3.4 Westerkwartier (Netherlands)

3.4.1 The Electronic Survey of SME Networking

In the following, the results of the electronic survey conducted in the Westerkwartier are presented. The electronic survey was conducted from May to June 2010.

Methodology and Sampling

Obtaining business contact details

First, business addresses were purchased from the online trade register of the Chamber of Commerce Groningen (www.kvk.nl). Addresses were selected on the basis of several selection criteria as outlined below.

Enterprise: Business, main establishment

Region: All 32 villages within the municipalities Grootegast (GR), Leek (L), Zuidhorn (Z) and Marum (M). The municipal 'capitals' Grootegast, Leek, Zuidhorn and Marum were EXCLUDED.

Selected branches: Business branches were listed according to the EUROSTAT classification. All business branches were selected EXCEPT the following: Agriculture, hunting and services in these sectors, forestry, exploitation of forests and services in these sectors, fishery and breeding of fish and crustaceans, retailers (does not include cars), eating and drinking facilities, veterinary services, health care (hospitals, dental practices and health care facilities without sleeping facilities), lottery and gambling, general practitioners

Form of organization: All forms (35) of organization were considered relevant EXCEPT: Foreign EG company-like trading company with branch in NL, Foreign EG company with branch in NL, Church association, Association, Side branch with headquarters in foreign countries , Chatter, Beneficence, Aggregation

Employees: Total number of employees (including parttime): 1-250

In total, 865 business addresses in the Westerkwartier were obtained. Of these, 254 businesses registered a website at the Chamber of Commerce. All 254 business websites were scanned for e-mail addresses and a total of 200 e-mail addresses were obtained.

Sampling process 1

Contact was made with the local chamber of commerce since it was suggested that mentioning the name of the local chamber of commerce would increase trust in people to respond to our survey. With consent of the local chamber of commerce, the invitation e-mail to the business survey closed with: "*The survey has been discussed with the local chamber of commerce and we will kindly offer them the results of this survey*". Furthermore, the survey was announced in a meeting of the local business women network.

Individual e-mails were sent out to all 200 businesses for which the e-mail address could be located. Of these 12 came back as failed deliveries. Initial response rates were very low. It was therefore decided to change the data collection method and to visit firms in person. In order to prevent an overlap of sending e-mails and visiting businesses in person, addresses of businesses for personal visits were selected from the list of addresses that did not provide an e-mail address or website. These businesses amounted up to 622. It was decided to sample 50 businesses from the list in order to account for possible denial to fill in the survey. To select the businesses as unbiased as possible, the number of 622 was divided by 50 (= 12.44), thus every 12th business on the list was selected for an individual visit. The 50 businesses were supposed to be visited following the order on the list. The personal visits to the firms turned out to be very inefficient since the entrepreneurs were either busy, not at home or the business address referred to a residential home with no indication of being a business. Touring the Westerkwartier for two days and visiting approximately 15 businesses resulted in a response rate of 2. This method was omitted in the further data collection process. Next, the researcher decided to call entrepreneurs that were sent an e-mail with the survey before but who did not answer. After calling six entrepreneurs and being assured by them that they will either fill in the survey, have already sent the survey or where just about to fill in the survey but only obtaining one actual response, the researcher decided to abandon this method as well. Then, the researcher decided to resend the e-mails to the entrepreneurs that did not answer yet. This method resulted in the largest response. 18 new responses were received, although only 11 included the answers to the survey. Other responses stated that entrepreneurs did not have time to fill in the survey, did not see any reward for their firm to participate or stated that they were not going to participate since too many surveys had already been passed around. As a last resort, the researcher decided to collect responses by visiting shops on the high street of the village where she installed herself. This method resulted in another three responses to the survey, terminating the data collection process with 36 responses out of 50 targeted responses. When processing the data, two responses were identified as stemming from the same business, and two others were filled in by entrepreneurs outside the Westerkwartier (De Marne municipality and Groningen city). Hence, the number of valid responses decreased to 32.

Sampling process 2

The results of the first sampling process showed that none of the sampled businesses held international business relations. A possible explanation for this result is that spatial planning policies prevent firms from expanding in rural areas in the Netherlands. All businesses that aim to expand need to move to industrial areas of nearby cities. Consequently, businesses in rural areas are locally oriented and run by less than 10 employees (as our survey showed they are mostly one-man businesses).

Since questioning these firms about their international relations in the face to face interviews would not be possible, it was decided to INCLUDE the municipal capitals and look at firms with international relations situated in the industrial areas of Marum, Grootegast, Leek and Zuidhorn. A list of 45 firms with international relations was obtained from the chamber of commerce in Groningen. All firms employ less than 250 people, thus conforming to the SME definition of the business survey. The list included a number of firms which appeared to be franchises of bigger international firms. It was questioned to what extend these firms were “anchored” in the region. It was therefore decided to only select firms from the industrial areas according to the following criteria (one or more applicable):

- A family business
- Traditional business in the area (means: website tells story about development in area)
- Use of local products for production
- Headquarters and/ or obvious that business originated in Westerkwartier

Using the same criteria, firms within rural Westerkwartier that did not partake in the survey were actively searched for. This also implied that firms were searched for within the agriculture sector. In order to facilitate the recruitment of potential interview candidates, the researcher installed herself in the case study region and searched for firms through informal talks with citizens and visited firms to make interview appointments. Using this method, 10 further firms with international networks were sampled. In the end, a total of 42 valid responses were obtained.

Overview of Sampled Firms

In this section, an overview of the 42 valid firms that participated in the survey in the Westerkwartier will be provided.

Out of the 42 firms, six firms are situated in the industrial terrains of the municipal ‘capitals’ and 36 firms are situated in the rural areas of the Westerkwartier. Of these firms, 12 are resident in Grootegast municipality, nine are established in Leek municipality, eight are manifested in Zuidhorn municipality and four in Marum municipality. From the interviewed firms, 35 are micro firms with less than 9 employees. Only four stated to have between 10 and 49 employees and three firms employed up to 249 employees.

Table Error! No text of specified style in document.**.1** provides an overview of the *ownership* of the different enterprises. According to table 1, 33 of the participating firms are registered as independent companies. Of these, 27 are registered as one-man businesses; six firms operate as limited companies. One of these firms is organised as a collective. Eight other firms are operating as firm partnerships and only one firm did not state a specific type of ownership.

Looking at the final column of **Table** Error! No text of specified style in document.**.1**, overall perceived global interactions of the sampled firms in the Westerkwartier seem to be low. Entrepreneurs were given a scale from 0-4 to judge their involvement in international trade or networks (0 being non active; 1= low; 2= average low; 3= average high and 4= high involvement). Out of the 42 respondents, 25 stated not to be active in international trade or networks. Six further entrepreneurs stated to have a 'low' involvement with international trade or networks. Three firms stated to have an 'average low' involvement, two firms stated to have an 'average high' involvement and six firms stated to have a 'high' involvement with international trade and networks.

The results thus show that the participating firms are mostly independent one-man businesses with low to no interactions in international trade or networks. In terms of size, the obtained responses from this survey are highly representative since 75% of all SMEs in the Westerkwartier are registered as micro-firms.

In the introduction to the Dutch case study area, it was also stated that the region is shifting its economic focus from agriculture and agriculturally related economic activities towards new forms of economy (for instance the service sector). Nevertheless, as table 2 shows, the majority of sampled firms belong to the sector 'agriculture, forestry and fishery' (n=9), followed by the sector 'Financial and insurance activities' (n=7) and the sector 'health care' (n=5). To give an example of the different activities within these sectors, firms operating in the 'agriculture, forestry and fishery' sector produce agricultural tools, breed animals or are otherwise related to primary food production. Within the sector 'financial and insurance activities', entrepreneurs offer re-integration, depth surge assistance and interim-management. In the 'health care' sector, activities such as education and child care were mentioned.

Table Error! No text of specified style in document.**.1: Overview of sampled firms in the Westerkwartier**

Code	Municipalit y	Year of establishmen t	Form of organization	Sector	Perceived global integration
NL_01	Zuidhorn	1999	Firm partnerships	Financial and insurance activities	None
NL_02	Marum	1984	One-man business	Wholesale and retail sale	None
NL_03	Zuidhorn	2007	One-man business	Administrative and support service activities	None
NL_04	Leek	2005	One-man business	Financial and insurance activities	None
NL_05	Leek	2004	Limited Company and one-man business	Financial and insurance activities	None
NL_06	Leek	1988	One-man business	Construction	None
NL_07	Grootegast	2002	Firm partnerships	Arts, entertainment and recreation	None
NL_08	Zuidhorn	2007	One-man business	Arts, entertainment and recreation	None
NL_10	Marum	1997	Autonomous without employees	Information and Communication	None
NL_11	Groningen	2009	One-man business	Arts, entertainment and recreation	None
NL_12	Leek	2008	One-man business	Financial and insurance activities	Low
NL_13	Leek	2008	One-man business	Health care	None
NL_14	Grootegast	2005	Firm partnerships	Health Care	None
NL_15	Leek	2009	One-man business	Health Care	None
NL_16	Grootegast	2005	Firm partnerships	Wholesale and retail sale	Low
NL_17	Leek	2000	One-man business	Health Care	None
NL_18	Grootegast	2006	One-man business	Financial and insurance activities	None
NL_19	Grootegast	1996	One-man business	Health Care	Low
NL_20	Grootegast	2001	Firm partnerships	Arts, entertainment and recreation	Average low
NL_21	Zuidhorn	1978	Firm partnerships	Financial and insurance activities	None
NL_22	Marum	1968	One-man business	Agriculture, Forestry and Fishery	Low
NL_23	Grootegast	2007	One-man business	professional services	None
NL_24	Zuidhorn	1990	One-man business	Arts, entertainment and recreation	Low
NL_25	Grootegast	1999	Limited Company	Agriculture, Forestry and Fishery	None
NL_26	Zuidhorn	1995	Autonomous without employees	Professional, scientific and technical activities	None
NL_28	Grootegast	2001	One-man business	Agriculture, Forestry and Fishery	Average low
NL_29	Leek	2008	Firm partnerships	Accommodation and food service activities	None
NL_30	Marum	1978	One-man business	Professional, scientific and technical activities	Low

Code	Municipality	Year of establishment	Form of organization	Sector	Perceived global integration
NL_31	Leek	1984	One-man business	Arts, entertainment and recreation	Average high
NL_32	Grootegast	1940	One-man business	Agriculture, Forestry and Fishery	None
NL_33	Grootegast	1970	Limited Company	Transport and storage	None
NL_34	Zuidhorn	2009	One-man business	Accommodation and food service activities	None
NL_35	Zuidhorn	2006	?	Wholesale and retail sale	None
NL_36	Grootegast	2002	Firm partnerships	Construction	None
NL_37	Leek	1979	Company part of local/regional agglomerate	Recycling	Average low
NL_38	Grootegast	1898	Independent company	Agriculture, Forestry and Fishery	Average high
NL_39	Marum	1983	Independent company/ collective	Wholesale	High
NL_40	Leek	1986	Independent company	Recycling	High
NL_41	Boijl	1969	One-man business	Agriculture, Forestry and Fishery	High
NL_42	Grootegast	2008	One-man business	Agriculture, Forestry and Fishery	low
NL_43	Leek	1938	Independent company	Agriculture, Forestry and Fishery	High
NL_44	Leek	1991	Independent company	Metal industry	High
NL_45	Leek	1977	Independent company	Metal industry	High
NL_46	Grootegast	1995	One-man business	Agriculture, Forestry and Fishery	Low

Looking at the years of establishment, it is interesting to note that the number of establishing firms continually increased in recent years in the Westerkwartier. Here, in particular firms within with 'financial and insurance activities' established in most recent years whereas businesses within 'agriculture, forestry and fishery' show a longer tradition in the area. One of the firms in this sector was already established in 1898. In contrast, a further firm in this sector was only founded in 2008.

Table Error! No text of specified style in document.**.2: Sectoral belonging and year of establishment**

	Before 1970	1970-80s	1990s	2000s	Total
Financial and insurance activities	0	1	1	5	7
Administrative and support service activities	0	0	0	1	1
Arts, entertainment and recreation	0	1	1	2	4
Professional, scientific and technical activities	0	0	1	0	1
Accommodation and food service activities	0	0	0	2	2
Wholesale and retail sale	0	1	1	1	3
Information and Communication	0	0	1	0	1
Agriculture, Forestry and Fishery	5	0	2	2	9
Professional, scientific and technical activities	1	0	0	0	1
Construction	0	2	0	1	3
Health care	0	0	1	4	5
Transport and storage	0	1	0	0	1
Recycling	0	2	0	0	2
Entertainment	0	0	1	0	1
Total	6	8	9	18	41

The Geography of SME's Transactional Space

In this section, the different degrees of global involvement of the firms in terms of transactions shall be investigated. Five different types of companies have been identified, according to geographical structure of its sales and supplies. The typology is divided into 5 types, going from a 'Low' degree of internationalisation (with either sales or purchases made essentially at the regional level) to a 'High' degree (with more than 40% of the sales or purchases made outside the national border). **Table** Error! No text of specified style in document.**.3** provides an overview of the different types of companies and their definitions. For example; if an entrepreneur stated to sell 50% of its products locally and 50% at national level, this firm was considered to have a "Medium low" degree of internationalisation.

Table Error! No text of specified style in document.**.3: Building a typology of firm based on the geographical distribution of transactions**

Degree of internationalisation	**% of transactions**			
	Regional	National	European	World
Low	>80%			
Medium Low	>50%	<50%		
Medium		>50%	<10%	
Medium High		>30%	>10%, but <30%	<10%
High			>30%	>10% (or international >40%)

Looking at the geographical distribution of transactions amongst the firms interviewed in the Westerkwartier, **Figure** Error! No text of specified style in document.**.1** provides an overview of transaction percentages for supplies and sales at different geographical levels. It should be noted that three firms had to be omitted from the analysis since they either failed to provide data on purchases or sales. With regard to suppliers of the firms, **Figure** Error! No text of specified style in document.**.1** suggests a 'Medium Low' degree of internationalization. Most supplies (i.e. 63%) are thus obtained from within the region North Netherlands and only 26 % of supplies are bought in the rest of the Netherlands. In comparison, the percentage of supplies coming from abroad is very small (3% EU and 2 % world). With regard to sales, the firms in the Westerkwartier can also be considered as having a 'Medium Low' degree of internationalization. In contrast to the transactional space for supplies, however, the regional level is not so prominent within the sales activities. Hence, only 49% of the sales are carried out within the region North Netherland and 42% of sales are carried out within the whole of the Netherlands. Likewise to the transaction space for supplies, the percentage of transaction at EU level (3%) and world level (4%) is relatively low.

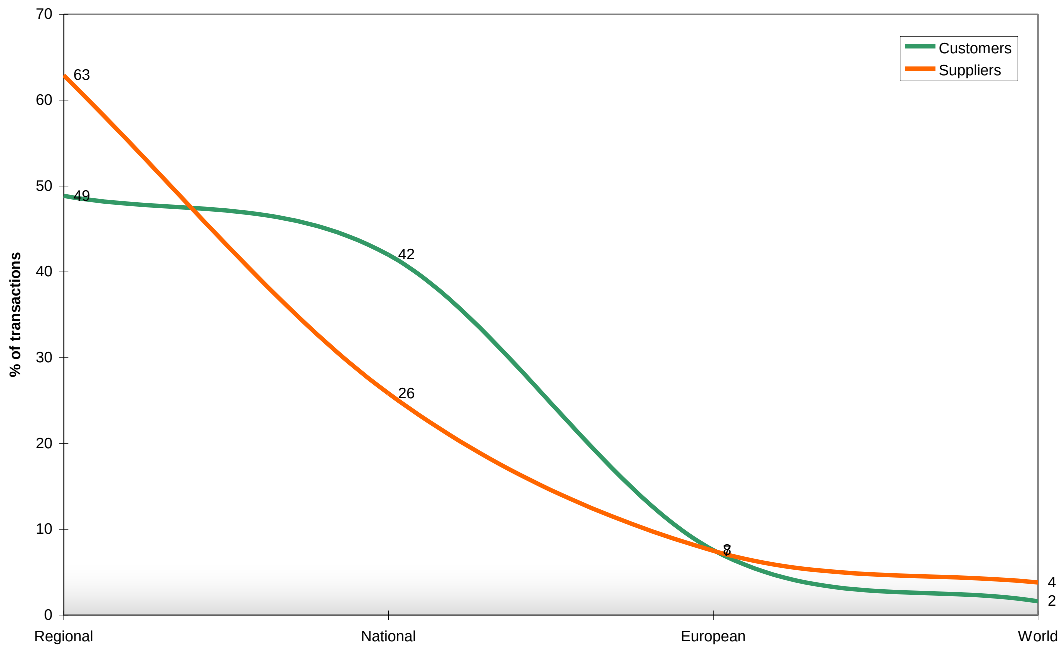


Figure Error! No text of specified style in document.**.1 Degree of internationalisation concerning sales and purchases**

Combining the information obtained on purchases and sales, it appears that most of the firm fall into the 'local' (blue) category of the OECD index of globalization. However, as **Table** Error! No text of specified style in document.**.4** shows, four of the interviewed firms have a wider scope and belong to the 'domestic' (green) category. Two further firms operate within the 'national powerhouse' (grey) and three in the 'internationalized interfaces' (orange), respectively. Five of the interviewed firms can be considered 'globalised' (purple).

Table Error! No text of specified style in document.**.4: Typology of the firms' transactional space**

		S A L E S					
		Low	Medium Low	Medium	Medium High	High	Total
PURCHASES	Low	15	2	2	0		19
	Medium Low	8	1	1	2	1	13
	Medium	1	0	2	0	0	3
	Medium High	0	0	0	0	4	4
	High		0	0	0	1	1
	Total	24	3	5	2	6	40

Looking at **Table** Error! No text of specified style in document.**.5**, it appears that the transactional space of firms in the Westerkwartier did not show significant changes over the years. The number of firms that have entered the 'local' market have increased in the years 2000s (n=13) and is therefore larger than the number of firms that have been established in the same era but which entered the 'domestic' market (n=4). Furthermore, it seems that the largest number of firms with globalized interactions has been established between the 1970s and 1980s (n=3).

Table Error! No text of specified style in document.**.5: Index of SME globalisation and age of the firm**

	Before 1970	**1970-80s**	**1990s**	**2000s**	**Total**
Local	2	3	5	13	23
Domestic	1	1	2	4	8
National Powerhouses	0	0	0	1	1
International Interfaces	1	1	0	1	3
Globalised	0	3	1	1	5
Total	**4**	**8**	**8**	**20**	**40**

The scale of transaction space does not seem to depend on the ownership structure of the firm. As **Table** Error! No text of specified style in document.**.6** suggests, both independent businesses and firm partnerships are mostly active on the 'local' scale. Interestingly, however, the only firms that stated to be active on a 'globalized' scale are independent businesses.

Table Error! No text of specified style in document.**.6: Index of SME Globalization and ownership structure**

	Independent business	**Part of regional group**	**Partnership**	**Total**
Local	19	0	5	24
Domestic	6	0	1	7
National Powerhouses	0	0	1	1
International Interfaces	1	1	1	3
Globalised	5	0	0	5
Total	**31**	**1**	**8**	**40**

As indicated in **Table** Error! No text of specified style in document.**.7**, the perceived global integration matches the proposed index of SME globalisation. 18

of the 23 locally operating firms stated to have no global interaction whereas four of the five globalized firms also stated to have a high global interaction. It is, however, interesting to ask why some firms perceive their global integration differently from their category in the SME globalisation index. Also, four of the firms operating on a 'domestic' scale stated no global integration. Perhaps these firms interpreted global integration differently?

Table Error! No text of specified style in document.**.7: Index of SME globalisation and perceived global integration**

	None	Low	Average -Low	Average -High	High	Total
Local	18	4	1	0	1	24
Domestic	4	2	1	0	1	7
National Powerhouses	1	0	0	0	0	2
International Interfaces	0	1	1	1	0	2
Globalised	0	1	0	0	4	5
Total	**23**	**8**	**3**	**1**	**6**	**40**

The Collaborative Space of SMEs

One starting point in WP1 is that the relationships that SMEs have with other companies are not purely based on transactions. For instance, collaboration between SMEs and other companies can be grounded on innovation processes, sharing of technology or entering new marketplaces. The question of the survey on "collaboration with other companies" provide a first insight on the type of firms, by size and location, our sampled SMEs collaborate with.

In **Figure** Error! No text of specified style in document.**.2**, numbers of strong measures of collaborations by the interviewed firms with other firms are presented. Strong measures were interpreted as a score of 3 and 4 in the survey. Of all possible collaboration partners, 'regional SMEs' in North Netherland appear to be most important for the interviewed firms in the Westerkwartier. To al lesser extend, also 'national SMEs' and 'regional large firms' where given strong measures of collaboration by the interviewed firms. The importance of international firms and regional as well as national multinational firms appears to be low.

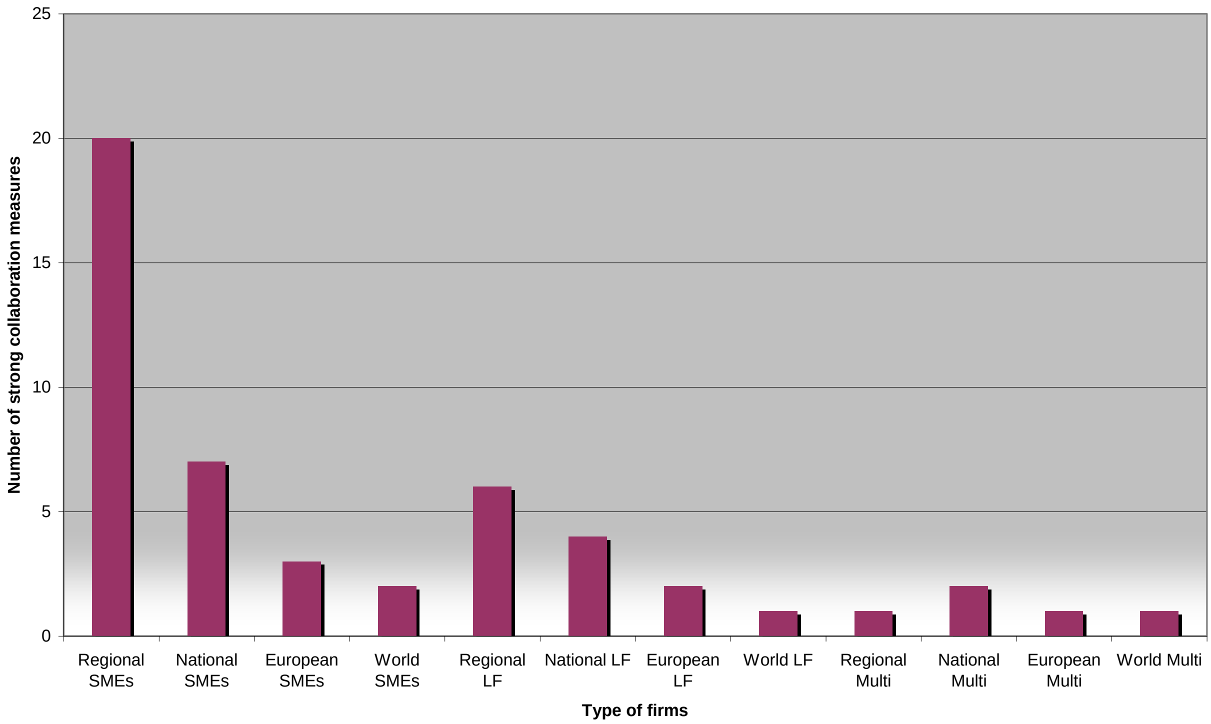


Figure Error! No text of specified style in document.**.2 Strong measures of collaboration with other firms**

Looking at average measures of collaboration by firm size, **Figure** Error! No text of specified style in document.**.3** shows that the interviewed micro-firms mostly collaborate with SMEs at regional level and the intensity of collaboration decrease with increasing spatial distance. Hence, collaboration with national SMEs is weaker than with regional SMEs but stronger than with European SMEs and global SMEs. In contrast, larger firms collaborate almost equally strong at regional (0.8) and national level (0.7) but lower at European or world level.

Finally, multinational firms have a stronger collaboration with national firms than with regional firms but interestingly no stronger collaboration at European or world level.

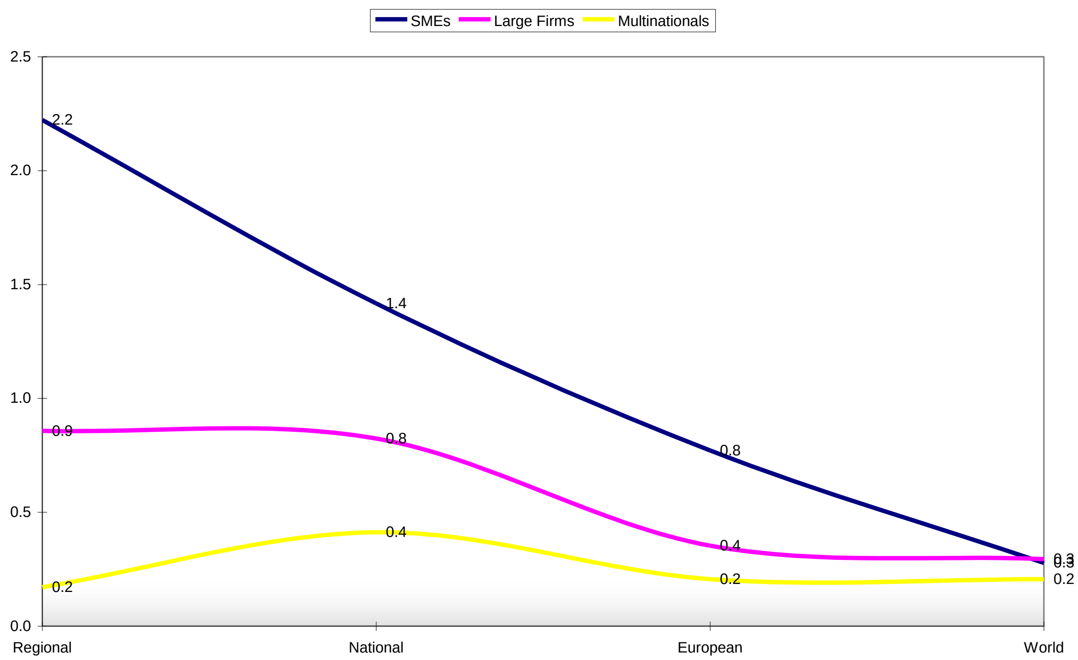


Figure Error! No text of specified style in document.**.3 Average responses regarding collaboration with other firms given by the sample**

The Institutional Setting

Another main assumption from our joint work is the fact that the economic space of SMEs (and firms in general) cannot be restricted to the transactional and collaborative relationships developed with other firms (as highlighted in the previous section). Furthermore, we assume that other institutions are especially important for firms that wish to be further integrated in global networks. Such institutions are official agencies or bodies (i.e. organisations) representing the business environment, educational centres or business consultants.

