



DERREG

Developing Europe's Rural Regions in the Era of Globalisation

*An interpretative model for better anticipating and responding to
Challenges for regional development in an evolving international context.*

WP1:

Global Engagement and Local Embeddedness of Rural Businesses

Deliverable 1.4

Summary of Research Findings

(Version 2: December 2011)

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A project funded by the European Union

Framework 7 Programme

Socio-economic Sciences and Humanities



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EXECUTIVE SUMMARY

This report summarises the work carried out between 2009 and 2011 by the five DERREG project partners (listed on the title page) responsible for Workpackage 1 (WP1). The title of this workpackage is 'Global engagement and local embeddedness of rural business'. It explores and compares the rural business networks of case study regions in Sweden, Netherlands, Czech Republic, Slovenia and Lithuania. The following brief summary is structured around four simple questions:

(a) Why are rural business networks an important subject?

Rural business networks are potentially a key component of a new approach to territorial rural development. This moves beyond outdated concepts of the rural economy as dependent upon urban spillovers and backwash effects, or compensation for locational disadvantage. Instead it acknowledges the fact that although some of the more extreme 'death of distance' predictions of the impact of improved transport, travel and communication technology have not materialised, and face-to-face communication still plays a key role in business life, a significant incremental shift is taking place. An increasing proportion of the interaction between rural firms is no longer constrained by physical distance. Key transactions, and also non-market linkages often involve partners beyond the region, or even outside the national boundary. In academic terminology, it could be said that firms are increasingly operating within relational, rather than Euclidean space, or that there has been a partial decoupling of organised and spatial proximity. This is important in terms of economic development, because the extra-regional linkages are believed to act as channels for technical information and market intelligence which drive innovation and sustain competitiveness.

(b) What do we already know about business networks?

Our review of literature (Section 2) told us about the characteristics of transaction and non-market linkages, and the various business network concepts which have been described in recent years, (industrial districts, clusters, milieu innovateur, learning regions etc.) A key point is that business networking can act as a surrogate for agglomeration, allowing dispersed rural firms to compete with those operating in an urban or suburban environment. The preconditions for success of rural business networks relate not only to physical infrastructure, or availability of good access to information technology (such as high speed broadband), but also to a range of 'intangible assets'. These include human capital (education, age structure of the workforce etc), aspects of social capital (an outward looking, non risk-averse entrepreneurial culture, trust, cooperative

ethos), facilitative governance arrangements and so on. It is also commonly argued that the most effective and dynamic business networks are those which combine dense and highly interactive patterns of local interaction with a smaller 'external' component. This idea is often referred to by the memorable phrases 'the strength of weak flows' or 'local buzz and global pipes'.

Combining these lessons from the literature we articulated our research hypothesis as follows:

Successful and dynamic rural firms derive "networking economies" from frequent and effective interaction, not only with the local business environment, but also with a much more extensive set of linkages, stretching out across Europe. This implies that global integration and more local "territorial anchoring", are not mutually exclusive. Indeed they are complimentary aspects of a "survival strategy" for SMEs in rural areas.

(c) What did we learn from our Case Studies?

Our case study research comprised three surveys, two targeting local SMEs and one focusing upon 'network brokers' who seek to develop and enhance local business networking. The first SME survey was an electronic (email) survey, with mostly 'closed' questions amenable to qualitative scoring and simple descriptive statistical analysis. The second SME survey took the form of structured interviews with a subset of the respondents to the email survey.

The following are the key general findings:

- All the case study areas exhibited some degree of internationalisation of their transaction networks. The extent of overseas involvement seemed to be influenced more by regional business characteristics (sectoral structure, size of local market, human capital, local planning policy etc) than by the proximity to agglomerations.
- Non-market interactions tended to be mostly confined within the national context.
- On balance international linkages tended to be direct and 'translocal', with SME partners, rather than indirect or 'vertical' (i.e. through multinational companies acting as intermediaries.)
- International linkages were often seen as more valuable than local ones.
- The main benefit from international linkages was access to market intelligence. Where more local networking was important, shared learning about compliance with regulation was a key motivation.
- Interaction with supporting agencies remains predominantly regional or national.

- The key form of policy support was 'network brokerage' by public, private or voluntary agencies. This essentially took two forms; 'match making' and 'forum facilitation'. The ability of these actors to communicate with each other, and thus form 'meta-networks' was seen as a key to their success.

In addition to these general points each case study area revealed more specific characteristics about networking within particular contexts, the most important of which are described in the main text of this report.

(d) What are the implications for policy?

The understanding of the way in which small rural businesses interact with both local and more distant partners, and the way in which network brokers can help to build and sustain networks within their regions, adds weight to calls for a shift from sectoral rural development policies towards support for diversification into a more sustainable 'New Rural Economy'. It also raises questions about the justification of the recent emphasis upon (local) rural-urban linkages as a principal tool for rural economic development.

More specific recommendations include:

- That network brokers in the New Member State case study regions should in time begin to shift their emphasis from local capacity building and enhancing the absorption of EU funds, towards international 'match making'.
- That there seems to be scope for sharing experience and best practice between the Swedish and Netherlands network brokers and those of the other three case study regions.
- That there is still an unhelpful and sharp distinction between the activities carried out by EU rural policy and regional policy. Increased coherence and synergy is desirable.
- The process of decoupling of organised and geographic proximity, which allows disperse rural SMEs to begin to compete with urban businesses (with their agglomeration advantages) depends not only upon physical/technological infrastructure, but also upon a range of 'intangible assets', and these should not be neglected in the design of territorial rural development policy.

1. INTRODUCTION

Rural regions and small businesses are often assumed to be marginalised in relation to contemporary processes of globalisation. Globalisation is perceived to be mainly an urban phenomenon, with indirect (and predominantly negative) impacts upon the countryside. This report explores the extent to which emerging rural business network configurations contradict this popular misunderstanding. It is an account of an investigation of the spatial and "relational" structures of the business networks of small and medium sized enterprises (SMEs) in rural areas of Sweden, the Czech Republic, Slovenia, Lithuania and the Netherlands .

Small rural firms usually cannot easily exploit external economies or agglomerative advantages, due to remoteness from large metropolitan markets, and (in some cases) the wide spacing of settlements within their region. For that reason, economic development processes in rural areas, - especially remote and sparsely populated ones, - cannot follow conventional development paradigms in which agglomeration economies play an important role. The hypothesis explored in this report is that successful and dynamic rural firms derive "networking economies" from frequent and effective interaction, not only with the local business environment, but also with a much more extensive set of linkages, stretching out across Europe. This implies that global integration and more local "territorial anchoring", are not mutually exclusive. Indeed they are complimentary aspects of a "survival strategy" for SMEs in rural areas.

The objectives addressed by Workpackage 1 are broadly three-fold:

- (i) To derive (both from the literature and from consideration of observed business networking patterns) an alternative rationale for SME growth and survival in rural areas, based upon "networking economies" rather than agglomeration.
- (ii) To describe, compare and contrast business networking patterns in different rural settings.
- (iii) To consider current policy arrangements and network brokering activities in different national and regional contexts, with a view to identifying good practice guidelines.

The next section of this report presents a review of relevant literature and establishes the conceptual framework. This is followed by an introduction to the five case study areas, their business environment and structures, together with a description of the methods used by the DERREG research teams to collect data and information. In the fourth section the findings are presented, including both the observed configuration of business networks, and initiatives to strengthen or extend them, highlighting the differences and similarities between the five

regions. The final section considers the conclusions and policy recommendations which may be drawn from these findings.

2. CONCEPTUAL APPROACH

This section begins by further exploring the idea that rural areas may develop dynamic, diversified 'New Rural Economies' (NRE) by exploiting opportunities opened up by improved transport and communications. In doing so they step outside some of the limitations implied by conventional models of economic growth, which are founded upon agglomeration advantages. This can best be understood within the context of recent interest in the role of a range of 'intangible assets', the concepts of 'relational space' and 'organised proximity'. It then seeks to define and describe business linkages and networks, and summarises some of the recent literature on the nature and functions of business networks. It ends with a restatement of the hypothesised process by which networks may enhance development opportunities for rural areas of Europe.

2.1. From agglomeration to 'intangible assets' and 'organised proximity': New opportunities for rural economies.

The term 'New Rural Economy' (NRE) is used here to describe 'The outcome of structural change and diversification, away from a dependence upon primary industries, and towards expansion of secondary, and tertiary activities, including high technology industries and market services. (Copus 2011, glossary). NRE characteristics are at present more common in accessible parts of Europe (*ibid*) and are associated with the presence of small and medium-sized enterprises (SMEs) and active entrepreneurship.

According to conventional theories entrepreneurship is fostered by external economies which are associated with agglomeration, i.e. spatial proximity. This is a thread of reasoning which runs through the literature, beginning with Marshall (1920) and Weber (1929) in the early years of the last century, right through to the proponents of the New Economic Geography in the current one (Fujita et al 1999, Krugman 1994, Garretsen and Martin 2010). The problem for rural areas is that if successful entrepreneurship requires co-location with a range of business partners, the potential for SME-led economic diversification in localities which are sparsely populated and/or remote would seem to be limited.

However, over the past two decades two themes have developed in the literature which seem to point to ways in which rural economies may become less constrained by their locational characteristics. These acknowledge the likelihood of a more incremental shift than is implied by the more extreme 'death of

distance' predictions (Copus 2008)¹, which overlook some of the more subtle and enduring benefits of geographic proximity (Rietveld and Vickerman 2004, McCann and Shefer 2004). The first of these two themes relates to the role of 'intangible assets', and the second to the concept of 'relational space' and 'organised proximity'.

Of the 'soft factors' which have recently been described systematically as 'intangible assets' by the IAREG project (Suriñach *et al* 2010), the most immediately relevant to this report are *social capital* (Putnam 1993, Lee et al 2005) and *institutional thickness* (Amin and Thrift 1994). Both of these are directly involved in (non-market) business networking. It is not appropriate to describe or discuss these in detail here, they are widely referred to in both academic and policy literature, and have a rather flexible terminology. The key point is that they are now very widely acknowledged as factors affecting local development, and as such 'diluting' the effect of geographic proximity and agglomeration.

The second new theme in the literature challenges this notion of proximity as a purely geographical phenomenon (Torre and Gilly, 2000; Torre and Rallet, 2005; Boschma, 2005). The proponents of this view argue that proximity may take a number of forms: institutional, organizational, spatial, social, cognitive, cultural... Each type of proximity relates to a specific mode of interaction between actors. Non-spatial modes of proximity are classified by Torre and Rallet (2005) under the generic term of 'organised' proximity.

The emerging literature on 'proximity dynamics' argues that spatial proximity does not have a mechanical effect on interactions, but ought to be seen as complementary to other forms of proximity (Boschma, 2005). Thus, spatial proximity could be viewed as an 'add-on effect', and is not a sufficient condition in itself for the enhancement of economic interactions. Thus for Torre and Rallet (2005), "organized proximity is not geographical, but relational". However, the territorial dimension of proximity ought nevertheless still to be considered with regards to the coordination in space of interactions between economic actors (Rallet, 2002).

In the next section the business network literature will be reviewed, focusing firstly upon the characteristics of individual linkages, then upon theories relating

¹ For example, in 1997 the Conference of Peripheral and Maritime Regions (CPMR) enthused: "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).

to aggregate regional networks, and finally upon aspects specific to rural areas and the local-global configuration of linkages and networks.

2.2. Business Linkages and Networks: Definitions and their role in rural business development.

Before providing an account of “holistic” approaches dealing with networks and their regional contexts it will be helpful to consider the nature of the individual linkages which bind business networks together. The literature describes both formal or physical business transactions, and also informal and less tangible social contacts and information flows. The latter are sometimes referred to as ‘non-market’ linkages.

Transaction Linkages

Transaction costs are those associated with trade at intermediate stages between raw material processing and sale to the final consumer. They relate to transport costs, the search for suitable suppliers, the need to ensure goods match specification, writing of contracts, ensuring delivery on-time and so on. A firm which carries out all its transactions in a “spot trade” or “anonymous market” environment will incur all elements of transaction cost for every one-off transaction. Economies may be achieved by repeatedly doing business with the same partner(s). Some aspects of the process can be “routinised” or omitted as a relationship of trust is established. This is the point at which a transaction becomes part of a “business linkage”.

“It is evident that if the same pair – a buyer and a seller – is involved in similar transactions regularly and frequently, the pair will have an incentive to organise the transaction procedures and processes so that costs are reduced. The buyer and seller represent nodes connected by a specific linkage.” (Johansson and Quigley 2004 p169).

Thus customers or suppliers can become network members if frequent and stable transactions lead to benefits beyond the sales/purchases themselves (Lechner and Dowling 2002). Once established, such a business linkage will be sustained if both partners perceive benefits in terms of transaction cost reduction. A reliable or obliging supplier, or a prompt paying customer will be nurtured, since risk is reduced, and some of the procedures associated with spot trading can be omitted. Transaction networks are composed of a number of firms interconnected by such linkages.

Non-Market Linkages

Michael Storper (1995) has coined the generic term “untraded interdependencies” to encompass all forms of extra-transactional contacts

between firms. This concept is closely related to that of "embeddedness", propounded by the Norwegian sociologist Granovetter (1985).

Untraded interdependencies and embeddedness have been studied in the context of industrial districts in Italy (Becattini *et al* 2003, Bellandi 1989, Bellussi 1996, Harrison 1992). According to these analyses, network linkages are primarily based upon social contacts, kinship, or membership of a local or ethnic community. Transactions are often associated with informal linkages but are not strictly necessary. This kind of network is usually characterised by a degree of cooperation between competitors, sometimes termed "co-opetition" (Lechner and Dowling 2002). In the words of Harrison (1992 p478) "In District Theory firms relate to one another by interpenetrating one another's inter-organisational boundaries, rather than solely through price mediated exchange of commodities..."

The importance of non-market linkages is generally assumed to have increased in recent years, in association with the decline of manufacturing and the increasing role of service and high technology industries, in which the exchange of "tacit knowledge" is especially important to innovation and growth; even in rural contexts (Virkkala 2007).

Johannisson *et al* 2002 distinguish between systemic embeddedness, which is based on economic transactions, and substantive embeddedness, which involves social interaction. Lechner *et al* (2006) distinguish a range of different kinds of non-market linkage (social, reputational, market information sharing, 'co-opetition', and technology cooperation).

A European TSER project – "REGIS" – has argued, on the basis of regional case studies, that most firms have few informal links which are not based on contacts developed through formal transactions (Tödtling and Kaufmann 1999, Kaufmann and Tödtling 2000). Similarly, Feser and Bergman (2000) have developed a methodology for identifying "National Industry Cluster Templates" (which are subsequently used in regional analyses to help identify regional "industry clusters") on the assumption that informal relationships will parallel input-output linkages.

