

# Spatial loyalty and territorial embeddedness in the multi-sector clustering of the Berguedà region in Catalonia (Spain)

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## Abstract

The development of clusters of local growth is supported by different processes. Endogenous economic development produced by small and medium-sized enterprises (SMEs) is based on family firms in which local market characteristics influence the sectorial diversification that emerges within certain regions. In the Berguedà region (Catalonia, Spain), the formation of a successful network of SMEs in three main sectors (food, textile and machinery) in the 1990s demonstrated the importance of grass-roots prerequisites, including industrial tradition, social networks and a sense of spatial loyalty, one of the main concepts studied in this paper. The aim of this paper is to study how institutions, local economic networks and collective social agents generate a propitious economic space that constitutes favourable embedding in Berguedà. However, the key element in this industrial system is the loyalty that entrepreneurs and workers feel towards their industrial region. These two processes, territorial embeddedness and spatial loyalty, appear to be two of the major forces behind the economic dynamism of the region and have led to the formation of a new cluster of firms. © 2004 Elsevier Ltd. All rights reserved.

*Keywords:* Spatial loyalty; Local development; Territorial embeddedness; Multi-sector clustering; Identity

## 1. Introduction

In general, research on industrial development focuses on metropolitan areas, rather than semi-remote areas where heterogeneous factors, such as the social and cultural environments of particular places, influence the location of economic activity. Small and medium-sized enterprises (SMEs) are the basis for long-term economic growth in rural regions in developed countries. The aim of this paper is to study the processes of multi-sector clustering and embeddedness and how they emerge through elements of spatial loyalty in the mountain region of Berguedà (Catalonia, Spain). Economic success was observed in this region during the last decade of the twentieth century, so we want to highlight the enmeshed elements that constitute the framework for this regional growth.

There is a long tradition in geography (Harvey, 1982; Smith, 1984; Lefebvre, 1991; Schoenberger, 2000) of discussing the social construction of spatial forms and

relations that emerge from social processes. At the same time, the social space that emerges also produces new social and spatial forms. This process occurs in such a way that, when a new social space is produced, it replaces the former space, or, as Hadlaw (2003, p. 25) says, the new creation “consume(s) the spatial relations which existed before its creation”. In the county of Berguedà, the physical environment acts as the determining factor for the social construction of the area, conditioning social contacts and economic and cultural processes. Ultimately, it is one of the most important leading to the spatial construction of the social landscape in mountain areas.

Berguedà is a small mountain region with heterogeneous forms within its territory. This is why it is not easy to explain Berguedà's local development as a whole and it is the reason why Berguedà is so unusual to study. The stratification of differently produced spaces in Berguedà leads to diverse contemporary processes. On a general level, Berguedà is characterized by an industrial structure with a tendency towards services, although the agricultural area is still the largest one. From an in-depth analysis (Pallares-Barbera et al., 2002), four categories can be differentiated in Berguedà: (1) areas

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with strong urban characteristics, which are located on the main roads and near the Llobregat river; (2) areas characterized by a forestry component, with protected natural areas (“Espais d’Interès Natural”); (3) extensive areas dedicated to agricultural tasks, most of which are devoted to cattle rearing; and finally, (4) areas dedicated to tourism-oriented services and construction. Berguedà at the end of the twentieth century was a specific area possessing common features of both urban and rural areas. The distinctive and peculiar characteristics of Berguedà make the county a prototype for Pyrenean mountain area taxonomies and development. Berguedà differs from other mountain areas, even neighbouring ones in Catalonia, in the following ways: (1) its relative position in the centre of Catalonia, between the metropolitan area and the Pyrenees; (2) its very early industrialization, starting in the eighteenth century; (3) its links with the industrialization of Barcelona; and (4) the presence of the natural areas of the Pyrenees. This article focuses on the most important urban areas of Berguedà which are also the ones containing the industry and service industry-oriented network.

The agglomeration of firms in this area constitutes a multi-sector cluster. The concept of cluster used in this paper needs clarification. Traditional literature on clusters defines them as a group of interconnected functions with a high degree of spatial proximity. Different regional governments, even in Catalonia (The Competitiveness Institute, 2003), have wanted to measure the performance of regional clusters in terms of their progress over time and against their peers. Using these results, government leaders expect to measure progress and prioritize cluster-specific policy choices. Cluster terms with somewhat different meanings have been used interchangeably, creating confusion and a need for more precise definitions. From Porter’s classical definition (1990) emphasizing relationships inside industries, to the more geographical ones, like Enright (1992, 1993) in which member firms are in close geographical proximity to each other, the cluster concept is extended to industrial districts (Brusco, 1992; Piore and Sabel, 1984; Becattini, 1987, 1989; Goodman and Bamford, 1990; Pyke et al., 1992), where concentrations of firms are embedded in the local community and delimited by daily travel-to-work distances (Sforzi, 1992).

Clusters are proposed as one of the key elements for discussion in this paper. Berguedà is a region where there are different industries concentrated geographically, but local firms are hardly related to other firms in the area by market relationships. The nature of the Berguedà multi-sector cluster is to be found in the roles played by territorially embedded links to social and cultural events and local institutions in driving local activity and growth. So, this conceptualization goes significantly beyond the ones existing in the literature

that has been mentioned. Features in common with the earlier definitions are geographical concentration, the strategic power of agglomeration for producing favourable prescriptive regional policies, positive increases in local wealth, industrial disciplinary practices and some degree of communication, interaction, and competition between firms. However, even if firms do not need to operate with each other inside the Berguedà cluster, the ultimate aim of clustering strategy of easier communication and facilitation of experience for all participants is present in Berguedà, and this is one of the reasons why the area is unique.

Another of the bases of this paper’s discussion is the analysis of the enmeshing structure that forms the “bed” for industrial innovation in particularly successful local areas. In this paper, embedding processes capable of modifying purely economic business decisions are studied as elements of economic development of Berguedà. Relational and structural embeddedness are the basis of the inclusionary tendencies that bind enterprises within local economies and institutions, creating long-term growth (Taylor, 2001; Grabher, 1993; Granovetter, 1992).

Finally, on the basis of analyses of companies and entrepreneurs and linked to territorial embeddedness, the concept of spatial loyalty emerges as an element related to a territory’s human capital and identity, in the sense that a region has a set of characteristics that are known and recognized, and then used by a group of people living in that territory. When social cognition is embodied in economic agents working in the area, they are able to transmit this social knowledge into economic activity. This is a very important asset that produces successfully embedded networks of multi-sectorial firms. In this paper, spatial loyalty is studied in depth through the tacit network of relationships established between Berguedà’s human capital, social relationships and the territory where the economic activity takes place.

This paper’s argument is presented in six sections. Following this introduction, Section 2 studies theoretical concepts of clustering and embeddedness, as explained in relevant literature, in order to conceptualize Berguedà’s processes. Section 3 explores the methodology and economic structure of Berguedà. On the basis of the information presented in these sections, Section 4 develops the results and analyses the factors for business embeddedness in the cluster. Section 5 looks at spatial loyalty in Berguedà. Conclusions are drawn in the final section.