Figure Error! No text of specified style in document.**.4** presents the number of strong relationships with different institutional actors that can provide support for firms in the Westerkwartier. As this diagram shows, amongst the different institutional actors that could potentially provide support, 'governmental advisory bodies' at regional level (11 times). and national level (8 times) were most often considered to be in strong relationship with the interviewed firms To a lesser extend, also European trade organisations (5 times), national research institutions (5 times) and national business consultants (3 times) were stated to be in strong relationship with the interviewed firms.

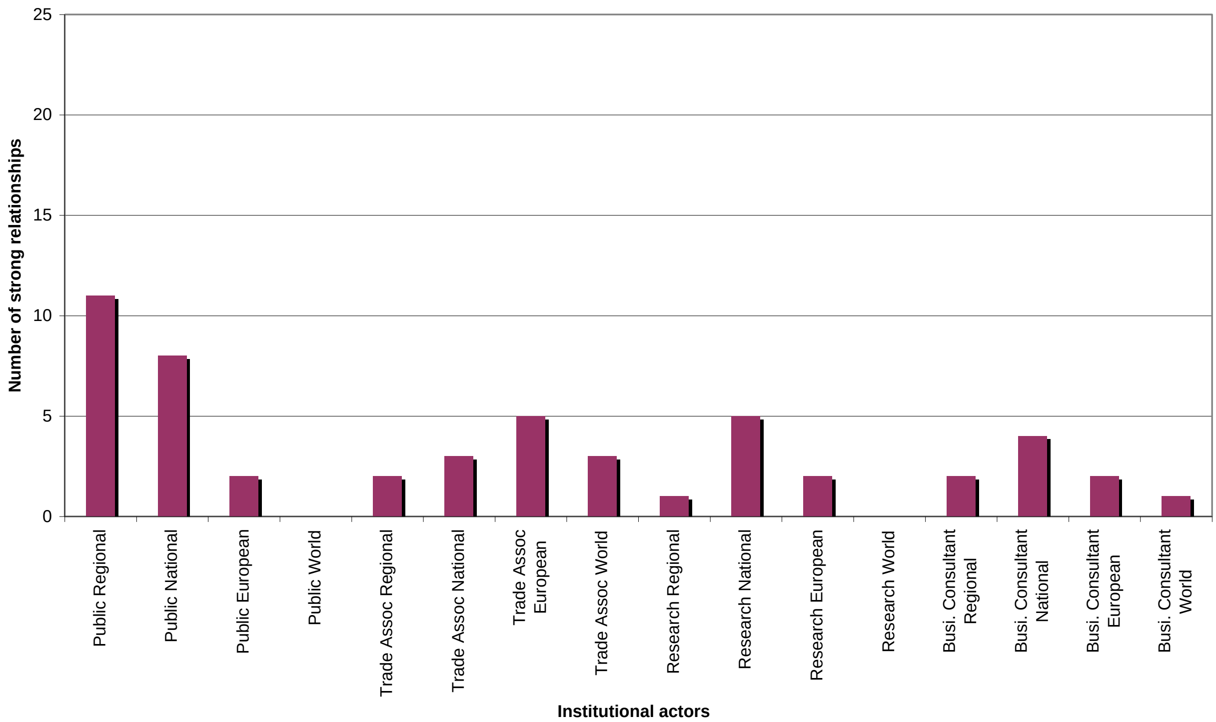


Figure Error! No text of specified style in document.**.4 Strong relationships for support from institutional actors**

Comparing the relationship of the different institutional actors with the interviewed firms across spatial levels, **Figure** Error! No text of specified style in document.**.5** suggests, at regional and national level, public advisory bodies have the biggest support function for firms.

Both, research institutions and business consultants appear most relevant for the firms in the Westerkwartier at national level. Interestingly, support from trade associations seems to be strongest at European level. All other institutional actors appeared to have a weak support function at European and World level as perceived by the firms in the Westerkwartier. One can, however, argue that institutions at European and world level may still be highly relevant (EU policy regulations, WTO regulations etc.) but since their regulations are passed down through national and regional authorities, the firms do not associate them with European or world levels.

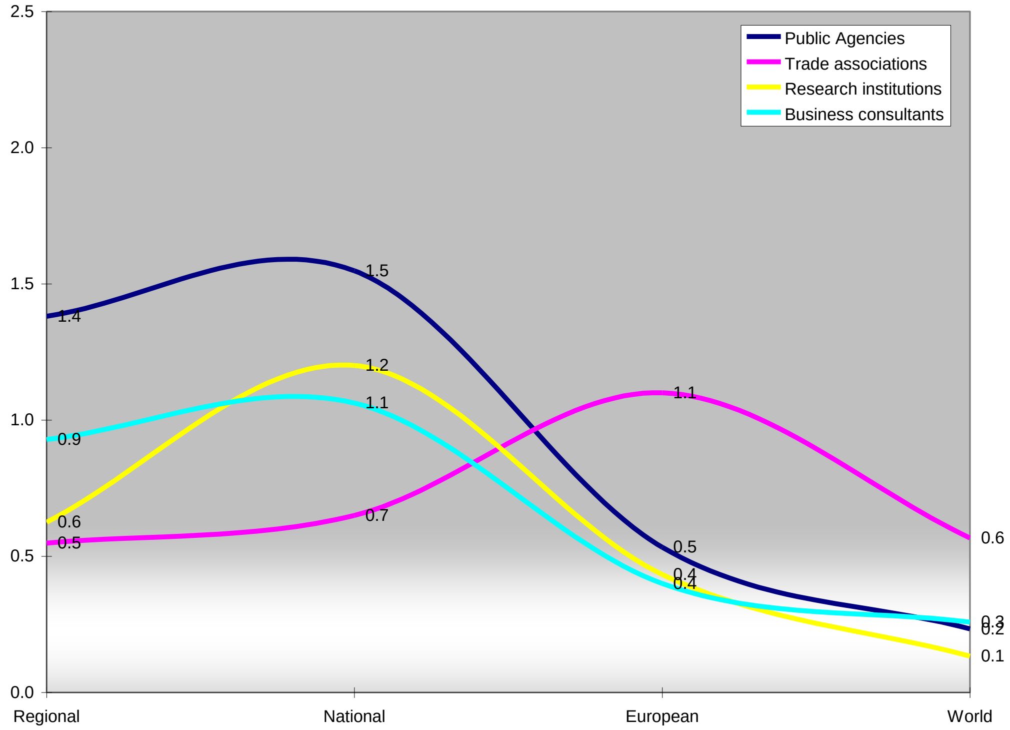


Figure Error! No text of specified style in document.**.5 Average responses regarding support from institutional actors given by the sample**

Firms were further asked to state their involvement with formal networks. As **Figure** Error! No text of specified style in document.**.6** shows, 36 of the interviewed firms stated to be a member of the local chamber of commerce. This result is not surprising since the addresses of the firms were obtained from the local chamber of commerce. 23 firms were also members of professional trade associations. These were either trade associations of different villages or towns (in fact, almost every village in the Westerkwartier has its own trade associations, sometimes even a separate one for the high street (pers. communication)), or sectoral trade associations as found in the Swedish case study region. Interestingly, one artist even stated to be a member of an association for printers in London.

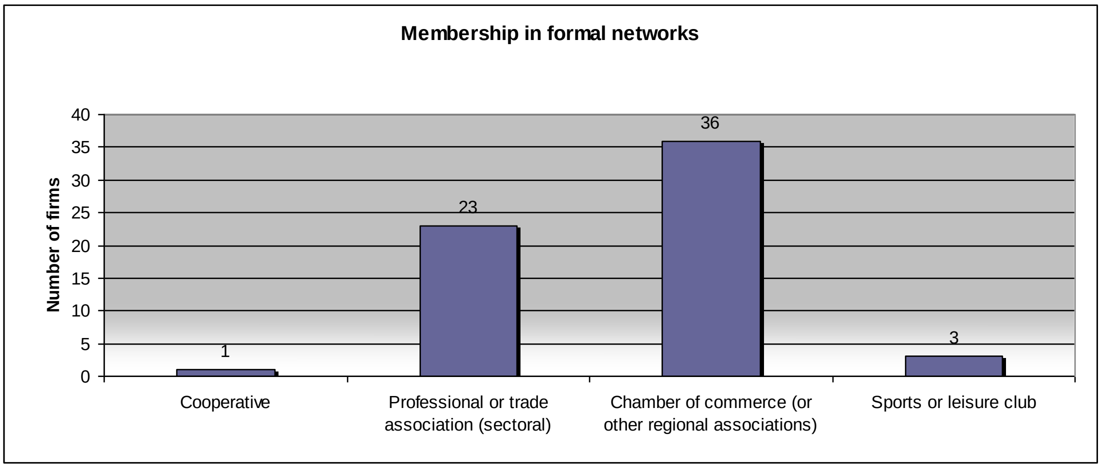


Figure Error! No text of specified style in document.**.6 Expressed membership in formal networks**

'Cooperatives' and 'Sport or leisure clubs' were less often stated as formal networks relating to business of the firm (as one entrepreneur stated: "*I am a member of a sports club but this is for my own leisure, I do not talk over business when I am there*" (NL_43).

Relationships with Sources of Finance

One particularity of small and medium-sized firms is not only that they are small in terms of numbers of employees, which is the common indicator for identifying them, but also limited in terms of internal funding available for the firm's development. Consequently, the relationship that a small firm has developed with financiers is of outmost importance for the long-term development of the firm.

In our electronic survey, we asked the entrepreneurs to measure the relevance of a set of pre-defined financiers when their firm seeks financing to develop further their activities. To whom do they turn when they need a strategic financial investment?

Three pre-defined types of actors were listed: owner & shareholder, banks & other financial institutions, and public support programs. An open, blank type was added, so that the respondent has the possibility to 'customize' its answer (but no respondent actually used this possibility). These three types of financiers were crossed with the parameter of the geographical location (or territorial representativeness), so that respondents had to assess the relevance of their relationship with financiers by type and by geographical location (regional, national, European, and World).

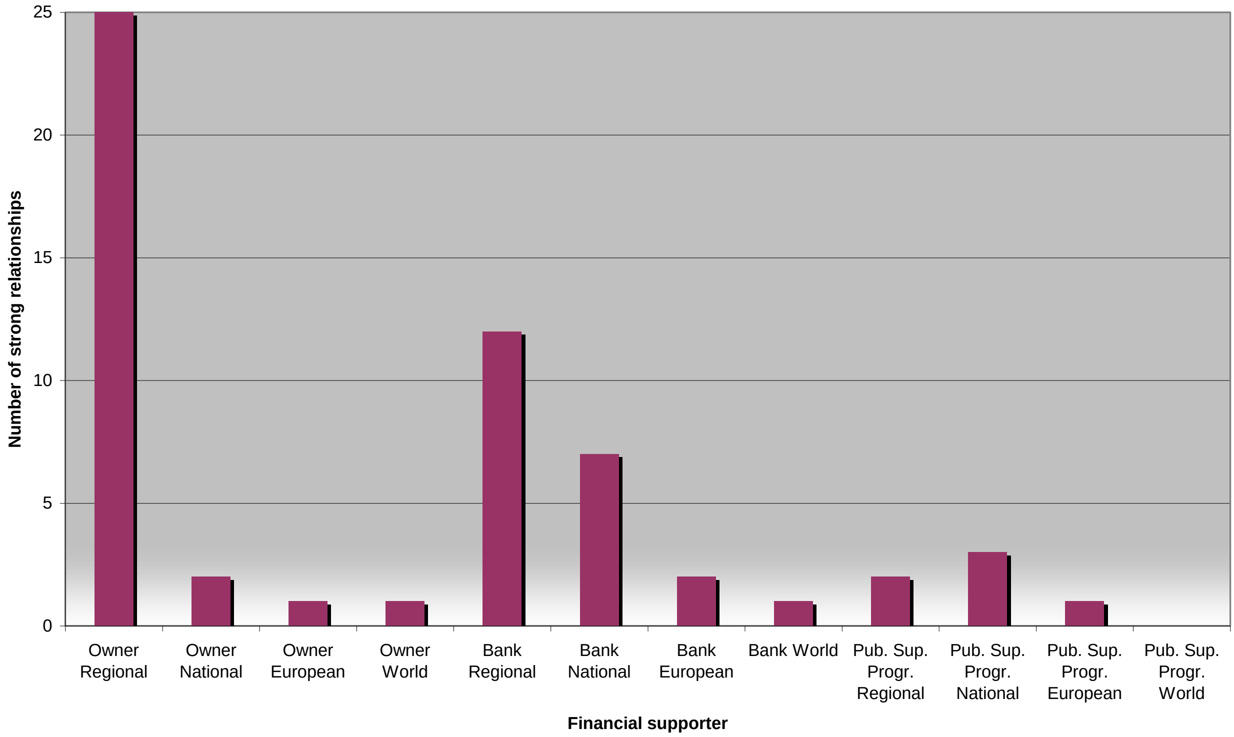


Figure Error! No text of specified style in document.**.7 Strong measures of support from financiers**

In contrast to the previous assumption, **Figure** Error! No text of specified style in document.**.7** indicates that amongst the SMEs in the Westerkwartier most importance is given to financial investments made by the shareholders themselves (29 times). Most of these shareholders further stem from the Westerkwartier or are resident in North Netherlands (25 times). For further support, the firms appear to have a strong relationship with regional banks (12 times) (in the Westerkwartier the RABObank is highly recognised as supporting starting entrepreneurs and development activities in the region) and to a lesser extend banks at national level (6 times). Six entrepreneurs also argued to obtain financial support from regional, national and European public support programmes. Here, it is interesting to note that in the Westerkwartier there is a so called "STIPO regulation" which offers financial assistance to starting, innovative entrepreneurs. This regulation has been installed as a counterpart to

LEADER funds which are only given to legal entities such as foundations or associations. Entrepreneurs were also given the option to fill in other types of financing sources. Here, one entrepreneur stated to obtain finances through parent contribution (child day care centre).

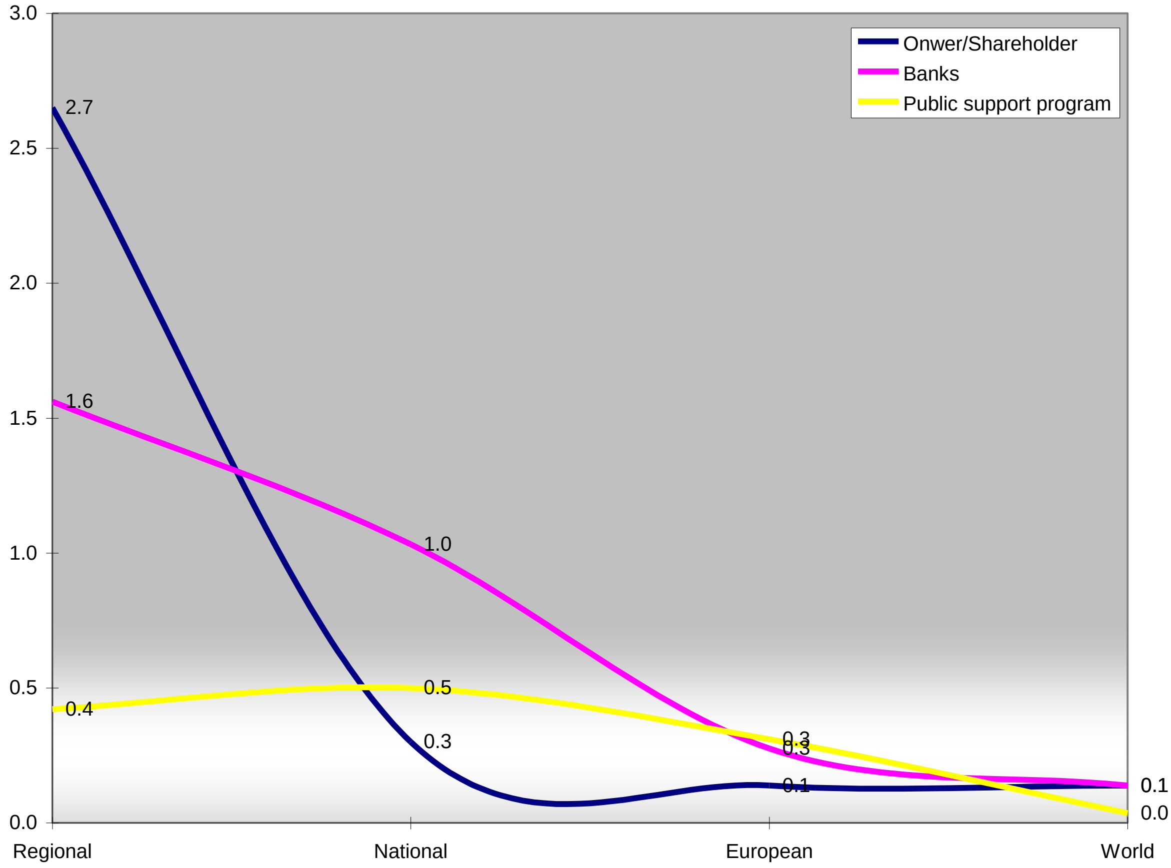


Figure Error! No text of specified style in document.**.8 Average responses regarding support from financiers given by the sample**

Finally, looking at the distribution of financial support means across space, support is mostly sought at regional level and only to a lesser extends at national level. Support at European and world level is only marginal.

Resilience and the Impact of the Financial Crisis

A question in our electronic survey was dedicated to the impact of the financial crisis of 2008-09 on the overall network of relations of our sampled firms. The respondent had to assess the importance of the crisis for the development of their relationship with the set of actors that were identified previously: clients, suppliers, companies, public agencies, research institutions and financial institutions. The question does not ask if the impact will be positive or negative, but just assess its intensity (again from zero impact to 4, strong impact). The latter fact may be seen as a 'mistake' in how we designed the survey, but we can assume that the impact is negative, although this may be investigated further in the second phase of our empirical work.

An interesting question that needs to be further developed in the second stage of the empirical work is how the various relationship may be instrumental for the firm's resilience and 'after-crisis' prospects. How does a firm use its network to increase its performance in unusual times?

In **Figure** Error! No text of specified style in document.**.9**, the number of strong influences of the financial crisis on different actors in the SMEs networks and their spatial distribution is presented. For firms residing in the Westerkwartier, it appears that the crisis has had the strongest impact on clients (24 times). Perceived impacts have also been reported with regards to banks (12 times) and cooperation with other SMEs (10 times) although these appear to be less significant than clients. One explanation for this result is that most questioned entrepreneurs are financing their enterprise through own resources. The impact perceived from suppliers appears only marginal.

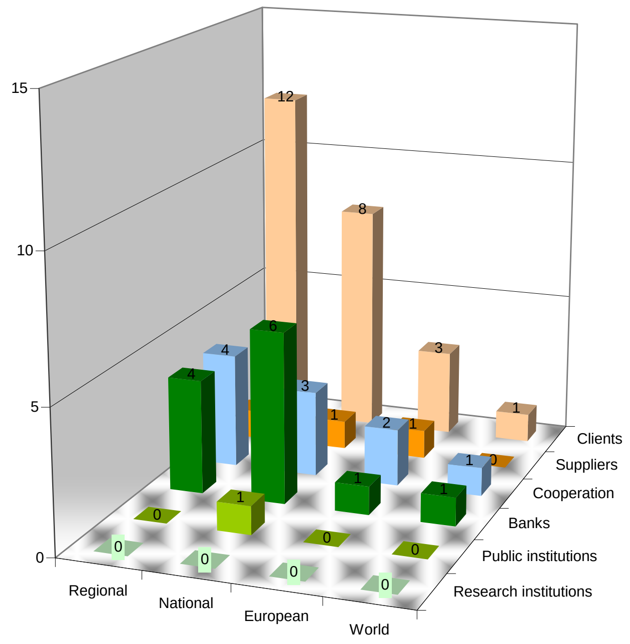


Figure Error! No text of specified style in document.**.9: Perceived high level impact of the financial crisis**

Furthermore, amongst clients and the cooperation with other SMEs, the impact of the crisis was mostly noticed at regional scale. With regard to support from banks and other financial institutes, the effect of the financial crisis was most noticeable at national level.

Conclusions

Most of the firms that participated in this survey are classified as one-man businesses. Their spatial outreaches are mostly limited to the region "North Netherlands" and to a lesser extend 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 for firms in the Westerkwartier:

- The conclusion is based on perceptions of firms mostly located in the rural areas of the Westerkwartier. In the first sampling process, firms in the rural areas were taken from a list of those that possess a website and on their website an e-mail address. The number of contacted firms was thus limited to 220. Due to this selection method, more than 600 firms were not contacted. Furthermore, nine of these responses were received from business women in the network "WichterWest". Members of this network are often starting entrepreneurs and their firms are often an economic side-activity.

- The second sampling process showed that there are firms within the Westerkwartier that are engaged in international trade and networking activities. Five of these firms can even be considered 'global' on the OECD index of SMEs. Six of the ten firms encountered, however, were resident in the industrial areas of the municipal 'capitals'. One can therefore raise the question to what extend these firms can still be considered 'rural' SMEs and hence contributing to 'rural' economies. This leads to a further question, whether 'rural' economies in the Netherlands can still be considered 'rural' as all 'rural' areas are in spatial vicinity to urban centres. It is thus most likely that 'rural' areas depend (and hence benefit or suffer) from economies in adjacent urban centres.
- Furthermore, three other international firms are active in the agriculture sector. This sector was first deliberately excluded from the sampling process, thereby following reports on trends of changing economic activities in rural areas of Europe. Regarding this result, one can argue whether an initial inclusion of the agricultural sector would have influenced the outcome of the research results.

The small size of the interviewed firms is mainly due to the Dutch spatial planning policy which prevents an expansion of firms in rural areas. All rural firms that like to expand their business need to move into industrial terrains in order to conserve the existing landscape. Future research should investigate what effect this policy has on the development of rural economy in the Westerkwartier. Also, research should focus on whether this policy influences the scale of transaction and collaboration of SMEs still residing in the Westerkwartier.

3.4.2. In-depth Face-to-Face Interviews

In the following section, the results of the face-to-face interviews will be presented. These are meant to provide a qualitative background to the quantitative results presented in the previous section. In particular, this section will focus on obtaining more detailed information on the importance of different groups of actors and their geographical distribution on various business operations of the interviewed firms. The face-to-face interviews were conducted in the Westerkwartier from September to October 2010.

All firms that were selected for face-to-face interviews were encountered during the second sampling process (see above). A second sampling process had to be conducted since the first sampling process did not show any firms with international trade or collaboration networks. During the second sampling process, a list of 45 firms with international trade relations was obtained from the local chamber of commerce. Most of these firms were located in the industrial areas of the municipal 'capitals' in the Westerkwartier, areas which were deliberately excluded in the first sampling process. Of the firms on the list, those that were either having their headquarters or tradition in the Westerkwartier, stated to be a family business or used regional products for their business were contacted. Furthermore, firms with international relations were actively searched for in rural Westerkwartier.

This sampling process resulted in 10 interview appointments with different firms. All firms were visited individually and a one hour interview was conducted. The interview started with filling in the survey. While the interviewees filled in the answers to the questions, the researcher noted all groups of actors which were given an importance score of 3-4 down on a sheet of paper. In case more than six actor groups were given a '3', the researcher limited the number of actors by focussing on all groups of actors given an importance score of '4' .The interview proceeded with a short conversation regarding the history of the firm, the effect of the financial crisis on the business, the role of networks for their firms and the way in which contacts were made and kept, barriers encountered by making contacts and their future vision. The interview continued by presenting the interviewee with the list of most important actors the researcher filled in during completion of the survey. The interviewee was then asked to fill the codes the researcher made up for each actor group into the 'actor map'. Interviewees were told to judge the importance of the different groups of actors for different business operations on a scale from 0 (unimportant) to 9 (very important). Each interview was recorded and transcribed. The obtained information was summarised and the interviewees were provided with the fiches to verify the information and to confirm that their anonymity was ensured satisfactorily.

Sample Selection and Firm Characteristics

Since the second sampling process included firms in the industrial terrains of the Westerkwartier, six out of the 10 firms sampled resided in such area. Furthermore, as **Table** Error! No text of specified style in document.**.8** shows, five out of the six firms are located in Leek, the largest city of the Westerkwartier. The four remaining firms are located in rural Westerkwartier (one of them in an adjacent area) and where approached through mutual contacts or contacted on the basis of information obtained in the region.