Other writers suggest that the relative importance of informal and formal linkages varies through the life cycle of a firm. Thus Lechner and Dowling (2002) argue that for many new firm start-ups the social relationships of the entrepreneur(s) form the initial framework on which a transaction network is later built. Lechner 2006 *et al* argue that non-market linkage mix is more important than network size, and that mix varies through a series of firm life cycle stages.

We now shift our focus from individual business linkages to aggregate business networks:

A Simple Typology of Business Network Concepts

It is perhaps worth emphasising at this point that we are primarily concerned here with 'informal' networks, rather than formal 'alliance networks' (Kingsley and Malecki 2004, Huggins and Johnston 2009). Theoretical perspectives on aggregate business to business networks and their role in regional development may be classified into two broad groups (Copus *et al* 2000), on the basis of two dimensions: (a) Whether they focus mainly upon "physical" transaction linkages, or upon, informal, non-market, exchanges of information, and (b) their emphasis upon competition or upon cooperation. The first group (transaction + competition) encompasses a tradition which runs from Alfred Marshall, through the evolutionary economists of the 1950s and 60s, the Porter industry cluster theory and the New Economic Geography. The second group (non-market + cooperation) includes the ideas of 'industrial districts', 'milieu innovateur' and 'learning regions'. These two perspectives on business networks are described in more detail in DERREG Deliverable 1.1. However it is worth re-emphasising here that the second approach is distinguished not only in terms of its broader conception of business linkages (including 'softer' forms of interaction) but the inclusion in networks of a range of supporting institutions and organisations, such as development agencies, local government, representative organisations, education and research establishments.

Although each of the above 'schools of thought' mentioned above has a more or less distinct perspective and emphasis, the issues they discuss also have much in common. In the context of the case study reported in this paper the key issue is the relative balance between the role of local agglomeration/ embeddedness effects on the one hand and the benefits derived from interactions on a wider geographical scale (i.e. 'global engagement') on the other. Broadly speaking, both groups share the underlying assumption that geographic distance acts as a constraint on interaction (transaction or non-market), placing a premium upon physical proximity, and limiting the range over which effective networking may take place.

2.3. Network economies as the key to the New Rural Economy

Two arguments are commonly put forward to explain the importance of business networking to the restructuring of the economy of rural Europe²:

- (i) That networking acts as a surrogate for agglomeration.
- (ii) That particular network configurations can support the transfer and diffusion of the kind of information which drives entrepreneurship and growth.

Agglomeration and Business Networks may be seen as alternative responses (though not mutually exclusive ones) to the need to minimise certain costs. Cost minimisation may be achieved either by reducing transport costs (agglomeration) or by offsetting lower transaction costs against higher transport costs (networking). Thus Johansson and Quigley (2004 p165-5) argue that "...networks among economic actors dispersed over space may act as a substitute for agglomerations of actors at a single point, providing some or all of the utility gains and productivity increases derived from agglomeration."

Transport costs tend to be lower in urban areas, where a large number of potential trading partners are located within a relatively small area, and trading institutions and services are well developed and easily accessible. Therefore, within urban areas or conurbations competitive advantage is mainly derived from "agglomeration", whereby large numbers of firms, located within a relatively small area are able to trade without incurring high transport costs, whilst benefiting from relatively low transaction costs due to the presence of institutions and services. Shared access to specialised pools of skilled labour are also important. The relatively large number of trading opportunities mean that "spot trade" or "anonymous market" transactions tend to be common. Flexibility and the benefits of differentiation are in this context more attractive than those of "routinised" business linkages. Thus both the benefits of agglomeration and the majority of knowledge spillovers are external to the businesses, they are predominantly public goods (Johansson and Quigley 2004 p168).

In rural areas competitiveness must be based upon another strategy; offsetting reduced transaction costs against the generally higher transport costs. This often results in the development of stronger business networks, composed of spatially dispersed firms linked by repetitive transaction relationships.

² Here the focus is upon 'bottom up' network formation through linking SMEs. The literature on flexible specialisation, and the 'deconstruction' of large firms to form (value added partnerships', 'strategic networks', or 'network organisations' is briefly summarised in DERREG Deliverable 1.3. Nevertheless the same arguments about the advantages of the latter in terms of 'agility' in response to changing market requirements (Jarrillo 1998) apply equally to many networked SMEs.

In recent years the concept of innovation as a driver of economic growth has shifted away from that of an individualistic "linear" technology transfer process³, towards an incremental, endogenous, group activity. We have been reminded (North and Smallbone 2000, Asheim 1999) that innovations are not necessarily based on high or new technology, and that new products and new processes often originate within the manufacturing sector, or from an interaction between producers and their customers/suppliers. Innovation therefore depends not solely on technology transfer arrangements, or the presence of individual "innovators", but upon the characteristics of the entire local economy; the various actors, the relationships between them, and the environment within which they operate. Such incremental innovation, based upon "learning by doing", and information which is not formally codified (tacit knowledge), is shared between entrepreneurs of firms through informal contacts. Hence the vital importance of non-transactional business linkages in the development of regional innovation systems.

In urban areas knowledge spillovers are available both from publicly funded research institutes, and through formal or informal contact between firms (Goetz and Rupasingha 2002 p1229). Knowledge spillovers are not so readily accessible in rural areas. Instead, transaction links develop into channels for the diffusion of information relating to innovation⁴. Unlike agglomeration advantages business networks are not a public good, they are a form of "club good" (shared between each pair of network members).

Nijkamp (2003) thus sees networking as a strategy for reducing the risk associated with entrepreneurship and innovation. "It seems as though the modern entrepreneurial 'hero' is largely a "network hero" (Nijkamp 2003 p401). "In general, local inter-firm networks may be seen as supporting mechanisms for new forms of creative entrepreneurship... as such are a blend of openness (necessary for competition) and protection (needed for an 'infant industry')" (*Ibid* p402).

The effectiveness of a region's business network as an 'innovation diffusion pathway' depends not only upon its local network 'density', degree of "embeddedness", and the associated human and social capital, but upon its connections to more distant sources of specialist information. These two capabilities are sometimes termed "bonding" and "bridging" respectively. Bathelt

³ Marshall (1920), Schumpeter (1934)

⁴ "To reduce the risk of "misinvestment", there is much scope for collective learning strategies which manifest themselves in two configurations, viz network participation and geographical agglomeration. At present both forces are at work simultaneously and create the new geographic landscape at the beginning of the new millennium..." Nijkamp 2003 p396). See also (Johansson and Quigley 2004 p175)

et al 2004 coined the memorable phrase “local buzz and global pipeline” to describe regions in which high levels of local interaction combine with effective long-distance channels which bring in exogenous knowledge to support local innovation (Huggins and Johnston 2009). In essence, “global pipeline” linkages channel information into the local network, whilst distribution among local firms and entrepreneurs, facilitating collective learning (local buzz), is a function of the strength of local “bonding”. The character of regional business networks is thus one of the keys to understanding differential rates of restructuring and participation in the New Rural Economy.

Young (2010) has added some interesting detail to this picture through his meticulous analysis of an isolated business community in Western Canada. Here there were two distinct groups in terms of transaction networks, a majority being locally focused, and a smaller group being more outward looking. However the pattern of informal collaboration linkages between firms was more complex. Thus *“...business collaborations are important to both local and extra-local success, but... the type and character of collaboration differ according to competitive realities. For many extra-locally oriented firms, a selective embeddedness made up of within-sector relationships is important for competing in far-away markets in which they may be disadvantaged. In contrast, locally oriented firms appear to benefit from a broader embeddedness that variously includes within sector and across-sector collaborations that reflect the realities of rural living and working. Both types of embeddedness – focused and broad – are important components of rural resilience and growth in difficult economic circumstances.”* (Ibid p405-6)

In recent years there has been an increasing debate about the implications of “connexity” (Mulgan 1998), and the relative importance of *spatial* versus *organised* (or relational) proximity (p3 above). In the words of Tallman et al (2004 p269):

“As the construct of closeness changes in the post-industrial economy, and as firms begin to relate to other firms that are close relationally—through networks of alliances—or virtually—through intensive information exchange—the relevant concept of space may move away from physical geography...”

Similarly Huggins and Johnston (2009 p252) speculate that *“...the constraints of distance on knowledge flow may be fading...”*.

This development has introduced an additional layer of complexity to the concept of business networks, as spatial and organised proximity diverge. Changes in transport and communications technology have intensified the role of business networking in the diversification and development of even the remotest rural regions. Dubois *et al* (2011), for example, have argued that in the twenty-first century transaction linkages have to some extent been liberated from the

'tyranny of distance', by a partial decoupling of organised and spatial proximity. Informal non-market interaction, and various forms of institutional network support, both of which rely heavily upon face-to-face contact, are more likely, they argue, to continue to be confined to regional or national arenas. Similarly, Davenport, (2007), after considering evidence from rapidly internationalised SMEs in New Zealand, suggests that in 'sparse' environments, where the benefits of spatial proximity are not available, dynamic, innovative firms rely instead upon networks structured around 'organisational proximity'. This idea of dependence upon organisational proximity networks, enforced by paucity of local opportunities for interaction, is also explored through a Danish case study by Drejer and Vinding (2007).

2.4. Implications for the Research Hypothesis

In reviewing the literature on business networks one is struck by the scarcity of basic empirical research. From the perspective of DERREG this deficit is exacerbated by a tendency for examples and illustrations to be drawn from urban contexts. It has to be said, of course, that for a number of reasons, including difficulty of translating concepts into practical data collection instruments and indicators, and the commercial sensitivity of much of the material, basic 'fieldwork' in this topic is far from easy. There are few, if any, established procedures, and the importance of qualitative aspects of local/regional contexts mean that generalisation and comparison is risky. These considerations must be kept in mind when reading the presentation of the DERREG findings in Section 4 below.

The broad, overall hypothesis to be explored in the case study research which is described in the next sections has already been stated: *"...that successful and dynamic rural firms derive "networking economies" from frequent and effective interaction, not only with the local business environment, but also with a much more extensive set of linkages, stretching out across Europe."* The above literature review points to a number of aspects which should be given particular consideration, such as:

- The relative importance of regional, national and international linkages in the different case study regions, and between different sectors of activity, sizes of firm etc.
- The relative importance and particular roles of 'soft' non-market interactions, compared with 'hard' transaction linkages.
- The value attached to different kinds of linkage, and the role they play in the growth and resilience of firms.

- The way in which such linkages are acquired, and networks are constructed.
- The role of various 'network brokers', from public private and voluntary sectors, in nurturing networks.

Before presenting the findings relating to the above objectives it will be helpful to introduce the five case study regions, and the data collection instruments.

3. CASE STUDY AREAS AND METHODOLOGY

The five case study areas involved in this workpackage are located in the Czech Republic, Sweden, Slovenia, the Netherlands, and Lithuania. They represent a rather broad spectrum of networking contexts in terms of rurality and accessibility, economic structure, business culture and policy heritage. Some key characteristics will be presented in the first half of this chapter.

The data collection strategy followed in this workpackage was predominantly qualitative, although every effort was made to implement simple scoring procedures where feasible. The three surveys carried out are described in the second part of this chapter.

3.1. The Case Study Areas

This section describes the case study area context for the empirical exploration of business networks which follows. Table 1 provides a selection of key socio-economic indicators.

Table 1: Some Basic Statistics for the DERREG WP1 Case Study Areas

		Jihomoravský kraj	Övre Norrland	Goriška	Westerkwartier	Alytus
Indicator	Notes:	CZ064	SE33	SL023	NL113	LT001
Total Area	Km ²	7,196	165,296	2,325	345	5,425
Peripherality Index	Larger index = more accessible	59	21	106	132	41
Population	('000) 2007	1,137	509	120	60	178
Density	(per Km ²)	157.00	3.37	51.60	306.00	37.20
Population Change	2000-05 (%)	-0.23	-0.15	-0.08	0.35	-0.74
Net Migration		Out	Out	In	In	Out
GDP per Head	2006	16,800	27,200	19,800	51,900	8,600

Sources: Total Area, population, density, and GDP per head: Eurostat REGIO database
 Peripherality Index: DG Agriculture SERA project (Copus *et al* 2006)
 Net Migration (Qualitative): DERREG Technical Annex p20.

In terms of area Övre Norrland is by far the largest case study region, at more than 165,000 square kilometres. This is almost 480 times the size of Westerkwartier, the smallest region. Goriška in Slovenia is also relatively small, whilst the Czech and Lithuanian case studies occupy intermediate positions.

In population terms the largest region, by far, is Jihomoravský kraj, with 1.1 million. The smallest is Westerkwartier with a mere 60,000. Goriška and Alytus have populations of 120 and 178 thousand respectively, whilst Övre Norrland is in an intermediate position at a little more than 500 thousand.

Combining these areas and populations reveals some quite substantial differences in density. Westerkwartier has more than 300 persons living on every

square kilometer. For Övre Norland the equivalent figure is just 3.4. The Czech study area is relatively densely populated, at 157 persons per square kilometre. The Slovenian and Lithuanian areas have intermediate densities of 37 and 52 persons. It is worth stressing the fact that these average densities mask considerable variations between cities and the countryside.

The information on population change and migration provide some impressions of recent socio-economic trends – whether the regions are growing or lagging, whilst the GDP per capita figures are broadly indicative of their relative income levels. The most positive situation seems to be in Westerkwartier, where population change is positive, with net in-migration, and a GDP per capita of almost €52,000 (in pps⁵). The other extreme is represented by Alytus in Lithuania, where the population is declining by 0.74% per annum, the net migration balance is negative, and GDP per capita in 2006 was only 17% of the Dutch study region level, at €8,600. The Czech, and Swedish areas exhibit both negative population trends and out-migration. The Slovenian area has population stability and net in-migration. In the case of the Swedish case study region the negative population trend and out-migration is combined with a relatively high GDP per capita (more than €27,000). The Czech and Slovenian areas have relatively low income levels, a little less than €17,000 and €20,000 respectively.

The regions differ quite substantially in terms of economic structure. The Swedish region has a strong resource base in terms of forestry and mining, a relatively small agricultural sector, and a relatively strong entrepreneurial culture, bringing in secondary and tertiary activities. The other case study regions all have significant agricultural sectors (often of varying importance across different subregions). All are diversifying. In most cases small towns and villages lead the way. In the former communist regions diversification is intensified by continuing transition processes.

The Swedish, Lithuanian and Slovenian case study regions are all close to international borders. This both impacts upon the development of their economy and complicates the interpretation of the information on “international” linkages.

