that in times of rapid economic change economic structure is no longer of great relevance for regional economic development.
- *Accessibility*. Accessibility also seems to be important for regional economic development: multimodal accessibility for passengers (acc91) was selected 16 times, with combined accessibility for travel and freight (acc93) almost as many times. However, the total selection frequency of accessibility (53) is much lower than for economic structure (115).
- *Endowment*. Population density (pdens) scores high among the endowment variables, as does educational attainment (eduhi). Surprisingly, R&D investment, one of the cherished variables of modern regional economics, was selected only five times.

- *Subsidy*. The clear winner here are European subsidies (subeu) indicating the importance of Structural Funds and other European transfers.

Summary

In the first part of this chapter, the interdependencies between key economic indicators and AsP factors were analysed theme by theme. A selection of indicators for each of the five AsP themes was correlated with eight economic output variables. The results only partly confirm the economic relevance of AsP factors.

- *ICT*: Most of the ICT variables are positively and significantly correlated with regional wealth. The variables most clearly related to the GDP-level within the regression models are “share of households who use computer” and the “share of GDP of the ICT sector”.
- *Business networks*: The interdependencies between endowment with business networks and regional wealth seem to be rather low. Except for the “share of businesses involved in innovation cooperations”, the chosen indicators appear as only modestly correlated with the various GDP-variables.
- *Governance*: The aggregated explanatory power of all governance indicators varies considerably with the respective dependent variable and is generally higher in rural regions than in all regions. Governance indicators available at national level as composite indices often show higher bi-variate correlations with GDP than indicators available at the regional level.
- *Social capital*: Both the bi-variate correlations and the multivariate regressions reveal relatively low interdependencies between social capital endowments and regional economic success. However, the positive impact of “trust” and “civic engagement” as traditional social capital variables is clearly confirmed.
- *Tourism*: Most of the tourism variables are insignificantly or even negatively related to regional wealth. This is partly due to the multi-facetted effects that typical indicators of “tourism attraction” (e.g. solar radiation) exert on other economic activities.

A general conclusion is that the coefficients of determination attained by the five AsP factors vary significantly, depending on the regional sample and the variable explained. As a rule, they are clearly higher for the sub-sample of rural areas. This is partly due to the higher homogeneity of the (smaller) sample, but can also be interpreted as a confirmation for the hypothesis expressed by the AsPIRE team that

factors of “aspatial peripherality” are of particular relevance for the economic success of rural regions.

In the second part of the chapter a subset of the AsP indicators and a selection of traditional 'hard' location factors were examined with respect to their explanatory power with respect to regional economic performance. The results of the examination can be summarised as follows:

The AsP variables alone explain about one third of the variance in regional economic performance if all regions in the European Union are considered, and about sixty percent, if only rural regions are taken into account. Traditional 'hard' location factors explain between sixty and eight-five percent of the variance in regional performance. If AsP indicators and traditional location factors are applied together, AsP indicators improve the explanatory power of the model by about ten percent.

SECTION D:
BEST PRACTICE AND POLICY IMPLICATIONS

CHAPTER 12
THE IMPLICATIONS FOR BEST PRACTICE BY ENTREPRENEURS,
REGIONAL DEVELOPMENT AGENCIES,
AND OTHER ACTORS IN PERIPHERAL REGIONS

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Introduction: Aims and objectives of the Best Practice Analysis

There is a clear differentiation between Best Practice and Policy Evaluation in the scale of analysis. BP is an example or set of examples from which one can extract lessons. It can belong to any field of action, public or private. It is always a good example, ideally innovative and transferable to other areas/sectors. On the other hand, the policy evaluation is the analysis of the subjective perception on the impact of a particular public policy or program. It always belong to the public field of action, it can be positive or negative.

The AsP (or the *aspatial* disadvantages) affecting a territory may derive from many different circumstances or conditions (Copus, 2001). We would argue that among the most significant ones are a poor utilisation of new information and communications technologies (ICT), inadequate networks linking local business, development agencies and global sources of information or markets as well as adverse aspects of social capital, regional governance and institutional structures that are not conducive to socioeconomic development. The effects of a combination of all these factors or just the impact of some of them act as a dead weight for a territory to further develop.

By the same token, there are also *aspatial* advantages, also related from our point of view with variables such as networking, social capital, governance and so on, that exert benign effects and help regions to attain higher rates of economic growth and better quality of life. Some of these *aspatial* advantages have played for a long time a significant role; otherwise, the emergence of prosperous peripheral regions and cities that have defied many standard functional requirements for socioeconomic development, would have never taken place. The question therefore is which weight these *aspatial* favourable characteristics have now, at a time when physical distance or travel/freight costs seem to become less and less a constraint to economic activity.

Methodology

A methodology was developed to collect best practice examples from the field, meeting the objectives of the AsPIRE project. A total of 5 best practices per study area was stated as a goal. The collection of best practices form study areas of the AsPIRE project was aimed to answer the following research questions:

- a) To which extent we find in our study areas the good examples-practices found in the literature? Can we confirm them? Vary them? Include new types?
- b) Are there practices that demonstrate the existence/presence in our study areas of “soft” factors other than those included in AsPIRE?
- c) Have we identified BAD practices?
- d) Do the existence of BP in one of the soft factors compensate for the absence or even the existence of Bad Practices in other (ie. Good business networks and low use of IC in one territory).
- e) Does the absence of BP in one of the soft factors inhibit the existence of BP in the other?
- f) Is there any fundamental factor *sine qua non* development and dynamism do not occur?

For obvious reasons, there were areas in which it was impossible to find a best practice for one or more of the factors and, on the contrary, several best practices arose for a specific factor. This was considered acceptable by the fact that the own nature of success or failure in particular areas was linked to the prevalence or weaknesses of some factors. Best practices are derived from the examination of examples of outstanding performance. The fundamental question we must ask to ourselves to identify best practices from a successful story is '*How was this done?*'.

Criteria for identification of examples of best practice

The criteria agreed in order to select examples of good performance from which to derive best practices and recommendations are:

- a) *Aspatial Development Factors-Focused*: As we are concerned with the changing nature of peripheral disadvantage, which increasingly seems to be not so dependent on accessibility in conventional spatial terms, we want initiatives that tap on aspatial characteristics exerting benign effects on territories. For example, concerning the impact of Information Technology, Business Networks, Governance, Social Capital, and finally, in relation with Tourism.
- b) *Replicable*: We want to detect initiatives that can be transferred to other areas in the EU. In this sense, transferability conditions, procedures and costs should be 'reasonable'. Thus, the characteristics of the area (demographic, social, political and cultural characteristics) should not be so exceptional that hardly any other peripheral, rural area in the EU could copy the initiative.

Besides, technical, political and legal conditions required to repeat the example in a different area should be determined and be feasible.

- c) *Catalytic*: As much as possible, we are looking for projects that elicit private or public investments, since capital investment is one of the key factors behind the survival, consolidation and expansion of projects.
- d) *Bottom-up*: As much as possible, we are interested in initiatives that are grassroots in nature and create benefits that are broadly shared. Therefore, first, initiatives selected should mostly be started by local groups of individual citizens and businesses. In this way, projects will in the end respond to local needs, harmonise with local population perspectives and count on local capacities.
- e) *Collaborative*: Though projects may be the personal vision of a single social entrepreneur or a group of citizens, their potential expands if they foster collaborations with organisations from various sectors that could help leverage their impact. In this sense, the co-working of commercial and non-commercial institutions can be very useful.
- f) *Innovative*: Innovation is a key factor in the definition of best practices, since it is a fundamental condition in the own definition of “best practice” that it represents a different way to do things or to improve results with basically the same inputs. Imaginative solutions to territorial problems generate an added value to these best practices.

Innovation needs to be linked to a particular territorial scale. Something new and innovative in one territory may be well known and long-term implemented in another territory. Therefore, the concept of what is innovative can not be applied equally to all areas of the European Union, even to all countries or all regions in one country. Notwithstanding, when the focus is a concrete type of areas (peripheral and rural), the territorial reality has significant commonalities and, therefore, the concept of innovation is basically similar.

Innovations can also be classified according to their degree of complexity. Therefore, innovations can refer to three different degrees of complexity:

- a) The lower degree of complexity consists of an improvement of the final product, in which production structures do not change and the innovation refers only to the features of the final product.
- b) An intermediate degree of innovation consists of an improvement of both the final product and the process to achieve the product (these innovations need bigger structural changes in the production process).

- c) Finally, the highest degree of complexity refers to complex innovations that imply radical changes in the structures with influence in the development of the territory, and affect to the whole local society.

Overview of the Best Practice Examples

The research interests of the AsPIRE project condition the scope of best practices in two directions: on the one hand, a spatial or territorial delimitation that excludes urban areas and concentrates on spatially and “aspatially” peripheral areas; on the other hand, the focus on five thematic areas, the so called “soft factors”¹. Therefore, the best practices included in this study can be defined as innovative methods, processes or solutions to common problems of aspatially and spatially peripheral areas, dealing with one or more of the five “soft factors”.

The number of best practice examples gathered from the fieldwork² is 54, 26 of them for A areas (peripheral and relatively) dynamic, and 28 for B areas (accessible but relatively lagging). Business Networks and Innovation is the more frequent theme (15 BP), while IST and Social Capital are the less recurrent (9 cases) (see Table 12.1).

There are differences between the two types of areas: type A areas show a clear dominance of Business Networks best practices while themes in type B areas are more even.

Table 12.1: Number of Best Practice examples by Theme

	IST	Governance	Social Capital	Tourism	Business Networks
Region A	5	5	4	4	8
Region B	4	6	5	6	7
Total	9	11	9	10	15

Information Society Technologies (IST)

Concerning effective use of ICTs, prospects for rural businesses are far less optimistic than for core-based enterprises. Rural firms have grown within rather local, protected markets and now have to adapt themselves to the increasing competition that globalisation brings about. In comparison with urban enterprises, and even with

¹ The AsPIRE “Soft Factors” are Business Networks, IST, Governance, Social Capital and Tourism.

² All the information of the good practices obtained in the project is in the Deliverable 27, total number, arrangement, formats, etc. (to see references page 22 of this chapter).

businesses located in less remote rural areas, rural businesses start off from an uneven initial position. Barriers such as the absence of the necessary infrastructure, the higher cost of telematics services, and the lack of awareness and capacity to manage ICTs make businesses in relatively remote, rural areas to run the risk of disappearing because of not being able to face competition with urban firms. (Seamus, 2001).

To countervail such a risk, SMEs and rural territories of Europe are being targeted by a range of public and private programmes to help them become effective participants in e-commerce. Though the pace of progress is rather slow, there are some successful initiatives that deserve our attention. (see in table 12.2 some best practices examples in the EU context).

Table 12.2: IST Best Practice examples in the EU context

Name of the programme and initiatives	Contents	References and Links
STAND RISI partnership	All major public service providers in the region to act as one customer for a Broadband Communications Network has received financial assistance	(Gillespie, 1998)
Highlands and Islands Partnership Programme	To increase the region's knowledge-base skills, by improving the capacity for R&D and technology transfer, especially in indigenous economic sectors	(Ovum, 2001), http://www.inforegio.cec.eu.int/wb/over/overstor/stories/uk/retd/st165_en.html
Brisa	A the set up of a range of tele-centres, which offer business advice and training related with the implantation of ICTs in rural businesses	www.diba.es)
MacDonald's Smoked Produce	Small companies should develop core competencies, collaborate with other small companies and design products specifically aimed to suit the unique taste of a customer in order to compete efficiently with larger firms.	www.ecommerce-scotland.org www.smokedproduce.co.uk)
Basta-Parsons and Porterhouse Ltd	Decision making by the owner-manager is the main reason for low levels of adoption, with owner-managers adopting the technologies where they see these investments having a positive impact on the development of the firm	(Southern and Tilley, 1999)
Tele-Insula – telematic services for islands, Italy, Greece, Portugal and UK	The Tele-Insula project was developed to overcome the particular barriers faced by European islands in the efficient implementation of ICT applications and services.	http://www.teleinsula.com/eisn

The analysis of objectives shows that best practices focusing on IST are principally aimed at promoting the use of IST among different collectives. The most common targets are:

- a) General population that has not access to computer.
- b) General population as a whole.
- c) Local companies.
- d) Entrepreneurs.
- e) Providers of public and private services.
- f) Traders and shops.
- g) Customers of enterprises.