## 2. Clustering and embeddedness in context

The definition of a cluster is under increasing discussion within the fields of industrial geography and economics. In the mainstream literature, a cluster is a

geographic concentration of firms competing in the same or related industries which are linked together through vertical (buyer-supplier) or horizontal (technology, information or other resources) relationships and government agencies. The product value chain takes place inside the cluster (Porter, 1985); so, the Italian Industrial District (Sabel, 1989) lies within this theoretical framework. Economic advantages for firms belonging to a cluster come from agglomeration and urbanization economies (Hoover, 1948) and diminishing transaction costs (Coase, 1937). Krugman (1991, p. 14) emphasizes that elements initiating clusters are small key events, historical accidents, and “the interaction of increasing returns, transportation costs, and demand”, and that these have important and long-lasting effects throughout the cumulative industrial growth process (Myrdal, 1956). As a result of cluster initiation, regional economic development could emerge extending beyond purely economic domains within firms. Many of clusters’ competitive advantages lie outside a given company or even outside its industry, residing instead in the locations of its business units. Economic outcomes of a cluster are often driven by factors that are notoriously difficult to quantify, thus it is useful to go back to the roots of socio-structural studies. So, the explanation of the determinants of economic growth driven by the presence of clusters concern the way in which a wide range of institutions, habits, traditions, and families affect people’s ability to create new firms and profit from them, which also shapes the area where they are located. External economic factors generated by a cluster produce locally concentrated labour markets, exchange of information through personal contact and forms of subcontracting (OECD, 2001; Marshall, 1923). Relationships between firms and their territories develop a different kind of territorial and functional environment in which there are intra-firm and inter-firm relationships, as well as extra-firm networks referring to the connection of firms to institutional organizations (Yeung, 1994). As global competition has intensified, industrial geography has rediscovered the dynamic potential of clusters as functions performed by dynamic linkages within an industrial system, connected by strong technological and behavioural input-output links (Scott, 1992; Sabel, 1993; Saxenian, 1994; Perroux, 1973).

Embeddedness has also been discussed as an influence of personal relationships on business interaction. The fact that “economic action is embedded in networks of personal relationships between actors links (...) (to the question of) how *any* behaviour and institutions are affected by social relationships” (Granovetter, 1992, p. 27). A key issue is that embeddedness processes appear to lie beyond the transaction-cost benefit analysis, thus social embeddedness, as an interaction that takes place between economic agents that know each other,

facilitates business actions embedded within a social context. In embeddedness processes, networks and alliances are a crucial organizational device surrounding a production unit (Nooteboom, 1999); where, networks of social relationships include social organizations, family groups, elites, institutions and markets (Nohria and Eccles, 1992).

Embeddedness processes include the dynamic of the incorporation of SMEs in a given area, where institutional organizations, local networks of economic activity and social collectives generate an economic space which constitutes a favourable bed for establishing and settling enterprises. *Territorial embeddedness* refers to the enmeshing of economic and cultural relationships within broad territorially placed social and institutional structures that facilitate social relations. Social structures are the cornerstones for formal and informal relationships maintaining common values (Zhou, 1996) between firms seeking market transactions. Under conditions of demand uncertainty coupled with stable supply, firms develop different forms of structural embeddedness, defined as the extent to which a “dyad’s mutual contacts are connected to one another” (Granovetter, 1992, p. 35), which contrast with relational embeddedness, as the latter essentially refers to the quality and depth of a single dyadic tie. Thus, structural embeddedness deals with the direct and indirect relationships that organizations have with each other and with third parties. The strength of structural embeddedness is a function of how many participants interact with one another, how likely future interactions are among participants and how likely participants are to talk about these interactions (Lundvall, 1993). Due to decoupling, participants move frequently among networks and this links different groups together, spreading information about third parties among those within the network. This allows information, norms and common understandings to move across group boundaries (Friedkin, 1982; Granovetter, 1973). The more structural embeddedness there is in a network, the more information about each player is known to all the other players and the more constraints there are on each player’s behaviour (Burt, 1992). In a dynamic analysis, structural reciprocal embeddedness (Grabher, 1993) implies a relationship that goes beyond the repetition of simple exchange and does not have responses that are immediately equivalent, but includes the balanced mutual benefits in the life-cycle of the firms’ economic activity (Polanyi, 1989). On the other hand, too much embeddedness may create its own set of problems. Uzzi (1996) suggests that over-embeddedness in relational terms (i.e. many strong ties and few weak ties) can lead to feuding, choking off new information from other parts of the industry and welfare-like support of weak network members. Essentially, over-reliance on strong ties tends towards tight, relatively isolated cliques which

are not well integrated with the rest of the industry. A good level of structural embeddedness in terms of the overall fitness of the network may be in an intermediate range, where parties are neither too tightly connected to fragment social connections nor so loosely connected that they are unaware of who has information to provide or who knows. The optimal level of structural embeddedness may be determined by network size and is an important empirical question.

Taking embeddedness more territorially, cognitive embeddedness is based on different types of discipline and on ways of thinking and acting by the territory's social collective, while cultural embeddedness is based on the cultural values of a collective (Zukin and DiMaggio, 1990). Placed formal institutions may improve reciprocity, collaboration, co-operation and trust relationships between the public and private sectors, promoting territorial characteristics in order to increase regional unity and provide firms with networking (Malecki and Tootle, 1997). The territory is where the accumulation of economic actions and common values takes place. These affect the internal characteristics of a given territory, which at the same time influences the dynamic coalition of firms operating in this region. Social ties provide an intrinsic motivation to advance (if positive) or harm (if negative) the interests of the specific others involved in development. It is generally acknowledged that ties develop through prolonged interaction and erode when the interaction ends. More specifically, the relational perspective highlights the importance of firms' embeddedness to explain economic action such as alliance formation (Gulati, 1995) inter-firm exchange (Uzzi, 1997) and organizational survival.

"Embedding clusters" can be defined as geographical concentrations with different degrees of interaction of family SMEs, specialized suppliers, service providers, firms in unrelated sectors and associated institutions that compete and also co-operate in extra-firm networks. Given that embedded clusters are not attached to just the one sector, "multi-sector embedded clusters" have a much stronger position facing sector downturns.

### 3. Methodology and structure of Berguedà's economy

A full knowledge of the meaning of local embedding processes in the multi-sector cluster of Berguedà requires empirical evaluations concerning the nature of network embeddedness along with its associated institutional fabric, including cultural backgrounds. This is the only possible way to study the embedded cluster as it currently stands and the policy initiatives it has engendered. Most of the theories of enterprise location and territory are based on assumptions regarding a firm's principles and behaviour based on aggregated macro-economic data, which is also used in this paper. But

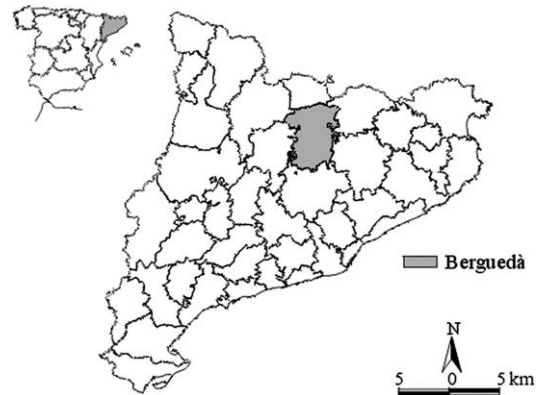


Fig. 1. Location of the region of Berguedà.

some of these assumptions might conflict with the actual behaviour of the firm's network of local productive systems studied in this paper. The following sections attempt to show the nature and processes of embedding that occur in firms in Berguedà (Fig. 1).