Finally the three New Member States (NMS) case study areas differ considerably from those of the Netherlands and Sweden in terms of policy heritage and attitudes to entrepreneurship, although these aspects are very difficult to measure, and changes have been rapid in the years since EU accession. The Dutch case study area differs from the Swedish one in terms of planning and business development policy, a key feature in the former being the strict zoning

⁵ i.e. after adjustment to reflect differences in spending power in the different Member States

of economic activities, which has probably directed some dynamic and globalised SME's towards adjacent urban areas.

3.2. Research design, methodology and data.

The empirical observations presented below are derived from three surveys.

The first was an email survey of entrepreneurs conducted during spring 2010. Participant firms had between 5 and 49 employees, were located outside the main urban centres of the case study regions, and provided goods or services which could potentially be traded outside the local market. The investigation was performed in all five case study regions. The target sample in each case study region was 50 firms, and ultimately a total of more than 200 (usable) questionnaires was accumulated. No claims are made for the statistical representativeness of the samples, although it is assumed that the empirical results presented below are broadly illustrative of the manner and degree to which rural businesses in the case study regions have developed their networks in recent years.

The aim of this survey was to collect perception data, i.e. reflecting SME manager's perspectives on their firm's relations with other actors. Respondents were asked to assess, using standard scoring procedures, the intensity of their interactions with a predefined set of "actor groups". The actor groups represented the full range of potential network partners: customers, suppliers, other private organizations (SMEs, large firms and MNE), public agencies, financial and economic actors. For each category, the respondents were asked to assess the intensity of the interaction between their firm and each actor group, distinguishing 4 geographical zones: regional, national, European and the 'rest of the world'. "Intensity" of interaction was assessed either in terms of percentages of sales and purchases, or (in the case of non-market linkages) a Likert-scale, graded from 0 (no relationship) to 4 (high intensity relationship).

Analysis of the data was with two exceptions confined to the estimation of simple descriptive statistics and graphs. The first exception was the adaptation of the OECD's SME Index of Globalization, (OECD 1997, Herdzina et al., 2004) as a means of summarising the information on transaction linkages. The second was the use of tools and methods from the Social Network Analysis (Wasserman and Faust, 1994) to analyse the Likert interaction intensity scores. This allowed the "mapping" of the overall structure of inter-firm networks (rather than a collection of individual relationships). It thus facilitated the assessment of the "centrality" of each of the "actor groups" in relation to the sampled firms in each case study area.

The second survey took the form of face-to-face structured interviews, designed to explore in more detail the characteristics of different kinds of interaction, and

the interviewees evaluation of them. Again interviews were carried out in all five case study regions, the target being fifteen in each. Interviewees were selected from those firms which the first survey had identified as more internationalised in their networking.

Although these interviews were essentially qualitative in nature, because the subject is intrinsically rather abstract, a simple graphical "actor map" was used as a device to try to ensure a degree of common understanding of the issues and terminology. This enhanced the potential for comparisons between interviewees and between the five case study areas.

The final round of interviews was addressed to a range of 'network brokers', from public, private and voluntary sectors. These were designed to elicit information about the way in which these 'actors' interacted with each other, and with the SMEs within the case study region. The target number of interviews was 5-10 per region, and a simple list of issues was used to structure informal discussions, which were tape recorded and subsequently transcribed to aid analysis.

4. RESULTS

4.1. Introduction.

This section provides a summary of the findings of the three surveys in the five case study areas. The structure of this section is intended to guide the reader from the general to the specific, in other words it begins by attempting to draw out broad generalisations, and key comparative messages derived from those elements of the data collection where standardised coding of responses was feasible, and then subsequently (mindful of the limitations of the data, and the dangers associated with generalisation) providing more nuanced case study 'narratives', derived from the more qualitative material. The (policy) implications of these findings will be presented in Section 5.

4.2. Comparative Analysis.

This section considers first the very basic question about the extent to which the five case study areas represent 'open' economies, engaged with globalisation processes. It then moves on to discuss patterns of non-market collaboration. This is followed by an assessment of the relative importance of "vertical" integration (through contracts with multi-national enterprises – [MNEs]) and horizontal or 'translocal' interaction with SMEs. Consideration is next given to the nature of the motivations and benefits associated with developing international business networks. Finally the characteristics of interaction between SMEs and a range of local support agencies is described. A simple classification of 'network brokering' activities is proposed.

'Open' Rural Economies

The index of globalisation results, based on the electronic survey data relating to transaction linkages (Table 2), allow us to allocate respondent firms to four categories, according to the degree to which they carry out transactions at regional, national, or international scales⁶.

⁶ 'Partly internationalised' means that either sales or purchases were internationalised, 'fully internationalised' means that both sales and purchases were involved.

Table 2: Classification of Firms according to Degree of internationalisation of business activities in the five case study areas.

Country (sample size):	Sweden (47)	Czech Republic (40)	Lithuania (42)	Netherlands (38)	Slovenia (20)
Mostly regional	13%	37%	78%	65%	5%
National	34%	5%	4%	15%	15%
Partly Internationalized	32%	33%	15%	8%	45%
Fully Internationalised	21%	26%	4%	13%	35%

The Lithuanian SMEs are the least engaged in extra-regional trade activities. Here more than three quarters of the firms were confining their transaction activities to within the region, and less than one-fifth were partly or fully internationalised. The explanation of this is complex, and it cannot be explored in detail here. However a lack of familiarity with overseas markets, and an economic structure still to some extent focused on primary production would seem to be key issues. The Dutch sample is also strongly orientated towards regional (65%) and national markets (15%). Only 21% of the Dutch firms have operations that are partly or fully internationalised. It seems likely that this can only be interpreted within the context of strict Dutch land-use zoning, which tends to exclude all but the very smallest firms from the case study area.

By contrast, well over half of the Czech firms sampled have partially (33%) or fully (26%) internationalised operations. The distribution is 'bi-polar', as over one-third have predominantly regional operations, whilst there are very few firms in the "national" category. The Swedish sample has a more 'normal' distribution: The two central categories (national and partly internationalised) each account for about one-third of firms, the fully internationalised for about a fifth, and regional firms for just 13%.

Finally, the Slovenian sample of SMEs is the smallest, (20 firms) and should therefore be treated with caution. Here 80% of firms were classified as partly internationalised (45%) or fully internationalised (35%), and only 5% were regional. The large proportion of internationalised firms may well be explained by the fact that the case study region is on the border (of a relatively small country).

These findings suggest that the degree of 'openness' of rural economies is quite variable, and dependent upon a range of geographical, structural, policy and institutional contextual factors. Nevertheless a very simple general conclusion is worth underlining; all the regions (even very peripheral and sparsely populated Övre Norrland) showed some evidence of their SME networks opening up to interact beyond regional and national borders. Obviously improvements in

transport and telecommunications infrastructure have been crucial in facilitating this. One Swedish interviewee explained that “Without the good internet and flight connections [...] we would not be able to build a network reaching beyond the local market.” Another stated that: “A good internet connection is crucial for a firm located as far from any larger markets as we are, and with the ambitions of acting on a larger market.”

Embedded Collaboration.

The “collaborative space” of rural businesses is defined by the web of non-market relations developed by firms. Interaction with other firms is very important in the process of product and process development, as well as for market consolidation and expansion. These interactions are especially important for firms which are too small to afford to fully internalise activities such as research and development or marketing. Many SMEs need to engage in collaborative interactions with other firms to secure their long-term development: “the strategic use of external resources through inter-firm networks [...] that are often embedded in regions [...] provide an important growth mechanism” (Lechner and Dowling, 2003, p2).

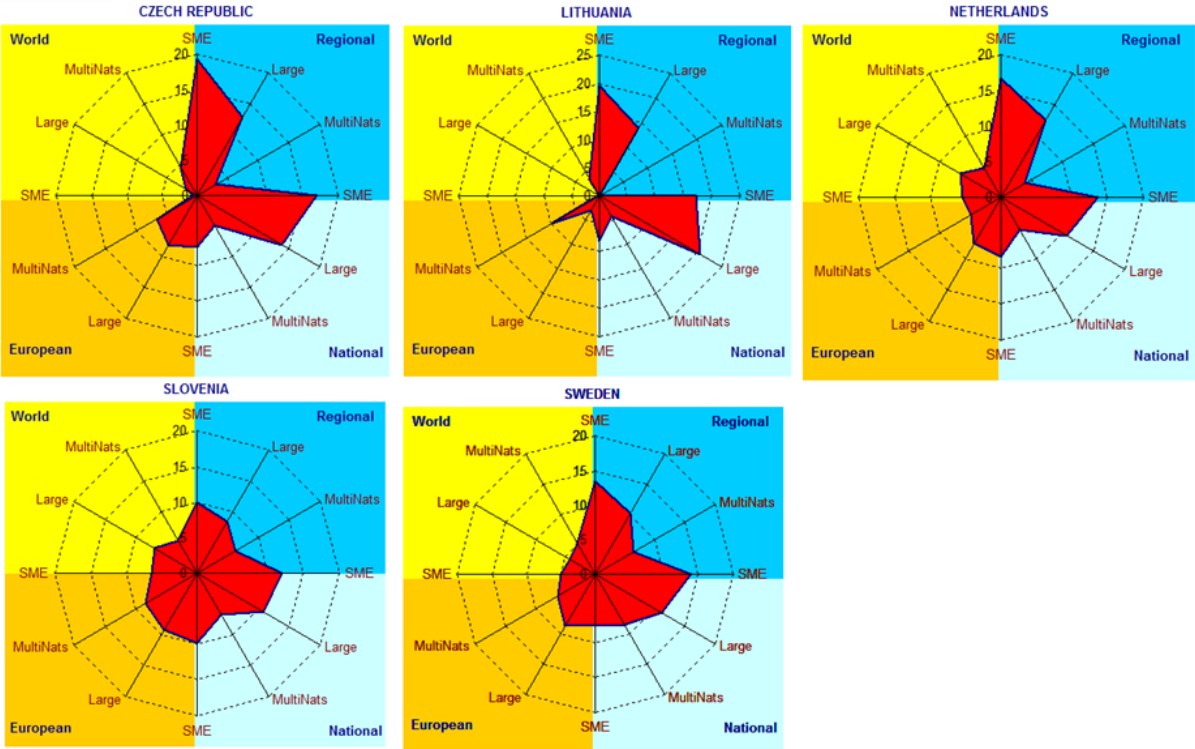


Figure 1: Patterns of Non-Market Interaction in the Five Case Study Regions.

The results of the Social Network Analysis of non-market interaction patterns (derived from the Likert Scores recorded in the email survey) are presented in

the form of "cobweb graphs in Figure 1. These may be interpreted as follows: The four quadrants (clockwise from top right) represent four concentric geographic zones within which interaction partners may be located; regional, national, Europe and the rest of the world. Within each of these quadrants the three axes represent SMEs, Large firms and MNEs. These are calibrated in per cent of total interaction activity. The percentage of interaction associated with each zone/firm type combination is represented by the red polygon in the centre of each graph.

These graphs give an immediate impression that the main 'arenas' for non-market interaction are within the case study region, and within the national space (i.e. the red polygons are located mainly in the right hand quadrants). The Slovenian and Swedish case study areas have the most 'globalised' non-market interaction patterns, as they did in terms of transactions.

These non-market interaction patterns suggest that the "collaboration space" of SMEs remains more firmly rooted in the region or the national territory, to some extent irrespective of the degree of internationalisation of transaction networks. The collaboration space thus focuses on other small domestic firms. This perhaps suggests a reappraisal of the alignment of transaction and non-market linkages, identified by Tödtling and Kaufmann (1999) and Kaufmann and Tödtling (2000). It may point to the role of 'institutional proximity'(i.e. shared institutions, social norms and 'local' culture) in building trust between firms, and facilitating the establishment of collaborative relations.

In the interview transcripts these issues were manifest in terms of repeated references to the importance of informal face-to-face contact with other members of the business community. Thus a Swedish interviewee argued that it was "... *important to take some time to call the customers instead of always sending an e-mail. Even though it might take you an extra half an hour this is how you build the relationships, through talking about everything but work for a while...*". Another stated "*Sometimes the most valuable meetings among us in the network are the lunches, or the times we meet to watch an ice hockey game. Then we can really talk and give each other good advice. These meetings can also end with new orders and hence new jobs for us.*" A third entrepreneur talked about the "good chemistry" within the local business community, which meant that he "*can always just cross the street and go and ask the others for help and ideas...*"

Global Engagement through "Translocal Integration".

As mentioned above, global engagement of small firms has often been assumed to take the form of either *vertical integration*, (based on buyer-supplier linkages, with the small firm acting as supplier to large firms or an MNE). Alternatively it

could be achieved through *translocal integration*, based on transaction and cooperation linkages between firms that have equivalent positions in the production chain (i.e. SMEs) in different countries.

So far our empirical evidence has shown that many rural firms, across a variety of geographical contexts have transactional links extending well beyond the regional market, whilst at the same time domestic milieu are still extremely important as the context for non-market cooperation processes.

However the evidence relating to non-market interaction is less easy to interpret regarding the relative importance of vertical and translocal integration. On average, across all case study areas, and all geographic zones, 42% of non-market interaction was with other SMEs, 36% with large companies, and 22% with MNEs. In the domestic (regional+national) context the SME share rose to 46%, the large company share to 38% and interaction with MNEs accounted for only 16%. However at the international (European+World) level the shares were much more equal, (33%:31%:36%). In four out of five case study areas the share of total non-market interaction associated with international SMEs equalled or exceeded that attributed to domestic MNEs. Generally speaking these results seem to be more consistent with translocal rather than vertical integration, although, as we shall see below anecdotal evidence from the individual regions (especially the Czech region) suggests some variation between national contexts.

The email survey, upon which Table 2 and Figure 1 are based, asked questions about the scale and intensity of interaction. The face-to-face interviews provided a further insight into the geography of rural business networking. The interviews used the "actor map" as a device to capture implicit valuations of the relative importance to the business of regional, national and international actors. For example, in the Swedish case study area it is possible to deduce that although the interviewees identified about one third of the actors in their networks as either located in Europe or further afield, the overall "weight" or value assigned to these international contacts was substantially greater than that associated with the other two-thirds of (regional or national) actors. This finding was corroborated by a number of statements by the interviewees. For example, one Swedish interviewee stated "*Doing business with international actors is very time consuming but it is also exciting and makes us more interesting among actors back home.*"

Global engagement is, as we have already hinted above, not a purely transactional process, but rather a complex process of cooperation-transaction leading to internationalisation of outlook and activity space. Furthermore, unlike local/regional *embeddedness*, the notion of global *engagement* does not presuppose the existence of 'strong' relations, in the sense of intense and frequent interactions. On the contrary, it echoes Granovetter's (1973) notion of

"the strength of weak ties", or the memorable phrase coined by Bathelt *et al* (2004) *"local buzz and global pipeline"*. Both of these convey the idea that a handful of low-intensity interactions with distant partners may have a disproportionate impact upon the performance of SMEs. Thus, for small firms, global engagement is effected through the acquisition of (perhaps less substantial) linkages which (among other things) provide access to a "proxy insider's view" of the market trends, institutions, norms and business culture in the wider world. Such information increases the capacity of the firm to respond to global trends in demand, and facilitates the international diffusion of innovations.

