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Networks in Rural Economy: Valorising Endogenous and Exogenous Drivers of Innovation

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1. Introduction

Historically, perspectives on the economic development of rural regions have been dominated by the modernization model of agriculture (van der Ploeg and Van Dijk, 1995). During the last decades this model has increasingly been abandoned in an effort to reduce the negative outcomes associated with that model, driven by the changing concerns of consumers and society in response to these outcomes (van der Ploeg, 1999, Weatherell et al., 2003). Parallel to this socio-economic evolution the theoretical perspectives on rural development altered. Discourses about the evolution of rural development describe the succession of an exogenous, modernist model of rural development by an endogenous model and in the end leading to an integrated model of rural development, combining the best of both worlds (Lowe et al., 1999, Ray, 1999, Murdoch, 2000, Siôn, 2002, Nemes, 2005, Vázquez-Barquero, 2006). Thereby it is argued that contemporary rural development should stress “the interplay between local and external forces in the control of development processes” (Lowe et al., 1995). This integrated perspective is also reflected in policy models, aiming at the creation of the conditions under which family farming, rural landscapes and society as a whole can flourish. This was formulated at the EU-level in the Cork Declaration on Rural Development in 1996 and since then became a pillar of the EU’s Common Agricultural Policy (CAP) (Potter and Tilzey, 2005). This will persist during the coming Rural Development programming period 2007-2013 (EC, 2005).

However, while the position of scientists and policy makers is clear, it can be disputed that rural entrepreneurs succeed in putting these insights into practice. First, it is uncertain to which extent diversification strategies actually provide an alternative income for rural entrepreneurs (see estimations for the Netherlands in van der Ploeg, 1999 and for West-Flanders in , Van Huylenbroeck et al., 2005). Second, despite of continuous and partly successful efforts by the EU, disparities between and within the regions persist (Guisán and Cancelo, 1998, Rodriguez Martinez, 1999, Leonardi, 2006). Third, the acceptance of rural development strategies by entrepreneurs will depend upon the particular conditions that exist in given rural areas (Murdoch, 2000). Furthermore, it must be kept in mind that the perspectives of the actors involved in the implementation of rural development strategies differ in terms of orientations and aspirations (Leeuwis, 2000). These problems are highly relevant as the success of the integrated perspective on rural development will depend upon the successful adoption by rural businesses (Gladwin et al., 1989).

Therefore this paper explores the importance of - and relationship between endogenous and exogenous drivers of innovation in the perception of rural entrepreneurs and initiators. This is translated in three research objectives:

- It will be investigated which capital assets and structures and processes are perceived important by entrepreneurs in rural regions.
- These assets, structures and processes are classified as endogenous- and exogenous-driven and the perceived relation between endogenous and exogenous drivers is analysed.

- Research hypotheses are formulated which can explain the role of endogenous and exogenous drivers of economic development in rural EU regions and which should be verified by future research, eventually supporting rural policy development.

This paper is structured as follows. In section 2 a theoretical understanding of the role of endogenous and exogenous drivers of rural economy is developed and translated in a conceptual framework. In section 3 the focus-group methodology is described and the data-collection is reported. In section 4 the drivers for rural business development are described and classified. Next, the drivers are discussed in section 5 and finally translated in the hypotheses for analysing the role of endogenous and exogenous drivers of rural economic development, in section 5. In the conclusion, the implications for rural development and researchers are resumed.

2. Conceptual Framework

This paper situates endogenous and exogenous drivers on the different components of the Sustainable Livelihoods Framework (SLF) being physical, natural, financial, social and human capital assets, structures and processes (Chambers and Conway, 1992). Relying on endogenous and exogenous drivers the rural entrepreneurs achieve outcomes, whereby the focus is on innovation, performance and sustainability. The elements described above are depicted in the conceptual framework (figure 1). In the following paragraphs, the elements are explained in detail.