Targets include all the local society, but there is focus on business and workers. Best practices on IST pursue three main goals:

Improve competitiveness of local companies

Promote use of the Internet among the local community

To a lesser extent than the two previous goals, to improve delivery of public services to local population.

IST contributes to business competitiveness in two ways: on the one hand, improvement of production or market systems; on the other hand, improvement of skills through training and networking.

Table 12.3: Two IST Best Practice examples from the Case Study Regions

Name of the Practice	Reasons behind the existence of the good example	Results obtained	Country and references
Our Village Goes Online	Recognition on the part of the county administration that the rural population of the county lagged behind in terms of internet use and the use of new media in general.	Raise public awareness and show benefits of internet use. Introduce rural population to internet technology. Increase internet competence of the rural population of the county. Create public internet pools in 30 villages of the county	Germany
Ennis Information Age Town Ltd	The greater uptake of IT technologies in Ennis amongst residential and business users. Provide basic and more advanced IT training to residents and business owners.	The increase of the number of persons actively utilising IT and the internet to communicate and conduct business from Ennis. Increase the frequency of use of the internet. Improve the competency level of those using IT.	Ireland http://www.ericom.ie/

Business Networks

It is widely recognised that peripheral, rural areas are characterised by an industrial fabric made up of micro-, small- and medium-sized enterprises, poor business services sector, loose links between the public and private sectors, specialisation in traditional businesses with established skills and little inclination to innovate, low levels of public support for innovation and aid schemes that are poorly adapted to the needs of local SMEs (CE, 2001).

This is not a favourable scenario if rural, peripheral areas want to attain prosperity within a context of increasing globalisation, which is likely to affect negatively the still rather bounded and protected rural markets. Innovation and entrepreneurship on the part of rural population in addition to an adequate policy support provided co-ordinately by the different levels of government in the EU could act as basic tools to foster regional development in these lagging areas (Goudi, A and Skuras D, 2001). (See some examples in table 12.4).

Table 12.4: Business Networks Best Practice examples in the EU context

Name of the programme and initiatives	Contents	References and Links
EUCOPET sub-programme	This project enables international competitors of similar size to share their experiences and learn from each other.	See a specific ejemple in: www.ceramiccx.com).
Arran Taste Trail (LEADER programe)	It has been supporting the creation of strong co-operation relations among development agencies and business in rural areas, what has resulted in job creation and regional growth.	http://europa.eu.int/scadplus/leg/en/lvb/g24208.htm

There are two main typologies of business networks: on the one hand, relationships and collectives of enterprises around a particular economic sector, on the other hand, multisectoral networks that gather several sectors and a wide range of institutions and organisations.

There are some examples of very innovative business practices that have contributed to the consolidation of customers and suppliers networks.

Networks gather small and medium size enterprises very much embedded in the local socioeconomic fabric. These companies usually build a sort of partnership or

cooperation structure to deal with common problems. These forms of cooperation have produced important benefits. Among others, the following are outstanding:

- a) Increase synergies between businesses of the area.
- b) Compensate for the lack of business services in a particular area.
- c) Control full production cycles.
- d) Improve training and skills of entrepreneurs.
- e) Improve quality of products.
- f) Create quality jobs.
- g) Reduce costs of transactions.
- h) Attract new economic activity to the area.

Table 12.5: Two Business Networks Best Practice examples from the Case Study Regions

Name of the Practice	Reasons behind the existence of the good example	Results obtained	Country
Sorn Milk – White & Wild Scheme.	The private sector scheme is designed to enable producers of White and Wild to demand a premium on a quality product, having produced a Whole Farm Conservation Plan.	It has increased the production of the farmers and environmental evident improvements. 10 percent of each participating farmers' land it to be managed under a habit management plan, hence environmental benefits.	United Kingdom
“Solar Turn” (Rottaler Sonnenwende)	This is to promote the diffusion of solar technology for heating water in private houses. Herefore, a package deal with providers of solar technology and with local plumbers was developed.	The installation of 1600 private households that were producing a lot of benefits for the local society.	Germany

Governance

Governance is defined on the one side as the interaction between public sector institutions, private organisations and third sector organisations; and on the other, as including three elements: organisational or institutional structures, processes of governance and content or policy incentives.

For AsPIRE the main research question is therefore about the influence that institutional structures, governance processes and policy incentives have on the

promotion of innovation, economic vitality and amelioration of peripheral disadvantage in relatively remote, rural areas. The general assumption is that well-organised institutional structures, flexible governance processes and well fitting economic development incentives are capable of stimulating socio-economic development processes. In this sense, we are interested in governance traits that can ameliorate peripherality effects (Lakso, T and Kahila, P. 2001).

It is widely acknowledged that regions will be more capable to solve their problems of socio-economic development if they make use of all three sectors (public, private and non-profit), and if there are connections between these sectors in terms of norms, networks and trust.

Table 12.6: Governance Best Practices examples in the EU context

Name of the program	Contents	References and Links
Valle del Hierro	A group of citizens concerned with the threatening future envisaged for the <i>comarca</i> , decided to create a foundation, which from the very first moment counted on the local authorities support. The Foundation Lenbur launched a development project that received financial support from the EU through RESIDER II	(Ministerio de Fomento, 1999).
Marinaleda	Under the leading role of the local government, a series of mechanisms to foster the active participation of inhabitants in order to achieve collective and individual goals.	www.eurosur.org/OL/EIROS/coodes/maneras/ceh2/bpes24.html
Calvià: Local Agenda 21	The local government started a new line of work, consisting basically of the design and implementation of a Plan of Tourist Excellence, which among other results permitted the natural recovering of an extensive coastal area	www.calvia.com/calvia/agenda/clocal21.htm

The analysis of best practices in governance distinguishes between structures and action: on the one hand, best practices in governance usually propose new or innovative forms of governance that imply the creation of new organisations, bodies, agencies or forms of collaboration; on the other hand, these best practices also propose general objectives of action that are the ultimate aims of the best practice and have to be achieved through the new structures created.

In relation to the types of structures proposed in the governance best practices, we point out the following:

- a) Formal cooperation of neighbouring towns (Mancomunidades, County councils, etc.)

- b) Local councils or partnerships that include local entrepreneurs, local public institutions, third sector organisations, etc. (LAGs, etc.)
- c) Consortium for supporting and promoting local businesses. This types of organisation acts and organises as an enterprise.
- d) Sectoral organisations that incorporate all stakeholders for a particular sector, problem or activity.
- e) Local fora open to all local actors for discussion and action of strategic local development.

There are always important links between the new structure created and the function of local economic promotion. Therefore, private enterprises are, in theory, the primary target for action in relation to the consideration of economic activity location as the main development factor.

Table 12.7: Two Governance Best Practice examples from the Case Study Regions

Name of the Practice	Governance process created	Implicated actors	Results obtained	Country and references
Jyväskylä Region Development Company Jykes Ltd.	Organised cooperation between actors developing economic life and the link between enterprises and municipalities is important in increasing the welfare of inhabitants, as it creates successful entrepreneurship activity and region's competitiveness.	City of Jyväskylä, Jyväskylä rural district, Laukaa, Muurame, Uurainen, Travel agent, Jyväskylään! Ltd, Jyväskylä Science Park, Jykes Estates Ltd., Thousands Lakes, Enterprise Agency, Jyväskylä Pavilion,	It has been obtained More and of good quality connections between educational institutions, labour market and business life.	Finland
Concercost (Comarcas Centrales Valencianas)	Organism with own personality for the promotion, the economic sustainable development and the territorial arrangement of the area in order to face to the economic globalization and to the new territorial European space. This takes part of a strategy of supraregional territorial cooperation	Town halls, trade unions, companies, business associations and universities implanted in the area.	The aim is to stimulate the territorial and functional integration of the zone by means of the production and the accomplishment of the sectorial and integral planning schemes.	Spain

For all examples analysed it seems clear that new structures intend to make up for implementation deficiencies of local governments principally due to the lack of flexibility in action. These new structures develop a new view of the public-private cooperation concept for governance. The case of Finland is especially relevant in this respect, where extensive groups of local and supra-local actors participate in partnerships for development even in areas where Governance is not the central objective.

Social Capital

Social capital as an intermediate product, since it is both an outcome of a process and an input or instrument to attain a further aim. The process is basically social interaction, that is, networks of co-operation, association and, in general, civic activity. This process can create social capital, which on the other hand can be regarded as a useful resource for enhancing educational performance, economic development, political democracy, or community viability.

Social capital can increase the effectiveness of local development initiatives, create effective synergies among the various interests involved in the economic development of the selected study areas, provide an enabling environment for entrepreneurship and new firm formation, etc. (Commins, P and Meredith, D. 2001). (See some good examples of social capital application in Table 12.8).

Table 12.8: Social Capital Best Practice examples in the EU context

Name of the programme and initiatives	Contents	References and Links
Byssbon Village Co-operative	The community working together with the restoration of the old schoolhouse, the villagers created the feeling of togetherness and strength they needed to work towards common goals: the increase of population and job opportunities and the preservation of the environment	Beep researchers (2001b)
Schäferigenossenschaft	A rural area whose inhabitants wanted to remain there (instead of looking for a job in the nearest city), and took advantage of the amount of fields not being cultivated in the region.	(FVECTA, 1997).
Rural Forum	Rural Forum is a network of people and organisations which brings together many of the diverse interests of rural Scotland. Rural Forum works with a wide range of rural communities throughout Scotland	www.official-documents.co.uk/documents/scottish/r-frame/frasec2f.html
Sherkin Island Co-operative	The Sherkin Island Co-operative was founded in 1982, basically to provide women in a rural community the basic means to achieve economic self-sufficiency through community action and mutual support.	

Globally, best practices that focus on social capital have permitted a series of achievements:

- a) Improvement of skills for the general population.
- b) Improvement of skills for local labour.
- c) Promotion of entrepreneurship.
- d) Creation of educational local networks.
- e) Creation of economic promotion local networks.
- f) Creation of new employment opportunities.
- g) Promotion of common action for local development.
- h) Increased cultural offer.
- i) Creation of public participation for a improvement of the social status of women, especially in relation to access to labour market.
- j) Improvement leisure offer.

On the other hand, social capital can also be understood as a facilitator of citizen cooperation and participation in common goals. In this sense, the presence of a well developed social capital can very well be in the base of the consolidation of best practices promoting other “soft factors” in a particular territory.

There are two main approaches in the social capital focussed best practices: on the one hand, those practices that start from existing social capital that needs to be articulated or reinforced; on the other hand, those practices trying to build new social capital in areas where there is a clear lack.

Table 12.9: Two Social Capital Best Practice examples from the Case Study Regions

Name of BP	Brief description	Results obtained	Country and references
Social Inclusion through the wexford partnership.	A local partnership with mission is to respond to, and prevent social exclusion in the county. It funds local initiatives, pilots different approaches to problems, develops the capacity of local individuals and organisations – all with the aim of reducing social marginalisation.	Persons placed in jobs following training, increased viability among small businesses, increased numbers in 'second-chance' education, reduction in numbers of early-school leavers, establishment of a local employment service to assist job placement, special training provided to small holders.	Ireland
Music Development Project	The Music Development Project aims to assist the continued creation, development and funding of a series of initiatives that, when taken as a whole, contribute toward the creation of an overall improved musical infrastructure for Shetland, its musicians and musical culture.	To raise awareness and knowledge of Shetland music; to increase levels of professionalism in Shetland's music enterprises; to develop economic opportunities for cultural tourism; to increase the returns to Shetland musicians; to improve the Shetland music infrastructure.	United Kingdom

Tourism

Sustainability provides us with a broad framework in terms of what best practice should seek to achieve, since the concept encompasses interdependent ecological, social and economic objectives (EC, 2001) and refers to the need to strike the right balance between all three. The vulnerability of resources combined with an increasingly sophisticated and fickle consumer demands a “system of long-term tourism planning which is friendly towards the long term well being of communities and habitats, the visitor and the tourist industry” (OECD, 1994:33).

There are a number of issues to consider in terms of the 'sustainable' development of tourism in remote and fragile regions. According to Hall et al (1998), some factors can be considered central to successful practice in tourism in rural areas:

- a) Effective public and private sector initiatives.
- b) Well developed inherent natural and human capabilities.
- c) A genuine commitment to communities.
- d) A well defined niche market.
- e) Evidence of understanding and integration of wider national and global trends.