#### 3.1. Data and methodology

Data was collected from twenty-one firms belonging to the production and distribution sectors, as well as four institutions. The sample of firms interviewed was drawn from the 1999 database of the *Cambra de Comerç del Berguedà*,<sup>1</sup> a local semi-private business association in the region, and the *Associació d'Empresaris del Berguedà*, the local entrepreneurs' association. Methodologically, first a sample was randomly drawn from these databases, and in a second stage, a snowballing method of adding firms was used to include the most important and most influential firms in the study. Samples of firms were drawn from different sectors: textiles, metallurgical, food and wood processing, as well as construction firms. More specifically in terms of methodology, the sample size was made up of 21 SMEs, without internal categories, from total of 215 SMEs<sup>2</sup> in Berguedà, representing 9.76% of the SMEs in Berguedà (Table 1). This sample deliberately did not take into account differences between stratified random samples, because the objective of this article was to analyse the multi-sector clustering of Berguedà as a whole. Thus, the number of

<sup>1</sup> Chamber of Commerce. [http://www.cambrescat.es/catala/frame-set\\_camerdata.htm](http://www.cambrescat.es/catala/frame-set_camerdata.htm).

<sup>2</sup> Small and Medium-sized Enterprises (SMEs) are defined by the *The European observatory of SMEs* (UE) as having between 11 and 500 workers (European Network for SME Research, 2000) and by the Catalan Government as having between 11 and 250 workers (Generalitat de Catalunya, Departament de Treball, Comerç, Indústria i Turisme, 2000).

Table 1  
Sample of firms interviewed by sectors

Sectors	0–10	11–500	>500	Total	Sample
Food processing	31	<b>25</b>	0	56	B-03; B07; B-12; B-13; B-15; B-17; B-21
Metallurgical	52	<b>46</b>	0	98	B-05; B-06; B-08; B-14; B-18; B-16
Textile	36	<b>72</b>	0	108	B-04; B-11; B-20
Services	56	<b>8</b>	0	64	B-01; B-19
Construction	519	<b>36</b>	0	555	B-09; B-10
Wood processing	64	<b>28</b>	0	92	B-02
Total	758	<b>215</b>	0	973	21

Source: Consell General de Cambres de Catalunya 2003. Base de datos. ([http://www.cambrescat.es/catala/frameset\\_camerdata.htm](http://www.cambrescat.es/catala/frameset_camerdata.htm)).

SMEs selected in each sector does not pretend to be sectorially representative and the sample has chosen firms in different proportions from each sector. 33.4% of firms in the sample belong to the food processing sector, 28.7% are from metallurgical sector, 14.2% belong to the textile sector, construction services account for 9.5%, the same proportion follows for the service sector, while 4.7% are from the wood processing sector.

Semi-structured interviews were conducted within the plants, and lasted between one and two hours. In most cases, the entrepreneurs themselves were interviewed and in only two cases were company executives interviewed. All but two of the interviews were recorded and transcribed verbatim. A list of question prompts was used to conduct the interview, but the language of the embeddedness model or clustering—such as co-operation, loyalty and reciprocity—was not introduced in order to avoid certain types of answers. Questions were organized following an eight-part structure which defined the key elements of this research: (1) origins of the firm; (2) internal organization of the firm; (3) inter-firm network of suppliers; (4) inter-firm networks of clients; (5) labour force; (6) quality of production; (7) innovation; and finally, (8) extra-firm network.

In-depth interviews were carried out in order to gain a comprehensive understanding of the general county scenario in terms of representative agents of the local institutions, such as the Chamber of Commerce, the Entrepreneurs' Association, the *Consell Comarcal del Berguedà* (local public institution of the Catalan Government), and the City Council of Berga (the capital of Berguedà). The structure of interviews with institutions was based on three main topics: (1) inter-firm relationships; (2) labour force qualification; and (3) extra-firm relationships.

Analysis of the answers was conducted following a rigorous key concept screening analysis based on embeddedness, classical location theory and the fundamental dimensions of clusters. This was carried out throughout the interviewee's answers, using this careful qualitative analysis to group and discover the region's developmental tendencies and the factors causing them.

### 3.2. Berguedà as a mountain area

In Berguedà, located in the north of Catalonia, the defining elements of mountain areas<sup>3</sup> have played a fundamental role in its economic development. Historically, far from demand and with low economies of urbanization, the region managed to develop a flourishing supra-local industry in the nineteenth century due to the use of thermodynamic energy from the Llobregat River, crossing the region from north to south. Industrial tradition in Berguedà was based on a cluster of textile (cotton) firms, located by the river, and lignite mining in the mountainous north. The textile cluster had its origins in the seventeenth century. However, it was during the Industrial Revolution, in the nineteenth century, that Berguedà became one of the leading manufacturing centres in Spain, producing for national and international markets. The founding capital for firms came from textile investment decentralization from Barcelona (Frigola and Llarch, 1986; Morera, 1996; Serra and Viladès, 1987). Entrepreneurs built textile colonies along the river and this labour-intensive system lasted until the nineteen seventies, when changes in production required huge investments in technology to cope with international competition.

Therefore, as the textile and mining clusters in Berguedà came to an end, sectorial diversification aimed to regenerate the region. A transition period began at the end of the eighties, when the mines and the colonies were finally closed. After some years of economic recession, a fifteen-year period of increasing levels of growth began with new industrial investments, which went up from 1.50% to 2.71% of the total for Catalonia between 1984 to 1996 (Institut d'Estadística de Catalunya—Catalan Institute of Statistics, 1999). GDP in Berguedà decreased steadily, from 3.36% to –1.54%, in the period from 1980 to 1993, and only in 1994 did it start to

<sup>3</sup> The *Mountain areas* in Catalonia (Spain) are the following: Alt Urgell, Alta Ribagorça, Berguedà, Cerdanya, Garrotxa, Pallars Jussà, Pallars Sobirà, Ripollès, Solsonès and Vall d'Aran. The total area is 9193.7 km<sup>2</sup> distributed among 162 municipalities (Parlament de Catalunya, law 2/1983).

Table 2  
Evolution of GDP in the Berguedà region, in percentages (1991–1998)

	1991	1992	1993	1994	1995	1996	1997	1998
Berguedà	3.36	0.18	-1.54	0.54	1.75	1.92	3.10	3.29
Catalunya	3.10	0.51	-1.33	2.13	3.79	1.85	3.72	3.95

Source: Oliver, 1995–2000. *Anuari Econòmic Comarcal 1994–1999*. Barcelona: Caixa de Catalunya.