Networking benefits relate more to Market Intelligence than Technical Innovation.

The face to face interviews allowed an assessment of the relative importance of different "network functions", which, following Oerlemans and Meeus (2005), were classified as production, marketing, capital or compliance.

For those case study areas which seem most open to external actors (Slovenia, Sweden, and to a lesser extent the Czech Republic), the main networking benefits relate to the acquisition of market intelligence (i.e. feedback on market requirements, finding new customers etc). Thus one Swedish entrepreneur stated that *"...well developed personal relations with customers, colleagues, competitors and suppliers all around Europe makes us able to understand and predict the development of the European market"* The use of networking to source technical information to improve products or production processes took second place for most firms.

In the case study areas which were more oriented towards domestic markets (i.e. the Dutch and Lithuanian ones), greater emphasis was placed on the benefits of networking in terms of "compliance with rules and regulations". These results provide an interesting perspective, slightly at odds with the business networking literature, where "global pipelines" and "weak ties" are generally associated with diffusion of innovation. Clearly this emphasises the need for a broad understanding of innovation, incorporating marketing aspects.

The "Support Space" is still Regional or National.

An important element of the business networks of rural firms relates to their interaction with "support" institutions, including public agencies, trade organisations, research institutes and business consultants. These were explored through the email survey, the likert scale scores of perceived intensity of interaction being analysed in the same way as non-market relations with other private businesses, (section 5.2). The results are summarise in Figure 2 below.

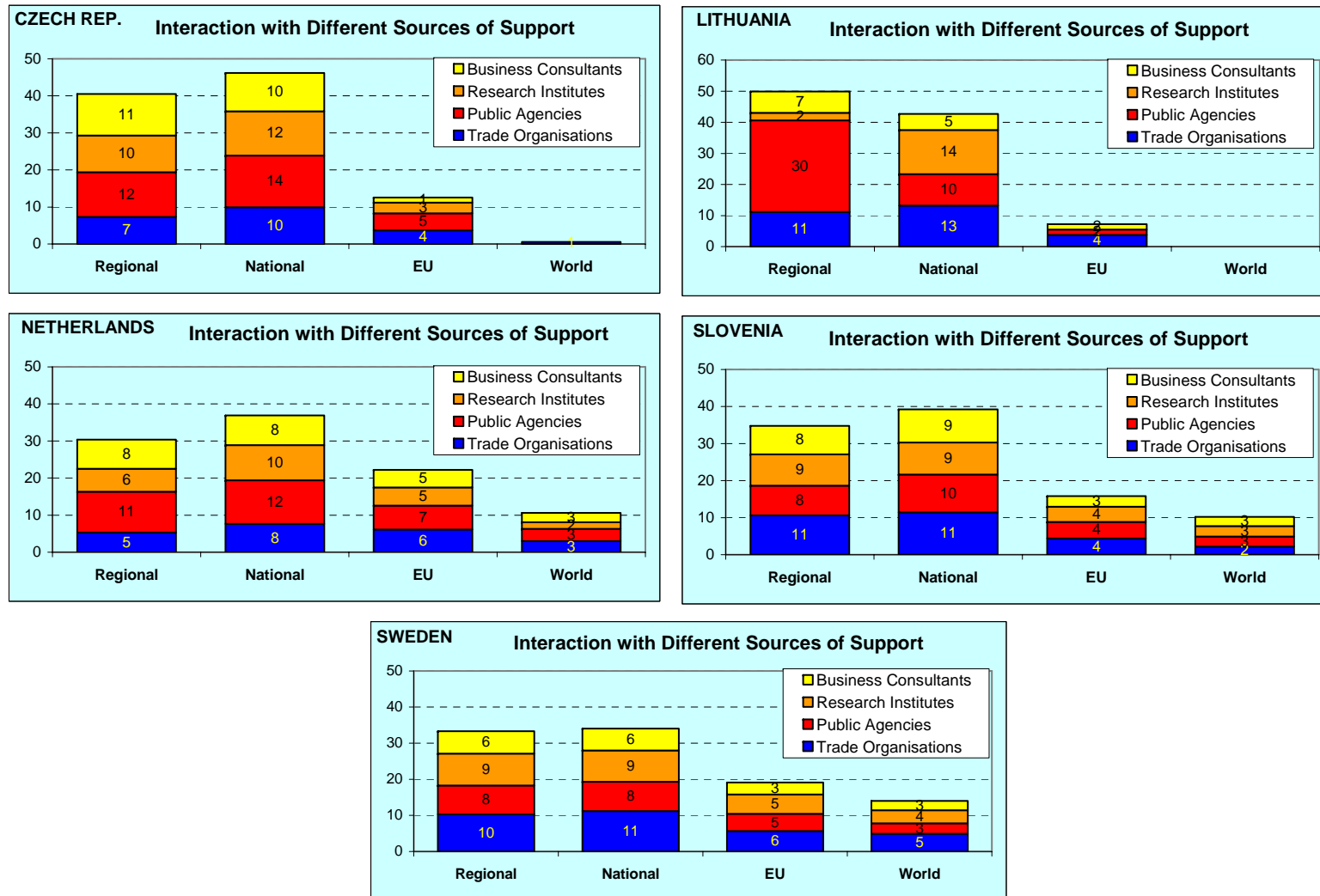


Figure 2: Patterns of Interaction with Supporting Institutions in the Five Case Study Regions.

What is immediately very apparent is the fact that all the case study areas exhibit close relationships between the interviewed firms and regional or national agencies, but minimal interaction with European or Global actors. To some extent this reflects the tendency for European agencies to work through national or regional offices. However this only serves to underline the crucial role played by face-to-face contacts and that the associated "friction of distance" within the "support space" of rural firms is rather stronger than that encountered in the context of transaction activity. This is clearly an important finding in a policy context.

Network Brokerage

The activities of 'network brokers' were explored through a number of structured interviews in each of the case study areas. It is clear that a range of public, private and 'third sector' organisations engage in brokering, and that their interactions constitute a complex 'meta-network', which is itself interlinked with those of individual SMEs within the case study regions. These 'meta-networks' are vehicles for transporting information between network brokers at different geographical levels (regional, national, European), individual SMEs and groups of SMEs within the case study regions and elsewhere across Europe. Within these meta-networks local or regional actors contribute local knowledge and access to individual SMEs, whilst national and European agencies are the main source of funding, and act as bridges between regions and countries. There is some evidence (particularly from the Netherlands case study area) to suggest that network brokers associated with rural policy see their role as strengthening intra-regional networks, whilst regional policy agencies have a more international perspective.

Regional or local network brokers essentially perform two functions:

- (i) 'Match-making' between individual SMEs, thus extending the transaction or collaboration networks of individual firms, usually by adding international linkages.
- (ii) 'Forum facilitation' activities, which bring together groups of firms with a common interest, with the ultimate objective of strengthening trust between them, and of fostering 'collective learning', perhaps with regard to international markets, technological developments, access sources of capital, or how to deal efficiently with regulation or bureaucratic policy requirements.

Interestingly these two functions roughly parallel the 'bonding' and 'bridging' functions generally associated with business networks in the academic literature.

4.3. Specific 'Narratives' from the Case Study Regions

Jihomoravský kraj (Czech Republic)

a) The sample of firms in the regional context.

The sample of selected firms in the South Moravian region covered six rural districts (Blansko, Břeclav, Brno, Hodonín, Vyškov and Znojmo). One district (Brno-city) was omitted, because it is not classified as a rural area. The selected companies were mostly located in the southern part of the region, close to the border with Austria, and fewer in the northern and eastern part of the region, along the border with Slovakia. There are no significant geographical differences between individual districts; it is a rather flat or slightly undulating territory. Companies were mainly located within villages, which generally have several hundred residents. Usually they were not located in the village centre, but rather on the fringe.

The internet was the main tool used to create a database of companies. The websites of the administrative business register of the Czech Republic, available on <http://www.info.mfcr.cz/ares/ares.html.cz>, was used for this purpose. It is an information system that allows searching for companies registered in the selected region. The database includes key variables data such as the number of employees and the Classification of Economic Activities (NACE), which were crucial for the selection of potential survey participants.

In total, the database for the selected South Moravia region contains 555 companies located throughout the region with various fields of activity. Some companies were not easy to locate, due to missing information, such as contact details. This meant that searching was very time consuming. All selected firms were subsequently contacted by telephone and asked to fill out an online survey to provide us with more detailed information. Many of the entrepreneurs were not interested or even hostile. Despite this 45 questionnaires were completed. 25 agreed to be contacted again for follow-up face-to-face interviews. These were contacted by telephone and personal meetings were arranged. 15 face-to-face interviews were completed.

b) Profile of the sampled firms.

All the participant firms were independent companies owned by the family or individuals. Most of them were founded after 1990: nine companies founded before 2000, six after 2000. however this company started to operate officially only in 1993. Two companies were mid-sized employing 50-249 workers; six were small firms employing 10-49 people and seven were micro firms with 9 or less workers.

In terms of the sector of activity, twelve companies belonged to the category "Agriculture, Forestry and Fishing". These were mostly involved in wine growing and processing. Three companies were in the "Manufacturing" category; two of them being bakeries and one a manufacturer of wood, metal, rubber and plastic products.

c) Comments on the degree of International Integration.

The survey showed that the South Moravian region has a relatively low level of perceived globalization, only 16%, despite the fact that all except one of the companies were either completely or partially international in terms of their transactions. In fact the majority of international transactions by SMEs in the region are made (indirectly) through arrangements with larger Czech companies. Only a few companies maintained direct international contacts themselves. Most of the direct relationships of the interviewed firms were with companies at regional and national level. This corroborates the finding of a lower level of perceived globalization. The face-to-face interviews suggested some reasons for this:

- High competition of big companies in the Czech Republic and abroad;
- A deliberate focus mainly on regional and national market (only marginally in Europe);
- All external (business) contacts take place only within Europe. This is a consequence of to the proximity of the South Moravian region to national borders (Slovakia, Austria, Poland, Germany);
- International activities are demanding in terms of organization, financial resources, and transportation;
- there are Language barriers; only a small percentage of respondents have basic German language, mostly in Znojmo and Hodonín (in the villages close to the border), the English language is used by younger entrepreneurs only;
- a major obstacle for the winery is to penetrate into international markets, due to lack of promotion of quality Czech wines, and patriotism in Austria;
- The general lack of interest in Czech commodities abroad (except for wine, crop and livestock products).

d) Comments on Intra-Regional Collaboration.

For most of surveyed firms formal relations were very important for the establishment of business networks, but these were also mostly based on good informal relationships (personal contacts). The dominance of regional and national level relations, rather than international ones is noticeable in this

context, especially for firms operating in agriculture, (primarily wine production). Due to a dense network of villages in rural areas there is a healthy competition among them, which maintains good relations. Many companies are members of various small local/regional groups, national associations, organizations, community groups and associations. Over time these can lead to the development of more informal relationships between companies. Some companies are part of smaller regional groups of vintners in the region. This provides them with support in obtaining advice in relation to grant applications, organizing various events (workshops, education, marketing and promotion) addressing problems in specific aspects of business. The agricultural companies form relationships mainly to help each other with seasonal work (harvest, spraying etc).

e) Motivations for Business Networking

The face-to-face interviews sought to understand networks and links between small and medium-sized businesses and the benefits derived from them by participating firms. Business networks in South Moravian region offer the greatest benefits in terms of obtaining financial capital. Learning about new opportunities for the development of enterprises was also a strong motivation, whilst the least important benefit related to compatibility with the rules and regulations.

The interviewees judged customers and suppliers to be the most important type of actors involved in their business networks. Research institutions were also considered an important component of the networks. Agricultural businesses and wine growers-producers often reported the importance of support through European subsidies.

Most players participating in business networks were on the national geographic level, although only one of the surveyed companies did not have any international partners. Some of the surveyed businesses were willing to expand abroad, and had plans for future expansion into international networks. The business networks of most of the surveyed companies were rather simple, and not interlinked.

f) Comments on the Institutional Setting

Surveyed firms in the South Moravian region mentioned the importance of the public bodies at all levels (regional (local) and national). In some semi-public institutional areas association with universities, mostly in research (Mendel University in Brno, Veterinary and Pharmaceutical Sciences Brno, Zoo (Zlín, Lešná and Brno), Czech Agricultural University in Prague) plays a considerable role. Subsidies from EU and national grant programs are very important for most

of companies, especially in the agriculture. This is an important source of finances as some firms would not be able to stay in the market without such subsidies. Respondents often cited problems with over-complicated grant application forms. Firms often hire a specialized company or pay consultants to make applications for grants, since although it is expensive, it is considered worthwhile. On the whole the firms of the South Moravian region are well informed about the various sources of funding provided by European and national programs.

Firms obtain financial resources mainly from grants, private owners and banks, but also from private persons who do not charge high interest rates. Most of the businesses dealing with the winery are members of the Wine Fund of CZ and CZ Vintners Association.

g) Resilience and the Impact of the Financial Crisis

The general impression is that the South Moravian region has been only slightly affected by the recent global economic crisis. However, this statement is of course based on a small number of interviews. Most of the surveyed companies stated that they felt the economic crisis mostly during 2008 and 2009, when the annual turnover of most of companies decreased. The crisis primarily affected commodity prices, and therefore hit most of the companies doing business in agriculture, especially the wineries. Here they noticed a change in the type of customers. They began to concentrate on wealthier clients, because ordinary customers were buying less. During the economic crisis there has been increased interest in buying cheaper wines and generally lower sales of wines. Viticulture is an important component of agricultural activities, which has considerable potential, provided there are not severe reductions in National and European subsidies in the future. Most of wine producers are focusing on national clients, only a minority depend upon international customers.

Most of the respondents mentioned that over the last 5 years they have not been forced to make permanent staff redundant (only a limited number of temporary workers). The crisis has also been reflected in a slight reduction of salaries. Companies try to maintain links with their long term business partners, both suppliers and customers. Quite a large number of small businesses tried to seek for new international partners and to expand abroad during the recession. The motivation for such a step was mainly a better price for their products which they anticipated from foreign markets. This was a common strategy for companies close to borders with Austria, Slovakia, Germany and Poland.