In this sense, the attributes of the 'soft' tourism model reflect the themes advocated by the sustainable practice approach, that is embeddedness, the respectful utilisation of features of the local territory (natural and cultural resources), development for the benefit of local communities, integration and so on. (Williams, F. 2001).

Methods to achieve these goals have a common element: the promotion of environmental sustainability in relation to the consideration of the local environment as one of the key development resources (landscape, natural resources, etc.). This factor underlines all other development actions and it is present in many of the best practices collected for all thematic areas. It seems that environmental protection and valuation is considered essential for the long term sustainable development of the peripheral and rural areas in this analysis.

The main specific objectives of the tourism best practices are:

- a) Development of a coherent touristic destination
- b) Increase of number of visitors
- c) Development of local products
- d) Development of integrated touristic strategies
- e) Creation of new companies
- f) Valorisation of environmental resources
- g) Formation of local population in tourism
- h) Increase cooperation between different stakeholders to achieve a tourism development strategy
- i) Increase use of IST

Best practices that focus on tourism take into account to a bigger extent than any other, the need for an integrated development strategy for the territory. Tourism is

considered a key development factor but insufficient in itself. The territory is understood more globally than other best practices collected. In relation to this approach, concepts as “integrated development strategy”, “multisectoral cooperation”, “partnership”, “long term sustainability”, “common vision”, are more present. (see some examples of best practices based in tourism factor in Table 12.9)

Table 12.9: Two examples of Best Practices relating to Tourism from the Case Study Regions

Name of BP	Brief description	Results obtained	Country and references
Tourist and Development Enterprise of Achaia	The Tourist and Development Enterprise of Achaia (ETAA) is based in the municipality of Patras. It is an urban non-profit making organization operating under private law	Analytically the action of ETAA consists of: Elaborating research for development infrastructure and action and allocation for the implementation to institution and private initiatives; continuous, methodical and free observation, planning of prefectural tourism development and promoting training programmes and further education of people occupied in the tourism sector, etc.	Greece
Keski-Suomi Tourism Strategy	Central Finland's (Keski-Suomi) tourism business is to produce experiences to customers as well as livelihood and work to entrepreneurs and employees working in the sector	A general tourism strategy, which determines potential customer segments and amounts market by market as well as action proposals attached to them (40-50 enterprises).	Finland

Innovation and Transferability in the Best Practice Examples

Innovation

Table 12.10 indicates that most best practices can be labelled as “innovative” at regional level, but not beyond. That is, the idea or concept developed in the best practice is new in the territorial area of reference (ie. study area), but has been developed in other areas of the EU. However, there are 17 best practices that are innovative at national level, that is, are pilot experiences at country-level. Finally, there are four best practices that can be considered internationally innovative. These last cases constitute pioneer experiences in the area of territorial development. These practices are consequence of non frequent experiences at a multi-country level.

An analysis of the collection of best practices of AsPIRE reveals that 9 of them present only an improvement of the final product. In general, this is the case for a service or an improvement of the production in a particular economic sector (this type of innovation does not exclude slight procedural improvements). On the other hand, 22 best practices include a level of innovation that requires significant changes in processes and structures; that is, modification and/or creation of new organisations, partnerships or institutions. Finally, 21 of the collected best practices have promoted the highest degree of innovation, including deep changes in social structures at local level, creation of new institutions, organisations, cooperation mechanisms, etc. These examples affect to the whole local society.

Best practices are mainly the result of a public and private cooperation (38 of the examples collected), while examples of pure public or private action are less numerous (seven in each case). This fact support the complexity of territorial processes that necessitate the cooperation of actors.

Table 12.10: Typology of innovation. (number of best practice examples)

Type of innovation		Scope of innovation	
New product	9	Public	7
New process	22	Private	7
Integrated	21	Both	38

Transferability

Tables 1.11 and 1.12 shows different parameters of transferability of the collection of best practices. These parameters include: the technical conditions required, the political conditions required; the legal conditions required, and; the existence of complex processes necessary for the replicability of the best practice. The table divides the examples according to budgetary costs that are, themselves, an important transfer cost.

The costs of the best practices are generally high (Table 12.11). For most examples these costs lie between one and fifty million euros, and there are two BP that surpass this interval. The reason for these high costs is the complexity associated to most territorial development processes. Notwithstanding, there are thirteen practices whose initial costs are under a million euros. In any case, estimating implementation costs is quite difficult. In relation to this, 21 examples do not include this estimate.

Technical conditions required for the implementation of the best practice (Table 12.12) constitute a potential constraint for the transferability of the good experience. Most of the examples gathered include this type of conditions, although the level of demand varies depending on the thematic area considered. In this way, IST related best practices are highly demanding in technical conditions for implementation in relation to the need for existing IST infrastructures and equipment . In other areas, the needs are varied, ranking from the availability of a concrete prime matter or resource to the presence of consolidated business networks. An important percentage of examples (20%) require minor technical conditions (existence of enough manpower, availability of broadband access, etc.).

Table 12.11: Cost of the project (number of best practices)

< 50.000 €	50.000-99.000 €	100.000 – 1 million €	1 million- 50 millions €	>50 millions of €	DK
2	6	5	18	2	21

Table 12.12: Technical conditions required for the implementation of the best practice

	Technical conditions required:	Political conditions required:	Legal conditions required:	Complex processes
Yes	60,5%	2,4%	27%	62%
No	17,6%	73%	57,4	15%
DK	23%	24,6%	15,6	23%

Synthesis and Conclusions

The aim of this chapter is to find elements of best practice in relatively rural, remote areas within the sphere of economic development. The general scenario is one of relatively remote areas performing according to what it would be associated with their geographically peripheral location, that is, not very robust in economic terms. However, some specific areas are defying this common trend and doing better than it would be expected from their location.

The main hypothesis underlying AsPIRE is that ‘soft’ factors such as effective use of ICTs, business networks, social capital, a beneficial style of governance...can play a

key role in the well-being of these areas. These factors would compensate for the relative inaccessibility or 'distance from the core' of these areas. Until very recent times, 'distance from the core' has been one of the most widely used, if not the only one, variables to explain the lagging condition of relatively rural, peripheral areas.

Literature review and the collection of best practice examples from the field have been the two most important sources of information for the writing of this report.

In relation to the literature review, experts usually advocate in favour of some approaches (named 'best practices', 'recommendations', 'guidelines', etc) as ways forward for the development of the information society, sustainable-integrated tourism, functional social capital, enabling governance and productive business networks within the remits of regional development. This said, a question mark remains over the practicalities of the various development approaches and their 'blanket' suitability to all circumstances. The extent to which all of these recommendations can be addressed by specific localities remains problematic.

Besides, successful cases presented here, extracted basically from proceedings gathering excellent initiatives which have been awarded in different competitions, or included in institutional data bases, or briefly presented in different publications, lack essential information. They are explained in a rather linear way, and usually hide key details related with such important questions as time investment, money investment, weaknesses of the initiative, obstacles encountered, and practical (quantifiable) results.

The aim of AsPIRE has been to solve through fieldwork and further research these information gaps, which ultimately are the key issues that make possible for an area to imitate or adopt the excellent performance of either firms, institutions, associations, or governments working in other rural, peripheral areas.

In this project research teams have selected some study areas that show unexpected levels of economic development. In these areas fieldwork has been carried out to detect successful initiatives from which to derive elements of good practice.

By testing the hypotheses through the above research questions, this work has documented best practice in governance, social capital, tourism management/promotion, ICTs, business networks, both at the regional policy level,

and within individual enterprises. The ultimate goal has been to understand how the barriers to the promotion of these factors can be overcome to enhance the economic development of the areas.

By collecting numerous specific examples of successful tourism-, governance-, business networks-, social capital-, ICTs-related initiatives, AsPIRE has analysed the difficult question of transferability. Several elements are necessary to ensure a proper transferability of these best experiences. Some of these factors are easy to transfer, but in other cases, difficulties are evident.

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CHAPTER 13: THE POLICY IMPLICATIONS

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Introduction

This chapter presents the results of the analysis of the policy action in relation to peripherality. The section is divided into two main parts: the first one describes, and assesses the existing EU policy environment in relation to peripherality; the second one presents the subjective perceptions of a sample of 60 local experts on the effectiveness of the past and current policy action for development in their territories, and their best development strategy.

The current EU Policy Environment: Analysis of Policies and Programs that Influence Spatial and Aspatial Peripherality

Peripherality and Public Action

The fall of Fordism, the increasing diversification of economic activity and the rapid development of new technologies have reduced the role of certain elements that traditionally determined the location of economic activity and, thus, the growth potential of a particular territory (capital, adequate manpower, prime matter or energy). The reduction of the geographic requirements for all the Weberian location factors, has provoked a new map of regional growth in which traditional core regions still keep many advantages (skilled labour force, development of NICT³, equipment and infrastructure, accessibility, capital, etc.), though some peripheral areas show increasing ability to find and sustain elements of territorial advantage and competitiveness. Besides, some core areas begin to suffer from important weaknesses that are reducing their growth (inadequate productive orientations, congestion, undesirable conditions of living, costs of labour and land, etc.).

The EU regional policy was born to counteract the spatial effects of the core – periphery paradigm and, therefore, its aim, objectives and actions were defined according to an spatial model that is now at least partially outdated: *“The EU developed from the beginning a rigid regional policy mainly based on direct grants*

³ New Information and Communication Technologies

and infrastructure provision. The assumption was, according to a linear conception of development, that underdeveloped areas would grow and increase their GDP through a standard model of infrastructure development and industrialisation” (RODRIGUEZ POSE, 1995).

The new development paradigm is not fully understood yet. It denies some of the basic principles of the traditional core – periphery model and claims that the post-productivistic economy is driven by new location parameters whose main common characteristic is their increased ubiquity. This new reality has not affected the overall aim of the regional EU policy: cohesion and the sustainable development of all EU regions in the long – run. However, it does essentially affect the way in which policies and programs have to be defined and implemented if the original aim is to be achieved in the new context. This is why the continuous effort to adapt to the changing circumstances has most probably reduced the efficiency and impact of the EU regional policy. To date, UE regional policies have avoided “dramatic” but necessary structural changes in the economy and rather it has helped to consolidate many outdated and non-competitive regional economic structures both in the core (mainly declining industrial areas) and in the periphery (direct transfer of funding that has mainly promoted a “culture of grants”).

A similar scenario applies to other essential sectoral EU policies as the Common Agriculture Policy (CAP) that has been, and still is, the main budget chapter of the EU. The CAP was conceived in a post-war Europe where the main goal was to provide enough food to the population. The protective CAP soon became a stock-producing machine that has swallowed most of the EU budget and has delayed a necessary rationalisation of the agriculture structures.

It can, therefore, be concluded that in the EU context, policy design and implementation faces important deficiencies derived from slowness and lack of flexibility. This can be concreted in:

- incomplete understanding of new elements affecting regional competitiveness and, as a consequence, inability to anticipate problems and solutions;
- powerful groups of interest influencing the direction of policy design and implementation according to their interests;
- lack of “European identity” and prevalence of nation - focused strategies;
- high political price of policies and programs attacking structural problems;

- excessive bureaucracy that tends to duplicate structures and generate slow and heavy processes;
- lack of coordination among the different institutions with decision-making power on a particular issue;
- lack of integration or territorial approach in policy design and implementation;
- lack of suitable policy evaluation processes on public actions.

The current policy design and implementation is likely to be neglecting factors of the new development model that has established during last years. It is, therefore, essential to investigate the impact that this potential gap can be having in (a) the development of new forms (Aspatial) of peripherality and (b) the reduction of efficiency in the achievement of regional cohesion and the sustainable development of Europe.

Review of main strategies and instruments of the EU in relation to Spatial and Aspatial Peripherality

Are EU strategies and instruments area-based or horizontal?

In relation to the territorial focus, that is, the extent to which a policy is designed to match specific conditions of territories, there are three possibilities: the lower level with initiatives that have a sectoral focus that neglect any territorial consideration; a second level of sectoral policies that discriminate intensity of funding, selection conditions or any other criteria in relation to the territorial status; a third level with specific strategies, policies, programmes for specific territories.

Despite many EU strategies and policies are horizontal, three elements need to be taken into account:

- The fact that many policy formulations are flexible and orientative makes them very dependent on national or regional interpretations. Therefore, final programs and actions may vary significantly from territory to territory.
- The principle of subsidiarity implies that, as far as possible, policy design and implementation happens as close to the territory as possible.