Table 3  
Evolution of industrial sector in the GDP of Berguedà, in percentages (1991–1998)

	1991	1992	1993	1994	1995	1996	1997	1998
Berguedà	37.17	35.31	33.96	34.4	37.5	37.3	37.8	40.6
Catalunya	31.98	30.41	29.21	29.5	33.1	33.0	33.3	36.9

Source: Oliver, 1995–2000. *Anuari Econòmic Comarcal 1994–1999*. Barcelona: Caixa de Catalunya.

recover and move from a negative to a positive slope, maintaining a steady growth until the end of the decade, reaching 3.29% in 1998 (Table 2). The industrial sector represented 37.17% of regional GDP in 1991. It fell for 2 years until 1994, but from 1995 onwards it experienced positive growth, reaching almost 40.60% in 1998 (Table 3). Although the textile sector was still in business at the end of the nineties, its percentage declined in importance in the county as a whole, falling from 4359 workers in 1986 to 1289 in 1996 (Institut d'Estadística de Catalunya, 1999), which meant a fall from 23% to almost 10% of Berguedà's total working population over the same period. However, the number of textile firms grew from 20 to 27 between 1994 and 1997, most of these being family firms with low investment power and highly dynamic profiles (interview with the *Associació d'Empresaris del Berguedà*). Meanwhile, the working population in the metal and food sectors grew, from 190 to 567 metal workers, and from 288 to 385 food workers between 1986 and 1996, and between 1994 and 1997, 20 metal firms were created (Institut d'Estadística de Catalunya, 1999). Thus, the closing of mature sectors was followed by a period of development in the region, based on sectorial diversification and new business practices.

#### 4. Results and discussion

Exploring the nature of Berguedà's territorial and market embeddedness has involved examining the separate and yet interdependent operating logics of the market and society, in addition to cumulative causation-prone external factors called "untraded interdependencies" (Dosi, 1984; Lundval, 1988, 1990). These "take the form of conventions, informal rules, and habits that coordinate economic actors under conditions of uncertainty. These relations constitute region-specific assets in production" and "of geographical differentiation in what is done, how it is done, and in the resulting wealth

levels and growth rates of regions." (Storper and Salais, 1997, p. 5). In some areas of the results, social relationships between entrepreneur and institutions and tacit agreements between firm's agents became commodities. In the multi-sectorial embedded network of Berguedà, untraded interdependencies are commodified, facilitating trust and co-operation for members of the community through cultural disciplines existing in the region, and only members who know the tacit rules of this society and feel attached to them benefit from them. From this process stems the concept and definition of Berguedà's spatial loyalty.

##### 4.1. Structure of firms and locational factors in the region

In the mid 1990s, Berguedà experienced a rise in industrial activity following a period of economic recession that led to the conversion or disappearance of many of the area's mature sectors. In this context, a network of new production and distribution activities began to emerge as the force behind local economic growth. This industrial network was mainly made up of small and medium-sized companies, employing between 3 and 250 workers (based on the sample, Fig. 2). More than 85% of those interviewed were local family firms, some of them belonging to a second generation of small family businesses. Family firms were formed by members with a broad sense of family ties. As Entrepreneur B-06 said: "The owners are my uncle and I." Firm members had also changed over time: "Initially we had external partners, but they left us. One of them set up his own firm and we had problems with the other. Now the

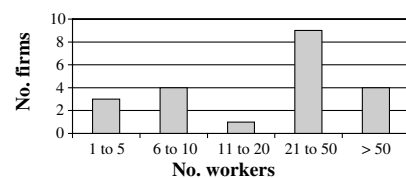


Fig. 2. Number of firms by number of workers.

*partners are my wife and I.*" (Entrepreneur B-20). Entrepreneurs were either former employees of the old textile colonies or partners in other firms in the same or neighbouring areas (Pallares-Barbera and Vera, 2000).

Restructuring the internal firm or creating a new one were the firms' reactions for adjusting to new supply-and-demand competition and for improving quality. Production diversification and responding to demand forced firms to restructure internally, changing their activity and enlarging their production capacity, creating new strategies. "*Depending on market tendencies, we have adapted our production to the demand. We had to consider the customers' opinions and the new tendencies in the market,*" (Entrepreneur B-04). This implies internal restructuring: "*We had to change the internal organization of the firm every time we changed production,*" (Entrepreneur B-17); and labour reorganization: "*We have a person in charge of the workshop, another in the warehouse, and another in administration . . . Now we have to co-ordinate all sections to be more competitive,*" (Entrepreneur B-06). Firms' cost-reduction strategy was created by concentrating their skills in their product specialization, externalizing services like administration and quality control: "*. . . Accounting is done inside the firm while workers' social security paperwork is done by a business agency,*" (Entrepreneur B-16), and: "*Only quality control of pastry products is carried out outside the firm, in a lab in Barcelona,*" (Entrepreneur B-03).

The key event for cluster initiation in Berguedà could be traced to the foundation of textile colonies, and this fact formed a focal point in the working hypothesis for this paper as a relational factor for current development. However, only 19% of the entrepreneurs interviewed confirmed that their company's founders were previously involved in the extinct textile and mining clusters. Nevertheless, some of them had close ties with the old sectors, like Entrepreneur B-06, who said: "*My uncle worked as a machinist at the Colònia Rosal,*" and Entrepreneurs B-14: "*Our husbands worked for Carbons de Berga.*" Their old job tasks clearly were marginal to the role they had in the new firm. So, industrial tradition, although important for the region's cumulative process of industrial growth, as will be discussed in the section on spatial loyalty in this paper, formed more of a tacit factor in the untraded interdependencies for the region than an explicit one. Also, although investments in newly structured firms were made by endogenous capital (76% of the firms interviewed), they were rarely tied to textile or mining capital. The rest of the investment came from other parts of Catalonia and Valencia.

Endogenous firms had relocated inside the region over time, mainly forced by changes in technology and the enlargement of production. Factors such as: "*We need more space,*" (Manager B-08); "*We changed our production, so we had to move to a new place,*" (Entrepreneur B-20); and "*We enlarged the firm in order to*

*increase production, so we were forced to find a larger site, which we found in Gironella,*" (the neighbouring town) (Entrepreneur B-16), were widely used to explain why firms relocated. This movement inside the region could be explained by Berguedà's lower fixed asset cost compared to Barcelona (Institut Català del Sòl—Catalan Land Institute, 1997) and by the local institutional incentives focused on reducing the costs of settling in the region. As Manager B-08 said: "*We received an interesting offer from the CIDEM<sup>4</sup> and the Consell Comarcal del Berguedà. They gave us free land for building the firm, which was tax-free for the first year, with a prerequisite of creating stable new jobs.*" Another factor was institutional support for keeping investment inside the county, as could be found in Entrepreneur B-05's answer: "*When we needed to enlarge our building, the town council suggested relocation to a new industrial zone, which, in fact, turned out to be industrial after rural rezoning.*" Finally, Berguedà is in a relatively good central position between Barcelona's metropolitan area and France,<sup>5</sup> mainly the Toulouse metropolitan area (Fig. 1), which offers clear advantages to market-oriented firms. As Entrepreneur B-15 said: "*We are in a good place, in between Barcelona and the south of France.*"

Cluster agglomeration advantages for location, such as labour pools and the prevalence of raw materials, were not determining factors in this network of new firms, where labour skills had to adapt to new production needs and raw materials came from outside the area. Indeed, the shortage of qualified workers in the region as a result of labour migration after a period of low growth rates and sectorial changes resulted in the increase of fixed costs and the reduction in economies of scale for firms. In fact, entrepreneurs had very strong strategies for obtaining skilled labour to meet firms' needs, as suggested by these answers: "*. . . our workers get the required skill from within the firm by training as apprentices,*" (Manager B-08); "*There is no specialized labour force in the area; it is very difficult to find good workers. There is strong competition for the best workers in the area,*" (Entrepreneur B-06); "*We have specific machinery, so we train our own workers,*" (Entrepreneur B-04), and: "*This firm has a clear division of labour: the technicians, for which we hire engineers, and the less specialized labourers who work in the workshop. Nowadays it is very difficult to find apprentices,*" (Entrepreneur B-05). Skill training strategies inside firms began in the nineties when the economic development increased and entrepreneurs claimed assistance from local institutions. But these seemed unable to respond to owners'

<sup>4</sup> "Centre d'Innovació i Desenvolupament Empresarial". Catalan government's Centre for Innovation and Business Development.