The second sampling process focused on firms with international networks, hence all firms stated to have at least slight international activities. As **Table** Error! No text of specified style in document.**.8** further shows, three of the interviewed firms are one-man businesses and can thus be categorised as 'micro firms'. These are located in rural Westerkwartier. Two further firms fell into the category 'small' (10-49 employees) and also here, one resides in rural Westerkwartier. The remaining five firms belong in the category 'medium' (50 and 249 employees) and reside in the industrial terrains of the Westerkwartier. Nine of the interviewed firms are independent companies and only one firm within the recycling sector is part of a regional agglomerate. The founding years of the different firms are highly diverse, ranging from 1898 to 2008. Interestingly, both the oldest and youngest firm are active in the 'agriculture, forestry and fishery' sector.

Table Error! No text of specified style in document.**.8: Firms selected for face-to-face interviews**

Code	Municipality	Founding year	Form of organization	Firm size	Sector	Perceived global integration
NL_37	Leek	1979	Part of a local/reg. agglomerate	Medium	Recycling	Moderately involved
NL_38	Grootegast	1898	Indep. Com.	Small	Agriculture, Forestry and Fishery	Involved
NL_39	Marum	1983	Indep.Com./ collective	Medium	Wholesale	Strongly involved

NL_40	Leek	1986	Indep. Comp.	Medium	Recycling	Strongly involved
NL_41	Boijl	1969	One-man business	Micro	Agriculture, Forestry and Fishery	Strongly involved
NL_42	Grootegast	2008	One-man business	Micro	Agriculture, Forestry and Fishery	Slightly active
NL_43	Leek	1938	Indep. Com.	Medium	Food industry	Strongly involved
NL_44	Leek	1991	Indep. Com.	Medium	Metal Industry	Strongly involved
NL_45	Leek	1977	Indep. Com.	Small	Metal Industry	Strongly involved
NL_46	Grootegast	1995	One-man business	Micro	Food industry	Low

According to the firms' activities, they can be classified into five categories. Each of these categories will be given a colour code as shown in **Table** Error! No text of specified style in document.**.8**. Three firms (two micro and one small firm) are engaged in the 'agriculture, forestry and fishery' sector. Their activities range from tool production to sport animal trade to primary food production. One firm is engaged in the 'wholesale' sector, dealing with food products. Two other firms are active in the 'metal industry', one dealing with aluminium products and the other dealing with furniture. Further two firms are active in the 'recycling' sector and two firms in the 'food industry', one in food processing and the other one in catering, direct selling of farm products.

Actor Maps: Key Findings regarding their configuration.

In this section, the relative importance of external linkages for different business activities as defined in the actor maps is analysed. Interviewees were asked to rank the importance of external linkages to different groups of actors for different business activities. The importance of the different actor groups was ranked from 0 (unimportant) to 9 (very important). Following the Swedish example, the information obtained from the actor maps will be analysed with regard to these three aspects:

(i) The ten 'dimensions' of activity (the rows).

(ii) The different kinds of actor.

(iii) The different spatial scales associated with the actors.

(i) The ten 'dimensions' of activity

Table Error! No text of specified style in document.**.9** provides an overview of the average importance given to the different activities by the different firms. As **Table** Error! No text of specified style in document.**.9** shows, three of the firms gave external linkages their highest average importance for the business operation '*compliance with rules and regulations*'. Interestingly, this business operation also received the highest overall mean importance score. Also, '*bringing in new businesses*', '*improving production processes*' and '*reacting to consumers' needs*' each received two times the highest average importance score.

Apart from the business activities in **Table** Error! No text of specified style in document.**.9**, several interviewees stated other activities for which they considered external linkages to be important. These are: '*voluntary business support*', '*collaboration with other, local actors*' and the role of the '*internet*'. All of these activities were only stated once and were thus not included in **Table** Error! No text of specified style in document.**.9**.

Table Error! No text of specified style in document.**.9 Average importance of external linkages for different business activities**

Interview	Bringing in new business	Awareness of competition	Improving market position	Finding new markets	Improving production process	Developing new products	Improving existing products	Reacting to customers' needs	Securing investment capital	Compliance with rules and regulations
NL_37	**7.00**	6.50	6.50	5.67	6.00	5.67	5.67	5.83	5.83	6.00
NL_38	4.20	4.00	4.80	4.20	4.60	4.20	4.00	**5.00**	4.00	4.00
NL_39	6.80	6.80	**7.20**	4.40	4.20	3.20	5.80	4.20	4.25	2.25
NL_40	**8.50**	6.33	6.83	6.83	6.50	6.67	7.00	5.83	4.50	6.17
NL_41	5.00	7.00	5.00	5.00	**9.00**			5.00		
NL_42	3.75	3.75	4.75	4.63	**5.50**	4.88	5.38	5.00	4.38	4.63
NL_43	7.00	5.00	5.71	4.14	4.43	4.57	4.57	4.86	6.67	**8.50**
NL_44	7.00	7.33	6.00	7.00	6.00	3.00		5.50	8.00	**9.00**
NL_45	4.00	6.00	5.00	5.60	5.00	**8.00**	**8.00**	**8.00**	4.50	**8.00**
NL_46	7.75	9.00	7.50	5.75	7.00	**9.00**	6.33	7.67	7.50	7.00
Mean	**6.10**	**6.17**	**5.93**	**5.32**	**5.82**	**5.47**	**5.77**	**5.69**	**5.51**	**6.07**
Business sector										
Agriculture	4.31	4.92	4.85	4.61	**6.36**	3.00	3.13	5.00	2.79	2.88
Wholesale	6.80	6.80	**7.20**	4.40	4.20	3.20	5.80	4.20	4.25	2.25
Metal ind.	5.50	6.66	5.50	6.30	5.50	5.50	4.00	6.75	6.25	**8.50**
Recycling	**7.75**	6.44	6.67	6.25	6.25	6.17	6.34	5.83	5.17	6.09
Food Industry	7.36	7	6.61	4.96	5.72	**8.29**	5.84	6.27	7.09	**7.75**

Looking at the bottom of **Table** Error! No text of specified style in document.**.9**, it becomes apparent that the importance of external linkages for business operations differs between different business sectors. The three firms within the 'agriculture' sector, for example, stated the highest average importance of external linkages for '*improving production processes*'. The firm in the sector '*wholesaler*' gave more importance to external linkages for raising '*awareness of competition*'. Within the 'metal industry', as well as within the 'food industry' sector, three firms appear to give most importance to external links for '*complying with rules and regulations'* whereas the two recycling firms gave the highest importance to external linkages for '*bringing in new businesses*'. The second firm within the food industry sector stated to give most importance to external linkages for '*developing new products*'.

Following the Swedish guidelines, the different business operations in the actor maps can be related to four broad categories:

'*Marketing*' (columns 1-4)

'*Product'* (columns 5-8)

'*Sourcing of investment capital'* (column 9)

'*Compliance with regulation'* (column 10)

Based on these categories, the overall activity orientation of the firms' business networks can be used to place the different firms into four different groups. Based on the average high importance score for the different business sectors, one can thus argue that firms operating in the 'agricultural' sector and one firm within the food sector fall within the functional group '*production*'. The wholesaler and recycling firms are '*marketing orientated'* and one firm within the food industry and the two firms within metal industry use their external network for '*compliance with rules and regulations'*. Interestingly, none of the interviewed firms gave high importance to external linkages for '*sourcing investment capital'*.

Looking once again at the individual average importance scores in **Table** Error! No text of specified style in document.**.9**, there are only few divergences between firms and their categories, except for one firm in the metal industry. Here, the firm gave high importance scores for both, columns within the category '*product*' and '*compliance with regulations'*.

Now, it becomes interesting to ask, what kind of actor groups are considered important as external linkages?

ii) The different kinds of actor

Important groups of actors for each firm were selected on the basis of their importance ranking in the survey. All actors receiving a '3' or '4' were considered as important. In cases where more than six actor groups received a '3', those actor groups receiving a '4' were considered. The interviewees were asked to rank the importance of these actor groups as external linkages for the different business operations.

As **Table** Error! No text of specified style in document.**.10** shows, '*customers*' and '*suppliers*' were most frequently stated as important external linkages for different business operations. In fact, *'customers'* where stated by all interviewed firms. Other important actor groups include '*shareholders*', '*banks*' and '*SMEs*'. Sometimes, actor groups were distinguished between different geographical levels. In this case, the actor group was counted separately for each geographical level.

Table Error! No text of specified style in document.**.10 Number of appearance of different actor groups on actor maps**

Types of Actors		**Frequency**
Market	Customers	10
	Suppliers	9
Coop with:	SMEs	6
	Large Firms	3
	MultiNationals	0
Support from:	Govt Advisory Bodies	3
	Research Institutes	2
	Business Consultants	3
	Industry	4
Sources of Finance	Shareholders/Owners	8
	Banks etc	6
	Public Support Programmes	2
	Other	0
Membership Orgs.	Coops	0
	Professional or Trade Org.	0
	Chamber of Commerce	0
	Sports or Leisure Club.	0
	Other	0

It is interesting to note that *banks* were found on 6 out of the 10 actor maps. This fact is especially interesting, considering that none of the participating businesses gave high importance to their network for '*sourcing investment capital'*. Looking at the different actor maps it becomes apparent that although banks are important for '*securing investment capital'*, they are considered to be equally important for '*product*' development, '*marketing*' activities and '*compliance with rules and regulations'*. Furthermore, none of the interviewees considered actor groups falling into the category '*membership organisations'* as important external linkages for their firms.

Besides the frequency of appearance on the actor maps, it is also interesting to analyse how important the different actor groups are as external linkages for the different business operations. **Table** Error! No text of specified style in document.**.11** thus shows that '*shareholders*' received on average the highest importance scores, followed by '*customers*'. One interviewee also gave high importance to *public investment programmes*.

Furthermore, there is a great variation between the different firms in giving importance to the different actor groups. The total average scores for the different actor groups must therefore be read with caution. Looking at **Table** Error! No text of specified style in document.**.11**, for example, three firms stated that *customers* are their most important external linkages. Other four interviewees indicated that *shareholders* are the most important actor groups with regard to the different business operations.

Table Error! No text of specified style in document.**.11 Mean importance score for actor group in actor map**

Interview	Customers	Suppliers	SMEs	Large Firms	Govt. Advisory bodies	Research Insitutes	Business consultants	Shareholders/Owners	Banks etc	Pub. Support Programmes	Industry
NL_37	6.30	6.00		5.20				**7.10**			4.70
NL_38	1.50	2.40	**6.70**						4.90		6.00
NL_39	5.72	3.38						**7.81**	5.20		
NL_40	5.60	6.50	6.00				4.00	**9.00**	8.00		
NL_41	**8.67**	5.50									
NL_42	**7.64**	5.81	3.36		2.64	4.36	**7.72**		5.00		2.09
NL_43	6.38	3.62		2.78	**8.50**			3.60	4.40	**8.60**	
NL_44	6.40							**7.50**			7.75
NL_45	**7.67**		**7.55**					3.00	3.75		
NL_46	**9.00**	**9.00**	7.50		3.50	1,0	5.17	**9.00**			
Mean	**6.49**	**5.28**	**5.19**	**3.99**	**4.88**	**2.68**	**5.63**	**6.72**	**5.21**	**8.60**	**5.14**

Still other firms gave similar high scores to *customers* and *business consultants* (e.g. NL_42) or *customers* and *SMEs* (NL_45). One firm (NL_43) in the food industry sector stated that *governmental advisory bodies* and *public support programmes* are their most important external links for business operations.

With regard to the foci of the different functional groups '*marketing*' and '*product*' no considerable differences were found between the importance of different types of actor groups. For the group '*compliance with rules and regulations'* however, governmental advisory bodies and public support programmes appear more important than to other functional groups.

To summarize the orientation of the different actor networks, each actor network received a descriptive heading as shown in **Table** Error! No text of specified style in document.**.12**. Seven out of the eight headings as shown in **Table** Error! No text of specified style in document.**.12** include the word *customer* and the description '*customer oriented'* or '*shaped by customer desires'*. Once again, this emphasises the importance of customers as external linkages.

Table Error! No text of specified style in document.**.12 Actor map descriptions**

Firm	Actor map description
NL_37	Regionally entangled, customer and supplier driven
NL_38	Oriented towards international customers and nationally financed
NL_39	Shaped by customer's and shareholder's desires, financed by financial institutes
NL_40	Designed by shareholders with the help of financial institutes to meet consumer and supplier demands
NL_41	Completely customer orientated
NL_42	Driven by consumer demands and supported by an even interaction of different other actors
NL_43	Developed within the boundaries of public rules and regulations
NL_44	Customer oriented but otherwise very independent
LN_45	
LN_46	

After analysing the importance of different types of actor groups for different business operations, thereby distinguishing between individual firms, business sectors and functional groups, it is now interesting to ask: At what spatial scale are these important group of actors located?

(i) The different spatial scales associated with the actors

Following the Swedish example, the relative importance of regional, national, EU and global actors will be analysed: (a) According to the proportion of actors located in each geographic scale, (b) According to the average importance placed upon the national and international actors.

a) As **Table** Error! No text of specified style in document.**.13** shows, the majority of actor groups as mentioned in the actor map are located within the region 'North Netherlands' and 'the Netherlands' (83.33 %). Those actor groups outside the Netherlands are mostly found in Europe and the smallest proportion is found in the rest of the world.

Table Error! No text of specified style in document.**.13 Proportion of actors located at different geographic scales**

Interview	Number of actors in Actor Map/Cobweb Regional	National	European	Global	Total	% EU/ Global
NL_37	5.00	1.00	0.00	0.00	**6.00**	**0.00**
NL_38	2.00	2.00	1.00	0.00	**5.00**	**20.00**
NL_39	1.00	3.00	1.00	0.00	**5.00**	**20.00**
NL_40	3.00	1.00	1.00	1.00	**6.00**	**33.33**
NL_41	0.00	1.00	1.00	0.00	**2.00**	**50.00**
NL_42	2.00	4.00	2.00	0.00	**8.00**	**25.00**
NL_43	5.00	4.00	4.00	1.00	**14.00**	**35.71**
NL_44	1.00	0.00	2.00	2.00	**5.00**	**80.00**
NL_45	2.00	2.00	2.00	0.00	**6.00**	**33.33**
NL_46	6.00	2.00	0.00	0.00	**8.00**	**0.00**
Total	**27.00**	**20.00**	**14.00**	**4.00**	**65.00**	**27.67**
Business sector						
Agriculture	4.00	7.00	4.00	0.00	15.00	33.33
Wholesale	1.00	3.00	1.00	0.00	5.00	20.00
Metal ind.	3.00	2.00	4.00	2.00	13.00	46.15
Recycling	8.00	2.00	1.00	1.00	12.00	16.67
Food Industry	11.00	6.00	4.00	1.00	22.00	22.27

Looking at the individual firms, one firm in the recycling sector (NL_37) and one firm in the food industry sector (NL_46) did not state any international relations as important. In contrast, one firm within the metal industry (NL_44, 80%) and also one firm within the agricultural sector (NL_41, 50%) showed the highest percentage of international actor groups. These large difference between firms, even within the same sectors and functional groups arbitrary and should be regarded with caution.

b) **Table** Error! No text of specified style in document.**.14** suggests that the average importance given to regional/national actor groups (6.31) is slightly higher than the average importance given to international actors (5.96) in the actor networks of the different firms.

Table Error! No text of specified style in document.**.14 Average importance of regional/national and international actors**

Interview	% Actors EU/ Global	Av. importance - Regional/ National	Av. importance - EU/ Global
NL_37	**0.00**	6.06	
NL_38	**20.00**	3.70	6.70
NL_39	**20.00**	5.80	2.40
NL_40	**33,33**	6.75	6.50
NL_41	**50.00**	8.67	5.50
NL_42	**25.00**	6.36	5.45
NL_43	**35.71**	5.26	7.00
NL_44	**80.00**	7.50	7.12
NL_45	**33,33**	5.78	7.00
NL_46	**0.00**	7.19	
Total	**27.67**	6.31	5.96
Business sectors			
Agriculture	33.33	6.24	5.88
Wholesale	20.00	5.80	2.44
Metal ind.	46.15	6.64	7.06
Recycling	16.67	6.41	3.25
Food Industry	22.27	6.23	3.5

When looking at the different business sector, it appears that the biggest differences in importance of regional/national and international actors are within the ‘wholesale sector’, the ‘recycling industry’ and the ‘food industry’. The low scores for international relations within the ‘recycling’ sector and the ‘food industry’, however, are due to mathematical calculations. In each of these sectors, one firm stated to have international relations in their actor map while the other firm did not state to have international relations. Taking the average of both scores resulted in a lower total average for the respective business sector.

Considering the individual firms in **Table** Error! No text of specified style in document**.14**, one firm operating in the ‘agriculture’ sector, one firm operating in the ‘food industry’ and one firm operating in the ‘metal industry’ stated considerably higher importance scores for international than national/regional actor groups. The owner of the firm in the sector ‘agriculture’ which falls within the functional group ‘production’ thus stated: “*European businesses are important for the business’ product choices while Dutch clients are an important income source”* The owner thus continued to state “*The Dutch clients finance our expansion plans*” (NL_38). Also the other two firms state that for market and product development, European customers are highly important. Though how are contacts with the different regional/ national and international actor groups made and maintained?

Insights into the Building, 'Maintenance' and Globalisation of Business Networks.

In order to find out how firms establish and maintain their regional/national and international business networks, interviewees were questioned regarding a) their involvement in formal networks, b) making and maintaining contact, c) the role of the internet in making and maintaining contacts and d) perceived barriers in contacting new business partners.

a) The role of formal networks

The interviewed entrepreneurs mentioned two types of formal networks that were considered relevant for their firms: the Chamber of Commerce and sector associations. Two interviewees stated not to use any of these formal networks.

All of the interviewed firms are registered with the local Chamber of Commerce. Interestingly, however, only three of the ten interviewed entrepreneurs reported to actively use (or have used) the Chamber of Commerce for making new business contacts. One interviewee who belongs to the agricultural sector thus reported to have used this service about 20 years ago in order to establish international contacts. The two firms from the metal industry report to use the Chamber of Commerce or trade organisations as intermediaries to make international business contacts. One interviewee thus explained that the local Chamber of Commerce collaborates with foreign Chambers. The entrepreneurs from the Westerkwartier are able to request from the Chamber of Commerce to visit a number of firms in a particular area and they will pay the Chamber of Commerce for organisation of these trips. Through these organised visits, new contacts are established which can later be potential business partners. The other interviewee in the metal industry argued on the same line, stating that the advantage of using associations as intermediaries is that these people speak the local language and have knowledge about the local network. These insights can then be used to establish contacts for the firms and to establish business relations.

All of the interviewed firms also stated to be registered with branch/trade associations. The relevance of these associations for making and maintaining business contacts differed between interviewees. One interviewee in the agricultural sector thus stated that he does not believe in the benefits of any associations because they "*only ask for money and give nothing back*" (NL_41). In contrast, a further interviewee from the recylcing sector stated to use meetings of their branch association to meet other people in their branch: "*When there is a business meeting in the Netherlands, I will surely participate. Amongst other things, I visit these meetings to get to know other operators in our business sector. Often this will bring up new contacts. This is how we establish a network*" (NL_37).

Besides using formal networks such as the Chamber of Commerce or trade associations, there are other, formal means to establish contact. For example, two interviewees stated to have special staff members who are trained to built up business networks and who travel around the world in order to recruit new clients.

Furthermore, all firms stated that trade fairs play an important role for making new business contacts. One interviewee of the wholesale sector thus states: "*We are not engaged in business networks*" (...). However, "*we have been going to the biggest trade fairs in our branch for 20 years. First, it was really small but then it grew. 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*" (NL_39).

Although organised fairs, networks or visits to business act as initial contact points between potential business partners, when it comes to actual agreements and business relations contact modes relations are often taken from a formal to an informal level.

b) Making and maintaining contacts

All ten firms interviewed emphasised the importance of informal networks to establish and maintain business contacts.

One interviewee in the food processing sector remarked, however, that the way in which contacts are made depends on the interest of the business relation. The interviewee explained that if the business relation only concerns price the business relation is rather formal. If the business relation also concerns quality and production standards, the contact becomes much more informal. While one interviewee thus stated "*The most important thing to talk about is price and quality*" (NL_43) a different interviewee stated "*If the client talks about the price in five minutes, I will not make a deal with him. We are selling quality products and after all, also a piece of emotion*" (NL_38).

At least four interviewed firms stated that informal networks are established through via-via contacts, personal firm visits and mouth-to-mouth propaganda. One interviewee thus stated, "*It is possible to call someone but this will not be as successful as networking and via via contacts*" (NL_38). A further interviewee in the agricultural sector stated not to search for clients actively but that clients from all over the world approach his company through word of mouth propaganda and recommendations. Still another interviewee stated "*We do not advertise our products. Most of our clients are [*in big cities in the West of the Netherlands*]. New contacts are obtained through contacts between the clients*" (NL_42).

While in all of the small and micro firms the owner was stated as being responsible for the maintenance of the contacts, two large firms stated that informal networks are maintained through accountants and special staff members in their firm.

In all firms, informal contacts are maintained through frequent visits to the business partners, visits by the business partners to the interviewed firms and telephone contacts. For example, one interviewee stated "*When my children ask me what I do, my wife answers I drink coffee, drive around in the car and talk on the phone. This is true, I do nothing else*" (NL_37).

Interestingly, also the outer appearance is important for making a contact informal or formal. One interviewee thus explained that during the first meeting, he usually wears a suit but in the second or third meeting, he may also come in jeans, depending on the customer. A further interviewee in the agricultural sector stated "*These people that walk around in suits do not have interest in our* *products. This is an informal target group. Once the network begins to get formal, I step out. I always go in my jeans*." (NL_38).

This interviewee and a further interviewee in the metal industry thus conclude that informal networks are common in their branch and that the shown informality, the establishment of friendship feelings and trust are a strategy for business successes.

c) The role of the internet in making and maintaining contacts

For seven of the ten interviewed firms, the internet has had a positive influence on their business operations. For example, one interviewee stated "*I cannot live without my blackberry!"* (NL_38). Further interviewees stated that the internet has simplified communication processes and made it easier to establish new business contacts. One interviewee thus stated "*Everybody knows how to find us*" and "*fairs and the internet are the easiest way to establish contact*" (NL_39). A further interviewee stated to use the internet as reference for other firms and potential clients. In terms of business contacts, however, personal contact is preferred.

One interviewee in the recycling sector stated not to use the internet for their business operations, which is also reflected in the small amount of information that can be found about the firm on the internet.

Two further interviewees were more sceptical towards the use of the internet for their business operations. One firm in the agricultural sector thus stated that the internet would have negative effects on their business. The interviewee thus explained that people often find their products for a much lower price on the internet than they can produce. So, their clients start to complain about the high prices. After time, the interviewee relates, the customers will always learn that the quality sold on the internet is much lower than their products. Nevertheless, this interviewee regarded the internet as a nuisance although the firm is represented in the internet as well. A further interviewee in the agricultural sector was sceptical towards the use of the internet: "*It will not be nice if clients order the product via the internet. I always make deals on the phone*" (NL_42).

The latter responds reflects a statement made by all of the interviewees. The internet cannot replace personal contact with business partners. Eventually, all contact is carried out on a personal level. This is very important to the interviewees since a business relation is based on trust. As one interviewee puts it: "*If you do not know the person, how can you be sure you will get your money?"* (NL_42). On the same lines, a further interviewee stated: "*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*" (NL_44).

d) Perceived barriers in making and maintaining contacts

Potential barriers for making contact with business partners outside the region were considered as being language, culture and access to local networks. For all of these barriers, however, the interviewees seem to have found solutions.

For example, one interviewee in the metal industry stated that it is of utmost important for the firm to have networkers that speak the local language. Cultural barriers however, are not so important since "*underneath the cultural layer men are still men*" and "*we built a feeling of friendship and trust, this works everywhere*" (NL_44). Another interviewee in the agricultural sector had different experiences and stated to have terminated earlier business relations "*due to cultural differences and related differences in working mentalities*" (NL_42).

A further interviewee in the food industry also stated that language is an important barrier and the knowledge of local networks, rules and regulations. This interviewee therefore suggested that coordinators should be installed in different regions with particular skills in order to help foreign firms establish business contacts.

Besides these barriers, a further interviewee in the wholesale sector also stated that competition is an important barrier to establish business contacts outside the region. Also, one interviewee within the agricultural sector found out that customers are sensitive towards the origin of the product and that certain labels are a disadvantage for entering other markets.

The Evolution of Business Networks and the Impact of Recession

Interestingly, only one of the interviewed firms was economically dependent and bound to products produced in the Westerkwartier. All other firms stated to buy and sell products from outside the Westerkwartier. Nevertheless, these firms felt attached to the Westerkwartier due to family or firm tradition, the quality of the

Westerkwartier as a living environment or the working mentality and cost of labour.

The financial crisis has had diverse impacts on the business networks of the different firms interviewed. Interestingly, four firms stated a considerably increase in sales during the time of the financial crisis and looked back positively on the past years. One wholesaler thus stated that the sales of the firm have increased by 13% and are expected to rise to 18% this year. When asked for the reasons of these developments, all firms stated that their positive development was dependent on their specialisation in quality products and an independence of financial institutions. For example, one interviewee in the agricultural sector stated "*to have never sold so many products in its 110 year history than in the five past years*" (NL_38). The interviewee reasoned "*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 but if they decide, they choose quality products.* [...]" (NL_38). Also a firm in the food industry reported an increase in sales. The firm did, however, experience difficulties with regard to investments from financial institutions. The interviewee thus explained "*We are involved in buying some companies that have become bankrupt during the crisis. We have good sales numbers and we can convince the banks to give us loans for these developments, but it is not as easy as before. You can really feel that the provision of money through financial institutions is not as easy as it used to be. However, looking at our turnover, I cannot say that the crisis has influenced us*." (NL_43). One of the important factors to protect these firms from the negative effects of the financial crisis further appears to be an independence from financial institutions for loans. As one interviewee from the agricultural sector explained: "*I think it has to do with the fact that most companies were doing business with China. Before the crisis, it was possible to get a loan from the bank [...]. With this money, the companies ordered a container with products from China and paid the money back to the bank when they sold the products. Now, banks do not provide such loans anymore. Now, all companies have to buy their products locally because they cannot afford the containers from China any longer*" (NL_38).