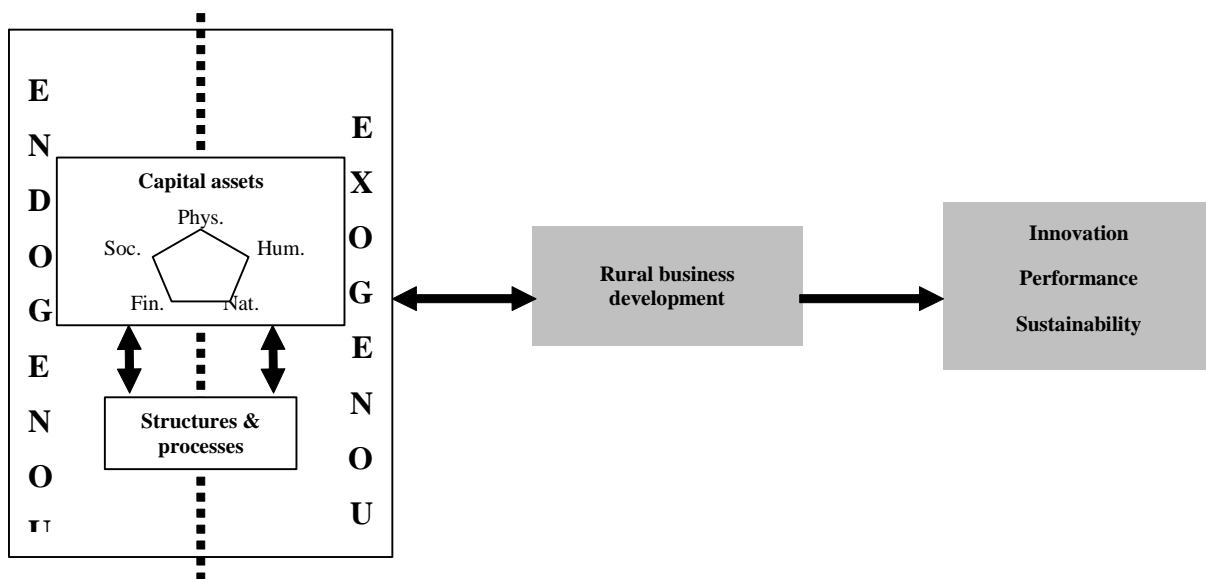


Figure 1. Conceptual Framework Source: adapted from DFID, 1999

2.1 Three models of rural development

As described in the introduction, recent literature on rural development stresses the importance of both endogenous- and exogenous drivers of rural development. This distinction originates from two distinct models of rural development. The exogenous model is considered to be the 'modernist' model of rural development (Siôn, 2002) and is based on the view that rural development is dependent on the urban economy and that the main problem of rural areas is the long distance to urban areas. The government fulfils a dominant role by giving incentives to industrial sectors to locate in rural regions (Terluin and Post, 2000). Consequently, accessibility- and transport improvements are the main solution for lagging rural economies (Siôn, 2002). In

this sense, economical development is to be initiated by urban regions through investment policy and improving road accessibility and encouraging economies of scale (Lowe et al., 1999, Terluin and Post, 2000, Roberts, 2002). Until the 1970s this was the dominant model in rural development but in the 1980s it is abandoned because of the resulting dependency of rural economy. First, an over-reliance on government support is created through the use of incentives to stimulate the location of exogenous sectors in rural regions (Terluin and Post, 2000). Standard measures are applied, regardless of location or culture (Nemes, 2005). This leads to the fierce criticism that exogenous development promotes dependency on subsidies and external policy decisions (Lowe et al., 1999). Second, exogenous development tends to lead to dependency on large-scale firms operating in single sectors and implies the marginalisation of small-scale, local firms operating in diverse markets (Terluin and Post, 2000). Further, the dependency on external, large-scale firms often leads to the export of the benefits of development outside the region (van der Ploeg, 1999). Finally, the dominant role of government and external firms results in development which does not always respect local values (Murdoch, 2000) or can even erase cultural differences, described as destructive development (Lowe et al., 1999).