<sup>5</sup> Berguedà is well connected to the South of France through the Cadí (1984) and the Puymorens (1994) tunnels.

demands, as reflected in this comment from the manager of a local institution: “*The consequences of the textile and mining crises are still very present. Most of the young labour force has migrated to other regions. We have a technical school, but we need more time to restructure our internal situation,*” (Manager, Consell Comarcal). This clearly expresses the impossibility of a quick and effective training process for human capital in the area.

On the other hand, human capital, represented by the entrepreneurs in the sample, revealed highly dynamic profiles, having established different firms simultaneously as holding organizations. These provided special services to the initial firm, and, once demand was satisfied, the firm was closed or sold. Simultaneous firms were founded to cover the needs of other firms for quality goods and services, which were difficult to find in an economic network just recovering from a crisis. Some of the answers were very specific about the functions of these simultaneous firms: “*Yes, we create some temporary firms, which we only use for specific jobs... (these firms last from 2 to 10 years). These firms compensate for punctual demands in a given construction project; doing maintenance, cleaning and polishing tasks,*” (Entrepreneur B-10); or “*Yes, we have a large group called Escandihogar, where we have two bakeries with different names, but both belong to the family; and a third firm, which is a restaurant, with external partners,*” (Entrepreneur B-07). Simultaneous firms were small, having between one and five workers, with low capital investment, and were all located in the same region. They co-existed alongside the initial firm and were created because no other businesses in the area could provide the required service. Sometimes they had more than one investment partner, who may not have been a partner in the initial firm, but who might be member of the owners’ family.

Other types of simultaneous firms in the area were created in different sectors, with no production links with the initial firm apart from investment capital and ownership, to take business opportunities perceived by the owners in the market, as mentioned in these owners’ answers: “*Yes, I have one other firm with a partner, who is a baker. We make cakes and distribute them to the rest of the Spanish market,*” (the initial firm was in the distribution sector—Entrepreneur B-03), and “*Yes, I have a ski school,*” (the initial firm was in the food sector—Entrepreneur B-07). This result, showing highly dynamic entrepreneurs creating new small firms, links to the discussion of simultaneous firms (SFs) as forms of strategic alliances (Grabher, 1993) in which businesses co-operate and collaborate, and also of SFs as temporary coalitions (Taylor, 1999) where new ventures are created to satisfy the needs of the original firm. Both approaches seem to go beyond the scope of the Berguedà SF process, because, while strategic alliances are usually made in order to reduce capital risk when starting new firms, capital investment in Berguedà’s SFs

is made by the entrepreneur of the original company, and temporary coalitions might ultimately be integrated into the original firm, which does not seem to be the goal of SF owners. Thus, the discussion of SFs in Berguedà could shift the unit of analysis from the firm to the entrepreneur and may have policy implications (Rosa and Scott, 1999) based on the motivations, qualities, and resources of “habitual” entrepreneurs, who found more than one business (MacMillan and Lowe, 1986), and concentrate on the different subtypes of habitual entrepreneurs.

#### 4.2. Inter- and extra-firm relationships

In this part of the analysis, we found it useful to structure the discussion based on three aspects. These are taken as the pillars of the way in which business-to-business and business-to-customer relationships of firms in Berguedà are an unwritten but highly reliable and tangible agreement for company operations and market transactions. The aspect of *power* includes how the network of firms relates to each other in the hierarchy of tasks, functions and production processes. This aspect will consider suppliers and customer in relation to the final firm. The *potential* aspect concerns the development of knowledge, taking into consideration methods of disseminating knowledge among network members. The aspect of *people* shifts to issues and trends at the societal and individual levels, including those involving cultures, values and beliefs.

Inter-firm networking inside Berguedà is almost non-existent and the added-value chain is undertaken by Berguedà’s firms with others located beyond the limits of the region (Fig. 3). Only firms in the food sector get their inputs from inside the area. This fact undermines the consideration of Berguedà as a Sabelian industrial district. Power relationships are established on fluid and equal terms between the network of suppliers and the assembler and this is done based on mechanisms stressing mutual trust, loyalty and fidelity established over a period of time. This strategy is considered the best for producers enforcing quality of the final product at a lower cost. Provision of raw materials and intermediate inputs is made through well-known suppliers, where the term “well-known” has the following special meaning for the entrepreneur: “*A person (firm) that will provide the ordered product on time, in the quality and quantity required,*” (Entrepreneur B-06).

Firms have established strong relationships of mutual trust stemming from long-lasting knowledge of each other, usually from foundation. Some of them express it in these terms: “*We have been trading with some of them for 30 years,*” (Entrepreneur B-12), and: “*Some of our purveyors have served us for 28–30 years,*” (Entrepreneur B-07). This allows competitiveness in terms of production quality and the meeting of demand deadlines



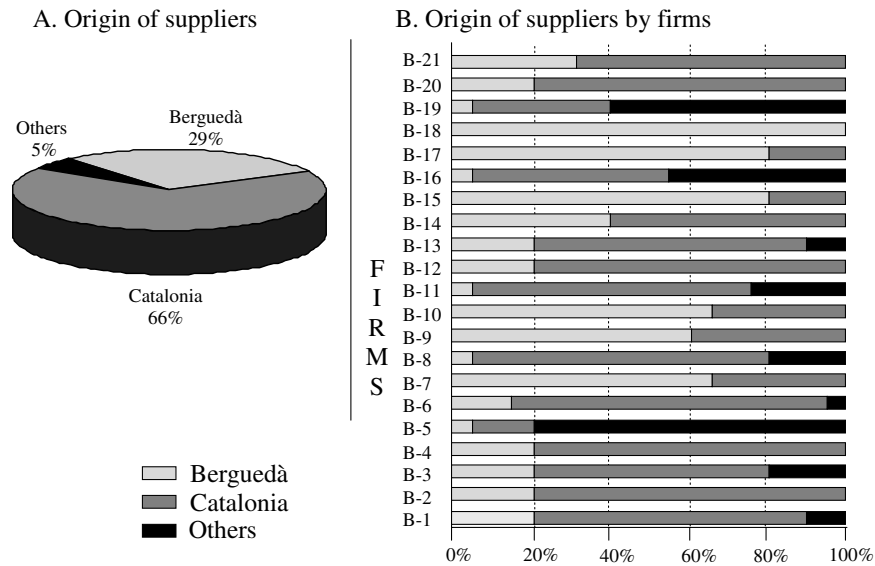


Fig. 3. Origin of inputs.