Besides these positive experiences, four firms also experienced difficulties with regard to the financial crisis. One firm in the metal industry thus explained that assignments were cancelled, and business partners unable to pay bills. However, the impact was more significant amongst clients in the Middle East, Russia and Eastern Europe than in West Europe. Interestingly, also an interviewee in the agricultural sector stated that the impact amongst clients in Europe was relatively low, because "*they are all rich*" (NL_41). This firm, however, experienced problems with suppliers who were trying to sell lower quality products than before. Two further firms stated that the financial crisis caused them to increase their operating areas nationally and internationally. One interviewee in the recycling sector thus stated that "*In the past, the business was only oriented towards Groningen province and the 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 operation area* [...]" (NL_37). Another interviewee in the recycling sector adds that production has been relocated to other parts of the world, for example Asia. Consequently, their business network needed to be expanded in order to contract business assignments.

Conclusions

Based on the findings of the face-to-face interviews the following conclusions can be drawn:

- Six out of the ten sampled firms where established in industrial areas of the municipal 'capitals'. It is therefore questionable to what extend these business can be considered rural.
- Most of the interviewed businesses are not economically dependent on the Westerkwartier. One can thus question their anchoring in the case study region. These business state to be connected to the region through tradition and family heritage. Are these motives strong enough to create sustainable economies in the Westerkwartier?
- Business networks were mostly regarded as important for 'complying with rules and regulations', 'improving production processes', ' bringing in new businesses', and 'reacting to consumer needs'.

- The business networks of firms in the agricultural sector can be classified as ‘production’ oriented, the network of firms in the ‘wholesale’ and ‘recycling’ sector can be classified as ‘marketing’ oriented and firms in the industry use their business network for ‘compliance with rules and regulations’.
- Amongst the different groups of actor, customers, suppliers, shareholders (owners) and banks were considered most important.
- The geographical scale of the business networks inventoried is to more than 80% restricted to the Netherlands. However, within the different business sectors and functional groups there was a considerably variation amongst individual firms, making a generalisation difficult.
- Formal networks are often used as “stepping stones” to make business contacts. More important than formal networks, however, are informal contacts made through via-via contacts, recommendations, word of mouth propaganda and trade fair representations/visits.
- Contacts with business partners are maintained on an informal basis. This is also regarded as a strategy to make and maintain business contacts. Although the internet has been given high importance by seven of the interviewed firms, also these interviewees agreed that it cannot replace personal, face-to-face contact with potential business partners.
- The economic crisis has had positive and negative impacts on the firms interviewed. For some, it has increased sales and it was argued that this was due to the high quality of products and independence from financial institutes. Others experienced drawbacks and expanded their business networks nationally and internationally in search for new business assignments and in order to escape local competition.

These results suggest some policy recommendations:

1 Interpersonal exchange of SMEs within the EU should be promoted by stimulating the organisation of fairs and business network meetings.

2 The establishment of European (and global) business networks as a way to balance local competition within rural regions should be promoted

3 Financial independence of SMEs in rural area should be stimulated in order to make them less vulnerable towards fluctuations in the global economy.

3.5. Alytus (Lithuania)

3.5.1 The Electronic Survey of SME Networking

Methodology and Sampling

The responses to the DERREG questionnaire on SME networking in Alytus county, Lithuania were compiled during March – July, 2010.

The data about Alytus county enterprises and their contacts according to survey criteria was not accessible at Department of Statistics to the Government of the Republic of Lithuania nor at any other source of official statistics, therefore a list of Alytus county SMEs was compiled using database of Lithuanian enterprises (Enterprise Catalogue 2010, websites http://www.imones.lt/, http://www.visalietuva.lt/ http://www.rekvizitai.lt/). Alytus county enterprises were extracted from the catalogue according to their address, type of activity and size (number of employees). An official EU description of small and medium enterprises was used to identify the suitable firms for the survey, since micro and small enterprises, with few cases of medium enterprises, dominate in Lithuanian rural areas. Sampling was carried out as follows:

- selecting firms with the number of employees up to 249 (less than 10 employees - micro, less than 50 employees - small and less than employees 250 - medium enterprises);
- excluding Alytus city municipality which does not represent rural business. At the first stage of the survey other Alytus county municipality centers were also excluded – Lazdijai, Druskininkai and Varėna, but targeting rural areas without any municipality centers did not provide sufficient results for the analysis. Therefore, smaller municipality centers were included into a sample during the next stage.

All economic branches were included in the list of firms, which contained nearly 900 firms. There were no respondents from the following economic activities: mining and quarrying, electricity and energy supply, water supply, financial and insurance activities, administrative and support service activities and education. However, these economic branches have different specifics compared to 'typical' rural business activities.

From this sample of firms, the research team contacted the firms according to the following procedure:

- Emailing the firms' managers information about DERREG project business network survey and translated PDF format questionnaire prepared by WP1 leaders, asking to fill it. Since there was no response from the firms, PDF format questionnaire was simplified converting it to Word format.

- Second stage was telephone calls to firms' managers shortly explaining the reason for our call and asking them to answer the questionnaire. The managers were also asked to confirm their email addresses, because during the first round around 25 percent of emails returned without reaching the addressees.

- To those who agreed to fill in the questionnaire and send it back by email/post, the Word format questionnaire was sent.

- Since the response rate was not yet sufficient (only half of the targeted number – 25 questionnaires were obtained this way), the third 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 obtained information. This way the research team reached the number of 55 responses. Due to a low response rate nearly all 900 of firms had to be contacted in order to achieve this target. The low response rate can be explained by two main reasons - observable impact of economic crisis to SMEs in Lithuanian rural areas – new firm liquidation or bankrupt cases were discovered during the survey, and little involvement of Lithuanian rural SMEs in the global market - many firm managers considered themselves not suitable respondents for this survey.

Since it was easier for the respondents to fill in the Word format questionnaire (more familiar programme), later the data had to be re-entered into PDF format questionnaire by the researchers in order to convert the answers into common coding system and proceed with the data analysis.

The research team aimed to reach bigger number of responses, because just few rural firms that responded to the survey demonstrated extra-regional linkages. It 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).

Differently from other countries participating in this survey, Lithuanian businessmen did not have possibility for free international trade till the Soviet Union collapse, thus there are only 20 years of SME (re-)internationalization process in Lithuania. According to entrepreneurs' opinion, medium and large enterprises are more suitable for international trade because it takes bigger amounts of goods to stay profitable.

However, the discussion about rural SME extra-regional links' development was timely and attained interest from many businessmen who are keen to find new solutions for their business development. The thinking about international network development can also be observed in Alytus county business support institutions like Alytus Business Association of Alytus Region, which aim to establish sectorial international networks, for example, the project "Development of Wood Enterprises Cluster and Promotion of Cross Border Co-operation" (Baltic Sea Region INTERREG III B Neighbourhood Programme).

The sample of firms represents the regional economies of Southern Lithuania as a whole. The answers from 55 firms illustrate to what extent and how firms in sparsely populated areas of Southern Lithuania are developing extra-local business relations.

Overview of Sampled Firms

Firstly, the survey focused on general information about the company itself. The respondents had to provide information about firm location, firm age, ownership structure, economic branch and size. Then the respondents were asked about the extent to which they consider their company integrated in international or global networks.

The firms of the sample show a good geographical distribution, corresponding to all five Alytus county municipalities, both municipality centres and municipality districts except the biggest regional center Alytus city municipality. Yet, some municipalities are more represented than others, depending on respondents' willingness to answer the questionnaire. The smallest number of filled questionnaires was in Alytus district municipality - 11, the biggest number - in Varėna district municipality - 17. There were similar numbers from Lazdijai district municipality - 15 and Druskininkai municipality – 12 questionnnaires.

More answers were received from municipality centres than from their surrounding districts, where business situation is often worse.

In connection to economic changes in Lithuania (after the Restitution of Independence in 1990) 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 is medium size and has high perceived level of global integration. 34 firms that responded to the electronic survey were established in the period 1990-1999 and 18 firms in period 2000-2009. There is also one firm created in 2010 in the sample. So majority of the firms are quite young, but some of them have prehistory in other forms of activity.

In our sample 50 firms are independent firms, three firms belong to regional conglomerates and two belong to national conglomerates. None belonged to a foreign-owned group.

The most represented economic activities according to the NACE classification in our sample are: 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. Professional and technical activities cover a range of services characteristic in rural areas, like veterinary, sewing, hairdresser, car repair services for example. Wholesale and retail trade often refers to goods that are produced/picked in the region (food products, handicraft, jewellery, wood, etc.). Accommodation and food services present one of the most popular small business in rural areas – rural tourism, including catering.

47 firms in the sample are considered micro, i.e. firms with less than ten employees (at the time of the survey). Such firms make majority of the firms in Lithuanian rural areas. Seven firms are small firms, with a number of employees from 10 to 49, and only one firm is medium-sized firm with a number of employees from 50 to 249.

The respondents were asked to assess the degree to which their company is integrated into global network. This assessment enables us to get an idea on how the managers perceive the position of their company in times of globalisation.

Four responses were available to the respondent: low integration, medium low, medium high and high.

19 firms stated that they do not participate in the global/international market at all. A further 30 estimated themselves with 'low' degree of integration in such global networks, two firms perceive their integration as 'medium low'. Only two firms stated that they have a 'medium high' degree and two a 'high' degree of integration. Thus only four firms out of 55 that responded to the survey are more integrated in global networks.

Table Error! No text of specified style in document.**.15: Main characteristics of the responding firms**

Firm code	Firm location (Municipality)	Firm start	Firm ownership	Economic branch[1]	Firm size[2]	Perceived level of global integration
LT_02	Varėna	2002	Independent	Accommodation and food service activities	Micro	No
LT_09	Varėna	1991	Independent	Manufacturing	Micro	No
LT_11	Varėna	1997	Independent	Manufacturing	Micro	No
LT_15	Druskininkai	1991	Independent	Professional, scientific and technical activities	Micro	No
LT_16	Druskininkai	1992	Independent	Accommodation and food service activities	Micro	No
LT_17	Lazdijai	1997	Independent	Health care	Micro	No
LT_18	Lazdijai	1996	Independent	Professional, scientific and technical activities	Micro	No
LT_19	Druskininkai	1994	Independent	Professional, scientific and technical activities	Micro	No
LT_20	Lazdijai	2001	Independent	Accomodation and food service activities	Small	No
LT_21	Druskininkai	1995	Independent	Professional, scientific and technical activities	Micro	No
LT_22	Lazdijai	1992	Independent	Professional, scientific and technical activities	Micro	No
LT_23	Druskininkai	1985	Independent	Professional, scientific and technical activities	Micro	No
LT_24	Varėna	1995	Independent	Professional, scientific and technical activities	Micro	No
LT_25	Varėna	2010	Independent	Accommodation and food service activities	Micro	No
LT_26	Lazdijai	2000	Independent	Manufacturing	Micro	No
LT_27	Varėna	1995	Independent	Real estate activities	Micro	No
LT_28	Varėna	2002	Independent	Agriculture, Forestry and Fishing	Micro	No
LT_29	Varėna	2000	Independent	Accommodation and food service activities	Small	No
LT_30	Varėna	1995	Independent	Arts, entertainment and recreation	Micro	No
LT_01	Lazdijai	2006	Individual activity	Accommodation and food service activities	Micro	Low
LT_03	Varėna	2004	Independent	Accommodation and food	Micro	Low

[1] According to the European NACE 2.2 classification

[2] According the EU DG Enterprise definition. Micro from 0 to 9 employees; Small from 10 to 49 employees; Medium from 50 to 249 employees.

Firm code	Firm location (Municipality)	Firm start	Firm ownership	Economic branch[1]	Firm size[2]	Perceived level of global integration
				service activities		
LT_04	Alytus	1998	Independent	Wholesale and retail trade	Micro	Low
LT_05	Varėna	1992	Independent	Professional, scientific and technical activities	Micro	Low
LT_06	Varėna	1994	Independent	Professional, scientific and technical activities	Micro	Low
LT_08	Varėna	1997	Independent	Manufacturing	Micro	Low
LT_12	Varėna	1993	Local conglomerate	Wholesale and retail trade	Micro	Low
LT_13	Druskininkai	2005	Independent	Construction	Micro	Low
LT_14	Druskininkai	1995	Independent	Manufacturing	Small	Low
LT_32	Lazdijai	1991	Independent	Professional, scientific and technical activities	Micro	Low
LT_34	Alytus	-	Independent	Professional, scientific and technical activities	Micro	Low
LT_35	Alytus	2004	Independent	Professional, scientific and technical activities	Micro	Low
LT_37	Alytus	1995	Independent	Wholesale and retail trade	Micro	Low
LT_38	Alytus	2004	Independent	Accommodation and food service activities	Micro	Low
LT_39	Alytus	2004	Independent	Health care	Small	Low
LT_40	Alytus	2004	Independent	Wholesale and retail trade	Micro	Low
LT_41	Alytus	2004	Independent	Transportation and storage	Small	Low
LT_42	Alytus	1995	Independent	Wholesale and retail trade	Micro	Low
LT_43	Druskininkai	1992	National conglomerate	Agriculture, Forestry and Fishing	Micro	Low
LT_44	Druskininkai	2000	National conglomerate	Wholesale and retail trade	Micro	Low
LT_45	Druskininkai	1990	Independent	Accommodation and food service activities	Micro	Low
LT_46	Druskininkai	1995	Independent	Construction	Micro	Low
LT_47	Lazdijai	1992	Independent	Agriculture, Forestry and Fishing	Small	Low
LT_49	Lazdijai	1992	Independent	Agriculture, Forestry and Fishing	Micro	Low
LT_50	Lazdijai	1997	Independent	Manufacturing	Micro	Low
LT_51	Lazdijai	1992	Independent	Agriculture, Forestry and Fishing	Micro	Low
LT_52	Lazdijai	1993	Independent	Wholesale and retail trade	Micro	Low
LT_53	Lazdijai	2004	Independent	Accomodation and food service activities	Micro	Low
LT_54	Lazdiaji	1992	Independent	Wholesale and retail trade	Micro	Low
LT_55	Varena	2005	Independent	Wholesale and retail trade	Micro	Low
LT_10	Alytus	1991	Independent	Agriculture, Forestry and Fishing	Small	Medium low
LT_48	Lazdijai	1993	Local conglomerate	Wholesale and retail trade	Micro	Medium low
LT_07	Varėna	1997	Independent	Accommodation and food service activities	Micro	Medium high
LT_31	Druskininkai	1990	Independent	Professional, scientific and technical activities	Micro	Medium high
LT_33	Varėna	2004	Independent	Information and communication	Micro	High
LT_36	Alytus	1960	Local conglomerate	Manufacturing	Medium	High

Correlating some of the variables displayed above enables us to have a better overview of the representativeness of the structure of our sample. Of special interest is the correlation between the branch of economic activities in which the firm belongs and the date of creation of the firm. In our sample, the majority of firms created during 1990-1999 belong to professional, scientific and technical activities and wholesale and retail trade, while manufacturing and agriculture, forestry and fishing are also well represented sectors compared to other periods. In the period 2000-2009 the most common sector in our sample is accommodation and food service activities representing development of rural tourism. One firm represents this sector also in 2010. This reflects the increasing importance of service activities, rather than production.

Table Error! No text of specified style in document.**.16: Sectoral belonging and age of the sampled businesses**

Sector	**Before 1990**	**1990-1999**	**2000-2009**	**2010**	**Total**
Agriculture, Forestry and Fishing		5	1		6
Construction		1	1		2
Health Care		1	1		2
Information and Communication Activities			1		1
Real Estate Activities		1			1
Manufacturing	1	5	1		7
Professional, Scientific and Technical Activities	1	10	1		12 (and 1 with not indicated year)
Transport and Storage			1		1
Accommodation and Food Service Activities		3	7	1	11
Wholesale and Retail Trade		7	3		10
Arts, Entertainment and Recreation		1			1

The Geography of SME's Transactional Space

This section is based on the data compiled in the survey in the section "Clients and suppliers". The main task here is to identify different degrees of global involvement of firms, in terms of transactions, i.e. both import and export activities.

Following the lead partner's suggestion, we use OECD elaborated typology called SME Index of Globalisation. The index is based on the geographical source/destination for traded inputs/outputs, the location of establishments and affiliations and the potential market opportunities. In this section of the questionnaire we gathered information about the percentage of sales or purchases of the firm according to four zones (regional, national, European and global), as well as about the structure of the ownership. However, the majority of firms in our sample represent global involvement degree of independent firms.

In this survey we define five different types of companies according to the geographical structure of their sales and supplies. First of all, we create a separate typology for imports and for exports. **Table** Error! No text of specified style in document.**.17** shows the thresholds used in order to identify each category, from low degree of internationalization of import (resp. export) to a high degree of internationalization. In the survey, the managers had to identify the proportion of their sales (resp. purchases) that originates from 4 different geographical zones: regional, national, European, and the rest of the world. This makes it possible to compile the necessary data to build the typology.

Table Error! No text of specified style in document.**.17: Building a typology of firm based on the geographical distribution of transactions**

Degree of internationalisation	**% of transactions**			
	Regional	National	European	World
Low	>80%			
Medium Low	>50%	<50%		
Medium		>50%	<10%	
Medium High		>30%	>10%, but <30%	<10%
High			>30%	>10% (or international >40%)

In the Lithuanian sample, with 54 valid answers about transactional space, in both the sales and purchases typologies the majority of firms belong to low and medium-low groups. According to the answers of firms' managers, in the purchases typology there are only 2 high and 3 medium high business internationalization cases, in the sales typology there are 4 high, 3 medium high and 2 medium cases. Thus, it can be concluded that in our sample business internationalisation both in sales and purchases typologies is mostly low, but a little higher in sales typology group.

After sales and purchases typologies are done, we cross the results and construct our own 'Index of Globalisation', based on the firms' degree of internationalisation of imports and exports.

By using the answers given by the entrepreneurs about the geographical distribution of their sales and purchases, we are able to derive a typology of firms by their degree of internationalisation. This typology is divided into 5 types, going from a 'Low' degree of internationalisation (with sales or purchases made essentially at the regional level) to a 'High' degree (with more than 40% of sales or purchases made outside the national border or at least 10% of sales or purchases made outside Europe).

Table Error! No text of specified style in document.**.18** presents Lithuanian case study results using the responses from the 55 questionnaires (but only 54 valid answers).

Table Error! No text of specified style in document.**.18: Typology of the firms' transactional space**

		SALES					
		Low	Medium Low	Medium	Medium High	High	**Total**
PURCHASES	Low	23	5	2	2	2	**34**
	Medium Low	11	3		1		**15**
	Medium						**0**
	Medium High	1	2				**3**
	High					2	**2**
	Total	**35**	**10**	**2**	**3**	**4**	**54***

** For one respondent the responses given to these questions were incomplete and could not be processed further in the typology*

The crossing of the scale of internationalisation for sales and purchases enables us to know how many firms belong to each of the 25 possible cases, e.g. 'Low_Sales-Low_Purchases' or 'Medium_Sales-High_Purchases'.

Although at first sight it appears that there is a certain degree of symmetry in the geography of the transaction space, i.e. a firm that has essentially local purchases has as well essentially local sales (23), it is not always the case. In Lithuanian firms' transactional space typology there are also mixed cases, for example, low purchases and high sales (2), low purchases and medium high sales (2), medium high purchases and medium low sales (2). A common case is medium low purchases and low sales (11).

From this table, we draw 5 categories of Transactional spaces for SMEs:

- blue: Local (42 firms in total)

- green: Domestic (2 firms)
- grey: National powerhouses (0 firms)
- orange: International interfaces (8 firms)
- purple: Globalized (2 firms)

An interesting feature of the Lithuanian sample is that National Powerhouses' transactional space group (grey) is empty. An absolute majority of cases fall within Local transactional space group (blue).

Overall, only 10 firms out of 54 or 18 percent of firms have marked export and/or import activities turned towards international markets. On the other hand, even 44 firms, corresponding to the Local and Domestic categories, have export and/or import markets essentially focused on the regional scale.

The age of a company is often seen as an important parameter when it comes to the internationalisation of a firm's business activities. In our sample there are only 2 firms older then 1990, but they present two different cases – one is local business and the other is globalized. It is important to note that the latter firm is medium size and is the oldest one, thus has good preconditions for it's business internationalization.

Table Error! No text of specified style in document.**.19: Index of SME globalisation and age of the firm**

	Before 1990	**1990-1999**	**2000-2009**	**2010**	**Total**
Local	1	27	12	1	**41**
Domestic		2			**2**
National Powerhouses					**0**
International Interfaces		4	4		**8**
Globalised	1		1		**2**
Total	**2**	**33**	**17**	**1**	**53***

** For two respondents the responses given to these questions were incomplete*

The majority of firms created in the periods 1990-1999 and 2000-2009 in our sample are local and the same number - 4 firms with developed international interfaces were created in each of this period. 2 domestic firms were created during 1990-1999, while 1 globalized firm was created during 2000-2009. The firm created in 2010 is also of local nature.

In the first part of the questionnaire, the respondents were asked to assess their degree of 'global integration'. Crossing this (subjective) perception data with the results of our typology enable us to confront the degree of international integration from a subjective (own perception) and more factual (import/export activities) perspectives. The results of this crossing of the data are shown below.

To a certain extent, the results of the cross-table are coherent. The peculiarity of Lithuanian sample is that many firms' managers (19) answered they do not participate in the global trade networks at all. Such answers were given only by local firms and therefore this is reasonable. The majority of local trade firms (23) perceived their global integration as low. But there were 4 cases of firms with internationalized interfaces and one in the globalised group, who nevertheless perceived their participation in the global trade as low. In general the self estimation of firms tended to be lower than the factual situation in terms of internationalization degree.