Endogenous development is contrasted with exogenous development. In this approach local forces are encouraged to take responsibility for the design and execution of development strategies (van der Ploeg and Van Dijk, 1995, Ray, 1999, Murdoch, 2000). Endogenous development can be understood by three principles (Nemes, 2005; Roberts, 2002). First, a territorial rather than a sectoral focus is used. Measures are adapted to the specific context and linkages between sectors and activities are acknowledged. Second, the valorisation of local resources to grasp global challenges is the key to the success of local development (Vázquez-Barquero, 2006). Third, enhancing the needs, capacities and perspectives of local actors is an important focus. Participatory approaches are crucial to put these last two principles into practice (Murdoch, 2000). Participation in rural development is both an instrument (for capacity building) and a goal in itself, by raising the involvement of the population (Lowe et al., 1999).

However, the endogenous model has also been criticised for a number of drawbacks.

- First, the model assumes the existence a local growth potential in each region which can be developed, but it does not define the core of that local growth potential (Terluin and Post, 2000). For this reason, the model rather offers a desirable way of development than a clearly defined theoretical model.
- Second, based on the fact that communities are far from homogenous, Shucksmith (2000) states that endogenous development initiatives tend to favour actors who already enjoy a greater capacity to act. Alternatively, in absence of active local players the initiatives are undermined by local apathy. Indeed, this model does not guarantee that the actors participating in initiatives represent all groups and needs in rural society (Lowe et al., 1999, Roberts, 2002, Nemes, 2005, Stöber, 2005).

In response to the drawbacks of both models it is argued that the endogenous/exogenous distinction presents a false dichotomy (Lowe et al., 1999). Subsequently, an alternative model emerged where the interplay between local and external forces is the key issue in development processes, putting emphasis on developing economic and political institutions at the local level in order to cope with the external world (Amin and Thrift, 1995, Roberts, 2002, Nemes, 2005). These models understand rural development as a “multi-level, multi-actor and multi-faceted process” (van der Ploeg et al., 2000). At the very heart of this paradigm shifts lies a disquiet with the opposition between endogenous and exogenous options in former development strategies. “In circumstances where almost any development is hard to achieve, [...] we would expect that combinations of both will, or should, be the norm” (Murdoch, 2000).

2.2 Economic development and innovation in rural areas

Economic development in rural areas is driven by a number of emerging activities which reconfigure the way in which rural resources are used (van der Ploeg et al., 2000). These activities are historically linked with agro-food production but have become multidimensional in the sense that they are also related with other rural or non-rural activities and fulfil different functions at the level of the household, the community and the region (Knickel and Renting, 2000). As such, the emerging rural activities comprise a variety of activities which can not be analysed in isolation but are strongly linked with other rural activities and endogenous and exogenous drivers. This is illustrated in figure 2, which classifies rural activities on a continuum between endogenous and exogenous-driven. On the endogenous side of the arrow, the activities are classified which rely basically on natural resources: forest development, traditional agriculture and environmental protection. In the middle of the arrow there are activities with strong linkages to agricultural and natural resources, on the one hand, but seek for a stronger connection to exogenous drivers (such as the external consumers or investments). On the right-hand side of the figure, the exogenous side, activities without a strong functional link are located which benefit from a rural location: certain industrial sectors and services and recreation activities located in a rural environment without exploring rural qualities (e.g. attraction parks, sports infrastructure).