- There is an important differentiation on the basis of the area status. The classification of EU territories into Objective 1, 2 and 3 introduces positive discrimination to the lagging regions, although the indicator used (per capita income) introduces some distortions that affect parts of regions.

Community Initiatives are pioneer in the successful introduction of an area-based approach. These initiatives focus on specific problems that affect two main types of territories: on the one hand, lagging and/or rural areas (LEADER, INTERREG); on the other hand, more accessible areas having specific problems like unemployment, devitalisation, etc. (ie. URBAN, EQUAL). In both cases, these Initiatives may be having an important role in relation to the “soft” factors of the AsPIRE project.

In the context of Community Initiatives, LEADER and INTERREG are the ones that have a more territorial focus. INTERREG (I, II and III) takes into account territorial elements in the selection process, especially as regards section C⁴. On the other hand, LEADER (I, II and Plus) focus the development of the most lagging territories with a particular approach that is already known as “the LEADER Method”⁵ that is being “mainstreamed” to other initiatives at EU, national and regional/local levels. These two initiatives are mainly implemented on Objective 1 regions, although not exclusively.

The other two Community Initiatives (URBAN and EQUAL) are not oriented towards peripheral regions, but still “attack” aspatial weaknesses are social integration, employment creation or consolidation, improvement of living conditions in deteriorated urban areas, etc.

On the other hand, Innovative Actions also have a spatial peripherality focus. These structural actions, funded by ERDF have the following objectives: *“To encourage less-favoured regions to invest in innovation and technological development with a view to reducing the lag in their development and enhancing their competitiveness.*

⁴ See op., cit. 7

⁵ The LEADER Method includes seven basic features: an area-based approach, multi-sectoral integration, innovative approach, presence of a local public-private partnership, work in networks, inter-territorial cooperation and decentralised management and funding

*To encourage exchanges of experience and best practice in these areas by supporting in particular the creation of inter-regional thematic networks*⁶.

Community Initiatives and Innovative Actions are experimental, intended at the generation of a series of pilot projects and best practices and recommendations. Several lessons have already been learned by the EU and other member states and incorporated to policy design (ie. the concept of public –private partnerships is more and more promoted as an efficient management system).

According to this rapid review we can conclude that the EU policy has a marked territorial focus, in the spirit of two of the main goals of the Union: territorial cohesion and sustainable development.

Analysis of 76 EU initiatives that affect Spatial and Aspatial Peripherality

New Factors for Territorial Development and their presence in the EU instruments

The main objectives of the European construction include direct and indirect reference to the relevance of the “soft factors⁷” of development included in the analysis of the AsPIRE project⁸.

Their macro-objectives are interrelated and their consecution depend upon elements like innovation⁹, training¹⁰ or research¹¹, that are on the basis of many programs and

⁶ See: <http://europa.eu.int/scadplus/leg/en/lvb/g24210.htm>

⁷ At a time when physical distance or travel/freight costs are becoming less and less a constraint to economic activity and quality of life, the benefits to peripheral and more accessible regions alike may be masked by the effects of poor utilisation of new information and communications technology, or by inadequate networks linking local business, development agencies and global sources of information or markets. Similarly aspects of social capital, characteristics of regional governance or institutional structures may result in relative isolation from the core regions which are perceived as the motors of economic and social change.

⁸ See: http://europa.eu.int/abc/index2_en.htm

⁹ See: *Innovation in a knowledge-driven economy:*
(<http://europa.eu.int/scadplus/leg/en/lvb/n26009.htm>).

¹⁰ See: *Education, Training, Youth: introduction.* (<http://europa.eu.int/scadplus/leg/en/cha/c00003.htm>).

¹¹ See: 6th Framework Programme (2002-2006). (<http://europa.eu.int/scadplus/leg/en/cha/c00003.htm>).

processes like democratisation of decision making, common action, exchange of experiences and information and generation of best examples.

Figure 13.1 EU macro-objectives

Euro-a single currency for Europeans Freedom to move Keeping the peace An area of freedom, security and justice Fewer frontiers: more jobs! An information society for everybody Caring about our environment Enlargement for a stronger and more stable Europe Keeping the EU democratic, fair and efficient
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Source: EU, documental found

In terms of policy objectives, social equality, employment promotion, institutional coordination and development of IST are on the basis of an important number of initiatives. Governance, Social Capital and IST are, therefore, the factors that are present in a bigger number of policies. The following sections contain the analysis of the range of EU legislation in relation to the NFTD¹².

Business networks and innovation

There is a clear distinction between actions for big industry and actions for SMEs. The former is horizontal while the second is mainly sectoral. Several horizontal policies and lines of action impregnate policies for both big industries and SMEs. These elements include research, innovation, knowledge transfer and creation and promotion of networks.

SMEs are usually the dominant typology of enterprises in lagging, peripheral and rural areas. Therefore, the existing support to this type of businesses and their interrelations (ie. networks) has positive impacts on the economics and general dynamics of these territories. The *Multiannual programme for enterprise and entrepreneurship, and in particular for small and medium-sized enterprises*¹³ forms

¹² New Factors for Territorial Development or "soft factors"

¹³ Multiannual programme for enterprise and entrepreneurship, and in particular for small and medium-sized enterprises: <http://europa.eu.int/scadplus/leg/en/lvb/n26006.htm>

the general framework in which the wide range of EU actions to promote SME. The program determines budgets and actions that develop ideas and strategies present in strategic documents like the *European charter for small enterprises*¹⁴. Basic objectives of the general program are:

- Enhancing growth and the competitiveness of business in a knowledge-based economy.
- Promoting entrepreneurship.
- Simplifying and improving the administrative and regulatory environment for business, in particular to promote research and innovation.
- Improving the financial environment for business, especially SMEs.
- Giving business easier access to Community support services, programmes and networks and improving the coordination of these facilities.

The last objective highlights the important of business integration in EU level networks in which there are also institutions. There are also a range of programs that promote the introduction and use of IST by enterprises. The framework program for this is *Go Digital*¹⁵ whose objective is: “*to identify the needs of small and medium-sized enterprises (SMEs) and present Go Digital initiatives in order to help SMEs take full advantage of the advent of Information and Communication Technologies (ICT) and electronic commerce in particular*”.

Innovation and technological know-how transfer are horizontal actions defined in the third objective of the *Multiannual Programme* and in the *Communication Innovation in a knowledge-driven economy*¹⁶. The latter document defines five objectives that the EU must achieve in order to promote innovation. One of these objectives refer to innovation in business contexts:

“The Member States are taking measures to promote the creation and development of start-ups. They are also reinforcing business support services. At the beginning of 2001, they will set up education and training schemes to promote entrepreneurship. In 2001, the Commission will set up networks of innovative enterprises and develop an electronic directory of innovative start-ups. It will also promote access by start-ups to Community programmes and public tenders and the European Investment Bank’s “Innovation 2000 Initiative”. In 2002, it will raise the profile of support services with a European dimension”.

¹⁴ European charter for small enterprises: <http://europa.eu.int/scadplus/leg/en/lvb/n26002.htm>

¹⁵ Go Digital: <http://europa.eu.int/scadplus/leg/en/lvb/n26003.htm>

¹⁶ *Innovation in a knowledge-driven economy*: <http://europa.eu.int/scadplus/leg/en/lvb/n26009.htm>

Information Society Technologies (IST)

The promotion and adoption of IST in all aspects is one of the macro objectives of the EU. Among the factors of analysis of the AsPIRE project this is the one whose priority that is shown in a more explicit and clear way. In accordance to this preferential status, the number and range of actions that pursue the generalisation of the "knowledge-based society" is very wide and impregnates policies and actions in all European programmes.

There are four main lines of action: (a) the incorporation of IST in industries and businesses; (b) the incorporation of IST to research and training; (c) the consolidation of a knowledge-based society for the service of citizens; (d) the preparation of the whole European society to face challenges in relation to globalisation processes.¹⁷

The reference framework for IST policy design is the Action Plan *e-Europe*, launched in 2000¹⁸. This document is the frame for a range of sub-programmes aimed at the adoption and use of IST by the whole society: "*The measures were grouped according to three key objectives to be met by the end of 2002: i) a cheaper, faster and secure Internet, ii) investing in people and skills, iii) stimulate the use of the Internet.*"

Several analysed actions refer to the objective "achieve a knowledge-based society". Different themes can be identified under this epigraph: (i) regulation of the general legal framework; (ii) aspects related to the Internet; (iii) security issues in telecommunication networks; (iv) security and data protection; (v) intellectual rights and related issues; (vi) e-commerce; (vii) open networks of communication and information; (viii) trans-European networks of communication; (ix) telephone; (x) IST in candidate countries.

Provision and improvement of infrastructures for communications is consider by various actions. Notably, the Trans-European Communications Network whose objective is:

¹⁷ From Corfu to Dublin, The new emerging priorities:

<http://europa.eu.int/scadplus/leg/en/vb/l24171.htm>

¹⁸ e-Europe: <http://europa.eu.int/scadplus/leg/en/vb/l24226a.htm>

“To promote the interconnection of telecommunications networks, the setting-up and the deployment of the interoperable services and applications and the necessary infrastructure; to facilitate the transition towards the information society; to improve the competitiveness of European industry; to strengthen the single market; to increase economic and social cohesion; to accelerate the development of new growth area activities...”¹⁹.

The consecution of these objectives imply governance and social capital actions like cooperation and common management of projects.

Promotion of e-commerce is especially important in the reviewed policy documents.

Governance

Institutional cooperation and the promotion of new models of governance are objectives widely found in the EU political literature. The document *Governance in the EU, a white paper*²⁰, still under debate, will be the basic framework for the EU institutional action in relation to Governance. The concern to find operative models of government more dynamic, active and productive is evident. Inter institutional cooperation and the creation and consolidation of public-private partnerships are models increasingly promoted²¹:

A thematic analysis confirms that inter-institutional cooperation and the creation and consolidation of public-private partnerships are priority modes of governance. These models are more consolidated in social policy (employment, education, equal opportunities, etc.); however, other aspects traditional dealt with from rigid governmental structures (ie. industrial policy) have developed less cooperation mechanisms. An example of this is the *Multiannual programme for enterprise and*

¹⁹Guidelines for trans-European telecommunications networks:

<http://europa.eu.int/scadplus/leg/en/lvb/l24145.htm>

²⁰ See http://europa.eu.int/comm/governance/white_paper/index_en.htm

²¹ The case for public-private partnerships is one of the lessons learned in the “experimental” Community Initiatives. Under programs like LEADER, this model of governance has proved important advantages in relation to other traditional models: higher flexibility, stronger, consensuated decisions, higher efficiency in funding allocation, etc.

*entrepreneurship, and in particular for small and medium-sized enterprises*²². This program only sketches few procedures for public-private cooperation: “*better coordination between Community support or advice networks such as the Euro Info Centres, and the organisation of business cooperation events*”.

To sum up, new forms of governance are being tested and increasingly promoted in the design of policies of the EU. Community Initiatives have been pioneer in the introduction of these methods. The imminent White Paper on Governance will integrate the current thinking and experience into a strategic framework for the future design of desirable governance models.

Social Capital

The EU impulses Social Capital through two main elements: on the one hand, the participation of the third sector in all types of programmes; on the other hand, the creation, strengthening and consolidation of social networks in relation to program management and implementation.

The main reference document for EU social capital policies is the *White Paper: European social policy - a way forward for the Union*²³, the framework for social policy action. The VII priority of this document highlights the need to promote interaction between social actors: “*encourage the social partners at European level to consider how the search for high labour standards can be pursued as an integral part of improved productivity*”.

Employment policies are at the centre of the EU social policy. The EU considers the third sector as an essential element in the generation of new employment and, therefore, is given important credit in the design of policies and actions. The document *A Local Dimension for the European Employment Strategy*²⁴ expresses this idea:

²² Multiannual programme for enterprise and entrepreneurship, and in particular for small and medium-sized enterprises: (<http://europa.eu.int/scadplus/leg/en/lvb/n26006.htm>).

²³ See: *White Paper: European social policy - a way forward for the Union*(<http://europa.eu.int/scadplus/leg/es/cha/c10112.htm>)

²⁴ *A Local Dimension for the European Employment Strategy* (<http://europa.eu.int/scadplus/leg/en/cha/c10234b.htm>)

“The third sector (or “third system”) comprises economic agents sharing principles such as the lack of profit-making goals, independence from the public and private sectors, the search for a more participatory form of organisation, and a community service ethos. Today, such organisations account for a large share of overall job creation”.