It was considered very important for all companies to build up and maintain a quality business network. Most of the companies stated that personal contacts are very important, both in establishing, and in maintaining business

relationships. Most of the surveyed companies are trying to maintain and strengthen good relations. They are meeting on regular bases (usually once a month) or when needed. Phone and e-mail serves as the quickest way of communication for most companies, especially for orders (purchase and sale); solving specific problems; identifying commodity prices, etc. Phone and e-mail communication are at the same level for most companies, they both are very important. Some firms also use social network (Facebook), which allows them to approach mainly young people.

h) The perception of physical distance and remoteness

The entire region has a very good geographical amenity with good transport accessibility (cohesion, structure). This is a border region, characterised by a relatively dense network of settlements (large distances between settlements are not typical for the South Moravian region). Nevertheless the region is basically rural in character. There region is well served by major roads, good rail connectivity, and the airport in Brno. Transportation costs are not extremely high for most companies because the majority focus on regional or national markets, and only a small number of businesses deal directly with foreign countries. Goods traffic (rather than passenger transport) is the priority for most of surveyed businesses.

Some companies indicated that they were starting (or had just started) to implement e-shops (hence the internet connection is very important, also for their advertisement). There is a good opportunity to open the websites in English and German. For wine producers it is typical to sell wines directly from their own cellars and factories as there is no costs for transportation. Most of the wineries are concentrated in Znojmo, Břeclav and Hodonín districts. The majority of firms focus primarily on the quality of commodities and products. It is very important to have and maintain a strong foundation for the business in terms of suppliers and customers. Many firms sell products abroad indirectly, through another company. Direct trade with foreign countries is not profitable for small and medium enterprises in the region due to the high expenses. They hardly succeed on the overcrowded international market.

Övre Norrland (Sweden)

(a) The sample of firms in the regional context.

Comparisons of findings between Övre Norrland and the other case study regions should keep in mind the unique geographical context, and the details of the sampling procedures followed, particularly for the initial electronic survey.

In Övre Norrland the first two surveys involved forty-nine and fifteen firms respectively, whilst in the third fifteen key actors from support agencies were interviewed.

As we have already seen in section 3.1 above, this is a very sparsely populated and extremely peripheral region. Within the region there are substantial contrasts between the five regional centres (Umeå, Skellefteå, Kiruna, Luleå, and Gällivare), the more populated and accessible coastal strip, and the very sparse and remote 'interior' municipalities. The sample of 49 firms was drawn from the inland areas; the five urban municipalities, and the adjacent municipalities were excluded. As a consequence it is reasonable to state that the surveyed SMEs are operating within one of the most challenging business environments (in locational terms at least) within the EU.

Fortunately for us, however, Sweden has a rather sophisticated business database (AffärsData), to which access was granted in order to establish a population of firms from which to sample. The initial list included 800 firms. From this population approximately 200 were selected, on the basis of the description of their activity, as having potential to be active on international markets. Firms which seemed unlikely to have any international contacts (such as local service activities, education, real estate, retail and wholesale) were 'screened out'. The firms on this shortlist were then contacted by telephone to ascertain their willingness to complete the electronic questionnaire. Those who were willing were emailed the questionnaire. On the whole the availability of the database as a starting point, and the relatively positive attitudes of the entrepreneurs, meant that collecting the required number of responses, although laborious, was not problematic.

The fifteen firms interviewed in the second (face-to-face) survey were selected initially on the basis of their level of international integration, although willingness to participate became, in effect, an important secondary criteria.

The fifteen key actors interviewed in the third survey were selected partly on the basis of recommendations from the project's stakeholder group, and partly on the basis of a 'snowballing' process.

(b) Profile of the sampled firms.

In the first survey the sampled firms included some long-established firms (nine were over forty years old), but also a balanced age distribution with roughly equal proportions dating from each of the past three decades. The majority were locally based independent companies. Twelve were owned by non-local companies, two with regional headquarters, five were based elsewhere in Sweden, and five had foreign owners.

In terms of economic sector, the sample was dominated by manufacturing firms (thirty firms). Six of the firms were engaged in forestry-related activities. Five were from 'Information and communication activities', and four from 'Professional and scientific' activities.

The majority of the firms (32) had 49 or fewer employees and sixteen had less than ten. Two firms had only recently increased their workforce to slightly over fifty.

In the second survey the fifteen firms interviewed had a broadly similar profile in terms of activity. Four were engaged in local resource-based processing, five carried out 'high-tech' manufacturing, four were in more traditional engineering and manufacturing activities, and two provided business services. Two-thirds of the firms had 10-50 employees, and the rest had fewer than 10.

(c) Comments on the degree of International Integration

Clearly the finding that 53% of the firms responding in the Swedish case study area were either 'partly' or 'fully internationalised' is very significant, even bearing in mind the sampling procedure (which favoured firms engaged in activities which might reasonably be supposed to be engaged in overseas business). A number of explanatory factors are suggested by the face-to-face interviews with a sub-sample of entrepreneurs, and by the regional and cultural context:

- (i) The small size of the regional and national markets, combined with niche/quality/bespoke marketing strategies of firms which process local raw materials (forestry and food). This necessitates a wider outlook. Thus one interviewee stated:

"The Swedish market is limited and considering all the raw material in the form of the large forests with exceptionally good quality that we have here, exporting has sort of been incorporated in the concept for a long time now."

- (ii) Proximity to international boundaries (Norway, Finland).
- (iii) Language skills, which allow effective communication in Swedish with Norway and Denmark, and with other European business partners in English.
- (iv) A well developed and pro-active array of business support agencies and actors (see below).

(d) Comments on Intra-Regional Collaboration.

In the context of extra-transactional collaboration, face-to-face contact is extremely important. This explains the dominance of regional or national relationships in terms of this kind of interaction. It is particularly interesting that this is still true in the Övre Norrland region, where long distances may separate 'neighbours' in the business community. Sparsity also precludes clustering or proximity of businesses specialising in similar or related activities. Informal non-market interaction therefore tends to focus upon common issues which are of mutual interest because of location, rather than similarity of business activities. In a sense this can help to enhance cooperation since it reduces the rivalry between neighbouring businesses. The interviews provided evidence of the high degree of trust within the rural business community. Thus one interviewee referred to the "good chemistry" within the local business community, which meant that he "*can always just cross the street and go and ask the others for help and ideas...*".

(e) Motivations for Business Networking

The face to face survey with SMEs allowed us to explore the relative importance of different benefits from business networking (in this case not distinguishing between transaction and non-market links). The pattern of actor map scores collected through the interviews allowed a tentative classification of firms on the basis of the value placed upon their networks. Two-thirds of the entrepreneurs interviewed valued their networks principally for the support they provided to marketing, or a combination of marketing and product development. This finding is consistent with the fact that the interviewees also consistently identified customers and suppliers (rather than agencies, sources of finance, or membership organisations) as the most important members of their network.

(f) Comments on the Institutional Setting

The 'support space' for SMEs in Övre Norrland is relatively crowded with public agencies at municipal, county and national levels, other semi-public bodies linked to universities, and representative organisations (both sectoral and regional based). It was not entirely clear whether this complexity should be considered positive (i.e a rich support environment) or negative (due to confusing complexity and inefficiencies resulting from duplication of effort).

The influence of European programmes and funding is woven through these structures, (rather than presented separately), adding to the perception (among the firms) of limited international influence. What emerged particularly from the third survey (of network brokers) was the importance of good communication between this multiplicity of actors. Effective collaboration between parallel

agencies at different geographic levels (regional, national or European) seems to be extremely important in facilitating the development of international linkages.

Of the two kinds of brokering activity (match-making and forum facilitation) there was some evidence that the former had more potential for making enduring changes to the networks of SMEs, whilst groupings of firms generated by forum facilitation were likely to disperse or fragment once the initiative or project was ended.

(g) Resilience and the Impact of the Financial Crisis

It is fair to say that Sweden, in general, has not been affected by the recent economic crisis to the same extent as some other EU Member States. Nevertheless the entrepreneurs interviewed in Övre Norrland have experienced difficulties to varying degrees, and it is very interesting to hear how they responded, and to what extent their business linkages contributed to their resilience.

On the basis of the first two surveys (especially the face-to-face interviews) it was concluded that three firm characteristics seem to be related to rates of growth and resilience during the recent recession:

- (i) Firms which rely upon more "traditional" engineering and manufacturing markets seem to grow slowly, and be more severely affected by recession than firms involved in high technology (or biotechnology) sectors.
- (ii) Firms which have always been forced to interact with markets beyond the local region (simply because the latter provided too few customers) and especially those which have made a conscious decision to sell their products outside Sweden, seem to have been largely unaffected by the recession.
- (iii) It was a conspicuous common characteristic of the more successful firms that they focus their efforts upon niche markets, and upon the high quality segment.

Of course these three characteristics are not independent – they can (and did) coincide within a single firm.

More subtly, it is clear that the building and maintenance of the quality of business networks which can strengthen resilience requires more attention than simply sticking to 'the rules of the game' in terms of day-to-day transactions. It demands conscious effort, consideration and tact. A number of interviewees pointed out that emails were acceptable for routine interaction, but nurturing contacts necessitated an occasional telephone call, or a face-to-face meeting. Thus one affirmed that it was *"... important to take some time to call the customers instead of always sending an e-mail. Even though it might take you an*

extra half an hour this is how you build the relationships, through talking about everything but work for a while. With some customers our relation is so good that they dared call us during the crisis to see how we were doing. After talking to us they could trust us again, even though they knew we were letting people go, and remained our customers."

(h) The perception of physical distance and remoteness

The remoteness of the region, and the high cost of transporting products to distant customers is in a sense 'the elephant in the room' for the business community of Övre Norrland, in the sense that the entrepreneurs had of necessity 'factored it in' to their business models. What was surprising, however was the fact that some of the interviewees emphasised the relatively good communications as a positive factor. One interviewee stressed the importance of the physical infrastructure in the region: *"Without the good Internet and flight connections we have [...] we would not be able to build a network reaching beyond the local market."* Another interviewee, stated that: *"A good Internet connection is crucial for a firm located as far from any larger markets as we are and with the ambitions of acting on a larger market."*

Clearly business success, even in certain kinds of manufacturing, is not precluded from even relatively remote rural areas, providing good broadband, regional airports and adequate road/rail links are in place. However the three characteristics of successful firm mentioned above (high technology, a geographically wide spread customer base, and niche/quality products) seem to be crucial.

Goriška (Slovenia)

(a) The sample of firms in broader Slovenian context.

The decision to choose the Goriška region in Slovenia as a case study region was based on transborder character of the area which is reflected in the distribution of economic activities and population, migration flows, configuration of development axis etc. Slovenia has 1,200 km long border line (with Austria, Hungary, Croatia and Italy), but this "Goriška" sector was the most open border area in the broader European context even before Slovenia joined the EU. This was reflected in the number and distribution of border crossings, the number of passengers, and the number of firms with joint-ventures etc. This strong interregional character of the area has also been a significant feature of its development since Slovenia joined the EU in 2004.

Despite the quite limited data on business development prepared by the National Statistic Bureau, a list of businesses was compiled, partly from information

derived from the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES). Of the 2,548 commercial Goriska companies that are obliged to submit financial reports yearly, 61% were classified as micro-firms (<10 employees), 16 % as small firms (10-49 employees), nearly 13 % as medium sized (50-249) and 10% as large firms (250+). Later on, in addition, a database provided by the Regional Chamber of Commerce was used.

The firms, selected for the electronic survey:

- should have more than 5 and less than 50 employees,
- should be located in rural or urban-near municipalities of Goriška region,
- should include all relevant sectors of activities.

This sampling method resulted in the identification of approximately 100 companies. The relatively modest number reflects the specific entrepreneurial structure of the region, i.e. a 'shortage' of SMEs and predominance of solo and some 250 large firms (AJPES, 2008).

119 firms were contacted by phone, mostly company managers were asked if he/she would like to take part in e-survey. 27 firms immediately declined to cooperate, due to various reasons (shortage on time, no interest, and insolvency). Email addresses were collected, afterwards confirmed by telephone call, and an electronic survey was sent. Due to very low response after two rounds of calls and e-mailing, another three rounds were carried out. From the companies contacted, 20 completed the questionnaire. We do not consider this modest response rate as a failure due to the fact that 12 out of 20 corresponding firms were willing to participate in the second stage. But on the other hand, we also consider this result an indicator of quite low interest among firms for co-operation in research, as well as the side-effect of current financial and economic situation.

These 20 firms were again contacted and asked whether they were prepared to participate in face-to-face interviews. 10 responded positively and eventually 8 face-to-face firms interviews were carried out.

6 key actors were interviewed in the third survey, chosen on the basis of their reputation, results, recommendations, newspaper news etc.

(b) Structure of the surveyed firms.

Our email survey managed to involve 20 firms, geographically distributed over main subdivisions of the region (alpine, pre-alpine, sub-Mediterranean) and the agglomeration area (Nova Gorica).

Of the 20 firms, two originated in the mid-1950s, more than a half were established in late 1980s and early 1990s (first entrepreneurial developmental

wave after the break-down of the socialist socioeconomic system), and the remaining were established in the last 15 years. 3 firms were owned by foreign owners, whilst the majority were locally-based independent companies.

In terms of economic sectors, the surveyed sample was broadly representative of the region's structure: the largest group (11 firms) was manufacturing, followed by agriculture, transportation and wholesale and retail (each with 2 firms). Half of the interviewed firms were medium-sized in terms of number of employees (from 50-249), while 7 were classified as small (10-49 employees).

The face-to face interview sample was broadly similar; small firms prevailed, but one large firm (over 250 employees) was also included. All the region's relevant economic sectors were included.

(c) How are firms integrated on the international level?

Out of 20 responses in the email survey, only three companies were considered "local", with sales and purchases mostly taking place within the regional borders. 80 % of the responding companies are partly or strongly involved in international trade: 9 firms belong to the category partly internationalised and 7 to the category 'fully internationalised'. The relatively high degree of business internationalization may be explained by;

- the relatively small regional and national market,
- traditionally open western border to Italy with strong cross-border co-operation,
- market re-orientation towards west after the disintegration of Yugoslavia,
- the fact that we used purposive sampling, including mostly firms with more pronounced international business,
- long-lasting established business contacts,
- foreign ownership of a firm, using facilities in Goriška region to cover foreign market demands (with high quality products produced by lower production costs).

The above mentioned reasons were also usually quoted by the interviewed firm managers.

(d) Who is who in regional networking?

The results provided by the 20 respondents on "collaboration with other companies" indicate that surveyed firms have established stronger relational ties with other SMEs than with large firms or multinational companies. Regarding the territorial aspect, the strongest ties with other SMEs and large firms are evident on the regional level (with reliable and easily accessible suppliers; trustful,

traditional co-operation) and national level (especially with financial and consulting firms).