Table Error! No text of specified style in document.**.20: Index of SME globalisation and perceived global integration**

	No	**Low**	**Average -Low**	**Average -High**	**High**	**Total**
Local	19	23	0	0	0	42
Domestic	0	1	1	0	0	2
National Powerhouses	0	0	0	0	0	0
International Interfaces	0	4	1	2	1	8
Globalised	0	1	0	0	1	2
Total	**19**	**29**	**2**	**2**	**2**	**54***

** For one respondent the responses given to these questions were incomplete and could not be processed further in the typology*

Figure Error! No text of specified style in document.**.10: Average transaction profile of responding firms**

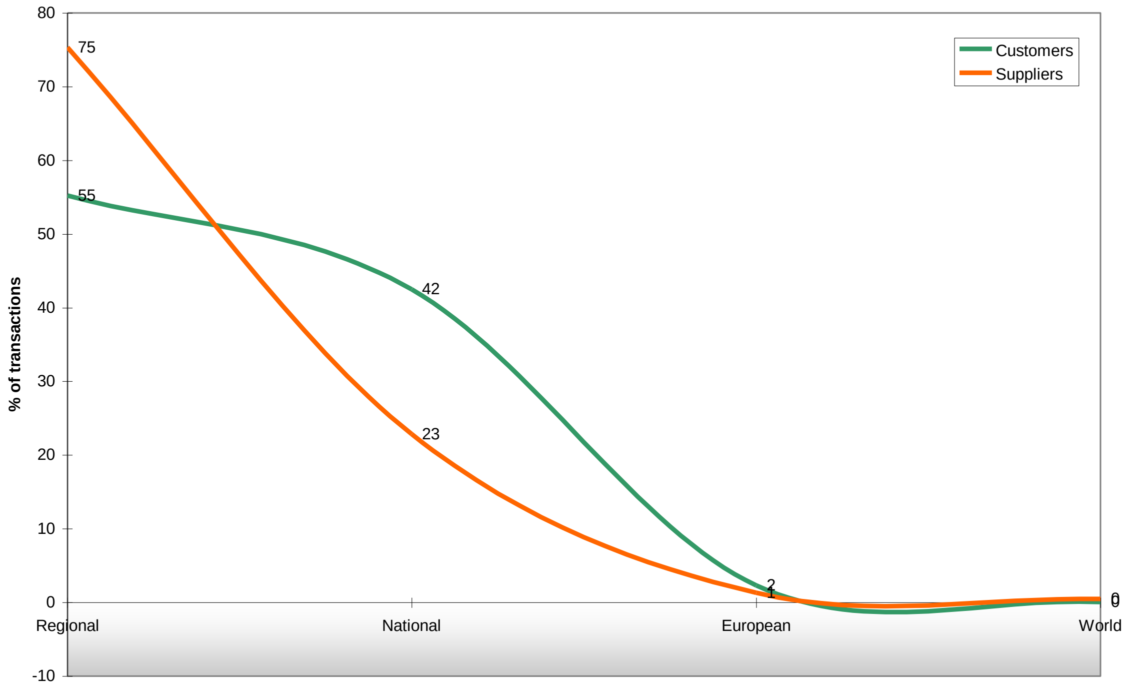
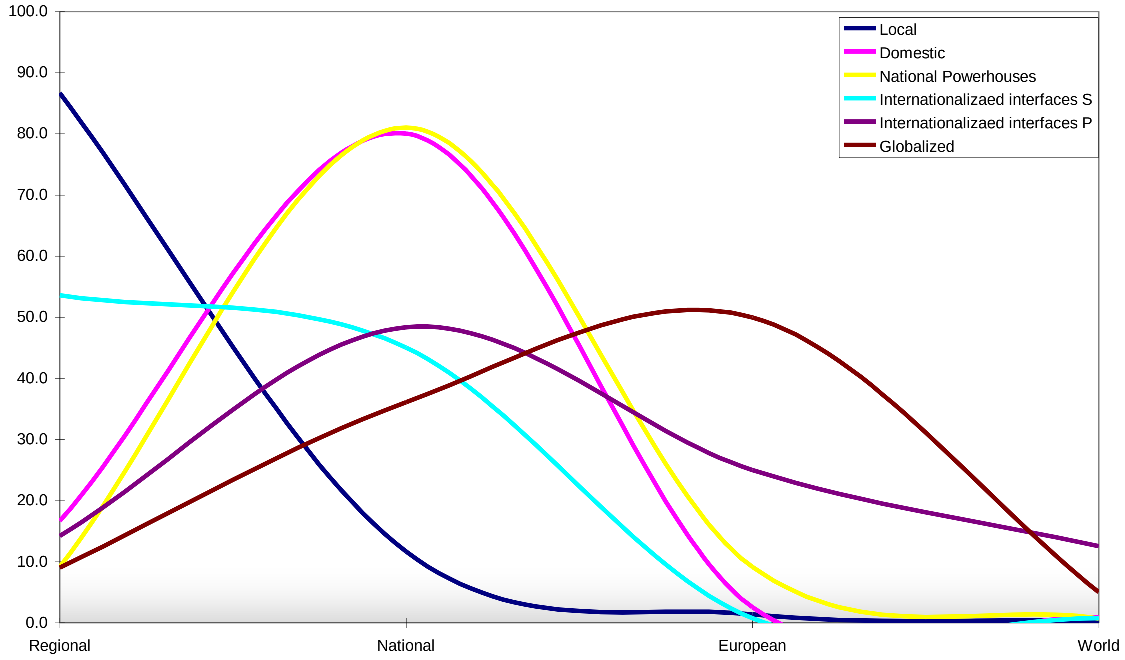
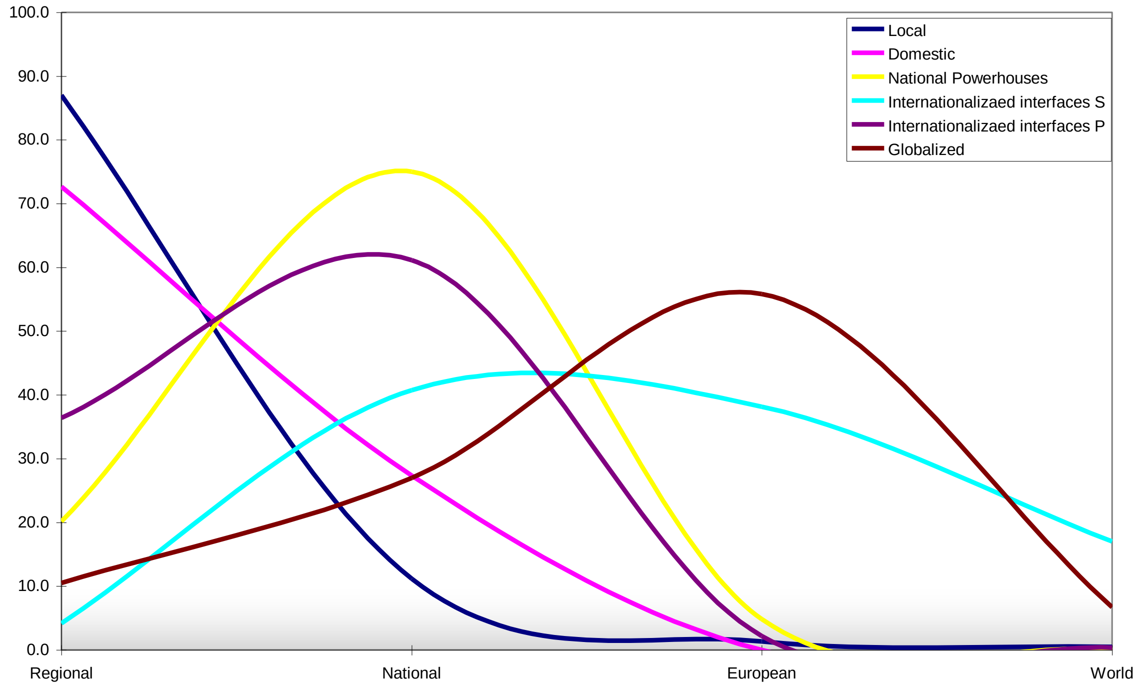


Figure Error! No text of specified style in document.**.11: Purchases profile by type of firm according to the index of globalisation**



**Internationalized interfaces S and P correspond to the firms belonging to the 'Internationalized interfaces' category with internationalized profile for respectively their sales and purchases.*

Figure Error! No text of specified style in document.**.12: Sales profile by type of firm according to the index of globalisation**



** Internationalized interfaces S and P correspond to the firms belonging to the 'Internationalized interfaces' category with a marked internationalized profile thanks to respectively their sales and purchases.*

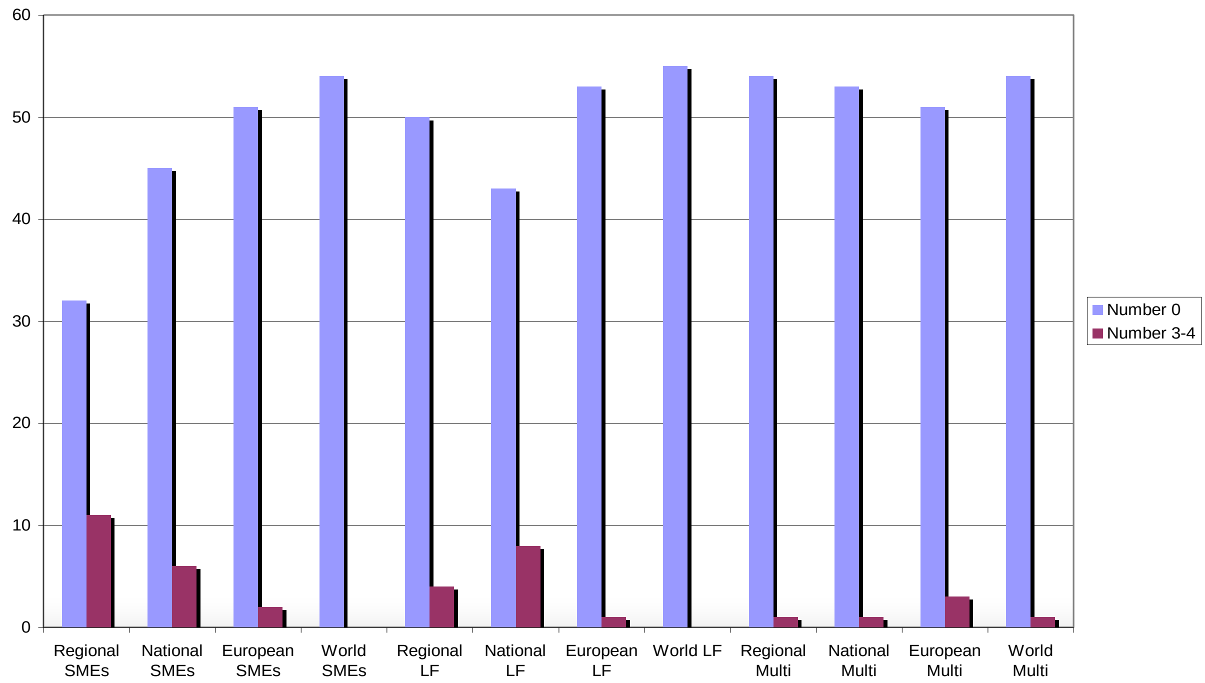
Displaying the purchase and sales profiles for each of the categories of our typology (**Figure** Error! No text of specified style in document.**.11** and **Figure** Error! No text of specified style in document.**.12**) enables us to better understand the wide diversity of configuration when it comes to sales and purchases activities for SMEs in the southern sparsely populated areas of Lithuania. Even for the most internationalized firms, the proportion of sales or purchases activities taking place with partners outside Europe is rather limited. For the firms in the 'globalized' category, it accounts for 5% of the purchases and 6.7% of the sales on average. This proportion is higher for 'internationalized interfaces' firms: for firms belonging to this category thanks to their marked international sales profile (labelled Internationalized interfaces S), it amounts to 17% of the total sales on average; and for the firms belonging to this category thanks to their marked international purchase profile (labelled Internationalized interfaces P) it amounts to 12.5% of the purchases on average.

The Collaborative Space of SMEs

Relationships that SMEs have with other companies are not purely based on transactions. For instance, collaboration between SMEs and other companies can be grounded on the sharing of information regarding innovation processes, technology development or entering new marketplaces. In this section of the questionnaire, the respondents were specifically asked to assess the extent of their collaboration with other types of firms by size and location by giving a score from 0 (no relation) to 4 (frequent/intense relation).

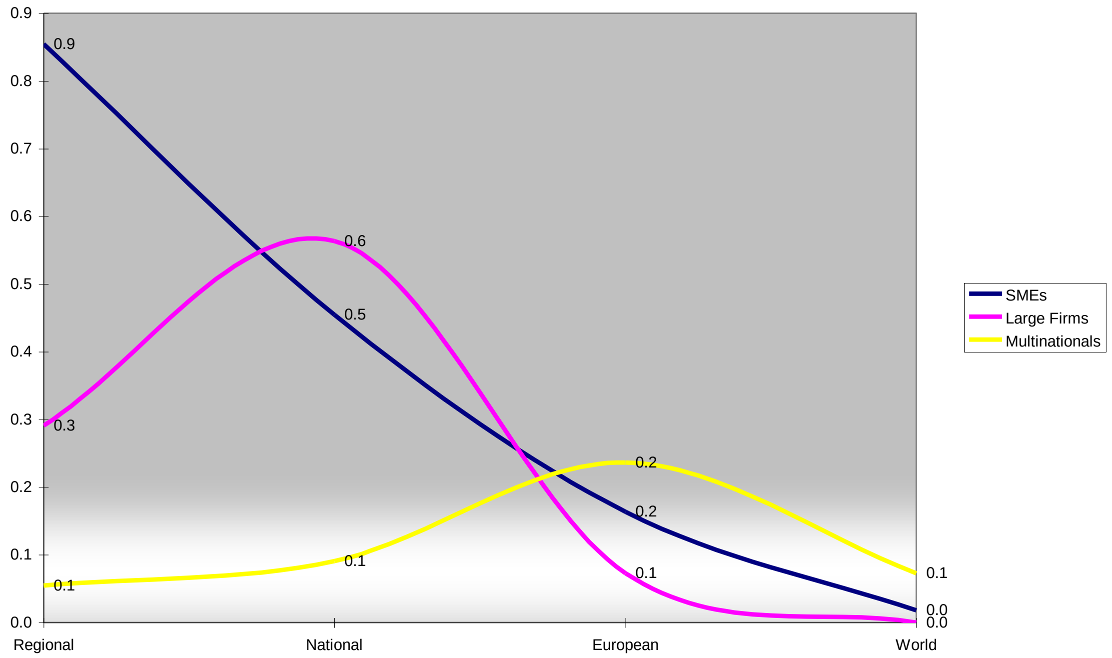
In the first place, from the data, it is interesting to know what type of firms (by size and location) gets the most ‘zeros’ and ‘fours’ (or ‘threes’): Counting the number of zeros expressed for each type of collaborating firms (by size and location) enable us to understand with what type of firms there is usually no collaboration (if the number is high), and with which one there is at least some collaboration (if the number is low). Of course, in the latter case, it does not mean that it is a high degree of collaboration, but at least ‘the gates are opened’.

Figure Error! No text of specified style in document.**.13: Non-existent and strong measures of collaboration with other firms**



A general Lithuanian sample feature is high number of zeros, meaning 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. There is significant collaboration between SMEs of our sample and national companies (SMEs and large firms) in general. 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. No relationship detected with world SMEs and large firms, but few contacts developed with world multinational companies. Our study region Alytus county borders two countries: Poland and Belorus, and this provides certain opportunities for international collaboration.

Figure Error! No text of specified style in document.**.14: Average responses regarding collaboration with other firms given by the sample**



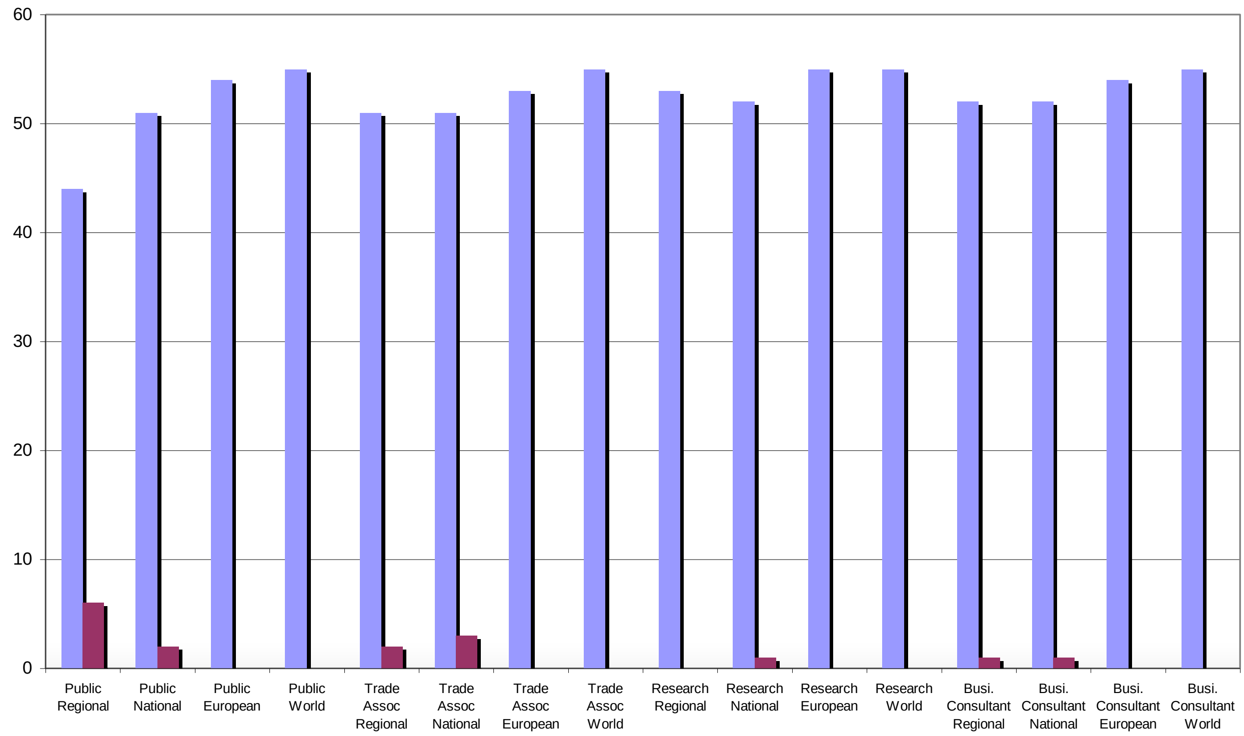
Another way to assess the responses is to take the average of the expressed results for each type of firm. Not surprisingly, the average collaboration intensity is the highest for SMEs at the regional level (0.9). The average collaboration intensity for SMEs decreases steadily with the expansion of the territorial context: from 0.9 on average at the regional, to 0.5 at the national level, 0.2 at the European level and 0 for the rest of the world.

When it comes to the collaboration between our sample of SMEs and large firms, the 'peak' is at the national level, with an average expressed intensity of 0.6. In the case of collaboration with multinational companies, the curve goes up at European level with 0.2 and goes back to 0.1 at world level again. This seems to indicate that the geographical proximity matters less when our sample of firms cooperate with bigger firms.

The Institutional Setting of Alytus county SMEs

Another main assumption in this survey is the fact that the business network of SMEs (and firms in general) reaches out to non-private actors. Furthermore, we assume that those institutions are especially important for firms that wish to be further integrated in global networks. Such institutions may be of different nature, as they extend from official agencies or bodies, to organisations representing the business environment, educational centres or even business consultancies. In the questionnaire, the respondents were specifically asked to assess the support provided by different institutional actors by giving a score from 0 (no relation) to 4 (frequent/intense relation).

Figure Error! No text of specified style in document.**.15: Non-existent and strong measures of support from institutional actors**



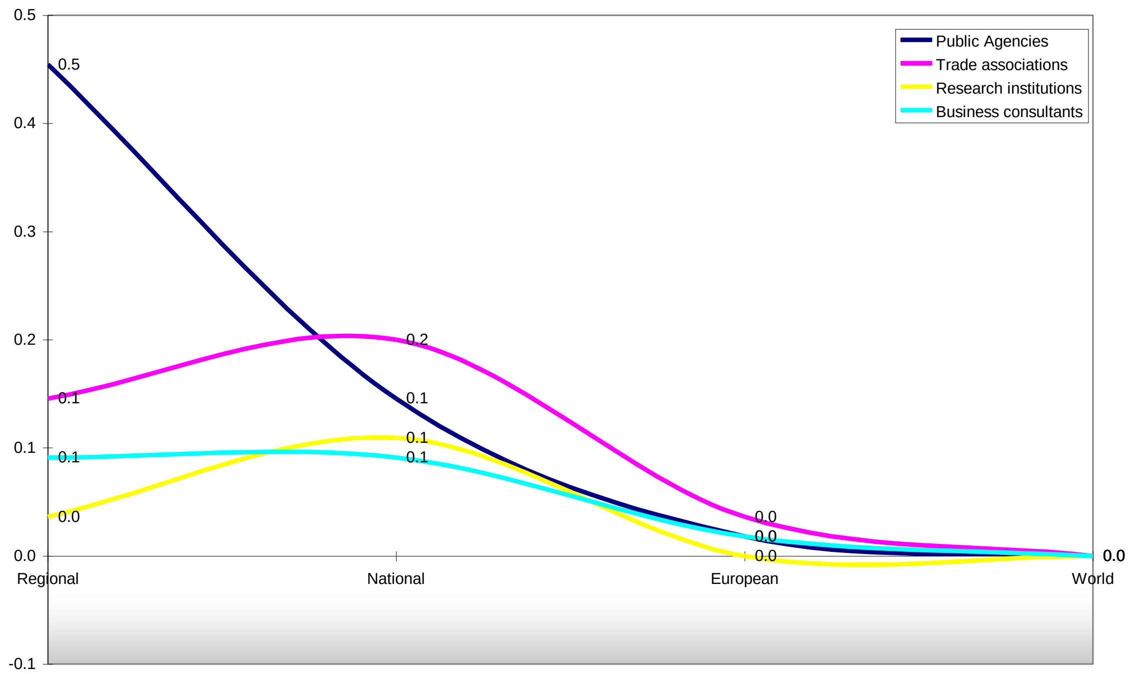
Note: Blue columns; score = 0, grey columns; score = 3-4

Despite quite good institutional business support structure in Alytus county (a number of organizations is available to the businessmen) the results of the Lithuanian survey present little evidence of it. The more often contacted support institutions respectively are regional public institutions, national trade associations, national public institutions and regional trade associations. However, these numbers are also small. In general, businessmen in the southern sparsely populated areas of Lithuania tend to be self-reliant. This can be related to the quality of business support and solutions provided for business development. As mentioned by a respondent at a DERREG WP2 interview on return migration, the quality of business support is not considered sufficient for more educated and experienced people (who return from USA or Ireland for example). This is very important for return migrants who want to start business in the region and have potential to develop international networks.

No public, trade association, research or business consultant support is used at European or World level by SMEs of our sample. Thus the institutional context in our sample is focused 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 refer to the fact 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 nearly equally important, national being even higher. However, regional governmental advisory bodies are contacted most frequently by SMEs of our sample.

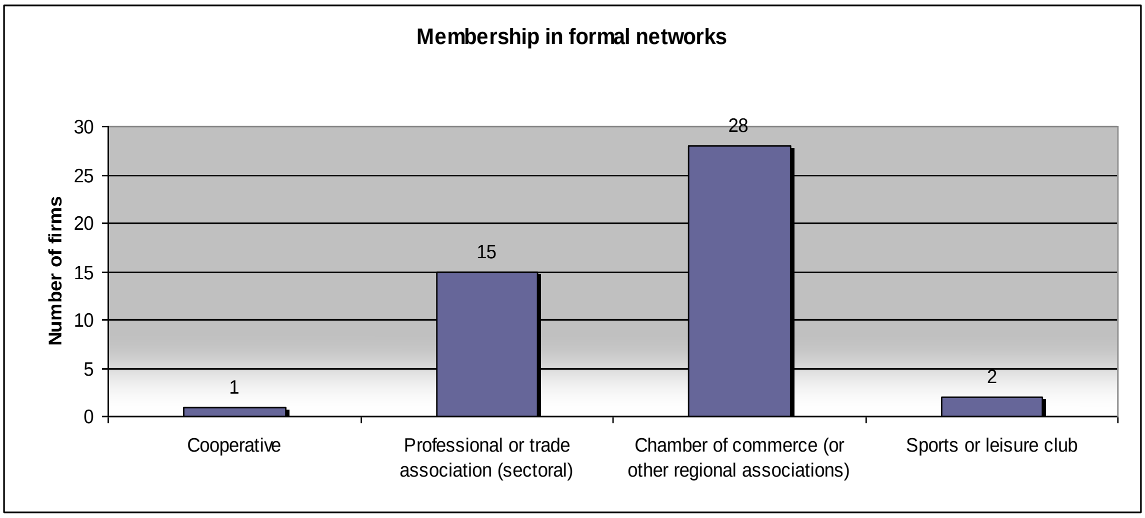
Figure Error! No text of specified style in document.**.16: Average responses regarding support from institutional actors given by the sample**



The importance of the support of institutional actors at the regional and national level is clearly displayed when picturing the average expressed results for each type and level of institutions. In **Figure** Error! No text of specified style in document.**.16** we can easily see the importance of public agencies at regional level (0.5), going down at national level (0.1) and coming to 0 at European level. The importance of other two institutional actors - trade associations and research institutions stay highest (though not high) at national level, 0.2 and 0.1 accordingly. Importance of business consultants both at regional and national levels stays the same (0.1).

In a separate question, the managers were asked to state which types of networks their firms are involved in. A set of pre-define types of associations or clubs was listed (cooperative, sectoral business associations, regional business associations, or sports club). The respondents had the opportunity to add other associations if they wanted.

Figure Error! No text of specified style in document.**.17: Expressed membership in formal networks**



The results for SMEs show that cooperative is not a form that is usual to be involved in for the sample of Lithuanian firms. The association of firms in cooperative types of associations is more embedded in a sector (typically agriculture) than the (rural) region itself. The Lithuanian sample includes only a few cases with agricultural activities representing a part of various rural activities.

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. This is more likely for well developed firms and stable country economics.

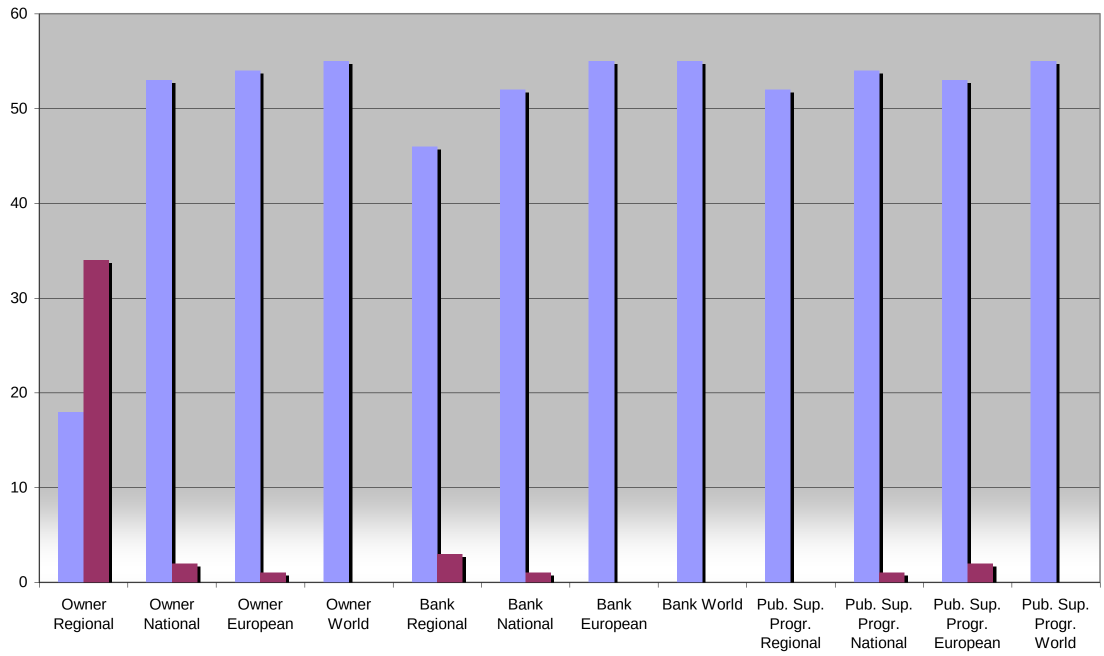
Majority of Lithuanian sample firms, i.e. 28 out of 55 stated their membership in Chamber of Commerce or other regional trade associations. One of the more frequently mentioned regional associations was *Business Association of Alytus Region*. 15 respondents answered that they are members of professional or trade associations with a sectoral focus. In Alytus county, between the most mentioned sectoral associations were *Lithuanian Rural Tourism Association* and *Veterinary Union* (by representatives of these sectors).

Relationships with Sources of Finance

One particularity of small and medium-sized firms is not only that they are small in terms of numbers of employees, which is the common indicator for identifying them, but also limited in terms of internal funding available for the firm's development, i.e. product, process and market development. Consequently, the relationship that a small firm has developed with financiers is of great importance for the long-term development of the firm.

In our electronic survey, we asked the entrepreneurs to assess the relevance of a set of pre-defined financiers when their firm seeks financing to develop further their activities. To whom do they turn when they need a strategic financial investment?