Partnerships are an important element of social capital generation (ie. allow for consensus building, common project raising, pooling resources, exchange of ideas and information, etc.). The role of partnerships is acknowledged also in the social policy framework. A good example is the already mentioned *A Local Dimension for the European Employment Strategy*. This document indicates that:

“When it comes to local job-creation activities, the social partners naturally enjoy a pre-eminent position, actively participating in the social dialogue and sharing their experience on the ground. With their knowledge of the local employment market - both the demand and the supply side - they are vital players at local level and should therefore be better integrated into local partnerships”.

Several Community Initiatives already have a tradition of promotion of social actor cooperation.

Although there is an outstanding promotion of the social capital in the reviewed documents, the issue of which general role is expected from civil society remains unanswered. Several questions still need a more concrete answer: which are the most efficient ways to incorporate information and experiences to decision making?; how can be safeguarded the independence of organisations?; how could be ensured the accountability in multi-party cooperation processes?

Tourism

There is not a DG for tourism and there is not a framework plan that focuses on this activity and defines the strategic lines. However, tourism activity is another transversal theme that impregnates any EU policy actions

Most of the UE funding from which tourism can benefit belongs to non-sectoral instruments whose goal is to achieve one or more of the macro-objectives of the EU (ie. employment creation, cohesion, sustainability²⁵, research, etc.). In the case of

²⁵ LIFE program is a clear example of a program designed for environmental protection that affects tourism: *“...innovative projects designed to identify good practices included environmental labelling and logos in tourism, rural and coastal tourism, tourism in protected areas as well as tourism and mobility”.*

programs specifically devoted to tourism promotion, the source of funding is mostly Structural Funds and, therefore, is DG Regio the one most involved with tourism as a development activity.

The community initiative LEADER and Innovative Actions include tourism promotion as one of their objectives. The former adopts a quality and innovative strategy while the latter incorporates one specific action: "*ACTION 3: Regional identity and sustainable development: promoting regional cohesion and competitiveness through an integrated approach to economic, environmental, cultural and social activities...*"²⁶.

In both cases, tourism activity is given an important role for heritage conservation and environmental sustainability.

Conclusion: The Current EU Policy Environment

Before moving on to the second section of this chapter it will be helpful to draw together some conclusions from this review of the current EU policy situation in relation to SP and AsP.

There are three types of policies for territorial development: the lower level in which there are initiatives that have a sectoral focus that neglect any territorial consideration. A second level consists of sectoral policies that discriminate intensity of funding, selection conditions or any other criteria in relation to the territorial status in which is to be implemented. Finally, specific strategies, policies, programmes for specific territories.

Policies of DG Regio have a very marked territorial focus.

Programs that cover horizontal themes (ie. innovation, formation, research, etc.) do not have territorial focus and their territorial area of action covers the whole EU.

New factors for territorial development are considered in different programmes of the EU. While IST and Business Networks have specific policies and programs, Social Capital and Governance do not have specific programs and policies but are goals to

²⁶ <http://europa.eu.int/scadplus/leg/en/lvb/g24210.htm>

be achieved through any political action. Tourism is not treated as an independent factor and depends on global development strategies.

In relation to types of territories, lagging and deprived areas (Objective 1) concentrate higher levels of funding. However, the number of programs applicable is basically the same in all areas. Therefore, the EU does not differentiate policies in relation to territorial typologies but focus on intensity of funding.

Analysis on the Subjective Perception of Policy Action on Peripherality, and the Selection of the Best Policy Strategy

Policies can counteract or reinforce peripherality

Public action is extremely diverse in aims, tools and procedures. In any region, public action conditions a range of processes and activities that continuously influence the intensity and direction of development. In the context of the AsPIRE project, public action is an essential element of analysis, it can be part of the factors building up or hindering “Aspatial Peripherality” in a particular region.

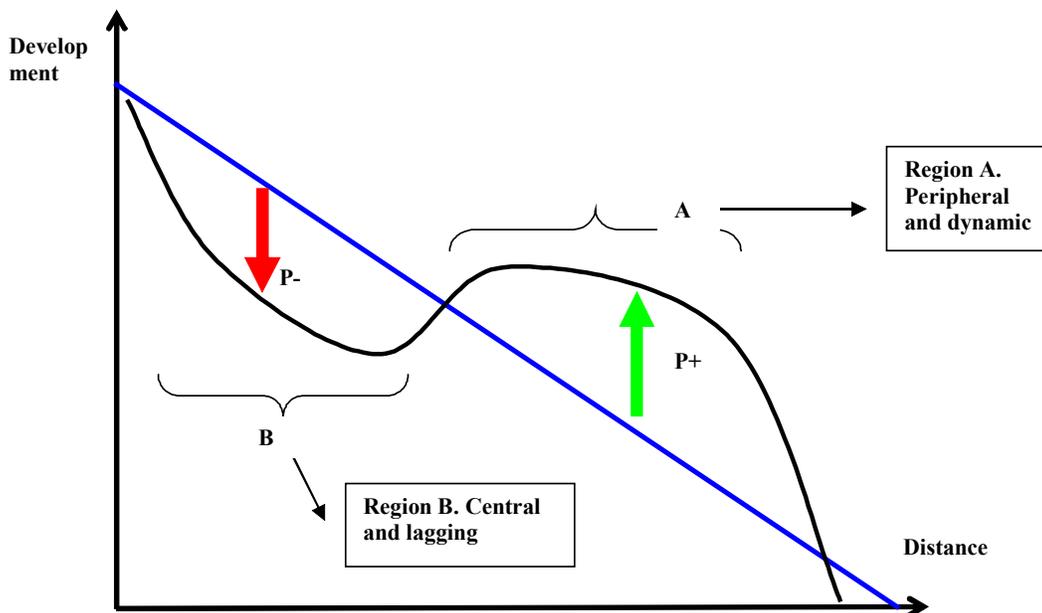
Figure 13.2 shows the conceptualisation of the role of public action in territorial development and in the correction of regional disparities. The **blue line** indicates the traditional Core – Periphery paradigm of development. According to this interpretation, development decreases in an almost perfect direct function from a maximum level in the Core (central location) to a minimum level in the peripheral (remote) areas. This function depends on distance and, therefore, accessible areas from the core will develop more and further than non accessible areas. However, there seems to be enough evidence that there are new forces conditioning the location of economic activity and population and, therefore, the development of territories. These new forces were not present or relevant, and thus not considered, when the Core – Periphery theory was formulated.

This is expressed in Figure 13.2 by the **black line** showing how distance to the core is not anymore the only indicator of development, and the traditional blue line is “broken” in several places by a new spatial distribution of development in which there are new explanatory (“soft”) factors.

Two theoretical situations are explained with the black line in the chart: on the one hand, the situation **B** characterises the case of an accessible region that is performing worse than would be expected according to its geographical location. In this case, there could be public action (policies and programs) hindering development, that is, favouring the consolidation of Aspatial Peripherality. On the other hand, the situation **A** presents the opposite case, a remote region that is performing better than could be expected according to its geographic location. There could be public action in this case favouring development and thus reducing Spatial Peripherality. This reasoning does not try to deduce that only good public action will happen in A and only bad practices will be found in B. Both good and bad public action can happen in either type of area but we hypothesise that more cases of public action effectively promoting development will be identified in A regions while more cases of public action failing to promote development in an effective manner will be identified in B regions.

The **red and green arrows** in Figure 13.2 indicate good (green) and bad (red) performance of public action. In both cases, they indicate how public action impacts the overall final situation of the region. The main conclusion is that public action can have either positive or negative impact on development on both types of areas (A and B).

Figure 13.2: The Reinforcing and Hindering roles of Public Action on Aspatial Peripherality



This section presents the results of a questionnaire sent to a sample of 5 local experts in each of the twelve study regions of the AsPIRE Project. The paper aims at identifying the views of local experts in relation to: (a) what generic types of measures and specific measures are believed to be impacting more positively (be more effective) on the development of A and B regions, and (b) to identify the combination of particular measures that constitute the best development strategy to promote sustainable development.

Methodology

The analysis of the subjective perception of the policy action on the long term development of the study areas of the AsPIRE Project, has been tested through a survey to 60 local experts, equally distributed among the 12 regions of the project (5 cases in each region).

The questionnaire includes a single question that presented the respondent with 30 generic types of measures classified into the five “soft factors” considered by the project, plus spatial development measures. Respondents were asked to provide three types of information in relation to these political measures:

- his/her opinion about the impact of each measure described on the development of the region. The purpose of this question was to assess the subjective perception of local experts on the more effective types of political action in relation to the promotion of development of the area.
- the allocation of a sum of “credits” among the measures provided. The aim of this question was to identify the “best policy strategy” for the area, as the weighted combination of measures prioritised by respondents in a scenario of limited economic resources.
- the measures that had not been implemented in the area for at least 10 years.

Several problems were faced during the implementation of the survey: (a) difficulties to get the cooperation of a sufficient number of experts were overcome through the extension of deadlines and the intensification of action from researchers; (b) wrong interpretations were usual and needed especial follow up; (c) the question about measures not implemented during last 10 years did not produce adequate results due to the subjective perception of respondents. For the same region, answers of local experts were quite different.

The analysis performed considered the survey data from a triple perspective: firstly, the analysis of the whole set of data; secondly, the analysis of the differences between countries; thirdly, the analysis of the differences between types of areas. This last analysis is the most important from the point of view of the AsPIRE project. The identification of the extent to which A (peripheral and relatively dynamic) and B (accessible and relatively lagging) areas differ in the role given by local experts to the different types of measures (spatial and “soft”, different types of “soft factors”) would contribute assess the validity of the main working hypothesis of the project.

Results

Analysis of the Impact of Policies on the Development of the Region

Are spatial measures more effective than other? How effective is each of the “soft factors” in promoting development? Which particular measures are valued most? Which are the most irrelevant measures? The subjective assessment of the effectiveness of policy measures for regional development made by local experts of the 12 study areas of the AsPIRE project, constitutes a good indicator of the relative importance given to, on the one hand, spatial and aspatial development factors and, on the other hand, the five different aspatial development factors.

The working hypotheses states that A areas (peripheral and relatively dynamic) should show better assessment of soft factors than B areas (accessible and relatively lagging) since it is supposed that the outstanding performance of these “soft factors” has allowed A areas to partially overcome the difficulties associated to a remote location. On the other hand, B areas should theoretically show a lower consideration of measures based on “soft factors” in relation to the relative low general performance of the economy of these regions, below what could be expected according to their geographic location. The importance given to spatial development measures could be either good or bad independently of the assessment of aspatial measures. In any case, it is expected that spatial development measures (transport and communication) will score high in these areas that are, by definition, accessible.

Main findings of the analysis policy effectiveness on development are:

a) For the whole set of data (all countries, all areas) (Figure 13.3)

- (i) Aspatial measures (“soft factors”) get higher values than spatial measures, with the exception of “road and rail infrastructure improvement”.
- (ii) Business Networks and Innovation is the group of measures that has obtained best scores as a whole. Tourism gets good scores in all measures and can be ranked as the second best group of measures. The other factors and especially Governance and Social Capital, have received less enthusiastic scores.
- (iii) The availability of good transport infrastructures is considered very important, but the main emphasis is on the support to business and business networks. On a second level, the creation of partnerships to pool resources and promote development, and the promotion of human resources via education and training, are two important measures.
- (iv) The profile of the most effective policy action promoting territorial development consists of a strong economic action based on the improvement of transport infrastructures and the promotion of SMEs and business networks. This model also contains the promotion of local partnerships as the optimal form of cooperation for development, and emphasises the role of human resources. IST are considered important but their role is perceived as progressively increasing in the future. Finally, tourism is an essential complementary activity that needs to be more clearly incorporated to future strategies.