(e) Why to get involved/to participate in business network?

The vast majority of firms valued their networks principally for the support they provided to marketing (joint marketing approach) or combination of marketing and product development (common market research, sales agent). The interviewed firms usually identify their customers and suppliers (rather than business support agencies, national banks etc) as cornerstones of their network. The majority of firms stressed that even though they have partners in the network, the *"hard work has to be done by themselves"*.

(f) Support milieu and institutions

The (face-to-face) interviewees were asked to assess the importance of their relationships with public agencies, trade associations, research institutions and business consultants – divided into four territorial classes (regional, national, European, world). The strongest links were established with national/regional (branch office) trade associations, public support agencies, research institutes and business consultants. In the Goriška region, one could argue that: (a) there is no hierarchical model of institutions that represent the business support environment at regional level, (b) the practical operation of business-support institutions on regional level has not been harmonized.

There have been several key factors that have contributed to network development;

- (i) a rich history of cross-border co-operation which provided the first experiences of networking,
- (ii) a dynamic and closely related (interwoven) cross-border region with huge development potentials and intra-regional development ambitions,
- (iii) a very strong regional identity (*"The inhabitants of Goriška statistical region will promote innovation, develop our competence and co-operation with all fields of life and work. We will make our economy even more competitive, we will ensure a permanent development and the protection and use of natural resources. We will maintain the population density in the countryside and strive for a high quality of life, typical of developed European regions."* (RDP, 2007, 34) ,
- (iv) an entrepreneurial spirit in the region with interesting examples on the Italian side of the border,
- (v) accessibility of public (mostly national, also international) co-financing and ability to absorb various funds,

- (vi) preparedness of Slovenian and Italian partners to participate in networking, including also both ethnic minorities, is profiting also from bilingualism,
- (vii) sustainability of networks is an important issue since the conclusion of project usually ends the active stage of network activities; but some cases indicate that good network past experiences could pave the way for new initiatives and future networks,
- (viii) initial interest from different partners in networks (private and public) is usually quite soon faced with reality, i. e. huge administrative work, financial problems, inadequate planning, personnel shortage, unreal expectations, modest financial means; therefore a few partners withdraw their partnership,
- (ix) successful initiatives are those that rely on capable actors, real regional needs and potentials, and have innovative ideas.

(g) Survival strategies during financial crisis and deep structural crisis

Company managers were asked to assess the impacts of current financial and economic crisis. The crisis primarily affected sales and purchases at all given territorial levels, whilst the effect on co-operation with banks was assessed as less affected (in our case, the majority of firms finished their bigger investments before the crisis). Co-operation with public and research has also been affected, but not so severe. In Slovenia there has been a strong synergy of financial and economic crisis with structural crisis; the business climate is recovering much more slowly than in other EU countries. At the beginning of the crisis, the managers made some rational decisions (*"we cut-off unnecessary expenses"*), some firms had already made redundancies, some have relied more on part-time employment (subsidized by the state), or have employed cheaper workers from Eastern Europe.

Based on face-to face interviews we are able to point out some characteristics of firms which seem to be associated with vulnerability to the effects of the crisis:

- firms which rely upon more "traditional" engineering and manufacturing, grew slowly, but have been severely and more rapidly affected by recession (less investments in infrastructure, construction);
- high-tech firms have also been affected strongly by the crisis: but since some of them have introduced also research services, *"the research nowadays works as a buffer zone and provides new income and sets-up market innovations"*;
- firms that are mostly oriented to foreign markets have experienced the crisis quite fast (transport and logistics, some manufacturing firms);

- we have to bear in mind, that each branch has its own production-cycle characteristics: some last 2, some up to 4 or 6 years. The impacts of the "current crisis" will therefore be spread and of varying duration.

(h) Distance and remoteness.

The remoteness of the northern part of the Goriška region (with no railway and highway corridors) results in the high cost of transporting products. However contemporary communication systems (internet etc.) together with high quality products available on international market enable also these firms to be competitive.

The Westerkwartier (Netherlands)

(a) The Specificities of the Case Study Area

The Westerkwartier refers to the predominantly rural area in the West of Groningen province, situated in the region North Netherlands. In comparison to the other case study regions it is densely populated with 173.4 inhabitants/ km². It comprises an area of 345 km² -of which 80 % is agricultural land- and includes the municipalities Grootegast, Marum, Leek and Zuidhorn. It can be divided into a Northern and a Southern part. The Northern part (parts of Grootegast and Zuidhorn municipalities) is characterised by open grasslands, large farms and scattered, small villages. The Southern part (Leek, Marum and part of Grootegast municipalities) shows a high density of villages, small farms and fields which are surrounded by hedgerows. The Westerkwartier is well connected to the cities of Groningen, Drenthe and Leeuwarden (Friesland) by bus services, a motorway passing through Marum and Leek municipalities and a railway passing through Zuidhorn municipality. This makes it an attractive residential area for young commuters and their families.⁷

The Groningen regional economy has grown faster than the national average, whereby it has moved away from its traditional dairy farming base towards a more diversified economy, in which both manufacturing and service sectors are increasingly important. Here, the commercial service sector appears to be particularly dynamic. One quarter of all agricultural businesses in Groningen province, however, are still situated in the Westerkwartier (e.g. 2.65 farms per km²). In Grootegast and Zuidhorn municipalities, agriculture is therefore still seen as an important element in the local landscape, while the landscapes in

⁷ Information about the Westerkwartier has been obtained from "Ontwikkelingsplan Regio West-Groningen 2007+" which was published by the Province of Groningen in 2007

Leek and Marum municipalities are transforming into residential areas for commuters and spaces for industrial estates.

With 75 % of the firms having less than 10 employees, the regional economy is dominated by micro-enterprises. The small firm sizes in rural Westerkwartier are promoted by spatial planning policies which discourage an expansion of firms in the countryside. Following national spatial planning policy, all firms with expansion plans need to relocate to industrial zones. In the Westerkwartier, such business parks can be found along the motorway A7 in Leek municipality and to a lesser extent around the municipal capitals. Most of the firms residing in these industrial estates are SMEs employing up to 50 employees. Across the Netherlands- including the Westerkwartier- more than half of all new enterprises are the result of inward investment.

Overall, the Westerkwartier is classified as a strong, predominantly rural, region, because of net in-migration, depending on external incomes of commuters travelling to close-by urban centres (Groningen city and Drachten) as well as benefitting from a growing internal employment market at the developing industrial estates.

(b) Firms in the Westerkwartier and their networking activities

Out of the 42 firms that participated in this study, six firms are situated in the industrial zones of the municipal 'capitals' and 36 firms are situated in the rural areas of the Westerkwartier. Of these firms, 36 are micro firms with up to nine employees. Only two stated to have between 10 and 49 employees and four firms employed up to 249 employees. Most of the participating firms are registered as one-man businesses (n=27) or limited companies (n=6) while the rest operated as collectives or partnerships. Even though economy in the Westerkwartier is shifting away from the primary sector, the majority of sampled firms still belong to the primary sector (n=9), followed by the sector 'financial and insurance activities' (n=7) and the sector 'health care' (n=5) and 'arts, entertainment and recreation' sector (n=4).

On average, their spatial outreach appears to be mostly limited to the region "North Netherlands" and to a lesser extent into the Netherlands. European and global interactions appear to be marginal in terms of trade, collaboration and other support functions. On the basis of these results, one may argue that economic activities in the Westerkwartier are strongly anchored in the local economy and that international trade or network activities have only little influences on the local firms. There are, however, at least three confounding variables that question the representativeness of these results:

In the first sampling process, only those firms residing in rural areas of the Westerkwartier were approached. Their contact details were taken from a list of those possessing an internet domain and providing contact details on their firm-owned website. The number of contacted firms was thus limited and more than 600 firms were not contacted. Furthermore, nine of the respondents were recruited through the business women in the network "WichterWest". Members of this network are often starting entrepreneurs and their firms are often an economic side-activity. International networking of these firms appeared to me marginal.

A second sampling process was conducted to actively search for internationally operating firms in the Westerkwartier. Out of the 10 firms sampled, five of these firms can even be considered 'global' on the OECD index of SMEs. Six of the sampled firms, however, are resident in the industrial estates of Leek municipality. One can therefore raise the question to what extent these firms can still be considered 'rural' and hence contributing to the 'rural' economy. This leads to a further question, whether 'rural' economies can be viewed in isolation from other, regional and urban economic activities as most 'rural' areas appear to be in spatial vicinity to urban centres. Most likely, 'rural' economies depend (and hence benefit or suffer) from economies in adjacent urban centres.

Finally, three internationally operating firms are active in the primary sector. At first, this sector was deliberately excluded from the sampling process as this study focuses on rural non-farming activities. Regarding this result, one can argue whether an initial inclusion of the agricultural sector would have influenced the outcome of the research results.

To find out more about international firm networking activities in particular in the Westerkwartier, the ten internationally operating firms of the second sampling process were interviewed in-depth about their networking activities. These firms ranged from micro-firms (n=3) to small SMEs (10-49 employees, n=4) to large SMEs (50-249 employees, n= 3). Three of the interviewed firms are engaged in the primary sector, two firms are each engaged in the recycling, metal and food processing industry and one firm in the wholesale sector.

Interestingly, only one of the interviewed firms stated to be economically dependent and bound to products produced in the Westerkwartier. All other firms stated to buy and sell products outside the Westerkwartier. Nevertheless, these firms feel attached to the Westerkwartier due to family or firm traditions, the quality of the Westerkwartier as a living environment, the working mentality, short and easy relations with public administration and affordable costs of labour and land.

Networking activities are mostly regarded as important for 'complying with rules and regulations', 'improving production processes', 'bringing in new businesses' and 'reacting to consumer needs'. The most important groups of actors in their respected networks are considered as being customers, suppliers, shareholders (owners) and banks. Interestingly, the use of the networking activities differs between economic sectors. The business networks described by firms in the primary sector can thus be classified as 'production' oriented, the network of the wholesaler and firms in the recycling sector as 'marketing' oriented and firms in the metal and food processing industry use their network for 'compliance with rules and regulations'. The geographical scale of these outlined business networks appears to be more than 80% restricted to the Netherlands. There seems to be, however, a great variation amongst individual firms, making a generalisation difficult.

Formal networks, organised by public administration or trade unions, are often used as 'stepping stones' to make business contacts. More important than formal networks, however, are informal contacts made through indirect ('friend of a friend') contacts, recommendations, word-of-mouth information and trade fair representations/visits. One interviewee explains: "*we have been going to the biggest trade fairs in our branch for 20 years. (...) On this fair, you are able to talk with people and you will receive business cards of others. There are also ambassadors of producer countries like Peru or Hungary. (...) Also, you get to know producer groups who want to chat and want to come and visit. In this way, (...) you get easy contacts*". These contacts are maintained on an informal basis which is regarded as a strategic tool for keeping successful business contacts. Thus, although the internet has been given high importance by 70% of the international operating firms, it was agreed that personal, face-to-face contact with potential business partners is crucial and cannot be replaced through internet technology: "*Contracts are made on the basis of trust, so in the end it has to do with the people. The personal component can therefore not be overcome*".

(c) The Impact of the Financial Crisis

The financial crisis of recent years has had negative as well as positive effects on the firms interviewed. For some, sales increased and it was argued that this was due to the high quality of their products, the demand of customers for high quality products and the independence of financial institutes: "*Before the crisis, people were buying more things but of less quality. Through the crisis, customers have become more aware of the money they spend and are looking for quality products. It takes longer for them to decide whether to buy something. If they decide to buy, they choose for quality products [...]*". Other firms experienced drawbacks and expanded their networks nationally and internationally to avoid

local competition and to search for new businesses assignments: *"In the past, the business was only oriented towards Groningen province and city. [...] Now, more firms have entered the local market, leaving less work for everybody. [...] With the growing competition and the impacts of the financial crisis, we need to expand our area of operation [...]"*.

(d) Network brokers and networking initiatives in the Westerkwartier

The Westerkwartier has witnessed a gradual decline in exports as a proportion of output in recent years. Therefore, a number of network brokering initiatives have been started to reverse this trend.

International networking activities in Northern Netherlands are stimulated by regional network brokers. These are focusing on firms with more than ten employees, residing in the economic core zones and engaging in one of the identified economic spearheads identified by the region North Netherlands. Although important for the employment market of the Westerkwartier, regional networking support actions are not aimed at micro-firms within the rural areas of the Westerkwartier: *"The Westerkwartier is part of Groningen Province which forms part of Northern Netherlands. We receive money from the EU to stimulate economic growth in Northern Netherlands. We do not distribute this money evenly across Northern Netherlands but we focus it on economic core zones. In the Westerkwartier, only Leek forms part of the economic a core zone."* (Public administration 3, 2009).

Regional network brokering activities include the project organisation "Nordconnect" of the North Netherland Provinces which is concerned with the establishment of international networks at public administration level in order to agree on favourable international trade regulations. It is especially concerned with strengthening the collaboration between Northern Netherlands and Northeast Europe. Furthermore, the Chamber of Commerce North Netherland runs the export stimulating programme "WIN!" to initiate the creating of international firm networks and subsidy regulation "Prepare2start" to offer free-of-cost advice and subsidised services to prepare the firm for international networking activities.

Micro-firms in rural Westerkwartier are not considered by regional network brokers because they are too small for international networking activities and because they operate outside of the economic spearheads of the Northern Netherlands Provinces: *"It costs too much energy to connect firms with less than five employees and to lift them to a higher level. There are also many small firms who do not have the ambition to grow. Many entrepreneurs make the conscious choice for a one-man business and do not want to grow"* (Network broker 1, 2011). An exception is the numerous web shops and ICT firms residing in rural

Groningen, including the Westerkwartier. Networking activities dealing with other micro-firms in rural Westerkwartier are initiated by rural network brokers. They aim to engage micro-firms in local business networks in order to facilitate local contact and new product development.

Firm networking activities within industrial estates and rural areas of the Westerkwartier are thus supported and facilitated by different policy frameworks and consequently different network brokers. This raises the question as to whether the development activities in the business parks of the Westerkwartier are actually part of the rural economy or, better, whether rural economic development can be regarded separately of the regional economic development. This question becomes particularly to the fore regarding the small size of the Westerkwartier and its good connection to surrounding urban areas.

In the regional as well as rural context it was argued that network brokers are important for the initiation of networking activities. It was thus argued that entrepreneurs do not show own initiatives to form networks with other firms because *"they are too busy doing their own business"* (Network broker 2, 2010) and because *"they often do not see the advantages that joining a network entails for their firm"* (Network broker 1, 2011; Network broker 2, 2010). This appears especially the case amongst the 75% of firms in rural Westerkwartier with less than ten employees: *"micro-firms in the Westerkwartier are not keen on working together and regard each other as competitors"* (Public administration 1, 2009).