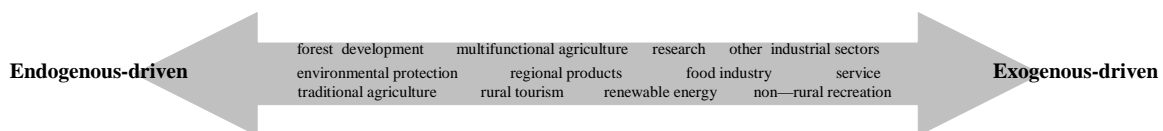


Figure 2. rural activities in the endogenous-exogenous continuum

In this paper the focus is on activities beyond agricultural food production. Observing the figure above this entails also industrial food processing and a range of activities in the realm of rural diversification, on the one hand, and generic economic activities taking benefit from their rural location, on the other hand. First, diversification is understood as the joint production of a diversity of rural commodities (e.g. food, wood, wind energy) and non-commodities (attractive landscape, knowledge, biodiversity) in rural communities. Thereby the positive contribution of diversification is that it makes rural economy more resilient to trade shocks and that it creates more value (Van Huylenbroeck and Durand, 2003, Rizov, 2005). Diversification can take place within or beyond the farmer's household. For example, contractors for environmental technology and rural hospitality sector are also included. In this paper five categories of diversification are distinguished: agro-food processing, forestry, rural tourism, renewable energy production and environmental protection (Briedenhann and Wickens, 2004, Goodman, 2004, Lockie, 2006, Skuras et al., 2006). Second, there is the range of generic economic activities in industrial and service sectors which have developed in rural areas (Lowe et al., 1999). These activities are generic in the sense that their location factors can be found both in rural and in urban areas. Partly, the presence of these generic activities is due to the fact that the survival of a community requires a certain level of basic production and supportive services, the so called local market businesses (Rizov, 2005). However, theory about rural industrial districts also describes some cases of industrial expansion in rural regions experiencing higher rates of firm formation and employment growth than large urban centres (Lowe et al., 1999). These developments can be a result of both the decentralisation of external firms and of endogenous growth (Murdoch, 2000). In this paper five generic economic activities are distinguished: industrial sectors with a special in-

terest in the food industry because of their linkages with agriculture, public and private service sector and finally non-rural recreation, which refers to attraction parks, sports facilities and other activities without strong functional links to natural or agricultural assets.

2.3 Rural environment for business development

For this research, the sustainable livelihoods framework (SLF) is applied. This framework is well suited to investigate the relation between business development and their rural environment (Chambers and Conway, 1992, DFID, 1999, Korf and Oughton, 2006). This model has been widely applied for rural development research, also in the European Union (Slee, 2003, Buchenrieder, 2005, Buchenrieder and Dufhues, 2006). The SLF is also used as a tool for development (Chambers, 1994, Brocklesby and Fisher, 2003, Korf and Oughton, 2006). The SLF studies rural activities from the point of view of a particular social group, *in casu* the rural entrepreneur. For this research, this implies that diversification and generic economic activities are studied in terms of strategies that are applied by the subject to meet its goals, relying on endogenous and exogenous drivers and -structures/processes.

As is illustrated in figure 1, the conceptual framework integrates four elements from the SLF: outcomes, capital assets, structures and processes. First, business development succeeds if certain outcomes are achieved which, in turn, have an effect on the activity, the capital assets, structures and processes. In this research the focus is on three outcomes in particular. The first outcome is innovation, understood as an ongoing process of learning, searching and exploring, resulting in new products, new techniques, new forms of organisation and new markets (Lundvall, 1995, De Noronha Vaz et al., 2004, Gellynck et al., 2007). The second outcome is performance, being intimately linked with innovation (Han et al., 1998, Aragon-Sanchez and Sanchez-Marin, 2005). In this respect, Kaplan & Norton (1992) distinguish innovation and learning as one of the four measures of performance, together with the financial-, customer- and internal business perspective. The third outcome is sustainability, defined as the ability of the subject to maintain or enhance its capabilities and assets both now and in the future, without undermining the natural resource base (DFID, 1999, Reheul et al., 2001).

Second, the entrepreneur makes use of capital assets to develop his activities. Five capital assets are distinguished: human capital refers to assets such as skills, knowledge and demographic characteristics. Natural capital comprises both tangible and intangible natural resources. Physical capital represents basic infrastructure and producer goods (e.g. roads, energy distribution). Social capital denotes the social relationships between entrepreneurs and society. Financial capital refers to financial resources such as own funds, loans, investments and public incentives. Third, transforming structures and processes shape the context for rural business development. The structures in the framework are understood as the *hardware*: the public and private organisations – at various levels - that set policy and legislation, deliver services, trade and perform other functions that affect rural business development. Processes can be considered the *software*. They determine the way in which structures and individuals operate and interact (e.g. policies and legislations, markets and cultural processes). Structures and processes are strongly intertwined as structures make processes work and vice versa. Structures and processes operate on all levels in society and determine the access to capital assets and decision-making bodies and define the terms of exchange (DFID, 1999).

One component from the sustainable livelihoods framework which is relevant to our research topic, but which is not included in our research framework, are the ‘strategies’. This component denotes the range and combination of activities and choices that people make to achieve their goals. It is not included in the framework as the diversity of activities and rural environments included in the sample inhibit a meaningful analysis of ‘overall’ strategy, which is specific by

nature. Further, it is argued that strategies make use of capital assets, structures and processes. By analysing the latter the context for strategy-making is described.