Figure 13.3. Impact of different groups of policies on the development of the AsPIRE regions. Global Results. Models of policy effectiveness per country

a) Spatial measures	91,2
b) Business networks and innovation	116,6
c) Information Society Technologies	98
d) Governance	97
e) Social capital	97
f) Tourism	111,4

Notes: 1: Less than 90: Poorly succeeding to succeeding; 90 – 120: Poorly succeeding to succeeding (+); More than 120: Succeeding to best succeeding

2: In **Red** the most effective group of policy measures; In **Yellow** the second most effective group of policy measures; In **Green** the third most effective group(s) of policy measures

b) Country by country (Figure 12.4)

- (i) *Not all countries have scored equally.* Relative effectiveness of policy measures is considered higher by Finnish, Germans and Greek respondents.

- (ii) *Spatial measures score higher in bigger or peripheral countries than in smaller countries for obvious reasons: the dimension of peripherality is different in bigger countries where accessibility is more difficult.*
- (iii) *A more in depth analysis of this data allows for the definition of different country models, according to priorities marked in the selection of measures:*
- *Focus on business development with emphasis in tourism (Germany, Ireland and Scotland).* Support to SMEs creation and maintainment, and the promotion of business networks are considered the most effective actions for territorial development. Tourism also has an important role, especially as regards the promotion of regional identity and the development of tourism infrastructures. In the case of Germany and Scotland, the role promotion of new forms of Governance is considered important. Experts of Irish study areas mark Social Capital as the third most important group of measures for effective development.
 - *Focus on Tourism with emphasis in Spatial Measures (Greece).* There is some common vision towards the promotion of tourism activity. Some effective tools and incentives mentioned include the support to small firms, strengthening local clusters, attract inward investments, develop the regional image and promote regional marketing. Lifting isolation is a major goal. All spatial measures score high. Governance is the third most effective group of measures. Most institutions, agencies and organisations are conflictful, given to factionalism and are mistrustful of each other. The prevailing role of the government in policy design and the lack of comprehensive development strategy are believed to constitute significant problems. Local experts assess very positively existing measures to promote a new model of governance.
 - *Focus on business development with emphasis in spatial measures (Spain).* All measures for business promotion score high. Entrepreneurship is considered essential for development because it is the basis of innovation, employment creation and competitiveness. The fact that Spain is an extensive country with a historical lack of “hard” infrastructures explains the importance given to spatial measures. The third group of measures considered most effective is Governance. This could be in relation to the complex institutional framework characterised by a traditional lack of coordination and conflicts of power. Common institutional action is seen as one of the main strengths for sustainable development. Specific measures from other groups are considered important: on the one hand, the

development of human resources (social capital) in relation to the lack of leadership and skills in rural areas; on the other hand, the promotion of IST infrastructures (IST) considered an important element for effective development in the near future; finally, the development of infrastructures for tourism, a potent complementary activity in the opinion of surveyed experts.

- *Focus on business development with emphasis in Social Capital (Finland).* The focus is on business development measures. SMEs are considered effective employment creators. Social Capital is considered a key factor for regional development. The promotion of active citizenship and the integration of socially marginalised groups are the two measures more valued, although all other social capital measures also score high (development of human resources via education, training, etc., provision of high quality social services, creation of structures to allow participation). The third group of measures considered effective for development is the adequate promotion and use of Information Society Technologies (IST). The importance of broadband connections is agreed but also the ability to use IST. Measures from other groups also deserve attention, particularly the promotion of partnerships to direct development measures towards specific goals (Governance) is the best valued.

Figure 13.4: Impact of different groups of policies on the development of the AsPIRE regions. Analysis per country. Models of policy effectiveness by country

Policy Group	Finland	Scotland	Ireland	Germany	Spain	Greece	Average
a) Spatial measures	16,2	11,2	9	15,2	17,2	21	15,0
b) Business networks and innovation	24,6	17,8	15,6	23,2	19,6	14	19,1
c) Information Society Technologies	19,6	16,4	12,6	17,6	14,8	15	16,0
d) Governance	16,8	17	12,6	18,6	16,2	15,4	16,1
e) Social capital	23	16	14,2	15,2	13,2	14,4	16,0
f) Tourism	15,6	18	15,6	19,8	15,2	24,4	18,1
Average value	19,3	16,1	13,3	18,3	16,0	17,4	

Note: In **Red** the most effective group of policy measures; In **Yellow** the second most effective group of policy measures; In **Green** the third most effective group(s) of policy measures

c) Accessible (B) versus peripheral (A) areas (Figure 13.5)

- (i) Experts from B areas score higher on average and for all groups of measures. Policy measures are, therefore, perceived to be more effective in B regions than in A regions.

(ii) There are many coincidences between A and B areas. The ***model of effective policy action for territorial development*** includes similar actions for both areas:

- ***Support to the endogenous economic fabric and promotion of under-utilised local resources:***
 - Strong support to SME.
 - Very strong role of tourism promotion as an activity with high development potential that needs institutional support.
- ***Transformation of the social and institutional relationships:***
 - Development of a participative governance system.
 - Planned long-term development to reduce problems of spontaneous development.
 - Development of human resources, through education, training or leadership formation (specific of A regions).
 - Integration of marginalised groups (specific of B regions)
- ***Progressive incorporation of IST to the economic activity, institutions and everyday life of citizens.*** IST are seen as a powerful tool to increase business competitiveness, to attract desirable industries and to facilitate more and better quality services. Despite these commonalities, some small differences have been identified:

- Several measures score higher in “A regions”, an outstanding fact giving that average scores of “B regions” are overall higher: (i) support to the creation of new SMEs; (ii) promotion of innovation, research and development; (iii) promotion of active citizenship; (iv) provision of high quality and comprehensive social services.
- Spatial measures are considered more effective in accessible (B) regions. The higher exposure to risks of urbanisation and industrialisation in accessible areas have produced bigger concern on the need for environmental protection and integrated spatial planning.
- Business support and promotion is a fundamental pillar for development in both types of areas, with more emphasis in peripheral areas.

- IST are perceived to be more important in accessible regions, although in both cases its role is considered essential in the future.
- The lack of quality and comprehensive services and the promotion of policy actions to counteract this is more evident in peripheral regions.
- The presence of social exclusion and the demand for policy actions to counteract this is more evident in accessible regions.
- Society is more structured in accessible regions and the demand there is for more open system of governance that allows for civil organisations to participate in policy formulation. On the other hand, less structured societies in peripheral regions demand the promotion of active citizenship.
- Tourism is seen as a complementary but necessary activity with high potential in both types of areas. However, accessible areas put more emphasis in this potential.

Figure 13.5: Impact of different groups of policies on the development of the AsPIRE regions. Analysis of accessible versus peripheral areas

Policy Group	A Areas (Peripheral)	B Areas (Accessible)	Difference A - B
a) Spatial measures	42,4	49	6,6
b) Business networks and innovation	56,8	59,6	2,8
c) Information Society Technologies	45	51,8	6,8
d) Governance	45,4	51,6	6,2
e) Social capital	45,6	51,2	5,6
f) Tourism	49,8	60	10,2
Average scoring	47,5	53,87	6,4

Notes:

1: **Less than 15:** "Failing to promote"; **15 – 45:** "Poorly succeeding to succeeding"; **46 – 60:** "Poorly succeeding to succeeding (+)"; **More than 60.** "Succeeding to best succeeding"

2: In **Red** the most effective group of policy measures; In **Yellow** the second most effective group of policy measures; In **Green** the third most effective group(s) of policy measures

The selection of the Best Development Strategy

The analysis of policy effectiveness was aimed at identifying possible differences between countries and areas in the types of measures that are being more effective for long term development. The focus in the previous section was, therefore, the identification of what is and has been more effective (recent past and present). This section presents the results of the analysis to identify the preferred development

strategy. In this section the focus is what would be the best combination of policy measures to promote sustainable development (future).

A good method for detecting the combination of policy measures that is perceived to be the best policy strategy to achieve sustainable development is a “budget allocation” exercise. This exercise consists of presenting a group of local experts with a list of policy measures and a sum of “credits” that they have to allocate among the measures provided in relation to their perceived effectiveness.

Main findings of the selection of the best development strategy are:

a) For the whole set of data (all countries, all areas) (Figure 13.6)

- (i) Spatial measures get the biggest share of credits when it comes to the best policy strategy. This indicates that local experts believe that spatial measures are key for long term development but that measures implemented so far are either insufficient or ineffective.
- (ii) Almost 22% of the total budget goes to **transport policies**, mainly to infrastructure improvement (13,8%). Transport infrastructures and other related policies are considered an essential part of the development strategy in all areas. Their lack usually prevents territories from using all their development potentials.
- (iii) A **comprehensive support to SMEs** is the other development pillar of the strategy. Experts allocate in business support measures 25,32% of the total budget. Experts coincide in the risks associated to the dependence on large (exogenous) enterprises when it comes to sustainable development.
- (iv) The **development of human resources** via education, training or leadership formation is considered an important measure (6,75%). None of the other Social Capital measures deserve the attention of experts.
- (v) The role of IST for development is important, especially in relation to increase business competitiveness and to provide more accessible and high quality social services. However, experts allocate significant share of the budget (5,19%) only to the **promotion of IST infrastructures** since any future use of IST depends on the availability of good access in all parts of the territory.
- (vi) Despite the experts perception that a flexible, coordinated and participatory governance system is essential to promote development,

Governance-related measures are given only secondary importance, although most of them deserve between 2% and 3% of the budget. This could be due to two different reasons: on the one hand, that current measures to introduce new systems of governance are working well and experts do not consider this group of measures a top priority; on the other hand, that experts believe that changes in the governance system depend not so much of funds but on attitudinal and behavioural changes.

- (vii) **Tourism** is considered an important activity for development. Most experts acknowledge that this activity has much more potential than currently used. This is why the sum of the five tourism-related measures gets more than 12% of the total budget, a bigger share than IST, Governance and Social Capital. However, tourism is believed to be an effective activity to promote development if it is integrated with other economic activities and uses local resources to promote regional identity. It seems that this activity faces important infrastructural lacks, in relation to the generally low development to date.

Figure 13.6: Measures selected for budget allocation (distribution of 100 credits). Groups of measures. Global analysis

Policy Group	TOTAL %
a) Spatial measures	29,25
b) Business networks and innovation	27,14
c) Information Society Technologies	10,38
d) Governance	10,64
e) Social capital	10,47
f) Tourism	12,11

Note: In **Red** the most effective group of policy measures; In **Yellow** the second most effective group of policy measures; In **Green** the third most effective group(s) of policy measures

b) Country by country (Figure 13.7)

- (i) **Spatial Measures** are the most important in Ireland and Greece, and score very close to the most important group in Germany. In the case of Ireland it gets more than half of the total budget (53,9%). During last 10 years, Ireland has directed its strategy more to the development of IST infrastructures than to “hard” infrastructures. Greece also suffers from lack of good infrastructures, what explains the priority given to spatial measures. Only in Scotland, Spatial measures are not among the most important groups of policies. One of the Scottish areas is a group of islands what makes irrelevant the improvement of “hard infrastructures”.

- (ii) **The promotion of business networks and innovation** is the most important group of measures in four countries: Finland, Scotland, Spain and Germany. It is the second most important group in the other two countries. It is, therefore, a centre of the best development strategy in all areas. No significant differences can be pointed out.
- (iii) **IST** are relevant in the case of Scotland (third most important group of policies) and Finland. However, Ireland and Germany experts allocate a very low percentage for the total budget to this group of measures.
- (iv) **Governance** constitutes the third most important group of policies in the Mediterranean countries (Spain and Greece). Reasons are well explained in page 20 (Greek and Spanish models).
- (v) **Social Capital** measures are relevant in the desired policy strategy of Finnish, Scottish, Greek and Spanish areas. Issues like human resources development and the provision of quality, comprehensive social services get high shares of the budget. Irish experts consider completely irrelevant this group of measures.
- (vi) **Tourism** measures are very important for the development strategy in the Scottish areas (one of the areas is a consolidated touristic destination). Other countries like Germany, Greece and Spain, also allocate good funding to this group of measures, in relation to the development potential of this activity.