Figure Error! No text of specified style in document.**.18: Non-existent and strong measures of support from financiers**

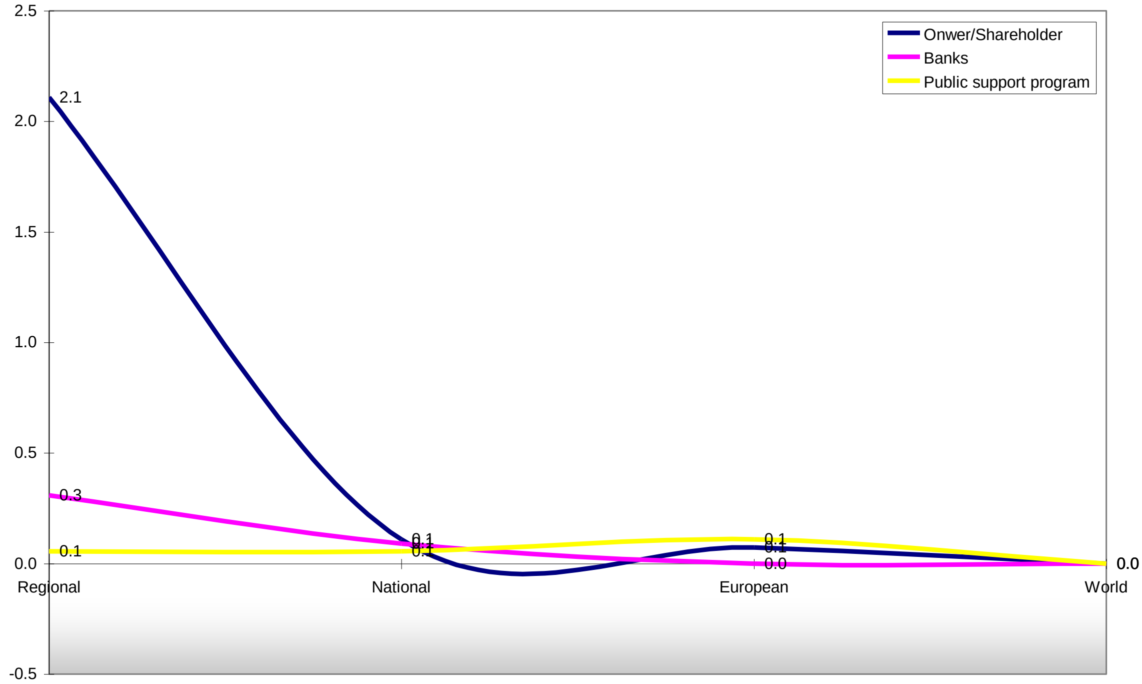


Note: Blue columns; score = 0, grey columns; score = 3-4

Three pre-defined types of actors were listed in the questionnaire: owner & shareholder, banks & other financial institutions, and public support programs. These three types of financiers were crossed with the parameter of the geographical location (or territorial representation), so that respondents had to assess the importance of their relationship with financiers by type and by geographical location (regional, national, European, and World).

The results from the Lithuanian sample highlight the importance of own and shareholders' resources to their business – development of rural SMEs in Alytus county mainly depend on these resources. The second most important source is regional banks (and other regional financial institutions). In certain cases European public support programmes and owners at national level are business development sources too. In our sample there were no cases that owner from the world, European bank, World bank, regional public support programme or world public support programme would fund rural SMEs.

Figure Error! No text of specified style in document.**.19: Average responses regarding support from financiers given by the sample**



Both owner/shareholder and bank categories at regional level get most high scores (2.1) and fewest 'zeros'. The third category, public support program, remains similar at regional, national and European levels (0.1).

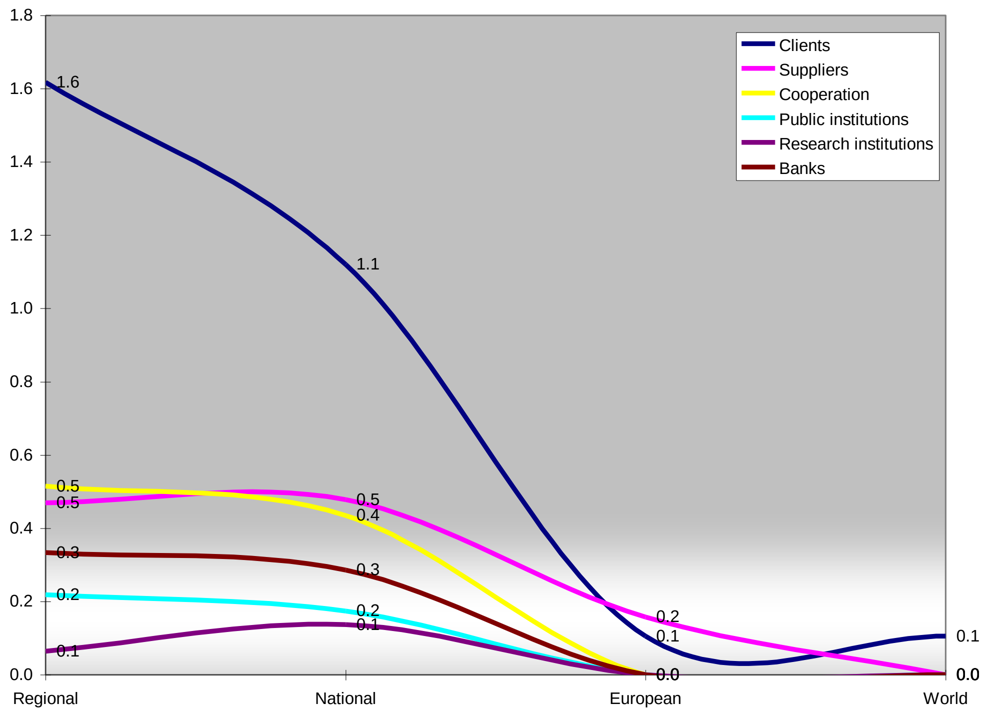
A possible interpretation for the tendency to use only regional financial institutions' support is that the size of the investments needed by local SMEs is (often) not too large and mobilizing local and regional capital may be enough (low risk + low capital needed). Geographical and organizational proximity, developed relationship between local SMEs and financial institutions, lowering the potential risk for investment is another determinant for such businessmen's choice. To certain degree support to SMEs in Lithuania is decentralized in order to be accessible in the region. However, the question of SME funding is related to few other important issues like lack of private share in case of co-funding, SME viability, especially during economic recession period. This often makes businessmen rely on own resources.

Resilience and the Impact of the Financial Crisis

A question in our electronic survey sought information on the impact of the financial crisis of 2008-09 on the future structure of the firm's business network, for our sampled firms. The respondent had to assess the importance of the crisis for the development of their relationship with the set of actors that were identified previously: clients, suppliers, companies, public agencies, research institutions and financial institutions. The question does not ask if the impact will be positive or negative, but just assess its intensity (again from zero impact to 4, strong impact). Yet, whether the impact is negative or positive, knowing that a certain dimension of the business network will be strongly impacted enables us to assume that this will be focus of attention of the firm manager in the coming years.

The question on the impact of the financial crisis shed light on two main characteristics of the networks. First of all, networks are dynamic. They evolve in time (and space!) in order to fit to the firm's need for strategic development. Second, networks are shaped not only by the actions of the firm, but by the context in which the firm is embedded.

Figure Error! No text of specified style in document.**.20: Average expressed responses on the impact of the crisis.**

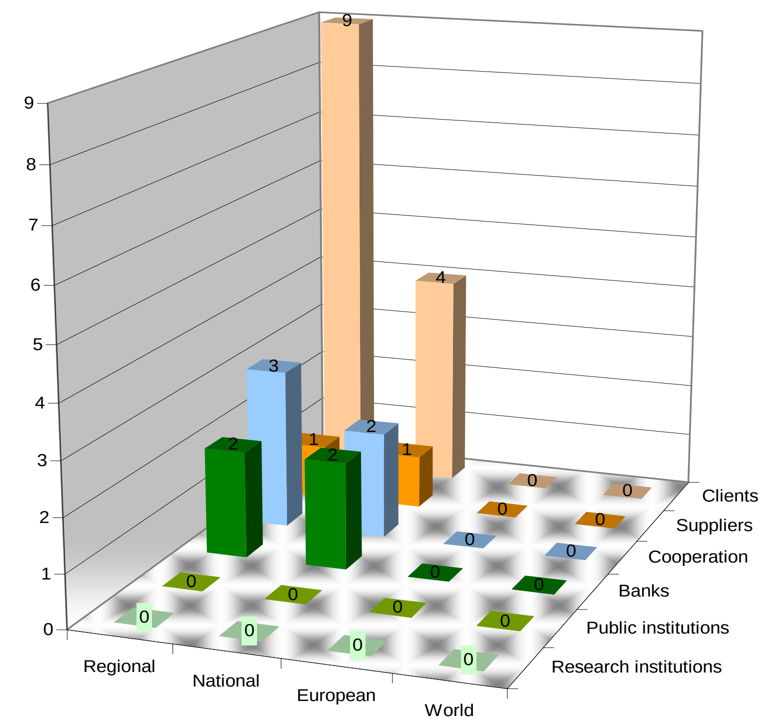


The display of the compiled responses (**Figure** Error! No text of specified style in document.**.20**) highlights the fact that the crisis has an impact essentially at the regional level, and to a lesser extent at the national level. Since respondents in the Lithuanian sample acknowledged little collaboration with various actors at European and especially world level, naturally the impact to international networks at these levels could not be estimated and remains low.

In general, the 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 recession.

The survey results also show some impact of financial crisis to the firms' relations with banks both at regional and national levels. Relatively low impact of financial crisis can be observed to relationships with more 'public' actors – research and public institutions.

Figure Error! No text of specified style in document.**.21: Perceived Impact of the Crisis**



Another way of visualising the results of the question on the financial crisis is by focusing on the responses that identified a high impact for the relation of the firm with other organizations (by type and location). The branch of the business network for which the highest number of 'high impact' scores is given is regional (9) and national (4) customers. A significant impact of the crisis is expected as well when it comes to the regional and national cooperation with other businesses, 3 and 2 respectively, and relationship with regional and national banks (2). However, in our sample of SMEs, firms do not deem that the crisis will have a strong impact with public actors, such as public or research institutions.

Conclusions

This section of the report provides a first overview of the results of the Business network questionnaire gathered during March-July 2010 for the Lithuanian case study. 55 Small and Medium-Sized firms have replied to the questionnaire. Despite showing a rather good distribution when it comes to geographical location and sector of activity, the sample cannot be deemed as representative of all SMEs located in southern, sparsely populated areas of Lithuania. Yet, the responses provide us a valuable insight on how SMEs located in such territorial setting are able to develop and maintain a certain structure of their business network.

The investigation of the geographical distribution of customers and suppliers highlighted the fact that many different situations, when it comes to the degree of internationalisation of business activities, can be found in this type of territorial setting. In that respect, 4 different types of firms were identified: local ones, with the largest share of business activities done at the regional level (42 firms in total); domestic ones, with a balance of sales and purchases between the regional and national level (2 firms); internationalized interfaces, corresponding to firms having a marked international profile for sales (resp. purchases) and a more domestic market for purchases (resp. sales) (8 firms) and globalized firms, with a strong international focus of both sales and purchases (or biggest share of international sales in the sales structure) (2 firms). Absolute majority of Lithuanian sample cases fall within Local transactional space group.

Data was also compiled when it comes to collaborative relationship (not based on transactions) between the sample of SMEs and other private actors. Our case study showed the importance of regional and national SMEs as collaboration partners for the sample of firms. Regional SMEs seem to be the most frequently contacted by SMEs of our sample. Moreover, the importance of Large Firms is more pronounced for the national ones than for the ones originating from other locations. The importance of multinational companies as business partners is perceptible at European level. In general, the relationship with European and World firms is less expressed, although this limited number of relations may be important for the capacity of firms to develop their activities.

The analysis of the data expressing the intensity of the relation of our firms with support organizations - trade associations, public agencies, research institutions and business consultants - highlighted the importance of regional (and national) public agencies and national (and regional) trade associations to our firms' business networks. European or World institutional actors have not been contacted by our surveyed SMEs.

With regard to the membership of SMEs in formal networks it can be mentioned that the cooperative is not a usual form to be involved in for the sample of Lithuanian firms (except agricultural enterprises). The survey results show that associations based on informal or non-business connections (sports and leisure clubs) are also not important type of network for Lithuanian SMEs. The majority of Lithuanian sample firms stated their membership in Chamber of Commerce or other regional trade associations. Besides, many respondents stated their membership in professional or trade associations with a sectorial focus. Thus formal cooperation is an important way of networking.

The relationship between our sampled firms and financial institutions, such as stakeholders/owners, banks or public support programs, is very dependent on institutional proximity. Both owner/shareholder and bank categories at regional level get most high scores. The results from the Lithuanian sample highlight the importance of own and shareholders' resources to their business. A secondary source is regional banks (and other financial institutions).

Finally, the impact of the financial crisis on the firms' business network development was investigated. Firms assess that the crisis will have (and has) a big impact on their relationship with customers at the regional and national levels. They also think that it will have an impact on their cooperation with other businesses and on their capacity to get support from regional and national banks.

3.5.2 In-depth Face-to-Face Interviews

The interviews with Alytus county firm managers were carried out during September and October 2010, respondents for the interviews were selected during August. The objective of the survey was to explore in more detail the 'activity space' of 15 small and medium-sized businesses in rural areas of Alytus county with particular focus on their international business contacts and transactions. In order to evaluate the importance of different groups of actors located in different geographical zones to the successful operation of respondents' businesses the concept of an "Actor Map" was used during the interviews.

In this report firstly, the sampled firms are described and grouped according to their business types. Then the interviewees' firms are classified according to the dominant function of their networks using information from the Actor Maps. In the following analysis, key findings regarding configuration of the Actor Maps are presented and finally, evolution of business networks and impact of recession to the business networks are discussed.

It is important to note, that this is a qualitative type survey where statistical representativeness is not sought. Nevertheless it gives important insights and understanding about rural business networks' internationalisation process and geography of the actors involved.

Sample Selection and Firm Characteristics

Firms were initially selected on the basis of the "perceived level of global integration", as determined by the Electronic Survey. However, only 4 firms out of 55 which responded to the electronic survey perceived themselves integrated in the global networks (medium high and high perceived level of global integration), 2 more belonged to the category medium low. Therefore the firms were also crosschecked according to the "index of SME globalisation", where 2 firms belonged to globalized and 8 firms to internationalized interfaces' groups.

Out of these 10 firms for various reasons none agreed to meet for an interview. Given the situation we 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 to advice the names of rural enterprises which have developed international networks. Revising these names and other SMEs in typical regional sectors with potential characteristics by internet a new list of firms with international business contacts was created and used as a basis for selecting interviewees. The willingness to participate in the interviews was very low and therefore we also turned to regional higher education institution Alytus College for help in contacting the firm managers. All interviewed firms are located in the rural areas or small towns (outside Alytus city), belong to a small and medium business category, are independent and perform international transactions. The list of firms that participated in the survey is presented in **Figure** Error! No text of specified style in document.**.22** below.

Figure Error! No text of specified style in document.**.22: Firms Selected for In-depth Face-to-Face Interviews**

Firm No.	**Location (Municipality)**	**Firm Start**	**Firm type**	**Branch**[3]	**Line of business**	**Firm Size**[4]
LT01	Alytus	1994	Closed joint-stock company	Manufacturing	Meat processing, production of processed meat products and butchery services	Medium
LT02	Alytus	2008	Closed joint-stock company	Manufacturing	Production of granite and marble products	Micro
LT03	Alytus	2006	Closed joint-stock company	Manufacturing	Production of wooden products	Small
LT04	Alytus	1992	Individual enterprise	Manufacturing	Furniture production and marketing	Small
LT05	Alytus	2006	Closed joint-stock company	Wholesale and retail trade	Sells textile products and equipment	Micro
LT06	Alytus	1992 1988 started as	Closed joint-stock company	Manufacturing	Production of electric wire systems (for refrigerators, TVs, etc)	Medium

[3] According to the European NACE 2.2 classification

[4] According the EU DG Enterprise definition. Micro from 0 to 9 employees; Small from 10 to 49 employees; Medium from 50 to 249 employees.

Firm No.	Location (Municipality)	Firm Start	Firm type	Branch[3]	Line of business	Firm Size[4]
		ind.ente rprise				
LT07	Lazdijai	1992	Individual enterprise	Manufacturing	Production of bread and cakes	Medium
LT08	Alytus	1992	Closed joint-stock company	Manufacturing	Bio-fuel (briquettes) production; catering	Small
LT09	Lazdijai	1992	Individual enterprise (Rural tourism homestead)	Accommodation and food service activities	accommodation and catering, production of bread and cakes	Micro
LT10	Alytus	1991	Closed joint-stock company	Agriculture, forestry and fishing	Growing of fruits and berries	Small
LT11	Lazdijai	2005	Joint stock company	Transportation and storage	passenger shuttling services on determined routes and bus rent	Small
LT12	Alytus	2009	Closed joint-stock company	Manufacturing	Production of furniture and sliding systems	Small
LT13	Alytus	2009	Working under individual business licence	Wholesale and retail trade	Selling of decorative plants	Micro
LT14	Alytus	2006	Individual enterprise	Wholesale and retail trade	Purchases of live calves in Lithuania and exports to European Union countries	Micro
LT15	Alytus	2005	Works under individual business licence	Wholesale and retail trade	Footwear selling	Micro

The majority of interviewed firms are 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 is closed joint-stock company (8 firms). The firms are young (due to Lithuanian economic restructuring after the restoration of independence) - all fall within the period 1991-2009, but some of them have pre-history in other forms or fields of activities. However the duration of free international cooperation is 20 years. The interviewed firms vary in terms of business size: 3 are medium, 6 small and 6 micro sized enterprises. In terms of economic branches, majority of firms – 8 are occupied in manufacturing, 4 in the wholesale and retail trade, 1 in accommodation and food service activities, 1 in transportation and 1 in agriculture. The manufacturing companies most often are using fresh, local resources (**Table** Error! No text of specified style in document.**.27**), but sometimes, depending on raw material prices, they also use resources from other regions or abroad (for example, some raw materials are cheaper in bordering Poland). 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 are active in wholesale and retail trade branches and work as intermediates between regional, national and international markets. Among the respondents there are 2 enterprises engaged in 'high tech' manufacturing activities (electric wire systems and bio-fuel (briquettes) production). There are more 'high tech' firms in our sample list. Though they didn't participate in the survey, it shows that this type of companies tend to develop international networks.

Table Error! No text of specified style in document.**.21: Description of Activity and Simple Classification of Firms**

Interview	Year Founded	Line of Business	Type
LT_1	1994	Meat processing, production of processed meat products and butchery services	1
LT_2	2008	Production of granite and marble products	2
LT_3	2006	Production of wooden products	1
LT_4	1992	Furniture production and marketing	1
LT_5	2006	Textile product and equipment selling	4
LT_6	1992 (1988)	Production of electric wire systems (for refrigerators, TVs, etc)	3
LT_7	1992	Production of bread and cakes	1
LT_8	1992	Bio-fuel (briquettes) production; catering	3
LT_9	1992	Accommodation and catering, production of bread and cakes	1
LT_10	1991	Growing of fruits and berries	1
LT_11	2005	Passenger shuttling services on determined routes and bus rent	1
LT_12	2009	Production of furniture and sliding systems	1
LT_13	2009	Selling of decorative plants	4
LT_14	2006	Purchases of live calves in Lithuania and exports to European Union countries	4
LT_15	2005	Footwear selling	4

Key to Types	Description	No.
1 (Res.)	Resource based activities	8
2 (EMTrad.)	Specialist light engineering and manufacturing - Traditional	1
3 (EMHiTech.)	Specialist light engineering and manufacturing - High technology	2
4 (Trade)	Trade activities	4

As shown in **Table** Error! No text of specified style in document.**.21**, the majority of interviewed enterprises (8) are engaged in resource-based activities – using local resources and/or local labour for production or services. 1 firm occupies with traditional and 2 with more 'high tech' manufacturing and the remaining 4 are traders.

Summing up the rest SMEs that did not participate in the survey, but were on our list of regional enterprises with international business contacts, it can be noted that these firms specialize in such business lines as processing, harvesting and selling wild mushrooms and berries, garment production, brick and other building material production, constructions, auto-services. These are other typical economic activities in the region. According to information provided in their websites, a lot of attention is given to production quality and assortment; companies are flexible in reacting to customer needs. Relatively young SMEs lack own capital for their development, thus foreign investments and EU support for modernization is of great importance and often gives good results. However, some of these enterprises refused to participate due to difficulties caused by economic recession or even bankruptcy.

Actor Maps: Key Findings regarding their configuration.

The following analysis concentrates upon three aspects of the Actor Maps:

(i) The ten 'dimensions' of activity (the columns).

(ii) The different kinds of actor.

(iii) The different spatial scales associated with the actors.

(i) Relative importance of different kinds of activities.

In this section we present a summary of the interview findings relating to the relative importance of external linkages to the different kinds of business activities represented by the columns of the Actor Map. These activities are placed into four broad categories, those relating to marketing (columns 1-4), those relating to the product (5-8), the sourcing of investment capital (9) and compliance with regulations (10)[5]. On the basis of the relative importance of the four broad categories the networks of the interviewed enterprises are placed into four 'functional' groups, reflecting the overall (activity) orientation of their business networks.

Table Error! No text of specified style in document.**.22** shows the average score on each of the ten activity 'axes' (summing over the actors). The scores are expressed as a proportion of the maximum possible score (taking account the number of actors [rows] in the actor map). **Table** Error! No text of specified style in document.**.23** presents the same information as ranks (across the axes for each interview).

Table Error! No text of specified style in document.**.22: Average scores on each activity axis**

Interview	LoB Group	Bringing in new business	Awareness of competition	Improving market position	Finding new markets	Improving production process	Developing new products	Improving existing products	Reacting to customers' needs	Securing investment capital	Compliance with rules and regulations	
LT_01	1	0.33	0.07	0.67	0.15	0.59	0	0.52	0.33	0	**0.93**	**0.36**
LT_02	2	0.00	0.29	0.38	0.29	0.33	0.38	**0.49**	0.4	0.02	0.18	0.28
LT_03	1	0.22	0.15	0.33	0.19	0.78	0.33	**0.93**	0.33	0.33	0.70	**0.43**
LT_04	1	0.16	0.15	0.21	0.19	0.16	0.05	0.12	0.20	0.06	**0.41**	0.17
LT_05	4	0.44	0.22	0.33	0.25	0.00	0.00	0.00	0.67	0.00	**0.94**	0.29
LT_06	3	0.15	0.07	0.07	0.15	0.11	0.00	0.00	0.30	0.26	**0.89**	0.20
LT_07	1	0.27	0.40	0.20	0.11	0.24	0.22	0.31	**0.47**	0.09	0.04	0.24
LT_08	3	0.44	0.14	0.58	0.14	0.11	0.11	0.11	0.39	0.00	**0.67**	0.27
LT_09	1	0.17	0.14	0.11	0.00	**0.50**	0.19	0.00	0.36	0.00	0.39	0.19
LT_10	1	0.29	0.35	0.46	0.46	0.30	0.30	0.30	0.29	0.00	**1.00**	**0.38**
LT_11	1	**0.42**	0.20	**0.42**	0.00	0.24	0.22	0.33	0.36	0.00	0.36	0.26
LT_12	1	0.56	0.39	**0.57**	0.31	0.11	0.36	0.36	0.11	0.11	0.26	**0.31**
LT_13	4	**0.86**	0.06	0.81	0.28	0.03	0.78	0.28	0.64	0.00	0.44	**0.42**
LT_14	4	0.28	0.28	**0.39**	0.11	0.11	0.11	0.11	0.00	0.00	**0.39**	0.18
LT_15	4	0.50	0.42	0.47	0.36	**0.61**	0.50	0.36	0.50	0.00	0.14	**0.39**
Mean		**0.34**	**0.22**	**0.40**	**0.20**	**0.28**	**0.24**	**0.28**	**0.36**	**0.06**	**0.52**	**0.29**
LoB												
Res.		0.30	0.23	0.37	0.18	0.37	0.21	0.36	0.31	0.07	**0.51**	0.29
EMTrad.		0.00	0.29	0.38	0.29	0.33	0.38	**0.49**	0.40	0.02	0.18	0.28
EMHiTech.		0.30	0.11	0.33	0.15	0.11	0.06	0.06	0.35	0.13	**0.78**	0.23
Trade		0.40	0.14	0.38	0.16	0.04	0.22	0.10	0.33	0.00	**0.44**	0.22

[5] Column 9 (reacting to customer's needs, is difficult to classify, but is viewed here as part of the process of product improvement, rather than marketing. The 11th column (other) is not included in the analysis.

According to the interview results in Alytus county the tenth activity axis "Compliance with rules and regulations" is given the biggest importance (**Table** Error! No text of specified style in document.**.22**, **Table** Error! No text of specified style in document.**.23**). This is demonstrated by the highest average score in 7 out of the 15 enterprises. The enterprises have active interfaces in this activity axis and consider it important for their business development.

The other three important activities for Lithuanian SMEs were the third "Improvement of market position" (ranked first by three interviewees), the eighth "Reacting to customers needs" (given higher scores in general) and the first "Bringing in new business" (ranked first by two interviewees), with average scores accordingly 0.40, 0.36 and 0.34. This shows the overall importance of business network development in marketing and product activity categories. The smallest average score was given to the ninth activity axis "Securing investment capital". This is partly related to SMEs viability issue during economic recession, lack of own capital needed for cooperation with financial institutions and in some cases reluctance to have risky debts.