without increasing the costs of screening intermediate products. As Entrepreneur B-07 said: “(With our) . . . system of trust with our suppliers, when we have a problem, we (both firms) try to solve it as soon as possible,” and: “I would say that knowledge of each other’s firms avoids the need for at least one quality control,” (Entrepreneur B-07). This process works without formal contracts based on continuous and future interactions during the production process during a firm’s life. As was said in the following statement: “Ours is a very old system and it is sacred in our business. We put all our trust in certain people (suppliers) with whom we have oral agreements and if, by chance, something goes wrong, it has the same value as it would if it was written on paper,” (Entrepreneur B-10). So, mutual trust reinforces the strength of hierarchical power relationships between providers and assemblers and makes long-lasting exchanges a basis for their competitiveness strategy. Under this scenario of oral agreements and mutual trust, suppliers offer an implicit security to firms: (a) in order to adjust production needs—such as sudden changes in taste or amounts of demand, and (b) to give quick solutions in situations of deficient input, for example, faulty pieces found during the assembly process. This is also part of a complex structurally embedded process of interdependency, in which collaboration and co-operation link the firm and its suppliers in meeting final demand. Entrepreneurs are aware and conscious of this: “It is very important to have a good relationship with your suppliers because this implies that they will take responsibility for any problems with the supplied inputs,” (Entrepreneur B-20), and: “If there is any problem, we negotiate so that they replace the defective piece,” (Entrepreneur B-05). The network is strengthened by the good results of these tacit strategic alliances. Firms are

contacted by new suppliers offering lower prices, but, although price is important, entrepreneurs discriminate among suppliers by requiring quality standards, not by price competition. They have a clear ranking of what to look for in their trade contacts: “Quality is the first aspect, second, price, and third, formality,” (Entrepreneur B-17). But a balanced situation is established in these tacit alliances when firms have more than one well-known supplier for the same product, but not more than three. This ensures that if one provider has a problem, the firm can buy from another, knowing that it will meet the standards required. In this complex network of company relationships, recurrent transactions among firms are understood as a way of doing business in which a profit balance is obtained during the life-cycle of the firm’s activity on the basis of reciprocal and structural exchanges.

The aspect of potential at firms, in terms of sharing and transmitting knowledge, is based on inter-firm network relationships, allowing member companies to use knowledge from other partners in the network and from partners of other partners’ suppliers, without the initial cost of testing. Such a process reduces costs for network insiders through loosely coupled embeddedness practices, increasing links with members outside the network. “I used to work at another firm in the same sector and I used my contacts, suppliers and providers to create my new firm,” (Entrepreneur B-04). However, entrepreneurs develop subtle forms of competition within the network and share part of, but not all, the information they have. As Entrepreneur B-12 said: “I have good relationships with my partners . . . but when I have confidential information I don’t give everything away, I only say a little bit,” or “I do speak to my partners but . . . (of course) I am a businessman,” (Entrepreneur B-17).

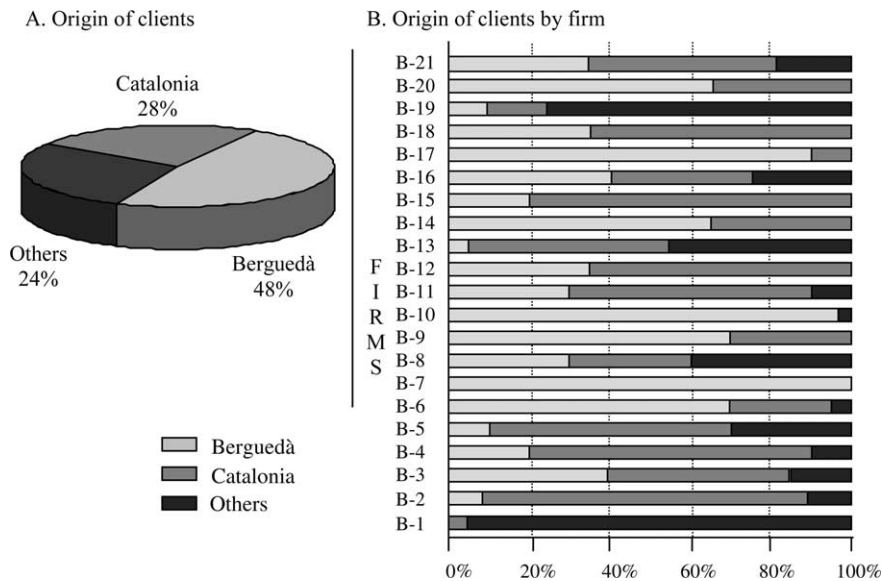


Fig. 4. Origin of clients.

Successful production strategies make Berguedà's firms sell products inside and outside the county in approximately equal proportion, with the items sold outside the area having a higher value (Fig. 4). Although orders between customers and firms are made by phone, fax or e-mail, on a first-time basis, entrepreneurs and clients meet in order to facilitate exchanges of tastes, characteristics and product quality. Some of the answers explained this practice: "The customer wants to meet the entrepreneur in order to know direct details of the item... This is different from getting the knowledge from a catalogue or salesman... On our side, customers are very, very important for us, and we don't mind spending so much time with them," (Entrepreneur B-03), or: "We prefer to have personal contact with customers. In this way they explain their exact needs to you," (Entrepreneur B-21). Firms get their customers from going to trade fairs, from sector distribution chains and from salesmen, competing on a basis of quality, so good practices, good relationships and high product quality standards are the main elements for customers allowing firms to sell the product. As these entrepreneurs said: "We found our first customers at the German Machinery Fair. From then on (we have sold to others) by word of mouth and other fairs," (Entrepreneur B-05); "We go to local fairs, such as the main town festival," (Entrepreneur B-18); "We don't need to demonstrate our product. We already have a customer portfolio, which we created on a basis of quality," (Entrepreneur B-07); "We have a distribution chain and a salesman," (Entrepreneur B-08); "We have salesmen and agents," (Entrepreneur B-01); "We get our customers from colleagues who are in the same sector but who manufacture different products, so they send us customers who need our product. We are very open in our

first contact with customers; sometimes we show them our firm, how we work, and other times we go to their firm," (Entrepreneur B-03).

On the people aspect, extra-firm relationships are based on formal institutions, which facilitate flows of information from external sources to the firm about new technology and knowledge, through technical courses helping to reduce firms' costs on the production line. Berguedà's institutions promote regional characteristics as a basis for economic development in different forms: "We offer advantages in our lower and tax-free land prices," (Manager, Consell Comarcal). It provides specific courses for improving and adapting labour skills, where entrepreneurs co-operate in the preparation of courses or even teaching them. "In some cases, I taught at courses prepared by the Consorci de Formació i Iniciatives de Cercs<sup>6</sup> and some of my students came to my firm for training," (Entrepreneur B-04), or: "We had specialization courses for ourselves and our employees organized by the Entrepreneurs Association and the City Council," (Entrepreneur B-17). The network of local institutions supporting economic activity has been criticized by local firms because of inefficient strategies and overlapping objectives between them. Institutions provide low-cost land for settlement, while firms seek better communication and IT infrastructures. Institutions co-operate with firms but do not co-ordinate efforts between themselves.

<sup>6</sup> This is a consortium of public institutions that aims to support local economic activity.