3. Methodology

The entrepreneurial perception is investigated using qualitative data collected in 9 rural regions in the EU. The data collection took place between May and July 2006 within the framework of Rural Innova¹ (Gellynck et al., 2006, Vermeire et al., 2006). Key figures about the regions under research (see table 1) reveal considerable differences between the regions in terms of scale and economic impact.

Table 1. Description of the sample

Region	Country	Surface area (km ² , 2003)	N° of inhabitants (Mill., 2004)	GDP(Mill. € 2004)	GDP/inhabitant (€ 2004)
East-Flanders	Belgium	2900	1,4	34104	24360
Limousin	France	16900	0,7	15703	22433
Corse	France	8700	0,3	5686	18953
North Great Plain	Hungary	17700	1,5	8233	5489
Kaunas*	Lithuania	8000	0,7	-	-
Vale do Sousa*	Portugal	800	0,3	-	-
Andalucía	Spain	87600	7,5	115347	15380
Wales	UK	20800	2,9	66555	22950
Devon	UK	6700	1,1	25122	22838

Source: Eurostat / Rural Innova*

Primary data are collected through the focus group method. This qualitative research method enables to gain information on the complex relation between the subsector and the rural environment (Carson et al., 2001). Consequently, the information serves the goal of describing new elements that can be further explored and quantified in future research (De Pelsmacker and Van Kenhove, 2005). Through the explicit use of group interactions the researcher learns how rural entrepreneurs talk and construct their own understanding about their environment (Carson et al., 2001). However, it must be kept in mind that the respondent's perception has a subjective character and that the sample is non-representative.

In total 18 focus groups interviews (two per region) are organised. The list of questions was discussed with rural development specialists from the regions in the sample. The validity of the questions is tested by 4 semi-structured interviews in East-Flanders. The sample in each region typically consists of five participants: three entrepreneurs performing activities as described in section 2, one expert in rural development (policy maker or administrator) and the regional partner. Inviting the rural development expert creates different perspectives in the group, which enhances discussion. This forces the respondents to question their self-image and improves the chances for useful insights to be formulated. The convenience sampling method is used (Malhotra, 2004), whereby the selection of respondents is made by the following criteria: the activity has functional links with the rural region, it is innovative within the context of the region and it is representative for actual regional dynamics or -characteristics. The respondents are selected in collaboration with regional rural development experts², who also assisted in the focus group interview. The interviews are conducted by researchers from Ghent University. In all regions, a sufficient number of respondents is invited, however, there are differences in the size and quality of the focus group sample, as is depicted in the table below.

1. Funded by the European Commission (Interreg IIIC)

2. Conseil Regional Limousin, ODAR Corse, Eszak-Alfold, Kaunas County, ADER-Sousa, Junta de Andalucía, Welsh development agency, Devon County

Table 2. Description of the sample

	East-Flanders	Limousin	Corse	North Great Plain	Kaunas	Vale do Sousa	Andalucia	Wales	Devon	Total
Entrepreneurs	8	6	8	8	4	9	20	8	5	76
Experts	3	1	1	3	4	2	4	5	2	25
Total	11	7	9	11	8	11	24	13	7	101

A satisfactory large sample is composed encompassing a total of 101 respondents. However, the degree of participation differs between the regions. In Andalucía, a remarkably high number of participants accepted the invitation. In some regions entrepreneurs were reluctant to cooperate in a research on rural development, which they perceived not relevant for their everyday practice. In fact, this reluctance may suggest a low commitment with the rural environment.

The focus groups are tape-recorded and translated to English by the research team. The translation bias is minimised by structuring the interview by the codes that are provided by the sustainable livelihoods framework. The respondents are asked to make statements about the capital assets, structures and processes referring to the rural environment. The importance of these codes is evaluated by the respondents and further information is given to offer a profound understanding of the assets, structures and processes. The analysis of endogenous and exogenous drivers depends upon open coding, whereby the assets, structures and processes are labelled endogenous or exogenous after the interview. This was required as the testing of the questions revealed difficulties to understand the concepts 'endogenous' and 'exogenous' by some of the respondents.