When looking for successful network support actions that are able to reach firms operating in Europe's rural economy, activities of rural network brokers need to be considered. Here, it is particularly interesting to highlight the broker function of the touristic catalysts, the Association Groningen Villages and the national farmers union in collaboration with the manager of the national rural development programme. All of these brokers have been installed through rural development funds. They initiated different networks by facilitating contact between different types of micro-firms and provided established networks assistance and advice on becoming independent legal entities.

The key factors to create successful and lasting firm networks appear thus to be based on building networks with firms of shared interest (e.g. economic sector, firm as side-activity etc.) and the creation of a sense of ownership, for example by stimulating joint product developments. Furthermore, *"a region has to discover its strength and it has to use this strength to do international business"* (Network broker 2, 2011). In the Westerkwartier, the efforts of rural network brokers have shown positive effects. For example through the networking support actions of the touristic catalysts, firms have found each other in the touristic platform to offer touristic and recreational arrangements such as cycling tours with stops at different touristic enterprises. The former chairman of the

LAG also states that entrepreneurs start to recognize the benefits of the network and that they are joining to stimulate more recreation and tourism activities in the Westerkwartier. This development, he argues, is positive for the development of the employment market as it creates job opportunities: "*There are people who earn their money with these activities and this ensures that people are coming into the area. They invest money into the region. This money is very important for the economic development of the rural area*" (Public administration 2, 2010).

In conclusion, the results of the Westerkwartier suggest that a separation of rural and regional economic development may be arbitrary when analysing the development of a rural economy in a specific rural area. Based on the results, it appears necessary to take a regional perspective to economic development, integrating specific rural areas into their wider regional context. Positioning the Westerkwartier in the wider context of the North Netherlands suggests that strengthening local networking activities may be more important to create resilience than to engage rural micro-firms in international firm networks.

Alytus (Lithuania)

(a) The Specificities of the Case Study Area

In Alytus county the first two surveys involved 55 and 15 firms respectively whilst in the third 6 key actors from support agencies were interviewed.

As presented in the section 3.1 above, Alytus county is a lagging region with a relatively low income level, negative population change and net migration balance. Alytus county consists of 5 municipalities out of which 4 district municipalities were considered for the samples (i.e. Alytus city municipality was excluded). The list of Alytus county SMEs was compiled using catalogue of Lithuanian enterprises. Alytus county enterprises were extracted from the catalogue according to their address, type of activity and size (number of employees). The firms were selected on the basis of the description of their activity, as having potential to be active on international markets. Firms which seemed unlikely to have international contacts (activities such as local service activities, education, retail and wholesale) were excluded from the list. The firms were first contacted by email and telephone, and those who agreed to participate in the survey were sent the questionnaires. Since the response rate was not yet sufficient the next stage with phoning the firm managers and asking them to answer the questions by phone followed. The interviewers filled in the answers themselves according to the information obtained by phone.

Due to a low response rate nearly 900 of firms had to be contacted in order to achieve 55 responses. The low response can be explained by two major reasons (i) the substantial impact of the economic crisis on SMEs in Lithuanian rural areas, (new firm liquidation or bankrupt cases were discovered during the survey), and (ii) the low level of involvement of Lithuanian rural SMEs in the global market - many firm managers considered themselves not suitable respondents for this survey. The research team aimed to reach bigger number of responses, because just a few rural firms that responded to the survey demonstrated extra-regional linkages. This appeared to be conditioned not strictly by type of economic activity, but also by managers' personal qualities, education, language skills and experience, as well as business traditions (or absence of international collaboration traditions).

The fifteen firms interviewed in the second (face-to-face) survey were selected initially on the basis of their level of international integration, but these few firms refused to participate in the survey. Given the situation Institute NeVork conducted 2 extra interviews with the regional business development experts – leaders of regional business organizations – Business Association of Alytus Region and Alytus Business Advisory Centre, inquiring about the general situation with international collaboration of regional SMEs and asking for the names of rural enterprises which have developed international networks. Revising these names and other SMEs in typical regional sectors with needed characteristics by internet the new list of firms with international business contacts was created and used to carry out the interviews.

The 6 key actors interviewed in the third survey were selected partly on the basis of SME experiences, and partly on the basis of a 'snowballing' process.

(b) Profile of the sampled firms.

In the first survey the firms of the sample showed a good geographical distribution, corresponding to all 5 Alytus county municipalities, both municipality centers and municipality districts except the biggest regional center Alytus city municipality.

In connection to economic changes in Lithuania (after the Restitution of Independence in 1990) the majority of firms were created during the last 20 years. Two firms with histories back to 1985 and 1960 made an exception. It is

interesting to note that the oldest firm was medium size and had high perceived level of global integration. Thus the majority of the firms were quite young, - all fall within the period 1991-2009 - but some of them have a prehistory in other organizational forms. In our sample 50 firms are independent, 3 firms belong to regional conglomerates and 2 belong to national conglomerates. The most represented economic activities according to the NACE classification in our sample were: professional, scientific and technical activities (13), accommodation and food service activities (11), wholesale and retail trade (10), manufacturing (7), agriculture, forestry and fishing (6) and others. In the sample there were 47 micro firms (which constitute the majority of the firms in Lithuanian rural areas), 7 small firms and only 1 medium-sized firm.

In the second survey the majority of interviewed firms were located in Alytus district municipality, one of four rural Alytus county municipalities. The proximity of Alytus city is often an advantage for such rural firms. The prevailing firm type was closed joint-stock company (8 firms). The interviewed firms varied in terms of business size: 3 were medium, 6 small and 6 micro sized enterprises. In terms of economic branches, majority of firms – 8 were occupied in manufacturing, 4 in wholesale and retail trade, 1 in accommodation and food service activities, 1 in transportation and 1 in agriculture. Wood processing and furniture production is among most typical business lines in Alytus county. The region is attractive by it's nature and landscape, so naturally rural tourism homesteads is another typical rural business providing accommodation, catering, sport and leisure activities and dealing with the foreign clients. Some businessmen take advantage of the border situation and occupy in wholesale and retail trade branch and work as intermediates between regional, national and international markets. Among the respondents there were 2 enterprises engaged in 'high tech' manufacturing activities (electric wire systems and bio-fuel (briquettes) production).

(c) Comments on the degree of International Integration

In the first survey 19 firms stated that they do not participate in the global/international market at all. Another 30 claimed a 'low' degree of integration in such global networks, 2 firms perceive their integration as 'medium low'. Only 2 firms stated that they have a 'medium high' degree and 2 a 'high' degree of integration. Thus only 4 rural firms out of 55 that responded to the survey are more significantly integrated in the global networks. This suggests

that unfavourable border situation in terms of trade possibilities has a big influence to internationalization process.

(d) Comments on Intra-Regional Collaboration.

The majority of interviewed firms fall within the Local transactional space group. Even 44 firms, corresponding to the Local and Domestic categories, have export and/or import markets essentially focused on the regional scale. A general Lithuanian sample feature is relatively little collaboration/communication with other firms. According to the size of companies, most contacts are made with regional SMEs, national large firms and European multinational companies. The degree of operational similarity is another precondition for collaboration: for SMEs in our sample it is likely to have relationships with other regional, national and some European SMEs. The average collaboration intensity is the highest for SMEs at the regional level as well. The survey results also show that associations based on informal or non-business connections (sports and leisure clubs) are not important for Lithuanian SMEs for them to develop networks that could improve their firm's performance. Instead, personal contacts, friendship and acquaintances play important role in intra-regional collaboration.

(e) Motivations for Business Networking

'Compliance with rules and regulations' was the most important dimension of non-market collaboration revealed by the second survey. This was followed by 'Improving market position' and 'Reacting to customer needs'. 'Securing investment capital' was the least common motive for collaboration among the interviewed firms. The majority of networks could be described as 'Compliance' and 'Product/Marketing' focused. Business networks in Alytus county seem to be valued almost equally for their benefits in terms of marketing and as a source of technical innovation. Customers and suppliers were both included on every Actor Map. Other types of actors mentioned more frequently by Lithuanian interviewees are other SMEs and business associations - professional or trade associations, Chamber of Commerce, Industry and Crafts, Small and Medium Business Association, Chamber of Agriculture. International actors were generally rated as more important than domestic ones. On the other hand, 6 firms attached greater weight to domestic actors than to international and of these 3

gave the domestic actors more weight than the average. This shows that both markets - national and international are important to regional SMEs.

(f) Comments on the Institutional Setting

The more often contacted support institutions respectively were regional public institutions, national trade associations, national public institutions and regional trade associations. However, the frequency was low. In general, businessmen in the southern Lithuania tend to be self-reliant. The institutional setting in our sample is concentrated at the regional and national level. It is interesting to note that research support was mentioned only at national level between the respondents, which might mean that there is demand for higher quality business support in the region. The Lithuanian results also highlight the importance of 'business organizations', such as Chamber of commerce or associations of enterprises, as a source of support for small companies. The support from regional and national business organizations is almost equally important.

Resilience and the Impact of the Financial Crisis

According to the results of the first survey, the economic crisis had an impact essentially at the regional level, and to a lesser extent at the national level. Since respondents in Lithuanian sample acknowledged little collaboration with various actors at European and especially global level, naturally the impact to international networks at these levels could not be estimated and remained low. In general, relations that are the most affected by the crisis are the ones based on market transactions, i.e. between the firm and its customers and to lesser extent it's suppliers. Another impacted type of relationship is cooperation with other businesses. The average perceived impact drops sharply beyond the national arena. There is slight increase in the relationship with customers at the world level though, which might imply a search for alternative markets during the recession. The survey results also show some negative impact of financial crisis to the firms' relations with banks both at regional and national levels. The relatively low impact of financial crisis can be observed to relationships with 'public' actors – research and public institutions.

In the face-to-face survey, four firms experienced a strong negative impact of the economic recession to their businesses, four claimed a smaller impact and seven believed there was no impact to their business development. The majority

of firms however stated that the crisis had little effect on their relations with partners. The numbers of employees in most of the firms remained the same (was reduced in two interviewed firms). The crisis was most visible in terms of turnover, demand and customers' purchasing power.

(g) The perception of physical distance and remoteness

Alytus county is a border region, well connected to the biggest cities of Lithuania. The remoteness is perceived not at regional, but at European level – the constraint is being a European Border region. It becomes evident that proximity to countries with higher purchasing power and higher production costs is precondition for international cooperation and exchange success. However, none of Lithuanian borders except for seaport demonstrate such possibilities. Distance means extra costs.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary of Findings:

Establishing a Conceptual Framework

The issues considered in this workpackage are extremely important in the context of both the ongoing restructuring of rural economies away from a dependence upon traditional natural resource based activities towards a more diversified 'New Rural Economy' model, and the gradual shift from sectoral to territorial rural development policies. Business linkages and networks are fundamental to the process of restructuring, and a clear understanding of their various manifestations is essential for correct diagnosis and appropriate/targeted support for rural entrepreneurship.

The conceptual framework set out in the early sections of this report has highlighted the role of business networks in offering rural entrepreneurs an alternative to agglomeration, and providing a viable basis upon which to compete with those situated in more accessible locations. This 'network economy' strategy has been facilitated in recent years by the partial decoupling of 'organised proximity' from 'geographic proximity' due to technological advances in transport, travel and communication, and the increasing role and importance of 'intangible assets'.

Clear definitions of the components and characteristics of business networks, contrasting transaction and non-market linkages, competition and cooperation and the relative importance of interactions at local and international scales have allowed the following research hypothesis to be specified:

Successful and dynamic rural firms derive "networking economies" from frequent and effective interaction, not only with the local business environment, but also with a much more extensive set of linkages, stretching out across Europe. This implies that global integration and more local "territorial anchoring", are not mutually exclusive. Indeed they are complimentary aspects of a "survival strategy" for SMEs in rural areas.

Case Study Findings

This hypothesis has been assessed in the context of five contrasting case study areas, through the medium of three (predominantly qualitative) surveys of entrepreneurs and 'network brokers'. The key findings are summarised in the following points:

- Although there was substantial variation between them, all the case study areas showed some degree of transaction linkage internationalisation among the rural businesses surveyed. The degree of internationalisation seemed to be determined more by sectoral structure, size of regional market, human capital (especially language skills), local planning policy, and proximity to borders, than by simple geographic accessibility/peripherality. Indeed the most accessible case study region exhibited the lowest degree of internationalisation, and the most peripheral region had the second most internationalised transaction network.
- Non-market interactions tend to be focused upon the local region or within national boundaries, and upon other SMEs, rather than larger firms or multi-nationals. This highlights the importance of 'institutional proximity' and the role played by face-to-face communication.
- On balance the evidence from the case studies seems to support direct translocal, rather than indirect vertical integration of rural SMEs into global networks. The Czech case study area seems to be an exception to this, in that its SMEs maintained contact with international markets mostly indirectly, through marketing arrangements with larger Czech companies.
- The density or intensity of interaction, or the number of links at different geographical scales does not tell the full story about the global integration process. There is evidence to suggest that international links are valued more highly than regional or national ones. This provides support for the concept of 'local buzz and global pipes'; in other words the need for a balanced combination of regional and international linkages to support entrepreneurship and innovation.
- The main benefits derived from international networking relate to market intelligence, whilst in those case study regions with a more domestic focus for their interaction, sharing of information relating to compliance with regulation seemed to be the key motivation.
- Interaction with supporting agencies remains predominantly regional or national, although the customary local delivery of EU support may disguise some international support as domestic.
- A key component of policy support is 'network brokerage'. This involves a range of actors from the public, private and voluntary sectors and takes two principal forms; 'match making' and 'forum facilitation'. A key success factor for network brokers (in terms of fostering global linkages) is the quality and extent of 'meta-network' connections which can provide access to potential international partners.

In addition to the above overall conclusions, the case studies brought forward a number of insights which are more specific to the local contexts, these included:

- Several of the case study regions (Sweden, Lithuania, Slovenia) are border regions. In addition, the Czech region is sufficiently close to international borders for its economy to be affected. This inevitably had an impact upon the results of the surveys, especially where linkages were classified according to geographic zone.
- The regions represent various points along the continuum between 'leading' and 'lagging' in terms of performance. This was not a deliberate part of the research design, and unfortunately the limited number of regions and modest resources have not permitted anything more than anecdotal observations of likely relationships between performance and SME networking behaviour.
- Reference has already been made to the observation of 'vertical integration' in the Czech case study area. It is not clear in what way the routing of international contacts via large firms and MNEs affects the role of international linkages as channels for market intelligence etc.
- Planning policy in the Netherlands, which imposes clustering of SMEs in industrial zones, caused some unexpected interpretation challenges for the Dutch case study. It is possible that it also modifies the underlying dynamic of rural business networking. Further investigation would be required to gain a better understanding of this effect.
- There seems to be a difference in the priorities pursued by network brokers in the Swedish and Dutch case study areas compared with those of the three New Member State case study areas. In the latter capacity building of local entrepreneurs and facilitation of public funding was in the foreground, whilst in the former 'match-making' (both intra-regional and international) was the key activity.