## 5. Place-based loyalty and the role of social networks. How loyalty is manifested territorially

Spatial loyalty is related to the knowledge that people have of the place where they live. It is also related to the identity<sup>7</sup> of someone within the place they live. In part, this identity involves a person's own recognition of belonging to a place, and it is also based on the perception of outsiders recognizing the identity of a group belonging to that place. In addition, social cognition (Malle et al., 2003) is tacit knowledge only known by the people who live in an area. So, for both elements, identity is the key aspect which relates to the other. Spatial loyalty's fundamental dimensions can be seen as a result of local knowledge, identification with a place and social cognition. So, spatial knowledge becomes the relational element linking spatial loyalty and social cognition. Part of spatial knowledge is the ability to perceive, interpret and explain the actions of other agents located in the same territory.

Spatial knowledge spreads through the community on the basis of social interaction. In firms, if industrial discipline is part of social cognition, the interaction between entrepreneurs becomes a highly valuable asset for the business success of an area. Social cognition as an intangible asset is tied to special groups and territories. It emerges in particular territories which develop tacit knowledge and is a positive factor for local development. It is at the point where tacit knowledge is embodied in industrial discipline that the local element becomes an important part of local competitiveness. It reduces firms' total business running costs in an area by introducing common, "free" knowledge of business practices, which increases their market share and competitiveness in a distanceless economy. It is an example of how the local element becomes a commodity which is introduced when the final product is marketed and increases its competitiveness in the global market.

Who are the agents responsible for transmitting and constructing social cognition for local business? Tacit knowledge flows mainly through human capital of the industrial network. The human capital of local networks with industrial traditions, involving a historical background, forms part of the constructed phenomenon of social cognition. A place with rooted human capital has the capacity to develop industrial interactions from social cognition throughout its labour force. Industrial tradition in Berguedà was formed in the textile colonies and mining history of the county, so it has become part of the economic and social cognition of the region. The

following answer by an institutional agent from the area to the related question: "*Talking about the know-how of workers from the old textile colonies, what did the workers do after the textile factories disappeared?*" illustrates this point. "*Once the colonies closed down, workers experienced radical changes in mentality. Colony work was quite relaxed and peaceful: material came into the factory, workers performed the corresponding tasks, and the thread trucks would arrive . . . Also, social welfare was a part of the colony system. Workers had no worries about health or schools; these were provided by the colony system. But, then . . . when workers had to look for another job, they had to make an effort to procure many things for themselves . . . Although they were somewhat prepared by experience to be introduced to industrial tasks, some of them became the owners of small firms, entrepreneurs. So, they knew industrial discipline—some of them from the workers' side—and they had to introduce a new perspective of the firm from the owner's side,*" (Expert B-10). Workers' industrial know-how was transmitted to other firms in the sector or even to other industrial sectors. To the question: "*Why did you start in this sector?*" some of the answers were: "*My family had been working in the textile sector in Berguedà. When we decided to start a new business in the seventies (1970s), we located the factory in an old colony building and began spinning and weaving production,*" (Entrepreneur B-11); "*Because the owners had worked in the mines before, so they hired mining workers who already knew the business,*" (Entrepreneur B-14). Industrial tradition is embodied in hiring new workers and part of the social interaction in the area. "*How do you hire workers? Are they from the area?*" "*In the beginning we hired the ones we knew. They were from the area and had been working in the mines, so they know the task (. . .). Later on, we hired other people who come from other neighbouring mining areas,*" (Entrepreneur B-14). These are cumulative causation factors stemming from the bases of spatial loyalty dimensions as externalities that have been attached to the region and that contribute to their development and competitiveness. The key element is capacity for change in the labour-force mentality within the transition process, not only to different sectors, but also to its changing role from worker to company owner; and the importance of the labour force's tacit knowledge of industrial discipline, which becomes a valuable commodity in being hired, and which contributes to increasing a company's attachment to the region.

Local managers and workers are important for local cognition transfer, where they are the active elements in the network and develop a sense of roots as part of the evolving social and cultural cognition of the region. They are part of the local tradition through the family and ancestral roots which attach them to the area (Fig. 5). This can be seen in some of the answers to the question: "*When did the firm start?*" "*I am the fourth*

<sup>7</sup> Identity is defined as a set of characteristics by which an individual and a thing is definitively recognizable or known.

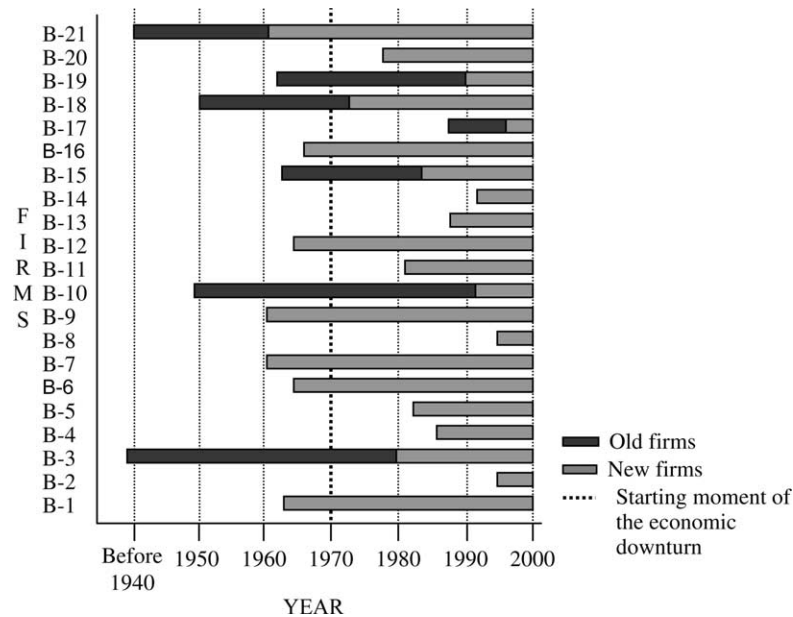


Fig. 5. Year of foundation and antecedents of modern firm.

generation. *I have three generations still working here (in the factory). So it was my great-grandfather who started this firm...* (Entrepreneur B-07). *"This firm belongs to my husband and the other firm (...) belongs to his family, and was founded by his grandfather,"* (Entrepreneur B-10). *"My father started this firm. When he began it was a family firm, eventually it became a corporation. This change occurred when the three sons became the owners (...) which happened about 17 years ago,"* (Entrepreneur B-15). *"I can tell you the exact date, because my mother is here now. I have my grandfather's diploma. It was in 1934 when he started to produce bread, before the Spanish Civil War. My grandfather's family had a small restaurant in this town. They were nine brothers and he decided to produce bread,"* (Entrepreneur B-07); and from the mother of Entrepreneur B-07, the answer was: *"It was in 1928 when my father founded a grocery store; at the same time he began to produce bread. Later on, he sold the grocery store and decided to produce only bread."* The historical background of a family business brings about unintentional social behaviour that is fundamental for spatial loyalty in Berguedà, since it increases the power of market relations as the only way for entrepreneurs to interact, introducing social relations and social cognition into the firm.