Figure 13.7: Measures selected for budget allocation (distribution of 100 credits). Groups of measures. Analysis per country

Policy Group	TOTAL FINLAND %	TOTAL SCOTLAND %	TOTAL IRELAND %	TOTAL GERMANY %	TOTAL SPAIN %	TOTAL GREECE %
a) Spatial measures	18,52	12,99	53,89	29,19	23,44	30,00
b) Business networks and innovation	29,10	24,86	27,98	32,06	34,38	17,89
c) Information Society Technologies	14,29	18,08	6,74	6,22	9,38	8,95
d) Governance	12,70	9,04	4,15	8,13	10,94	17,37
e) Social capital	19,05	14,12	0,00	8,61	11,46	13,16
f) Tourism	6,35	20,90	7,25	15,79	10,42	12,63

Note: In **Red** the most effective group of policy measures; In **Yellow** the second most effective group of policy measures; In **Green** the third most effective group(s) of policy measures

c) Accessible (B) versus peripheral (A) areas (Figure 13.8)

- (i) The best development strategy is very similar for peripheral (A) and accessible (B) areas. The strategy consists on a mixture of spatial measures

(1/3 of the total budget), support to businesses (1/3), and other aspatial factors (1/3).

- (ii) Experts of peripheral areas (A) allocate more funding to business networks and innovation than their colleagues of accessible areas (B). On the other hand, tourism is more valued in the desired policy strategy in accessible areas. Overall, no significant differences can be pointed out at group level.
- (iii) The analysis of particular measures reveals that the preferred development strategy is also very similar for both types of areas:
 - The promotion of transport infrastructures (rail and road) is the measure that receives the biggest share of the total budget (about 13% in both cases), slightly more in the case of accessible areas. The only outstanding difference between A and B areas in relation to spatial development measures is the greater concern with the need to promote an integrated spatial planning of the territory in peripheral areas.
 - The promotion of business, business networks and innovation are highly selected measures. The group of measures is slightly more valued as part of the development strategy proposed for peripheral areas. There are some differences between A and B areas:
 - The support to the creation of new SMEs is especially highlighted in accessible areas. It seems that dynamic peripheral areas have consolidated entrepreneurial fabrics and the main focus is no on the creation but on the support to the existing businesses.
 - Support to business networks and the promotion of innovation, research and development are more important in peripheral areas in relation to the presence of a more endogenous business fabric.
 - Governance measures like improvement of institutional coordination and creation of local development organisations with territorial focus are more valued in peripheral areas.
 - The role of tourism is more important in accessible regions. It seems that the proximity to markets condition this fact.

Figure 13.8: Measures selected for budget allocation (distribution of 100 credits). Groups of measures. Analysis per country

Groups of Measures	TOTAL AREA A %	TOTAL AREA B %
a) Spatial measures	28,57	28,21
b) Business networks and innovation	29,95	25,81
c) Information Society Technologies	9,64	10,94
d) Governance	11,36	9,74
e) Social capital	10,15	11,62
f) Tourism	10,33	13,68

Note: In **Red** the most effective group of policy measures; In **Yellow** the second most effective group of policy measures; In **Green** the third most effective group(s) of policy measures

Conclusions

The research exercise analysed in this paper was aimed at the identification of the subjective perceptions of a group of qualified local experts on the role of public action in the development of their territories.

The following paragraphs try to synthesise the answers of the sample of local experts surveyed to the initial hypothesis and research questions:

Are spatial measures more effective than “soft factors”?

Spatial measures are perceived to have been the less effective ones in the promotion of development to date. The exception is the promotion of road and rail infrastructures that is perceived as a highly effective measure. Therefore, “soft factor” measures are clearly the more effective ones when we talk about the past and current development policy in the analysed areas. This finding is valid for all areas and all countries, and no significant differences outstand. This does not mean that spatial measures are considered irrelevant. On the contrary, experts believe that spatial measures are key for development but they have been either insufficient or inadequate.

This argument strengthens when we observe that spatial measures get the highest priority for future policy action. In the case of the best development strategies, Spatial Measures are the most demanded. Only one “soft factor”, business and business network promotion, has been valued as high as spatial measures. The rest of soft factors receive less priority.

How effective is each of the “soft factors” in promoting development?

Globally, Business Networks and Innovation is the group of measures that has obtained best scores as a whole. Tourism, although does not have any measure in the highest interval, get good scores in all measures and can be ranked as the second best group of measures. The other factors and especially Governance and Social Capital, have received less enthusiastic scores meaning a less important role in the development of the regions. Soft factors rank similarly in relation to the past and present effectiveness than in relation to their role in the future development strategy. Differences are more significant between countries than between types of areas, although the general trend of the global analysis stands.

Which particular measures are valued most?

The profile of the most effective past and current policy action promoting territorial development in the study areas includes a strong economic action based on the improvement of transport infrastructures and the promotion of SMEs (creation and consolidation) and business networks. This model also contains an innovative form of governance (the promotion of local partnerships as the optimal form of cooperation for development) and emphasises the role of human resources for long term development. Information Society Technologies are considered important for development but their role is perceived as progressively increasing in the future. Finally, tourism is an essential complementary activity that needs to be more clearly incorporated to future development strategies.

When it comes to the future best development strategy, spatial measures get the biggest share of credits, and only one of the “soft factors”, business networks and innovation, deserve a similar importance.

Which are the most irrelevant measures?

Several measures are clearly considered less relevant for development. These include:

- Two spatial development measures: integration of spatial planning measures and the promotion of public transportation
- One business networks measure: promotion of large enterprises

- Two governance measures: creation of local development organisations with territorial (non sectoral) focus, and joint strategic thinking based on people's policy incentives and interaction
- Two social capital measures: (i) provision of high quality social services, (ii) integration of socially marginalised groups

Are there significant differences between countries?

To some extent. Both the perception on the effectiveness of the current development measures and on the best development strategy for the future vary, giving chance for the definition of country models in the first case (see section 3.1.2). However, differences are not fundamental and the dominant groups of actions and individual actions stand in most cases.

Are there significant differences between accessible (B) and peripheral (A) areas?

Very few. In relation to the perception on the effectiveness of the current development measures, there are many coincidences between A and B areas. The most effective groups of measures are Business Networks and Innovation and Tourism. On the other hand, spatial measures are not considered relevant as a whole in either area, while the remaining three groups of non spatial measures (IST, Governance and Social Capital) get intermediate values in both cases. A common “effectiveness development model” could be identified and is shown in section 3.1.3.

The best development strategy is also very similar for peripheral (A) and accessible (B) areas, according to the opinions of sampled experts. The strategy consists on a mixture of spatial measures (1/3 of the total budget), support to businesses (1/3), and other aspatial factors (1/3).

Are A areas (peripheral and relatively dynamic) showing better assessment of soft factors than B areas (accessible and relatively lagging)?

No. The effectiveness of all groups of measures score higher in accessible than peripheral areas. Only few measures score higher in peripheral areas: (i) support to the creation of new SMEs; (ii) promotion of innovation, research and development; (iii) promotion of active citizenship; (iv) provision of high quality and comprehensive social services.

CHAPTER 14

THE ASP ASSESSMENT TOOL

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Introduction

One of the objectives of the AsPIRE project was "to create and disseminate a user-friendly set of tools and procedures to allow regional agencies to assess the components of AsP in their region, and to suggest appropriate forms of intervention." The result of the work addressing this objective has been delivered as Deliverable D29 "AsP Assessment Tool" and as part of Deliverable D33 "Internet Web-Site and Toolkit".

The discussion on the AsP assessment tools in the course of the AsPIRE project has led to the conclusion that it would be much more practical and also user-friendly to develop and implement only one comprehensive AsP Assessment Tool instead of a set of tools as originally planned. The AsP Assessment Tool has been fully integrated into the AsPIRE analytical framework and has made as much as possible use of the findings of the other AsPIRE work packages. Of course, such a tool cannot reflect the theoretical and empirical richness of the work done there. However, the variety of approaches and results were utilised in a comprehensive but compact manner.

This chapter briefly presents the concept of the comprehensive AsP Assessment Tool and its implementation. The software tool as such can be accessed via the AsPIRE homepage.

Basic Concept

There are numerous possibilities to set up an assessment tool for evaluating regions with respect to their hard and soft location factors. The range of options is from strictly quantitative assessments without user interaction to a completely qualitative, multiple choice questionnaire based fully on inputs of the regional user. The basic concept for the AsP Assessment Tool is to link the extremes sketched out above and to develop a tool combining 'hard' numbers with 'soft' estimates and opinions of the regional users. Accordingly, there are two very different types of input information for the AsP Assessment Tool:

- On the one hand, the tool has its own regional knowledge base in form of AsP indicators and other relevant indicators. This is derived from the AsPIRE database presented in Deliverable D18.
- On the other hand, the tool is gathering information on the region in question by addressing a number of key questions to the regional user. The questions cover both spatial peripherality and the five thematic fields of aspatial peripherality, i.e. ICT, business networks, governance, social capital and tourism. For each thematic

field, five key questions have been selected, mostly from the questionnaires of the case study work. Questions have been selected according to their ability to bring out a clear spatial distinction of certain key aspects of AsP and/or according to their explanatory power.

The main result of the assessment of a region is the generation of different profiles of the region. These profiles are based on statistical data and, particularly, on the regional user input. Profiles are given for degree of peripherality and economic performance and for the five AsP themes as well as for all themes together. The profiles are reasonably short, containing the user assessment, some key numbers and maps and short text-based typologies of the region. In addition, for each theme basic results of the qualitative and quantitative work packages of AsPIRE are provided to give information on the relevance of the theme for AsP and economic performance.

Online Assessment Process

The tool has been developed as an interactive web-based instrument which can be accessed from the AsPIRE homepage and which can be approached and used online. The main steps of the online assessment are the selection of language and of the rural region the user wants to assess, the answering of the assessment questions by the user and finally the assessment result pages presented to the user.

Calling the web page of the tool, first, the AsP Assessment Tool welcome screen giving general information on the background of the assessment tool and the assessment process is displayed. The information is provided in English as default, however, other languages can be selected. The next step is the selection of the rural region the user wants to assess. This can be done by drop-down menus, or, alternatively, the user can choose the region from a map displayed in a pop-up window.

After completion of the initial selections, the assessment procedure begins. The tool displays assessment forms for economic performance and location and for the five AsPIRE themes ICT, business networks, social capital, governance and tourism. Each of the assessment forms contains five questions related to the specific theme (see Figure 14.1). Each question asks the user to assess the region in question using a scale of five values ranging between the two extreme feature characteristics.

ASPIRE
Assessment Tool
03/30/04

ASPIRE

1. Welcome & Guidance
2. User informations
3. Country & Region Selection
4. **User Input**
 - Economy & Location
 - **ICT**
 - Business Networks
 - Social Capital
 - Governance
 - Tourism
5. Assessment
6. Total Results & Recommendations

2. Information and Communication Technologies (ICT)

Please, assess the offer and the use of information and communication technologies in *Mid-West*.

Quality and type of internet-access (e.g. DSL, ISDN)	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	poor ↔ excellent
Quality of information and training opportunities in the field of ICT (e.g. use of the internet, e-commerce)	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	poor ↔ excellent
Use of internet by the businesses of your region (e.g. own website, e-commerce)	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	little ↔ intensive
Temporal delay in provision with ICT-infrastructure (e.g. DSL, broadband)	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	high ↔ none
▶ In your opinion, are new IC-technologies (e.g. internet, ISDN, mobile phones) able to compensate for the disadvantages of a rural/peripheral location?	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	not at all ↔ completely <input type="button" value="Go"/>

Assessment status - ict questions left: 0 of 5.

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Figure 14.1. Sample user assessment for for ICT.

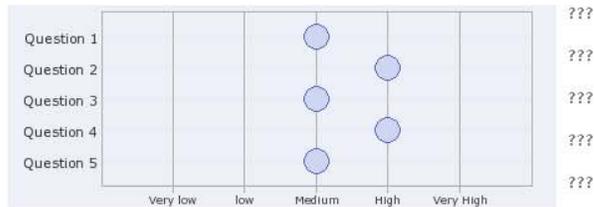
Then the result screens are displayed ordered by AsP themes. Each result screen for a theme contains three main sections: the user's assessment of the region, the region's assessment based on the AsP database and text boxes summarising main results of the AsPIRE project for the theme (see Figure 14.2). The first two sections visualise the assessment results and give an overall rating of the particular AsPIRE theme. For each indicator there is an option to display a map of Europe with the spatial distribution of the indicator. In addition the user can request supplementary information on the relevance of each indicator by a pop-up window.

The final result screen contains the overall results for the selected region and combines all user and AsPIRE assessments to a generalised 'regional profile'. The screen provides also a short text on strengths and weaknesses of the region regarding AsP. Furthermore, links to further information, e.g. best practice examples, are provided. The user is asked for permission to store his or her inputs into the tool's internal results table for further research. Finally a printer version of the assessment results is offered.