5.2. Some Policy Implications

The policy implications of these findings may be divided into two groups; those relating to local implementation, and those of more strategic significance.

Local Implementation Matters.

- (a) The focus on supporting absorption of EU funds by the network brokers of Lithuania, Slovenia and the Czech Republic would seem to be a short-term strategy. Longer term, as the rural SME sector and its institutions strengthen and mature, match-making with firms in other parts of Europe should become more important.

(b) There seems to be considerable experience of building international linkages within the EU15 countries (if the Swedish and Netherlands case study areas are to any degree representative). This would seem to imply potential for the exchange of best practice.

(c) The clear distinction between 'rural policy' (with its focus upon fostering intra-regional linkages between micro-businesses) and 'regional policy' (which concentrated on helping larger firms to develop international networks) which was identified in the Netherlands case study is unnecessary and unhelpful. These are two complimentary components of a single strategy, which would be more effective with close coordination.

(d) The key issue in relation to facilitating the use of 'network economies' by rural SMEs is the decoupling of 'organised proximity' from physical geographic space, so that business linkages (transaction and non-market) are no longer constrained by the need for agglomeration. This is not simply a question of improving physical transport and communication links, or provision of information technology. It also assumes certain human capital preconditions, and elements of social capital (trust, cooperation etc), supported by appropriate institutional and governance arrangements. This is clearly a complex socio-cultural process (not simply an economic one), which is as yet imperfectly understood and therefore not easy to replicate.

Strategic Implications for the Rural Policy Paradigm and Design

The key lesson to be learned is that even (or especially?) peripheral regions with small local markets can have internationally networked SME populations, which have the potential to exploit 'networking economies'. This truth needs to be 'taken on board' at all levels of governance, as a more positive long-term alternative to sectoral approaches to rural development or compensation for 'locational disadvantage'. Thus policy strategies should not assume that rural areas' potential starts and finishes with natural resource based industries. Rather they should recognise that effective networking can allow their SMEs to compete with more accessible and densely populated regions, across the broader spectrum of activities associated with the New Rural Economy. Equally, initiatives to support entrepreneurship and innovation should not neglect the rural constituency.

In recent years rural economic development policy has been a contested responsibility at the EU level. There have been calls for a more 'territorial' rather than sectoral approach in the context of Pillar 2 of the CAP, and suggestions that the rural economy could be better served through regional policy. This has led to a search for new ideas on how to sustain economic activity in a rural context. A popular solution has been to call for the nurturing of rural-urban linkages and

cooperation (Copus 2010). This line of thinking can be identified (for example) in the 2007 Territorial Agenda (COPTA 2007) document, the Barca Report (Barca 2009), the Fifth Cohesion Report (EC 2010), and in the series of seminars organised by DG Regio in 2008-09⁸. In all these cases the underlying assumption is that urban areas are the drivers of economic growth, and that the main hope for rural areas lies in a closer integration with the economy of nearby agglomerations, leading to beneficial 'spillover' effects.

The significance of the findings reported above is that in the economic and technical environment of the new century rural businesses are unlikely to interact mainly with adjacent towns and cities, and therefore to try to re-impose a kind of Christallerian spatial hierarchy of trade flows is anachronistic, since it ignores the tendency towards decoupling of organised and geographical proximity. Again, what is instead appropriate are policies to nurture rural business networks which exhibit a balance between 'local buzz' and 'global pipes'.

REFERENCES

- Amin, A. and Thrift, N. 1994. Living in the global. In Amin A and Thrift N (Ed.), *Globalization, Institutions, and Regional Development in Europe*, (pp. 1-22). Oxford: Oxford University Press.
- Asheim B T (1999) Innovation, Social Capital and Regional Clusters: and the Importance of Co-operative Interactive Learning and Localised Knowledge in Learning Economies, *Regional Studies Association International Conference*, Bilbao
- Barca F (2009) *An agenda for a Reformed Cohesion Policy. A place-based approach to meeting European Union challenges and expectations*. Independent Report prepared at the request of Danuta Hübner, Commissioner for Regional Policy. (http://ec.europa.eu/regional_policy/policy/future/barca_en.htm)
- Bathelt, H, Malmberg, A, Maskell, P (2004) Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation, *Progress in Human Geography*, Vol. 28 Issue 1, p31-56
- Beccatini G, Bellandi M, Dei Ottati G, Sforzi F (2003) *From Industrial Districts to Local Development: An Itinerary of Research*, Edward Elgar, Cheltenham.
- Bellandi M (1989) *Small firms and industrial districts in Italy*, Routledge, London
- Belussi F (1996) Local Systems, Industrial Districts and Institutional Networks: Towards a New Evolutionary Paradigm of Industrial Economics? *European Planning Studies*, Vol 4 No 1 pp 5-22
- Boschma, R. A. (2005) Proximity and Innovation: a critical assessment, *Regional Studies*, Vol. 39.1, pp 61-74

⁸ See: http://ec.europa.eu/regional_policy/conferences/urban_rural/2009/index_en.htm

- COPTA (2007). *Territorial Agenda of the European Union: Towards a more competitive and sustainable Europe of diverse regions*
<http://www.eu-territorial-agenda.eu/Pages/Default.aspx>.
- Copus A K, Gourlay D, and Williams F (2000) "Holding down the Global"; *Regional Milieux, Innovation, and Economic Vitality in the Periphery*, Paper presented at 'European Rural Policy at the Crossroads' International Conference, Arkleton Centre, University of Aberdeen.
<http://www.abdn.ac.uk/irr/arkleton/conf2000/papers.shtml>
- Copus A K, Courtney P, Dax T, Meredith D, Noguera J, Shucksmith M, and Talbot H. (2011) *Final Report*, ESPON 2013 project EDORA (European Development Opportunities for Rural Areas), Project 2013/1/2.
http://www.espon.eu/main/Menu_Projects/Menu_AppliedResearch/edora.html
- Copus, A., Hall, C., Barnes, A., Dalton, G., Cook, P., Weingarten, P., Baum, S., Stange, H., Lindner, C., Hill, A., Eiden, G., McQuaid, R., Grieg, M., Johansson, M., (2006) *Study on Employment in Rural Areas*, (SERA) Final Deliverable, unpublished report prepared for the European Commission, DG AGRI, Brussels
http://ec.europa.eu/agriculture/publi/reports/ruralemployment/sera_report.pdf
- Copus A K (2010) New Relationships Between Rural and Urban Areas in EU Countries. Invited paper presented at "The territorial approach in agricultural and rural policies. An international review." 4-5th November 2010, Rome
<http://www.rimisp.org/FCKeditor/UserFiles/File/documentos/docs/pdf/DTR-IC/Inea-Rimisp-Conferencia-ingles-oficial-programa.pdf>
- CPMR (1997) *Towards a Balanced Europe: From Peripheries to Large Integrated Maritime Units*, Rennes.
- Davenport, S. 2005. Exploring the role of proximity in SME knowledge-acquisition. *Research Policy* Vol 34 (5) pp683-701
- Drejer I and Lund Vinding A (2007) Searching Near and Far: Determinants of Innovative Firms' Propensity to Collaborate Across Geographical Distance. *Industry and Innovation*, Vol. 14, No. 3, 259-275, July 2007
- Dubois A, Copus A, and Hedström M, (2011) Local embeddedness and global links in rural areas: Euclidean and Relational Space in Business Networks, in Hedberg, C. and Carmo, R. M. D. (Eds.) *'Translocal ruralism': Mobility and connectivity in European rural spaces*. Springer.
- European Commission [EC] (2010), *Investing in Europe's future, Fifth report on economic, social and territorial cohesion*, Luxembourg.
- Feser J and Bergman E M (2000) National Industry Cluster Templates: A Framework for Applied Regional Cluster Analysis, *Regional Studies* Vol 34 No 1 pp 1-19
- Fujita M, Krugman P and Venables A (1999) *The Spatial Economy; Cities, Regions and International Trade*, MIT Press, Cambridge, Mass.
- Garretsen, H and Martin, R (2010) 'Rethinking (New) Economic Geography Models: Taking Geography and History More Seriously', *Spatial Economic Analysis*, 5: 2, 127 – 160
- Goetz S J and Rupasingha A 2002 High-tech clustering: Implications for rural areas, *American Journal of Agricultural Economics* Vol 84 No 5 p1229-

- 1236.Granovetter, M. (1973) The Strength of Weak Ties, *The American Journal of Sociology*, Vol. 78, No. 6 (May, 1973), pp. 1360-1380
- Granovetter M (1985) Economic Action and Social Structure: The problem of Embeddedness, *American Journal of Sociology* 91, 3, pp 481-510
- Harrison B (1992) Industrial Districts: Old Wine in New Bottles? *Regional Studies* Vol 26, Number 5 p469-483.
- Herdzina, K., Findeis, A., Fleischmann, S., Wander, C., Piasecki, B. and Rogut, A. (2004) European rural SMEs in the context of Globalization and Enlargement, in Labrianidis, L. (2004) *The future of Europe's rural peripheries*, Ashgate, England.
- Huggins R and Johnston A (2009) Knowledge Networks in an Uncompetitive Region: SME Innovation and Growth. *Growth and Change* Vol. 40 No. 2 (June 2009), pp. 227-259
- Jarillo J C (1988) On Strategic Networks. *Strategic Management Journal*, Vol. 9, No. 1, pp. 31-41
- Johannisson, B., Ramirez-Pasillas, M. and Karlsson, G. (2002) The institutional embeddedness of local inter-firm networks: a leverage for business creation, *Entrepreneurship and Regional Development*, 14, pp 297-315
- Johansson and Quigley 2004 Agglomeration and Networks in Spatial Economics Papers. *Regional Science* vol 83 p165-176
- Kaufmann A and Tödtling F (2000) Systems of Innovation in Traditional Industrial Regions: The Case of Styria in a Comparative Perspective, *Regional Studies* Vol 34 No 1 pp29-40
- Krugman, Paul (1994) The Rise and Fall of Development Economics, in *Rethinking the Development Experience* L Rodwin and D Schoen, Brookings Institution and Lincoln Institute of Land Policy, Washington DC pp. 39-58.
- Kingsley and Malecki E J (2004) Networking for Competitiveness. *Small Business Economics*, Vol 23 (1) pp71-84.
- Lechner, C. and Dowling, M. (2003) Firm networks: external relationships as sources for the growth and competitiveness of entrepreneurial firms, *Entrepreneurship and regional development*, 15 (2003), 1-26
- Lee J, Árnason A, Nightingale A, Shucksmith M (2005) Networking: Social Capital and Identities in European Rural Development, *Socialia Ruralis*, Vol 45, Issue 4, pp269-283
- Marshall A (1920) *Principles of Economics*, Wiley, London
- McCann P and Shefer D (2004) Location, agglomeration and infrastructure, *Papers in Regional Science* vol 83 p177-196.
- Mulgan G (1998) *Connexity: Responsibility, Freedom, Business and Power in the New Century*, Vintage, London.
- Nijkamp P (2003) Entrepreneurship in a modern Network Economy, *Regional Studies* Vol 37 4 p395-405
- North, D. and Smallbone, D. (2000a) The Innovativeness and Growth of Rural SMEs during the 1990s, *Regional Studies*, Vol.34. No.2, pp.145-157

- OECD (1997) *Globalisation and small and medium enterprises (SMEs)*. OECD: Paris
- Orlemans, L.A.G. and Meeus, M.T.H. (2005) Do organizational and spatial proximity impact on firm performance?, *Regional Studies*, Vol. 39.1, pp 89-104
- Putnam R (1993) *Making Democracy Work, Civic Traditions in Modern Italy*, Princeton, New Jersey
- Rietveld P and Vickermann R, 2004, Transport in regional science: The "death of distance" is premature, *Papers in Regional Science* 83 p229-248.
- Schumpeter J A (1934) *The Theory of Economic Development*, Harvard University Press, Cambridge Mass.
- Storper, M. (1995) The resurgence of regional economies, ten years later: the region as a nexus of untraded interdependencies, *European Urban and Regional Studies*, Vol. 3: 191-221.
- Suriñach, J., Moreno, R. Autant-Bernard, C., Heblich, S., Iammarino, S., Paci, R. and Parts, E. (2010). Intangible Assets and Regional Economic Growth (IAREG), *Scientific Executive Summary*, FP7, SSH – 2007, no. 216813. http://www.iareg.org/uploads/media/SCIENTIFIC_EXECUTIVE_SUMMARY_9_7_2_010_DEF.pdf (accessed 07.09.2010).
- Tallman S, Jenkins M, Henry N and Pinch S (2004) Knowledge, clusters and competitive advantage. *Academy of Management Review*, Vol. 29, No. 2, 258–271.
- Torre, A. and Gilly, J.P (2000) On the analytical dimension of proximity dynamics, *Regional Studies*, Vol. 34.2, pp 169-180
- Torre, A. and Rallet, A. (2005) Proximity and localization, *Regional Studies*, Vol. 39.1, pp. 47–59, February 2005
- Tödtling, F and Kaufmann, A (1999) *Innovation systems in regions of Europe—a comparative perspective*, *European Planning Studies*, 7:6,699 — 717
- Torre, A. and Gilly, J.P (2000) On the analytical dimension of proximity dynamics, *Regional Studies*, Vol. 34.2, pp 169-180
- Torre, A. and Rallet, A. (2005) Proximity and localization, *Regional Studies*, Vol. 39.1, pp. 47–59, February 2005
- Virkkala S (2007) Innovation and Networking in Peripheral Areas - a Case Study of Emergence and Change in Rural Manufacturing. *European Planning Studies*, Volume 15, Number 4, May 2007 , pp. 511-529
- Wasserman, S. and Faust, K. (1994) *Social Network Analysis – Methods and Applications*, Cambridge: Cambridge University Press
- Weber, Alfred, 1929. *Theory of the Location of Industries*, [translated by Carl J. Friedrich from Weber's 1909 book], Chicago: The University of Chicago Press.
- Young N (2010) Business Networks, Collaboration and Embeddedness in Local and Extra-local Spaces: The Case of Port Hardy, Canada. *Sociologia Ruralis*, Vol 50, Number 4, p392-408.