Summarising the scores for each of the 'lines of business' groups of interviews reveals a consistent pattern, with the tenth activity axis (Compliance with rules and regulations) in first position in three types of enterprises. Only in case of traditional manufacturing the other activity "Improving existing products" took first position instead (but we have only one representative in this group). 'Reacting to customers needs', 'Developing new products' and 'Improving market position' were of similar importance for this firm type, which means it's business networks are product/market oriented. The biggest group of interviewees - resource based enterprises and their business networks (besides compliance) could also be described as product/marketing oriented. Trade firms (besides compliance) are marketing oriented and high-tech manufacturing companies (besides compliance) – product/marketing oriented.

The final column of **Table** Error! No text of specified style in document.**.22** shows a simple unweighted mean score (across the activity axes). As mentioned by lead partner of this survey, comparisons between interviews, or between the LoB groups should be made very cautiously, since there is no way to "benchmark" the scores assigned by different interviewees (some tend to score consistently high, others tend to give low scores in general). Bearing this in mind, it is interesting to note that in Lithuanian case the highest average scores overall were given by enterprises belonging to Resource-based and Trade groups. The importance of business networks in trade activities is not arguable. In case of resource-based companies the intensive business networking seems to be associated to their specialisation in high quality, natural, 'niche' products, which tend to be 'bespoke'. Specific regional qualities in the raw materials make the products exclusive. This way SMEs turn the challenge of remoteness to regional advantage.

Table Error! No text of specified style in document.**.23: Ranking of average scores on each activity axis**

Interview	Bringing in new business	Awareness of competition	Improving market position	Finding new markets	Improving production process	Developing new products	Improving existing products	Reacting to customers' needs	Securing investment capital	Compliance with rules and regulations
LT_01	5	8	2	7	3	9	4	5	9	**1**
LT_02	10	6	3	6	5	3	**1**	2	9	8
LT_03	8	10	4	9	2	4	**1**	4	4	3
LT_04	5	7	2	4	5	10	8	3	9	**1**
LT_05	3	6	4	5	7	7	7	2	7	**1**
LT_06	4	7	7	4	6	9	9	2	3	**1**
LT_07	4	2	7	8	5	6	3	**1**	9	10
LT_08	3	5	2	5	7	7	7	4	10	**1**
LT_09	5	6	7	8	**1**	4	8	3	8	2
LT_10	8	4	2	2	5	5	5	8	10	**1**
LT_11	**1**	8	**1**	9	6	7	5	3	9	3
LT_12	2	3	**1**	6	8	4	4	8	8	7
LT_13	**1**	8	2	6	9	3	6	4	10	5
LT_14	3	3	**1**	5	5	5	5	9	9	**1**
LT_15	2	6	5	7	**1**	2	7	2	10	9
Mean	**4**	**8**	**2**	**9**	**6**	**7**	**5**	**3**	**10**	**1**
LoB										
Res.	6	7	2	9	3	8	4	5	10	**1**
EMTrad.	10	6	3	6	5	3	**1**	2	9	8
EMHiTech.	4	8	3	5	7	9	9	2	6	**1**
Trade	2	7	3	6	9	5	8	4	10	**1**

Table Error! No text of specified style in document.**.24** summarises the activity orientation of the interviewed firms' business networks by grouping the 'market' and ‘product’ axes. On the basis of the profile across the four broad categories of activity, three groups of firms are distinguished:

- **M** networks are valued principally for the support they provide to marketing. One firm falls into this group.
- **Pm** networks function principally to support product development, with marketing a close second. Three firms are placed in this group.
- **C** networks are particularly important for compliance with rules and regulations. Eleven firms have networks of this type.

Interestingly, the interviewees in Alytus county perceived the role of their business networks principally in terms of compliance with rules and regulations. In Lithuania many new rules and regulations have been applied and changes made both at national (since 1990) and European (since 2004) levels. Besides, Lithuanian SMEs are relatively young and their experience of business networks’ development reaches 10-20 years, some of them just started their activities (**Table** Error! No text of specified style in document.**.16**). This finding represents the fact that compliance with regulations is a primary factor for successful business development in Lithuania. The businessmen understood that they can enter international market only with quality, ‘niche’, ‘bespoke’ products. It also shows intensity of interactions in this field (inspections, reporting, documentation, taxes, etc) compared to other business development activities and a big bureaucratic burden for SMEs to handle on the other hand.
However three firms are placed in Pm group (and one in M group) where business networks function principally to support product development, with marketing a close second. This seems to be more in accordance with the academic discourse on the role of business linkages, emphasizing their importance for product development and marketing.

Table Error! No text of specified style in document.**.24: Average Scores for Broad Activity Categories and Enterprise Activity Groups**

Interview	Market	Product	Capital	Compliance	F. Group
LT_01	0.15	0.18	0.00	0.93	C
LT_02	0.28	0.33	0.02	0.18	Pm
LT_03	0.11	0.30	0.33	0.70	C
LT_04	0.18	0.19	0.06	0.41	C
LT_05	0.21	0.11	0.00	0.94	C
LT_06	0.06	0.05	0.26	0.89	C

LT_07	0.20	0.26	0.09	0.04	Pm
LT_08	0.22	0.12	0.00	0.67	C
LT_09	0.07	0.18	0.00	0.39	C
LT_10	0.37	0.28	0.00	1.00	C
LT_11	0.22	0.24	0.00	0.36	C
LT_12	0.38	0.23	0.11	0.26	M
LT_13	0.33	0.29	0.00	0.44	C
LT_14	0.09	0.03	0.00	0.39	C
LT_15	0.29	0.33	0.00	0.14	Pm
Mean	**0.21**	**0.21**	**0.06**	**0.52**	**C**

LoB	**Market**	**Product**	**Capital**	**Compliance**
Res.	0.27	0.29	0.07	**0.51**
EMTrad.	0.24	**0.37**	0.02	0.18
EMHiTech.	0.22	0.16	0.13	**0.78**
Trade	0.27	0.20	0.00	**0.44**

At the bottom of **Table** Error! No text of specified style in document.**.24** summary results for the four 'Line of Business' groups are provided. Three of the groups seem to place the greatest emphasis upon compliance related linkages, whilst the traditional manufacturing company is most focused on product oriented linkages.

(ii) Relative Importance of Different Types of Actor

Customers and suppliers were both included on every Actor Map (**Table** Error! No text of specified style in document.**.25**). Several of the interviewees distinguished more than one Customer or Supplier actor group on the basis of geographic location (regional, national, European or Global). Other types of actors mentioned more frequently by Lithuanian interviewees included: other SMEs (7 interviews), membership in business associations - professional or trade associations (3 interviews), Chamber of Commerce (2 interviews) and 'other' specified as national Small and Medium Business Association and Chamber of Agriculture (2 interviews).

Interestingly there were a small number of actors belonging to the actor groups 'Support from institutional actors' and 'Sources of financing'. This suggests that regional SMEs tend to be self-sustaining (in some cases because they cannot get external financing) and give priority to customers and suppliers in their business network development. Customers and suppliers seem to be vital for their business success.

Table Error! No text of specified style in document.**.25: Occurrence of Different Types of Actors in the Interviews**

Types of actors		Interviews	Actors
Market	Customers Suppliers	15 15	26 22
Coop with:	SMEs Large firms	7 1	9 1
Support from:	Govern. Advisory bodies Research institutions	1 1	1 1
Sources of finance	Banks etc Public support programmes	1 1	1 1
Membership orgs.	Prof. or trade associations Chamber of Commerce Other	3 2 2	4 2 2

Customers and suppliers account for the largest share of actors regardless of Line of Business, or Functional Group (**Table** Error! No text of specified style in document.**.26**). If the distribution of actors in LoB groups is compared; the traditional manufacturing group have a substantial share of actors (40 percent) in 'cooperation with other businesses'; whilst in the high-tech manufacturing group a significant share (29 percent) belong to business associations. In terms of functional groups, besides customers and suppliers, the 'Pm' and 'M' groups place emphasis on cooperation with other businesses and the 'C' group recognizes importance of belonging to business associations.

Table Error! No text of specified style in document.**.26: Percentage of Actors in Different Groups**

		Customers/ Suppliers	**Coop other Businesses**	**Support Intstitutions**	**Finance Sources**	**Assoc. and Clubs**
		% of Actors				
LoB Groups	Res.	66	14	5	5	11
	EMTrad.	60	40	0	0	0
	EMHiTech.	71	0	0	0	29
	Trade	79	14	0	0	7
		0	0	0	0	0
Functional Groups	M	75	25	0	0	0
	Mp	0	0	0	0	0
	Pm	64	29	0	0	7
	C	69	8	4	4	15
Mean		**69**	**14**	**3**	**3**	**11**

(iii) Relative importance of actors at different spatial scales.

There are two ways in which the relative importance of regional, national, EU and Global actors can be assessed from the actor maps: (a) According to the proportion of actors located in each "zone". (b) According to the relative weight placed upon the national and international actors. Because some of the interviewees were unable to distinguish between actors at all four scales a simplified (national/international) zoning was necessary in parts of the analysis below.

Figure Error! No text of specified style in document.**.22** shows the distribution of actors for each of the interviewed firms, and for the four 'Lines of Business' and four 'Functional Groups' identified above. On average one third of all the actors identified by the interviewees were fully or partially international[6]. At the individual interviewee level the proportion varied from 20% to 50%. Seven firms had more than one third of international actors. The highest percent of international actors was observed in Resource-based firms, followed by Trade firms.

Table Error! No text of specified style in document.**.27: Distribution of Actors at Different Spatial Scales**

			Number of actors in Actor Map/Cobweb						
Interview	**LoB Group**	**Funct-ional Group**	**Regio-nal**	**Natio nal**	**Europe an/ Global**	**Mixed national**	**Mixed (incl. EU/Glob.)**	**EU/ Glob.**	**Total**	**% EU/ Global**
LT_1	1	C	0	1	0	0	1	**1**	**3**	**33**
LT_2	2	Pm	0	1	0	1	1	**1**	**4**	**25**
LT_3	1	C	0	0	1	0	1	**2**	**4**	**50**
LT_4	1	C	4	2	1	0	1	**2**	**10**	**20**
LT_5	4	C	0	0	0	1	1	**1**	**3**	**33**
LT_6	3	C	0	2	1	0	0	**1**	**4**	**25**
LT_7	1	Pm	0	1	0	0	2	**2**	**5**	**40**
LT_8	3	C	1	1	0	0	1	**1**	**4**	**25**
LT_9	1	C	0	2	0	0	1	**1**	**4**	**25**
LT_10	1	C	0	3	2	0	1	**3**	**9**	**33**
LT_11	1	C	1	1	0	0	1	**1**	**4**	**25**
LT_12	1	M	0	0	0	1	2	**2**	**5**	**40**
LT_13	4	C	0	1	1	1	0	**1**	**4**	**25**
LT_14	4	C	0	1	1	0	0	**1**	**3**	**33**
LT_15	4	Pm	2	1	1	0	0	**1**	**5**	**20**
Total			**8**	**17**	**8**	**4**	**13**	**21**	**71**	**30**
LoB Groups	Res.		5	10	4	1	10	**14**	**30**	**47**

6 'Mixed' location actors were treated as international if they included EU or Global scales in their definition.

	EMTrad.	0	1	0	1	1	**1**	**3**	**33**
	EMHiTech.	1	3	1	0	1	**2**	**6**	**33**
	Trade	2	3	3	2	1	**4**	**11**	**36**
Functional Groups	M	0	0	0	1	2	**2**	**3**	**67**
	Mp	0	0	0	0	0	**0**	**0**	**0**
	Pm	2	3	1	1	3	**4**	**10**	**40**
	C	6	14	7	2	8	**15**	**37**	**41**

One of the LoB groups - the Resource-based companies - had a substantially higher proportion (47%) of international actors in it's networks, than any other group. The Trade firms had the second-highest proportion of international links (36%). Both engineering and manufacturing groups had the same degree of internalisation (33%).

Of the three functional groups the most international was the one for which marketing activities were dominant (i.e. M, 67%). The Pm and C groups had very similar degree of internationalisation (at 40 and 41%).

Table Error! No text of specified style in document.**.28: Percentage International Actors and Average weight placed on Domestic and International Actors**

Interview	LoB Group	Funct-ional Group	% Actors EU/ Global	Weight - Regional/ National	Weight - EU/ Global
LT_1	1	C	**33**	**0.35**	**0.38**
LT_2	2	Pm	25	0.24	**0.61**
LT_3	1	C	**50**	0.24	**0.52**
LT_4	1	C	20	0.12	0.20
LT_5	4	C	33	0.27	0.34
LT_6	3	C	25	0.21	0.19
LT_7	1	Pm	**40**	**0.28**	0.17
LT_8	3	C	25	0.24	**0.37**
LT_9	1	C	25	0.21	0.11
LT_10	1	C	**33**	0.28	**0.35**
LT_11	1	C	25	**0.31**	0.03
LT_12	1	M	**40**	0.23	0.17
LT_13	4	C	25	**0.44**	**0.36**
LT_14	4	C	**33**	0.07	0.29
LT_15	4	Pm	20	**0.31**	**0.60**
Total			30	**0.25**	**0.31**
LoB Groups	Res.		**47**	**2.02**	1.93
	EMTrad.		33	0.00	0.00

	EMHiTech.	33	0.15	**0.19**
	Trade	**36**	0.10	**0.14**

Functional Groups	M	**67**	**0.23**	0.17
	Mp	0	0.00	0.00
	Pm	**40**	0.28	**0.46**
	C	**41**	0.25	**0.29**

Table Error! No text of specified style in document.**.28** summarises the information relating to the relative importance of national and international actors in the Actor Maps. In the final two columns the relative weight of the national and international actors is expressed as a proportion of the maximum possible score for each group of actors.

On average, across all interviews the score for the international actors was 31% of the maximum possible, whilst the score for national actors was 25%. 5 out of 7 firms which had above average shares of international actors, attached greater importance to the international than to national actors in their networks. In total nine of the fifteen firms interviewed gave greater weight to international actors. Of these, 7 attached a weight above the average (31%) to their international actors. 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 (25%).

In case of Lob groups, high-tech manufacturing and trade firms placed higher weights to international actors, but resource-based firms gave slightly bigger weight to regional/national actors, in spite of the fact that they have the biggest percentage of international actors in their networks.

In case of functional groups, a clearly higher weight is given to international actors in Pm group, followed by C group with a smaller weight difference. This is quite an expected result. However in M group bigger weight is attached to regional/national actors, though the group has highest percent of international actors in it’s networks. These two cases show the respective significance of the national market for regional SMEs.

The Evolution of Business Networks and the Impact of Recession

(i) The impact of economic recession to the business networks

Out of 15 interviewed firms, 4 firms experienced strong negative impacts of economic recession on their businesses, 4 a smaller impact and 7 no impact, to their business development. However, a majority of firms stated that the crisis had little effect on their relations with partners. The numbers of employees in most of the firms remained the same (reduced in only two interviewed firms), though the fact that only more successful enterprises agreed to participate in the survey should be kept in mind. The crisis was most visible in terms of turnover, demand and customers' purchasing power.

Naturally, relations with other partners were most affected for the companies experiencing severe consequences of crisis. According to LoB, two of such firms are Resource-based, one High-tech manufacturing and one is a Trade firm. According to functional grouping, two firms belong to the Compliance group, one to Marketing and one to Product/Marketing group. However some of these firms have an important common feature related to their business networks – high dependency on the partners, resulting as "chain reaction". When national/international partners closed down or reduced activities during economic recession, the companies experienced negative consequences:

"Everything began falling down in 2009, very quickly and strongly. After bankrupt of companies, especially in Latvia, serious financial difficulties appeared. Almost all connections with Irish and Great Britain enterprises broke. The export share sharply decreased and so did the realisation in Lithuania." (LT_4)

"The company greatly depends on it's partners, because most of the produced parts are additional, they were stuck together with the parts made by two other large national companies and after those companies bankrupted, the firm experienced big financial difficulties. Only one partner has left, but the company isn't very satisfied with this cooperation too. At the beginning of commercial activity, company had about 100 foreign partners (Bulgaria, Slovakia, Czech Republic, Germany, Poland and etc.) and now one national partner has left." (LT_6)

The other typical pattern for severely recession affected firms is dependence on shrinking sectors (for example, construction). In this case business activities had to be re-oriented (or closed) and partner networks re-established in the different activity fields:

"When economic recession started and the boom of building collapsed, the company had to reorient into other activities, thus production and sales of granite and marble products (gravestones, staircase steps, hearth decorations, table surface parts and etc.) was started. The return decreased significantly, earlier clients were juridical and currently they are natural persons." (LT_2)

The economic recession impact brought changes to the partner/customer behaviour as well. They became more careful, short-term oriented:

"..Geographically both clients and suppliers remained the same. However, mistrust concerning the payments appeared, it was asked to pay in advance and ctr." (LT_1)

"The number of orders didn't decrease, but if earlier buyers used to order for whole year, currently they order only for a month or two." (LT_3)

Economic recession also had an impact on customers' choices – their focus changed from secondary to basic products:

"People are going to eat bread anyway, but of cause, the crisis made them use products more economically and more precisely. Also rising consumption of organic products has a big influence on the enterprise, buyers began choosing products without yeast." (LT_7)

"Buyers cannot live without drugs and food, but they can wear old shoes longer, before they fix or to renew them." (LT_15)

However, the economic crisis made entrepreneurs search for the new alternatives, add new activities or search for new market possibilities. Though 4 out of 15 firms stated that during recession they concentrated more on domestic market, some of them are thinking of expanding their international collaboration:

"The relationships with partners didn't change, but new markets were sought (Japan, USA). It wouldn't be easy to export the products to these countries especially to Japan. Producers have to find out more about the culture and

manners of this country and only then start the production. It's not easy to find clients, because this country is very different from USA or European countries. The firm expects to find customers in USA through Lithuanians living there." (LT_3)

"The economic crisis forced us to look at the quality of provided services more carefully and to discontinue the inefficient routes, to look for new possibilities. New contracts with enterprises and tourism agencies are being made. "Economic recession encouraged to expand enterprises activity, to look for new partners (especially abroad). Actively collaborating with enterprises, it seeks to expand the routes not only to closest foreign countries but also to Italy, Spain and England." (LT_11).

"Now the company is hoping to make a deal with Belarusian wood companies for cooperation and negotiates for smaller prices. One more perspective is connected to Cultural Heritage Association of Dzūkija. This association was established not long time ago, but it's quite active and the head of the company is thinking about closer cooperation." (LT_8)

One company used a special strategy for preparation for the harder times:

"During the period of rising economy company didn't invest the profit into activities, but decided to save the money. Now the company would be on the edge of bankrupt, because nature disasters brought many financial troubles, but having own guarantee funding let the company to replant the gardens." (LT_10)

The other firm added an extra activity next to the main one:

"Return decreased significantly. However the improvement is noticed recently. New activity has been started during economic recession – used furniture sales. This activity has been prompted by a decrease of purchases. The enterprise made new contacts, needed for trading used furniture." (LT_12)

Thus, the remedies and actions taken by the firms to counter the impact of economic recession were: to re-orient economic activity, to add extra economic activities, to revise the quality and efficiency of offered products/services, to search for new market possibilities, to save a guarantee fund for possible decline. Some of these actions bring business network changes as well. It can be concluded that international/global marked was considered as one of the alternatives to keep the business viable during recession.

(ii) Aspirations to work more closely with particular actors

In case of firms' aspirations to work more closely with particular actors, respondents fall into 3 different groups:

1) Does not intend, current state is satisfying the firm's needs. 6 firms belong to this group.
2) Does not plan at the moment, because financial state is not favourable. 2 firms belong to this group.
3) There are aspirations to extend collaboration. 7 firms belong to this group.

The plans to extend international collaboration include intentions to take advantage of the border situation of the region. Alytus county borders Belorus and Poland and majority of aspirations are linked with these countries. Besides these countries, Latvia, Germany, Netherlands, Italy, Spain, UK, USA and Japan were mentioned by the interviewees. The main driving factor for the network extension however is demand for the products and services that the enterprises can offer: *"The bigger is demand for enterprise products and services, the closer is collaboration." (LT_1)*

(iii) Origin and Nature of the Relationships with Actors

According to the respondents, the partner network expanded naturally, together with the development of the firms. The circle of actors usually increase during the years:

"In 2004 the company had only a few suppliers from other countries, but during 6 years their circle has strongly increased. At this moment the enterprise has around 20 suppliers from various European countries (main supplier – Belgium). Lithuanian suppliers are mainly single farmers. The first international connections were made in 2000 with a Polish company. The interest in more intensive search and collaboration was taken few years ago when enterprise started to expand it's activity." (LT_1)

Often the leader's 'social capital' – pre-existing acquaintanceships are of great importance for network development.

"Some suppliers (Ukraine, Russia) are almost unreachable by internet, the connections were established through common acquaintances. Those acquaintances are friends, old school friends, those who started some business themselves are especially helpful for different actors to come together" (LT_2)

"The connections with partners were established already before the establishment of the company (in 1999), the company still communicates with them." (LT_3) "One of the ways to make contacts with partners is searching for information on the internet, but some contacts were made before establishing the company. These connections appeared from the last workplace, since ex-workers of the same company look for the contacts with earlier colleagues while creating their own business." (LT_5)

"The connection with partners established while starting the business through common acquaintances. It was natural step for originating the business." (LT_13)

The partnerships develop further by a 'snowball principle' – new partners bring other partners_with them.

"The contacts with other partners were established with the help of existing partners." (LT_3)

"At the beginning business worked only on national level. But gradually more and more involving into business and its environment, new contacts appeared. Thanks to acquaintanceships with clients and suppliers, new relations that became important part of the business, originated. It can be stated that relations were set through common acquaintances, common projects, participating in exhibitions." (LT_15)

The other ways to obtain partners were participation in business fairs, exhibitions, events, projects and competitions. Some respondents told that clients and suppliers find their firms themselves, because of good advertising and positive evaluation of products/services given by the previous clients:

"Since rural tourism homestead is advertising itself not only in Lithuania, but also Poland, Germany, many clients find the information themselves (on internet, in special catalogues)." (LT_9)

To some respondents business organizations played an important role in their network extension abroad:

"A special role in obtaining contacts abroad was played by Lithuanian Association of Chambers of Commerce, Industry and Crafts, Associations of Businessmen and Employers. Many partners are looking more faithfully to the members of associations" (LT_4)

"The Lithuanian Association of Rural Tourism also helps to establish contacts." (LT_9)

"The firm belongs to several associations, Chamber of Agriculture, the Association of Fruits and Berries. The legal base in Lithuania has gaps, so these organizations help to achieve the goal of creating the base as currently applicable in all Europe. Also those organizations help to establish useful contacts or find out useful information." (LT_10)

"Belonging to Small and Medium Business Association is important to the business. This association defends business interests. It also helps to find partners and gives information about other businesses." (LT_15)

While usually contacts of regional SMEs develop through the years, more specialised, 'niche' product companies (for example High-tech) tend to enter international market from the beginning of firm establishment:

"The company stepped into the international market from the beginning of establishment and that was natural step. There were almost no competitors for this company. After the state borders were opened, there was no lack of buyers from all Europe. The respondent remembers good times, when he even had to live in Bulgaria, because there was too much work. The connections were established through common acquaintances and without big competition, it was not difficult to attract clients." (LT_6)

"The contacts with Scandinavian companies were established before starting bio-fuel production. Since the owner of the company had other companies before, he already had quite a lot of contacts." (LT_8)

The international contacts were also established in order to learn: *"Right after company started is activity, it was big need to learn many things. The company visited Polish companies, trainings and seminars were attended, useful contacts were made there. After entering the EU the number of contacts increased even more." (LT_10).*

According to the respondents all means of communication are used to maintain the contacts. The firms are in touch with their distant partners by phone and internet on daily basis, but personal meetings and visits to other companies are held when necessary too. For example, company representatives go to suppliers to check the quality of buyable production.

All means of travelling – cars, planes are used for the trips. Some communication also happens through business associations (when businessmen belong to them).

The communication runs both formally and informally. According to the respondents, both sides perfectly understand that contracts facilitate the relations, collaboration contracts help to keep stable, faithful business relations between buyers and sellers. Acquaintanceships, pointed out by majority of the respondents, belong to informal communication. According to one respondent, informal contacts work faster, it is easier to bargain for prices (LT_11). The other respondent noted: *"The importance of formal and informal networks for the company is great. It gives more confidence in other companies, if they are members of the same network and opposite. Connections are more intense and closer, required help is received, even if it's very minimal." (LT_4)*

The way of communication also depends on the partner's country customs and cultural habits:

"Since first partners were from Russia, there were no mobile phones and internet, the communication had to be personal, quite big distances had to be passed. Communication even developed into friendship between families and greetings on yearly feasts are still received. Respondent told that communication with Russia is special, because if one hasn't informal communication, he won't achieve good results." (LT_6)

It can be concluded that formal communication was mainly associated with collaboration contracts and membership in business organizations, informal – with acquaintanceship, friendship.

(iv) The role of internet

The internet is an important business network development tool for the 13 out of 15 interviewed companies. According to the respondents:

"Contacts are mainly made with the help of internet. Without internet the development of enterprise partner contacts, collaboration, search of information are inconceivable" (LT_1)

"Clients most often find this company themselves, because information is published on internet. Also good way to advertise is working well, responsibly and the sound about good product comes from mouth to mouth" (LT_2).

"The descriptions and pictures of products are published on internet, so it helps to provide the information about company to the consumers" (LT_3)

"It's an important tool for communications, receiving the newest information, higher possibilities of advertising." (LT_4)

"It helps in expanding connections, finding information and it is especially important for communication." (LT_5)

"It makes easier to keep in touch with partners, helps in searching for information and gives better opportunity to advertise." (LT_7)

"It quickens the requitals with clients and suppliers, facilitates the search of information, communication and gives possibility to send pictures of sold fruits and berries to clients." (LT_10)

"It is possible to find the information about the newest plant varieties and their growing." (LT_13)

"The internet is quite important, especially in administering documentary and accounts with clients and suppliers. Internet as well as newspaper notices are reliable sources for searching business partners." (LT_14)

To sum up, the main internet benefits for regional SMEs are: information, partner search, communication and collaboration tool, advertising and company presentation tool, way to sustain the contacts, speed-up of documentary administration, transactions and requitals between the partners.