1. Welcome & Guidance
2. User informations
3. Country & Region Selection
4. User Input
5. **Assessment**
 - Economy & Location
 - **ICT**
 - Business Networks
 - Social Capital
 - Governance
 - Tourism
6. Total Results & Recommendations

Your assessment for *Mid-West*:

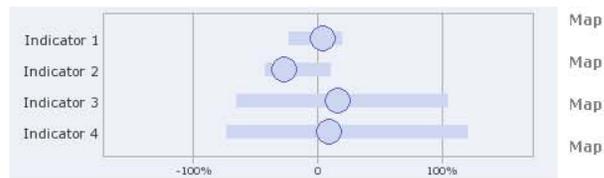
Information and Communication Technologies (ICT)



- Question 1: Quality and type of internet access (e.g. DSL, ISDN)
- Question 2: Quality of information and qualification offers in the field of ICT (e.g. use of the internet, e-commerce)
- Question 3: Use of websites/internet by the businesses of your region (e.g. own website)
- Question 4: Temporal delay in provision with ICT-infrastructure (e.g. DSL, broadband)
- Question 5: In your opinion, are new IC-technologies (e.g. internet, ISDN, mobile phones) capable of compensating for the disadvantages of a rural/peripheral location?

With respect to Information and Communication Technologies (ICT) you see *Mid-West* in a good position.

The ASPIRE database assessment for *Mid-West*:



- Indicator 1: Employment in IT sector (NACE 30 and NACE 72) as share of total
- Indicator 2: Share of business >10 employees which use internet for sales
- Indicator 3: Registered internet domains per capita (year 1999)
- Indicator 4: Share of households having access or using on-line services

With respect to ict the region belongs to the average performing rural regions in Europe.

Main results of the ASPIRE project for the theme in question. The main purpose of this box is to communicate the relevance of the theme to the user. One paragraph will summarise the findings from the field work, a second the results of the regression analysis.

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Figure 14.2. Sample result screen form for ICT.

Conclusions

The AsP Assessment Tool addresses one of the objectives of the AsPIRE project, namely "to create and disseminate a user-friendly set of tools and procedures to allow regional agencies to assess the components of AsP in their region." The basic concept for the AsP Assessment Tool is to link 'hard' numbers with 'soft' estimates and opinions of the regional users. In doing this, the tool developed goes far beyond the original aims to develop a set of purely qualitative assessment procedures.

In developing and implementing the AsP Assessment Tool a set of achievements have been made:

- The tool provides appropriate questions for generating a self-assessment of a region's endowment with AsP factors.
- It gives the user a summary of its own view on the region's strengths and weaknesses.
- At the same time it allows for an indicator-based assessment of the region's endowment with AsP factors as well as its accessibility and its economic performance.
- The provision of quantitative indicators provides the user also with information on interregional comparison, i.e. to compare the regional location factors with other regions in Europe.
- The tool provides also links to the most important, policy relevant parts of the AsPIRE project (e.g. best practices and policy assessment).

The AsP Assessment Tool has also its limitations. The tool cannot substitute region specific studies on strengths and weaknesses, contexts and policy measures, i.e. it does not replace experts in economic analysis and development. Nevertheless, it can give a first impression of the region's profile with regard to AsP factors.

The AsP Assessment Tool offers also a potential for further analysis of AsP factors in the rural regions of Europe. The input data of sessions whose users give permission are stored by the tool. In this way, it is hoped to establish a unique pan-European regional database on regional self-assessment by regional actors. Of course, this requires a sufficient number of respondents and therefore dissemination of the AsPIRE project and the tool. And typical problems with online surveys like invalid user inputs, tactical answers or several entries by one and the same user have to be controlled for.

SECTION E:
SUMMARY AND CONCLUSIONS

CHAPTER 15: SUMMARY AND CONCLUSIONS

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Introduction

At the outset the overarching aim of this project was stated as “...to establish the concept of AsP, to provide a robust methodology for measuring/mapping it through regional indicators, and to generate best practice/policy evaluation guidelines.” (Technical Annex p3) The route to this achievement was set out in the form of six objectives, concerned with;

- (i) reviewing existing peripherality indicators and their theoretical bases,
- (ii) developing a conceptual framework based on four thematic components of AsP (IST, Business Networks, Governance and Social Capital) and one sectoral theme (Tourism),
- (iii) validation of this framework through regional case studies,
- (iv) analysis of the current EU and Member State policy responses to SP and AsP,
- (v) a search for indicators through which to assess AsP at a regional level,
- (vi) collation of examples of best practice, leading to the development of guidelines for effective amelioration of AsP.

With some minor deviations in methodological detail all these objectives have been met, and the findings are summarised in the preceding 14 chapters of this report.

In this final chapter the key findings from each element of the research will be drawn together, followed by some reflections on the validity of the concept of AsP.

Case Study Findings by Theme

Information Society Technology

In essence the analysis of case study data relating to IST suggested two broad conclusions: (a) That despite optimistic generalisations about “the annihilation of distance” and “level playing fields”, many peripheral regions are still at a significant disadvantage in terms of broadband access to internet services due to commercial considerations, (investments in infrastructure are not viable in relation to relatively small and widely dispersed markets). (b) Probably more important in terms of a region’s ability to access the benefits of IST are the human capital characteristics of the business population. Even where the infrastructure is poor businesses can make

innovative use of it provided local entrepreneurs exhibit appropriate skills, a willingness and capacity to develop new business models and so on.

Business Networks

Business networks in peripheral regions were found to be dominated by horizontal (local) linkages, whilst those of intermediate areas were characterised by vertical (inter-regional) links. This seems to be a natural adjustment to patterns of opportunity for interaction. Several of the more peripheral regions showed evidence that robust horizontal networks provided a fertile environment for product-related innovation, and were hence described as “innovative milieux”. Several of the more accessible case study regions, on the other hand, combined lower rates of innovation with relatively weak horizontal networks. The analysis thus suggested that the strength of horizontal networks may be a key element of AsP.

Governance

In the governance thematic study, perhaps more than anywhere else, the differences between member states tended to “drown” more subtle differences between regions. However, despite this difficulty, evidence was found which suggested that the dynamic peripheral (Type A) case study regions tended to be characterised by greater “institutional thickness”, and a more developed “associational economy”. This was suggested by the fact that regional development “actors” showed a greater willingness to work together, a greater sense of energy, enthusiasm, initiative, more inclusive and proactive ways of working, and so on.

Social Capital

Whilst, at its broadest and most inclusive, the concept of social capital encompasses a number of levels, which includes the sphere of governance, within the AsPIRE project it focussed primarily upon the role of formal membership organisations with a specific rural/regional development role. It has to be said that no significant difference were found when attempts were made to measure the activity and impact of such groups in the two types of study region (dynamic peripheral and accessible lagging). However there were differences with respect to how these different types of actors viewed ‘their’ achievements in terms of impacting on economic development processes. In the dynamic peripheral regions such organisations were very aware of

the value and utility of building social capital. In the lagging accessible regions those surveyed were more likely to point to tangible achievements (new facilities introduced, or services offered etc). They also tended to share the development agencies view of the governance structures of the Type A regions as more flexible, proactive, inclusive and coordinated. A further finding of great significance to policy formulators is that development of 'capitalisable' social capital (in the sense defined above) is frequently associated with outside intervention through capacity building policies such as LEADER, rather than endogenous evolution.

Tourism

The sectoral thematic study of tourism was chosen for three reasons: In the first place it is often a significant element of peripheral economies. Secondly successful marketing of a peripheral region as a destination depends on a fine balance between distance as a deterrence and "remoteness" as an attraction. Finally the way in which the sector is structured and operates provides examples of the importance of the four aspects of AsP discussed above. The case study region analysis illustrated these three issues in a number of ways.

Analysis of Secondary Data Sources

An early task of this element of the project was to compute a baseline indicator of conventional peripherality (SP). When compared with patterns of economic performance (such as represented by GDP per capita), this indicator provided a relatively poor explanation of regional variation. Regression analysis allowed regions which were performing rather better than their location would suggest (Type A regions) and regions which were under-performing in relation to their location (B regions) to be identified.

The next step was to collate a large volume of secondary data to serve as indicators of various aspects of AsP. As might be expected, some themes are better covered than others, and some variables were not available in as much regional detail as would have been ideal. Recommendations for enhanced data collection to support regional policy has therefore been produced (Deliverable 30).

Further multi-variate statistical analysis, combining indicators of both conventional locational factors and AsP indicators produced the following results:

- (i) On average the AsP indicators suggest that soft factors are more positive in the urban regions of the EU than the rural ones.
- (ii) The rural regions are more variable than the urban regions in terms of their AsP indicators.
- (iii) Southern European regions tend to have more negative AsP factors than the Northern regions, where the average is slightly more positive.
- (iv) Regression results suggest that the AsP factors provide a greater degree of explanatory power in the rural regions (about 60% of variation) than when all EU regions are considered together (30%).
- (v) Of the AsP indicators, the ICT variables provided the best explanation of differences in economic performance, followed by governance, social capital and business networks.
- (vi) The regression analysis confirms the fact that governance varies more between countries than within them
- (vii) Traditional “hard” locational factors, considered alone can account for 60-85% of variation in regional economic performance, (depending on sector).
- (viii) AsP factors add a further 10% of explanatory power, so that, for instance, for the rural regions of Europe r^2 values as high as 0.93 have been obtained for some sectors.

These results very clearly suggest that while traditional location factors remain important determinants of regional economic performance, AsP factors can significantly add to our ability to explain geographical variations.

Policy and Best Practice

The review of EU and Member State policies defined three types of policy:

- (a) Horizontal policies which pay no regard to location, degree of peripherality. Policies relating to IST and Business Networks are particularly important here.
- (b) Policies which distinguish between regions in terms of funding rates, selection conditions or other criteria.
- (c) Policies which are targeted specifically on peripheral regions.

The exercise to assess the subjective evaluations of various kinds of policy as remedies for poor economic performance showed that regional development practitioners continue to appreciate the importance of basic transport infrastructure improvements, but that they already have a relatively good appreciation of the

benefits to be gained from policies which address issues such as business networks and social capital.

Best practice recommendations from the academic and policy literature were reviewed, as were a number of more specific examples from the AsPIRE Case Study Regions. It was found that the former tended to be rather generalised, to the detriment of their transferability to specific local situations, whilst the latter tended to be innovative only in regional terms. Constraints to transferability (such as cost and technical requirements) were described and assessed.

As a aid to better policy design for peripheral regions a web-based diagnostic tool has been created, and made available through the project web site (<http://www.sac.ac.uk/aspire.htm>). This is largely based upon the database of secondary indicators described above, but also requires an expert input from a regional policy user. The output takes the form of maps, graphs and text which explains the position of the user's region in terms of SP and AsP factors, against EU benchmarks. It also provides some suggestions for types of policies which should be considered.

Overall Assessment of the AsP Concept

Despite some minor shortcomings (discussed in Chapter 9) which weakened the comparative analysis of A and B regions, the validity, in general terms, of the AsP concept, has been demonstrated. There is plenty of qualitative evidence that locational disadvantage can be, and often is, offset by localised "soft factors". This assertion is confirmed by the quantitative analysis of secondary data.

However, the decline of location factors stemming from distance costs has not yet progressed as far as some would suggest. Conventional transport and travel infrastructure can only reduce the absolute level of disadvantage experienced by the periphery, accessible areas will continue to have a competitive edge (albeit a smaller one). Information technology will only begin to change this situation when technical and economic barriers to equal and ubiquitous access are overcome, and the firms and economy of peripheral areas adapt to exploit the possibilities it will offer.

Under this scenario successful regions (peripheral or otherwise) will be those that exhibit a range of characteristics, such as institutional thickness, well developed

business networks, strong social capital, and so on. Peripheral regions with these characteristics and especially if they have an initial advantage, such as high quality of life, or “social entrepreneurs” to take the lead, will have the potential to become “innovative milieu” despite their remote location. Those which do not take this course are likely to suffer the negative effects of exposure to greater competition to global market forces, and will suffer the so-called “pump effect”. The policy implications are clear, continued investment in transport and telecommunications infrastructure will inevitably continue to be demanded by the periphery, but it is imperative that this is accompanied by due attention to soft (AsP) factors in order to try to ensure that peripheral regions avoid the possible negative consequences, and where feasible, develop to their full potential.