Thus, spatial knowledge intervenes in economic exchanges among firms in this local base, reducing indeterminacy in strategic interaction throughout the area. The direct personal knowledge of local agents facilitates all type of transactions among themselves. The indeterminacy factor, which can sometimes halt or postpone fluid negotiations between firms and financial institutions, is reduced by the fact of tacitly knowing family

economic and financial history, which allows the financial institution to give more credit for the start-up or continuation of a firm. Thus, indeterminacy between actors is reduced throughout the spatial identity, enhancing market mechanisms. Spatial knowledge acts as a control mechanism for economic network behaviour and this is based on the industrial credibility of the firm and the social cognition concerning the entrepreneur's behaviour over time. This can be read in two directions. One is that social control based on spatial knowledge and spatial loyalty of a firm facilitates financial and economic transactions. Alternatively, it could be an entry barrier, when an entrepreneur or workers have a bad reputation in the area. It does not, therefore, help in situations of long-standing bad behaviour, as these are common knowledge to the agents in the area.

Berguedà, as a prototype, shows elements of spatial loyalty. Most of the entrepreneurs were born in the region, live in it, and have been in Berguedà for all their professional lives. On the question: *"Why did you locate in this county?"* we can see some of their answers, most of them linking family roots and the favourable professional climate for their business: *"I am a native... from this very neighbourhood. I live close to the firm,"* (Entrepreneur B-17). They are rooted in the region and do not want to move anywhere else. This sense of territorial identity that the entrepreneurs feel, which we call spatial loyalty, has elements of cognitive and cultural embeddedness embodied in it, reflected in the social behaviour of entrepreneurs who participate in cultural events or finance cultural contests, as in these entrepreneurs' answers: *"He takes part*

in the *Patum* (the major local festival) playing the drum,” (Entrepreneur B-16), or: “Among other events, this firm finances literary and drawing contests for Berguedà’s schools. His firm sponsors a photography show and a football team,” (Entrepreneur B-12). These factors contribute to the formation of that human capital which is attached to the region and which is transmitted to local businesses. The concept of spatial loyalty is more general than the embeddedness concept. Although they have elements in common, loyalty to a given territory is based on social interaction and cultural knowledge embedded in the area, but includes the determination of the agents to remain loyal to one space. Agents’ decisions are based on and take into account what other agents will do, and all of them as a group create a context for spatial interaction which benefits the area. On the other hand, spatial loyalty as a system has shortfalls and is open to criticism. We can perceive some indeterminacy in the social interaction context of Berguedà’s agents, such as conflicts created by local practices or discontent with institutional policies. Spatial loyalty’s conflicts are part of agents’ perceptions, where for them territory is no longer a physical object, it has an accumulation of individual and social histories that have different meanings and interest among agents. But then, the area where they live and work becomes an indivisible territory (Duffi Toft, 2003), it is an irreducible component of a given group identity in which they have control over the area. At the same time, the area is a matter of survival for them as a group, so they defend it. Entrepreneurs, as part of the social structure, are the key agents for accumulating and transmitting common values and tacit knowledge linked with the industrial tradition of the area to their firms’ market transactions. Most of the entrepreneurs interviewed (90.47%) maintain that their sense of spatial loyalty is linked to their perception of a good business climate in the area. The following answer was given to the question: “*Would you and your firm move to another region if you received economic incentives to do it?*” “*No. We have everything we need here (...). The local labour force is the key element for production. They give all their strength with a will to work and move ahead. I was born in this town and after the (Spanish) Civil War, given my political and cultural involvement with social movements in the area, I was prosecuted during Franco’s period. And people in this town kept me hidden for some time. They are very friendly and competent,*” (Entrepreneur B-18). We can see elements of historical roots in this answer. To the question: “*If someone makes an offer to buy your enterprise, would you accept it? Would you start a new firm in another location and different sector?*”, some answers were: “*(Looking puzzled...) We are Berguedians and we don’t want to move,*” (Entrepreneur B-05), “*We have our whole lives here. This office...has been*

*here since our grandparents started it in 1919. My mother-in-law lives in this same building, on the first floor,*” (Entrepreneur B-10).

Entrepreneurs and their territory empower a dialectic process of embedding economic activity in the local production system. This forms the basis of establishing inclusionary tendencies that bind enterprises to local economies, creating long-term growth. Downsides of spatial loyalty showed their effects through this transition period from the eighties through to the nineties, during the last part of the economic crisis in the area to the take-over by the new type of business, when the population trend in the area was downward, with people migrating to the metropolitan areas looking for jobs. This constituted a loss for Berguedà which lasted until the recovery, when development started to increase again. In fact, this was reflected in the opinions given by the region’s agents. They were concerned about the difficulty of finding a good and capable labour force for their enterprises and blamed local institutions, which, they said, were unable to provide good support for finding labour when required. But this fact also turned the entrepreneurs towards a more open attitude towards welcoming an incoming labour force from outside the area. In fact, they openly said that they wanted a flow of workers from other regions, but that it was difficult to get them as there were intermediate opportunities in places like Barcelona.

## 6. Conclusions

In this paper, we wanted to explain why a semi-remote area like Berguedà has had a process of steady development after an economic recession that made the economic structures of the area change from a classical textile and mining cluster to a district with diversified economic activities. Many market mechanisms played their role in the area’s recovery. From an analysis of the firms, local capital has played a crucial role in the renewal of the production network based on medium-sized and small family firms, the relatively good central location, lower cost of land, and institutional incentives to reduce the cost of settling businesses in the area. The analysis also reflects that there are many shortcomings in the market mechanisms. The most important was the lack of a trained and skilled labour force to meet firms’ demand and the poorly developed communication infrastructures. Cluster analysis shows that many of the supposed untraded interdependencies created by the presence of clusters, like co-operation and collaboration among related firms inside the area are absent from the region, given that Berguedà is a multi-sectorial cluster and firms do not have market trade mechanisms between themselves. However, from a micro-economic analysis of the firms, we discovered co-operation and

collaboration mechanisms within the value-added network of companies located inside and outside the region; relational and structural embedded elements within the members of the network of production, which help to maintain the level of global competitiveness of the firms in the region. But still the question remains unanswered: what are the mechanisms that have meant Berguedà as a territory has been capable of recovering and maintaining steady growth and character-oriented production and distribution? In Berguedà, the mechanisms procuring local growth rely on the combined actions of relational embedded elements of firms inside the supply network, but, most of all, on the relational embeddedness process that establishes the entrepreneur in the territory where they live. This *territorial relational embeddedness* is dynamic and cumulative in the entrepreneur. It facilitates contacts, improves bargaining capacity and attracts and maintains favourable conditions for the firm. Dimensions of territorial relational embeddedness are spatial loyalty and the identification of the entrepreneur with the area, which increases or decreases the cumulative effects of the territorial relational embeddedness, depending on the level of spatial attachment and the dynamics of the process. Territorial relational embeddedness is costly to produce and to maintain. It does not depend on tangible assets. It is part of cultural upbringing and human capital accumulation in an area and it depends on individuals but also on institutions. It is more easily formed in small local areas than in metropolitan areas because it is based on personal knowledge, which is easier to produce in small settings. Territorial relational embeddedness becomes structural as time goes on, but as with all accumulation mechanisms, is weak and can be broken by an outside or inside shock or process. It is difficult to recover or to reproduce.

There are a number of interesting issues that remain unexplored. Regarding empirical work, there are several theoretical predictions that have not yet been tested. These include the lack of evidence as to how the different characteristics inside the region affect the formation of new firms and inter-firm network relationships. A study of the region's characteristics would establish taxonomy of areas that would therefore be appropriate for comparison. These are questions to be researched in a related empirical study and whose results may be able to take the theory a step further.

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