Internet was not considered very important for network creation by two firms. Interestingly, according to LoB both of them belong to the high-tech manufacturing group. According to functional grouping, they belong to C (compliance) group. This seems to be connected with high specialization of their products, i.e. the products are made only for special clients, advertising through internet is not suitable in this case:

"The company is making various parts associated with electricity systems, such as refrigerator electric wire system, TV electric wire systems and etc. .. most of the produced parts are additional" (LT_6)

"The company doesn't sell to Lithuania yet, because the stock (biofuel briquettes) is not popular between average Lithuanian people – they mostly use firewood or coal for heating." (LT_8)

(v) Barriers to making contacts with Actors from outside the Region/Country

The information bellow indicates the obstacles to target in order to improve international collaboration.

According to the interviewees, the barriers to making international contacts for regional SMEs in Alytus county are:

- Small financial abilities of regional SMEs, financial difficulties, big investment needed
- Unknown foreign languages
- Big competition *("Many dealers/resellers", LT_1; "A lot of businessmen in the same activity", LT_12; "Since Polish growers, the largest firm's competitors, dictate the European market, the company has to adjust to their prices. Thus the biggest impact on company is made not by economic recession but competition and natural forces", LT_10)*
- Decreased consumer purchasing power. Consumers are saving more, buying less products *("Economic crisis: consumption is decreased, buyers search for cheaper stock or make individual orders", LT_12)*

- Geographical situation *("The barriers for collaboration with Russian companies are bad intercommunications of the states, which consequence is increased customs rate and therefore exporting became unprofitable" LT_10; The customs problem is with importing and exporting the stones. And that are also additional expenses", LT_2)*
- Big distances (increasing costs of transportation, communication, etc) *("The frequent communication problem – big distances and getting visas to former soviet countries create additional problems", LT_2)*
- Fluctuation of currency exchange rates (ratio of Litas and Zloty) can make negative impact *("Buying for Zloty is more beneficial than for Litas, so cheaper stock is bought better then more expensive", LT_12)*
- Expensive local stock.
- Mutual reliability of partners (mistrust between partners may appear), financial risk (delayed requitals, possible debts, etc)
- Additional documentation needed.

Conclusions

The key findings from the face-to-face interviews in rural areas of Alytus county are:

- ‘Compliance with rules and regulations’ is the most important dimension of the Actor Maps. It is followed by ‘Improving market position’ and ‘Reacting to customer needs’ activity axes. Activity axis ‘Securing the investment capital’ has the lowest rank between the interviewed firms.
- According to the activity orientation, the majority of networks can be described as ‘Compliance’ and ‘Product/Marketing’ networks.
- 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.
- The highest average scores overall were given by enterprises belonging to ‘Resource-based’ and ‘Trade’ groups. This suggests they have relatively strong and active business networks.

- Customers and suppliers were both included on every Actor Map. Other types of actors mentioned more frequently by Lithuanian interviewees accordingly are other SMEs and business associations - professional or trade associations, Chamber of Commerce, Industry and Crafts, Small and Medium Business Association, Chamber of Agriculture.
- On average one third of all the actors identified by the interviewees were international. Seven firms had more than one third of international actors.
- The highest percent of international actors was observed in 'Resource-based' firms and 'Trade firms'. In first case the main reason for this seemed to be the fact that the regional/national market is too small for their high quality/bespoke products. Competitive prices for quality products/services is another factor allowing network development at international level.
- 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.
- According to the respondents all means of communication are used to maintain the contacts. The firms are in touch with their partners by phone and internet on daily basis, but personal meetings and visits to companies are held when necessary too. All means of travelling – cars, planes, etc. are used for the trips.
- Communication is also happening through business organizations – events provide the possibility to meet partners. To some respondents business organizations played an important role in their business network extension abroad.
- The communication runs both formally and informally, both forms of communication are important to the respondents. Informal contacts are important at the beginning of firm's activity. The way of communication also depends on the partner country's customs and cultural habits.

- The internet is an important business network development tool for the majority of the interviewed companies. The internet for regional SMEs provides information, a means of partner search, a communication and collaboration tool, advertising and company presentation opportunities, a way to sustain the contacts, speed-up of documentary administration, transactions and requitals between the partners.
- While usually contacts of regional SMEs develop over a period of years, more specialised, 'niche', high-tech oriented companies tend to enter international market from the beginning of firm establishment.
- Out of 15 interviewed firms, 4 firms experienced strong negative impacts of economic recession to their businesses, 4 spoke of smaller impacts and 7 of no impact to their business development. However, the majority of firms stated that the crisis had little effect on their relations with partners. High dependency on (crisis affected) partners or dependency on suddenly contracting sectors are typical factors for the severely affected firms.
- The impact of economic recession also brought changes to partner/customer behaviour. It became more careful, short-term oriented. Crisis affected customer changed their focus from secondary to basic products.
- The remedies and actions taken by the firms to counter the impact of economic recession were: to re-orient economic activity, to add extra economic activity, to revise the quality and efficiency of offered products/services, to search for new market possibilities, or to save a guarantee fund for possible decline. International/global cooperation was considered as one of the alternatives to keep the business viable during recession.
- The majority of firms have aspirations to extend collaboration. Some of them do not plan at the moment, because the current financial situation is not favourable. The plans to extend international collaboration include intentions to take advantage of border situation of the region. The main driving factor for network extension is demand for the products and services that the enterprises can offer. Others do not intend to develop

their networks because current arrangements are satisfying the firms' needs.

- The barriers to making international contacts for regional SMEs in Alytus county include: the small financial abilities of regional SMEs, financial difficulties, the big investment needed, unknown foreign languages, strong competition, the geographical situation (visas and customs in ex-soviet countries), long distances, decreased consumer purchasing power, and (un)reliability of partners.

4. Summary and Reflections

4.1. Summary of Findings.

The following summary will present the results of the two surveys separately. The nature of the data collected necessitates two different approaches. In the case of the Electronic Survey the key findings are amenable to a degree of quantification, and it is possible to draw up some summary tables as a basis for comparison on the Case Study Regions. This approach is not, however, appropriate for the Face-to-Face Interviews, since although "scores" were produced, substantial reservations are appropriate as regards the objectivity and comparability of these scores. In addition, much of the information gathered was of a qualitative, anecdotal nature, and it is therefore more helpful collect together to the conclusions of the case studies rather than to compare them.

4.1.1. The Electronic Survey

Degree of Internationalisation

The compiled results relating to "degree of internationalisation" are shown in **Table** Error! No text of specified style in document.**.29**, where the firms are categorised in five groups, based on the geographical distribution of their sales and purchases activities.

Table Error! No text of specified style in document.**.29: Degree of internationalisation of business activities, all Case Study Regions.**

	Sweden (47)	**Czech Republic (43)**	**Lithuania (54)**	**Netherlands (39)**	**Slovenia (20)**
	% of the national sample				
Local	13	37	77	67	5
Domestic	15	5	4	8	10
National Powerhouses	19	0	0	5	5
International interfaces	32	35	15	8	45
Globalized	21	23	4	12	35

The Lithuanian sample of firms is the least internationalised. More than three-quarters of the sampled firms have mainly regional operations. The Dutch sample is also strongly orientated towards regional operations (67%). Yet, 8% of the Dutch firms have operations that are partially internationalised (i.e. either supply or sales are internationalised), or strongly internationalised (12%). Half of the Czech firms sampled have partially (35%) or strongly (23%) internationalised operations. Another 37% have mainly regional operations. The Swedish sample of rural SMEs consists of 32% with partially internationalised operations, 28% with mainly regional and domestic ones, 21% strongly internationalised ones and 19% mainly national ones. Finally, the Slovenian sample of SMEs, which is the smallest, consists of 80% of firms that have either partially internationalised (45%) or strongly internationalised (35%) operations.

Although (as noted above) the samples of firms are not strictly representative of their regions, the results seem broadly illustrative of the capacity of the firms in the different countries to develop extra-local transactional linkages. In three out of five case study regions, more than half of the firms were operating outside their regional context. In two cases, Sweden and Slovenia, the 'regional' firm, i.e. a firm with activities essentially at the regional level, may be considered the exception rather than the norm. The sample also shows that in all regions there is the potential for firms to develop fully internationalised operations, even if the extent of this phenomenon differs widely from one case study region to the other (from 8% in the Netherlands to 45% in Slovenia).

Collaborative Space

As explained in the context of the case studies in Section 3 the electronic survey, asked the respondents to assess, using a Likert-scale grading (from 0, no interaction, to 4, strong interaction) the intensity and frequency of their interactions with other firms on the basis of collaboration and exchanges, (i.e. non-transaction linkages). The field of 'other firms' was sub-divided according to size (other SMEs, Large firms, and multinational companies) and geographical location (regional, national, European and worldwide), thus leading to 12 different possible types of firms with which collaboration could potentially take place.

In Section 3 the results from this part of the questionnaire were presented in the form of simple counts and average scores. In this comparative summary a more sophisticated approach is employed, using tools and methods developed in Social Network Analysis (Wasserman and Faust, 1994). This makes it possible to analyse the responses in the form of holistic networks, rather than as a set of dyadic relationships. The objective is to reveal the underlying structure of the collaborative space of our national samples of firms. The empirical work on network analysis has been performed on the five case study datasets separately, using UCINET software[7].

For each of the national samples, a simple N*12 matrix was generated from the scores provided for the question relating to "collaborative networks", (where N is the number of respondent available in each national sample). Each of these national matrices provided the basis for a 12*12 'co-occurrence' matrix. The cells in the co-occurrence matrix quantify the occurrence of two events (for instance collaboration with regional small firms and European large firms) across our set of responses by our actors.

In qualitative terms, the co-occurrence matrices provide useful information on the types of collaboration that our sample of firms are engaged in. Firstly the matrices create a 'map' of the structure of the whole collaborative network based on individual attributes of the relational ties. They also shed light on key associations between individual relational ties; for instance, that a strong relation with regional SMEs often occurs in connection to a strong relation with national SMEs.

Based on the co-occurrence matrices, a second step is to calculate the 'degree of centrality' of each of the 12 possible actors with whom our SMEs can potentially relate. Degree of centrality is defined by Wasserman and Faust in the following terms:

The simplest definition of actor centrality is that central actors must be the most active in the sense that they have the most ties to other actors in the network or graph. Wasserman and Faust, 2006, p178

The algorithm used for calculating Degree Centrality is the one developed by Linton Freeman (1979). In concrete terms, the degree centrality of an actor is based on the number and strength of its association with other actors.

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[7] UCINET 6 Software. (Borgatti et al 2002). A UCINET tutorial by Bob Hanneman and Mark Riddle is available at http://faculty.ucr.edu/~hanneman/nettext/

The results of the analysis, across all five case study areas are summarised in **Table** Error! No text of specified style in document.**.30** below.

Table Error! No text of specified style in document.**.30: Degree of Centrality of actor groupings in Collaborative Space, all Case Study Regions.**

	Regional		*National*		*European*		*World*	
	Degree centrality (Rank)	Share	Degree centrality (Rank)	Share	Degree centrality (Rank)	Share	Degree centrality (Rank)	Share
Sweden								
SMEs	914 *(2)*	13,4%	951 *(1)*	13,9%	513 *(7)*	7,5%	336 *(11)*	4,9%
Large Firms	683 *(4)*	10,0%	758 *(3)*	11,1%	587 *(5)*	8,6%	296 *(12)*	4,3%
Multinational firms	438 *(8)*	6,4%	581 *(6)*	8,5%	434 *(9)*	6,3%	347 *(10)*	5,1%
Czech Republic								
SMEs	715 *(1)*	19,2%	634 *(2)*	17,0%	274 *(6)*	7,3%	23 *(12)*	0,6%
Large Firms	477 *(4)*	12,8%	518 *(3)*	13,9%	307 *(5)*	8,2%	70 *(11)*	1,9%
Multinational firms	114 *(10)*	3,1%	186 *(8)*	5,0%	246 *(7)*	6,6%	168 *(9)*	4,5%
Lithuania								
SMEs	181 *(2)*	19,5%	159 *(3)*	17,1%	75 *(6)*	8,1%	4 *(10)*	0,4%
Large Firms	129 *(4)*	13,9%	192 *(1)*	20,6%	28 *(9)*	3,0%	- *(-)*	-
Multinational firms	- *(-)*	-	39 *(7)*	4,2%	91 *(5)*	9,8%	32 *(8)*	3,4%
Netherlands								
SMEs	546 *(1)*	16,6%	448 *(2)*	13,6%	274 *(5)*	8,3%	178 *(8)*	5,4%
Large Firms	416 *(3)*	12,6%	349 *(4)*	10,6%	248 *(6)*	7,5%	213 *(7)*	6,5%
Multinational firms	130 *(12)*	3,9%	176 *(9)*	5,3%	162 *(10)*	4,9%	152 *(11)*	4,6%
Slovenia								
SMEs	787 *(3)*	9,9%	940 *(1)*	11,9%	777 *(4)*	9,8%	507 *(10)*	6,4%
Large Firms	668 *(6)*	8,4%	857 *(2)*	10,8%	729 *(5)*	9,2%	544 *(8)*	6,9%
Multinational firms	497 *(11)*	6,3%	529 *(9)*	6,7%	656 *(7)*	8,3%	421 *(12)*	5,3%

A common feature of the structure of the collaboration (non-transaction) networks in our five samples is the relatively important role of other regional and national SMEs. In the Swedish, Czech and Dutch case studies, the regional SMEs and national SMEs actor groupings constitute the most central groupings. In the Slovenian and Lithuanian cases, the regional and national groupings belong to the three most central groupings.

Another recurrent characteristic is the relative importance in almost all cases of large firms at regional and national levels. In the Swedish, Czech, Lithuania and

Dutch cases, these two actor groupings are ranked in the four most central actor groupings.

Consequently, a first remark is that the core of the collaborative space of our samples of SMEs is rather constant, even if the samples themselves are quite different. In particular, there are few differences between the samples that have the most internationalised transaction networks (i.e. the Swedish and Slovenian ones), and the ones with the least (i.e. the Lithuanian and Dutch ones). In that respect, our findings challenge the results of previous studies, (which assume that there is a clear-cut link between transaction and collaboration), since even the case study areas with the most international transaction networks are still collaborating mainly locally or nationally. The development of collaborative (non-market) relations mostly based on physical and institutional proximity, - and thus benefitting from common norms and ways of operating, - still seems to be at the core of the inter-firm collaboration process for our sampled SMEs.

In all five small business samples investigated in this study, the preferred mode of internationalisation of the collaborative network is through relationhips with foreign small firms, and especially European ones. For the Lithuanian and Dutch samples, which were essentially turned towards the domestic and national markets, relations with European small firms make up to respectively an 8.1% and 8.3% share of the overall network structure, (i.e. the share of all relations between actor groupings). Furthermore, for Dutch firms, developing relations with European large firms (7.5%) and, to a lesser extent, small firms located outside Europe (5.4%) are important features of their business network structure. For the Swedish and Slovenian samples, which have marked international profiles for their transactions, collaboration with European firms is central to the structure of their business networks, whether it is small businesses (representing respectively a 7.5% and 9.8% share of their network structure) or larger firms (representing respectively a 8.6% and 9.2% share of their network structure). As for the Czech sample, which had a more balanced domestic/international transaction profile, the results are in line with the previous evidence, i.e. a predominance of the mode of internationalisation through networking with foreign small or larger firms (respectively 7.3% and

8.2% share of the overall network structure), rather than via linkages with multinational companies.

The evidence thus leads us to conclude that the preferred mode of internationalisation of collaborative inter-firm network is through the development of networks with foreign smaller businesses.

Support Space

Table Error! No text of specified style in document.**.31: Degree Centrality of Actor Groupings in the Support Space, all Case Study Regions.**

	Regional		*National*		*European*		*World*	
	Degree centrality (Rank)	Share	Degree centrality (Rank)	Share	Degree centrality (Rank)	Share	Degree centrality (Rank)	Share
Sweden								
Trade organizations	1375 *(2)*	10,3%	1497 *(1)*	11,2%	762 *(9)*	5,7%	599 *(12)*	4,9%
Public Agencies	1071 *(6)*	8,0%	1090 *(5)*	8,1%	631 *(11)*	4,7%	386 *(15)*	2,9%
Research Institutes	1186 *(3)*	8,8%	1168 *(4)*	8,7%	724 *(10)*	5,4%	483 *(13)*	3,6%
Business consultants	832 *(7)*	6,2%	809 *(8)*	6,0%	437 *(14)*	3,3%	352 *(16)*	2,6%
Czech Republic								
Trade organizations	127 *(8)*	7,3%	171 *(6)*	9,9%	65 *(10)*	3,7%	11 *(13)*	0,6%
Public Agencies	209 *(2)*	12,1%	242 *(1)*	14,0%	79 *(9)*	4,6%	- *(-)*	-
Research Institutes	171 *(6)*	9,9%	207 *(3)*	11,9%	51 *(11)*	2,9%	- *(-)*	-
Business consultants	195 *(4)*	11,2%	181 *(5)*	10,4%	25 *(12)*	1,4%	- *(-)*	-
Lithuania								
Trade organizations	32 *(4)*	11,1%	38 *(3)*	13,2%	11 *(8)*	3,8%	- *(-)*	-
Public Agencies	85 *(1)*	29,5%	29 *(5)*	10,1%	5 *(10)*	1,7%	- *(-)*	-
Research Institutes	*7 (9)*	*2,4%*	*41 (2)*	*14,2%*	- *(-)*	-	- *(-)*	-
Business consultants	20 *(6)*	6,9%	15 *(7)*	5,2%	5 *(10)*	1,7%	- *(-)*	-
Netherlands								
Trade organizations	337 *(10)*	5,3%	487 *(6)*	7,6%	391 *(9)*	6,1%	192 *(14)*	3,0%
Public Agencies	703 *(2)*	11,0%	757 *(1)*	11,8%	417 *(7)*	6,5%	210 *(13)*	3,3%
Research Institutes	*400 (8)*	*6,2%*	*609 (3)*	*9,5%*	*313 (11)*	*4,9%*	*113 (16)*	*1,8%*
Business consultants	510 *(5)*	7,9%	516 *(4)*	8,0%	301 *(12)*	4,7%	162 *(15)*	2,5%
Slovenia								
Trade organizations	554 *(2)*	10,6%	596 *(1)*	11,4%	230 *(9)*	4,4%	117 *(16)*	2,2%
Public Agencies	417 *(7)*	8,0%	533 *(3)*	10,2%	229 *(10)*	4,4%	140 *(14)*	2,7%
Research Institutes	433 *(6)*	8,5%	456 *(5)*	8,7%	220 *(11)*	4,2%	144 *(13)*	2,8%
Business consultants	400 *(8)*	7,7%	462 *(4)*	8,9%	148 *(12)*	2,8%	129 *(15)*	2,5%

The same social network analysis methodology was employed to compare the findings of the case studies in terms of relationships with supporting organisations and institutions. The results are presented in **Table** Error! No text of specified style in document**..31**.

In the Swedish and Slovenian samples, which are the ones with the most international transaction profiles, trade organizations at national and regional levels are the most central actor groupings in the support network. In the Czech and Dutch samples, trade organizations have a less prominent profile, and instead it is public agencies at national and regional levels that are the most central actor groupings. Regional public agencies in Lithuania represent the most important actor grouping. In three cases out of five (Czech, Lithuania and Netherlands), national research institutions belong to the top-three ranking. In Sweden, regional and national research institutions are respectively the third and fourth most central actor groupings in the support network.

4.1.2. Face-to-Face Interviews

The Face-to-Face interviews, as they are summarised in the reporting fiches each paint a picture of a small firm within its networking context, both local and international. It is not very easy to summarise these in a way which does them justice, since they are all rather individualistic. However the most interesting findings tend to fall within four main headings:

(a) The overall importance of networking for different groups of SMEs

(b) The relative importance of different kinds of actors.

(c) The relative importance of actors at different spatial scales.

(d) The relative importance of different forms of interaction, market transactions, other formal interaction, and non-market/social interaction.

Before considering these three issues, it was helpful to classify the interviewees, first of all according to the "line of business" in which they were engaged, and secondly according to the relative importance of the various network functions represented by the columns of the "Actor Map".

In the case of the former the categories varied to some extent between the five case study areas, although most of them distinguished businesses which were in some way dependent upon local resources, traditional manufacturing, high-tech. manufacturing and business services. In the Czech Republic and the Netherlands conventional farming businesses were included in the samples.

The categories of business according to network function were also defined independently in each Case Study Region. However, here too, some common patterns emerged. In most of the regions the largest group had networks whose function were primarily related to marketing (columns 1-4 of the Actor Map), closely followed by a group which were using networks mainly in the context of product development (columns 5-8). Two other groups usually accounted for a small minority of interviewees: these had networks focused upon sources of capital, and compliance with regulations. The Lithuanian sample, which was dominated by firms whose networking mainly related to compliance with regulations stands out in this respect.

(a) With regard to the first heading, (the overall importance of networking for different groups of SMEs), it was surprising to find that the resource-based firms placed a rather high emphasis upon networking. On closer investigation it becomes clear that this is usually associated with a specialisation in high quality "bespoke" or niche products, which create requirements for specialised technical information, and close interaction with customers. At the other extreme, traditional engineering and manufacturing firms seemed to place the least importance upon networking. Regardless of the kind of economic activity they were engaged in, firms which used their networks mainly for marketing purposes seemed to value them most.

(b) With regard to the relative importance of different kinds of actors, it is striking that despite the substantial differences between the five case study regions, all of them consistently identify customers and suppliers as the most important members of their networks. Public support agencies, membership organisations and clubs, seemed to be a long way behind upstream or downstream businesses in terms of the importance assigned to them by the interviewees. Banks and other sources of finance seemed to be considered more important in most cases.

(c) The findings concerning the relative importance of actors at different spatial scales raise a number of interesting issues. It is important not to overlook (as obvious) the basic fact that all of the case study regions reported globalisation of business networks (although to varying degrees). It is striking that the Swedish and Slovenian reports both emphasise the inadequacy of local, regional or national demand as a powerful "push factor" driving the globalisation of SMEs in relatively remote and sparsely populated rural regions. By contrast the networks of firms in the much more accessible and densely populated Dutch case study region seemed to be predominantly national in focus.

The degree to which business networks were international, and the relative importance place upon international actors within them varied, as one might expect, with the sector of activity. High technology manufacturing and engineering companies tended to have more global networks. Less expected is the high level of international interaction associated with niche production based on local resources (wine in Slovenia and the Czech Republic, Wood-and fish-based products in Sweden).

Regardless of whether the firms were already well linked into international networks, or were interacting only regionally the barriers were generally the same, namely language, distance, a poor understanding of remote market conditions, and (especially in the New Member State case study regions) lack of capital.

(d) Finally, whilst there was considerable evidence of alignment between transaction linkages and informal non-market/social interaction, all the case studies highlighted the assertion by many interviewees that the latter were crucial to the success of their business. This was associated with a recurrent distinction between "routine" network contacts (including transactions) which could take place by fax or email, and the need for regular telephone or face-to-face contact as a means of building trust and exploring issues of mutual interest. In the Swedish interviews examples ranged from meeting fellow business people at the local ice-hockey game, to regular business trips (by air) to distant network members. It is particularly interesting that in this remote and sparsely populated context, where it is more difficult to align local interaction with transaction patterns, value was placed upon the "moral support" which may be derived from interaction with local entrepreneurs, even if they were operating in completely separate "transaction networks".

4.2. Some Reflections.

In this final section it may be helpful to make some brief observations concerning the way in which the two surveys and their findings may serve as a foundation for the final tasks of WP1, which focus upon policy implications and best practice, and an overall synthesis of the workpackage findings. The points listed below should be considered a starting point only, to be developed and "fleshed out" in the coming months.

- The first very general observation is that the evidence presented in this report underlines and strengthens the simple point that globalisation is just as much a rural phenomena as an urban one, and that it is often manifest in a positive form, as part of the process of rural economic restructuring.
- This being the case the process by which rural businesses acquire international networks is a legitimate, probably crucial, subject for research to support evidence-based rural policy.
- The network concept which should underlie such research should be inclusive of the full range of kinds of business linkage, including transactions, interactions with supporting institutions, and non-market, informal "social" connections with other members of the business community.
- These different networking "spaces" have different geographical manifestations. As we have seen the transaction space of many rural firms is wide-ranging, incorporating local, regional, national and international actors. The "support space" of rural SMEs seems to be rather more geographically constrained. The non-market informal "cooperation space" is often rather localised, but can also incorporate distant partners with whom there is a specific common interest.
- In the past the concept of "bonding" and "bridging" social capital has been one way to conceptualise this complex interactional geography. Both are required, it is argued, to nurture innovation and growth. After surveying the "network panorama" described in the above report it is to be

questioned whether this is not a "two-dimensional" view, of what is in fact a multi-layered and multi-scalar phenomenon.

- This has some very interesting policy implications. It calls into question whether "bottom-up", endogenous, "place-based" or "cluster" approaches are appropriate or sufficient as strategies for rural economic development. At the very least it seems that the role of global linkages should be accommodated. A step further would be to recognise the complexity of real (multi-layered) business networks, to try to establish their organising principles, and to seek out ways by which those of lagging regions might be developed and strengthened.
- The next task (Work-package 1.3) will explore current practice in terms of regional/rural policy to support business networks. It will consider the extent to which current interventions reflect the complex reality of rural business networks, and will seek to identify "good practice" where it exists.

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