The focus groups consist of three stages. First is a descriptive and explorative research stage, whereby the innovative character and economic performance of the sectors is estimated. Second, the two or three most important sectors are further discussed, by applying the sustainable livelihoods framework: in which way they make use of livelihood assets and how these assets are related to structures and processes. Third, the respondents are asked to discuss the possible rural development strategies for enhancing innovation in the important subsectors.

4. Analysis and discussion

The focus groups reveal that rural entrepreneurs perceive both endogenous and exogenous drivers important, but differences are observed between the drivers. The drivers related with capital assets are presented in Table 3. perceived important endogenous and exogenous capital assets, and the structures and processes in Table 4. Perceived important endogenous and exogenous structures and -processes. It should be noted that the importance of drivers is identified, not involving an evaluation of their strength or weakness in a given region. Actually, the evaluation varies between activities and regions. Further, some of the drivers are evaluated problematic by nearly all focus groups. However it is not possible to conclude about the quality of the drivers due to the limited number of focus groups per region. Interpreting the findings, it must be kept in mind that the perception of drivers reflects the self-image of the entrepreneurs, based on sets of norms and beliefs. As such, the findings do not primarily result from the statements themselves but from the conflicting views and patterns throughout the focus groups.

Table 3. perceived important endogenous and exogenous capital assets

Capital assets	Endogenous drivers <i>Important drivers</i>	Exogenous drivers <i>Important drivers</i>
Human capital	Knowledge base: ² Agricultural knowledge ² Marketing & management knowledge Availability of labour: depopulation ² Highly skilled labour & technical skills Entrepreneurship: family character ² Absorptive capacity, learning, cooperation ² Engagement, dynamism	Knowledge: ² Scientific & technical knowledge ² High-tech competences Rural newcomers
Physical capital	Accessibility on micro- & meso-level Small scale mobility Proximity of tourist attractions Industrial lands Distribution of water & energy	Accessibility on macro-level Public transport Proximity of urban economic complexes Internet
Natural capital	Natural stocks for production: agriculture, forestry Environmental quality Attractiveness of landscape and nature Processing water Wind and water power	Climate change
Social capital	Strong social cohesion: ² informal links ² competition ² closed networks Family based firms: ² internal focus ² tacit knowledge ² flexibility ² attraction Environmental awareness (ecology, fire risk) Acceptance by population (not-in-my-backyard)	
Financial capital	Bank loans Public finances Clear business plan	Subsidies for agriculture & rural development Support to starters, services, SME's Venture capital Financial marketing support Granting procedures & administration External, large-scale investors

Human capital

With respect to the importance of human capital assets four issues are highlighted. First, distinct *stocks of knowledge* are associated with endogenous or exogenous drivers respectively. The endogenous stocks of knowledge are perceived important for activities related with agriculture, agro-food processing, food industry and rural tourism, but also with general service- and manufacturing sectors. Thereby respondents perceive agricultural knowledge being important for business development in other sectors as well. Further, the presence of general marketing & management knowledge is perceived critical and was mentioned as a factor explaining success or failure in agro-food processing, tourism and SME's in service- and manufacturing sectors. Stocks of exogenous knowledge concern technological knowledge with a high degree of specialisation, especially in the fields of renewable energy and environmental technology, but also for innovating conventional production methods in food processing. Second, *particular characteristics of rural entrepreneurship* are described. It is characterised by a strong sense for initiative and personal engagement. A practical orientation, high flexibility, small-scale approach and use of practical knowledge are associated with this concept of entrepreneurship. However there are also a number of negative associations, such as strong individualism, lack of openness towards new trends and technologies and a poor marketing & management knowledge. Third, the *availability of labour* is considered important. Depopulation causes a deficit of human resources

in rural economy. This is perceived most critical with respect to technical skills and highly skilled labour. The settlement of rural newcomers may alter this dynamic, however this is not the case in most regions. Fourth, *upgrading the human capital* has an ambiguous effect as education is perceived a driver of depopulation whereby many young students prefer to stay in university cities or move to areas with better career opportunities.

Physical capital

With respect to physical capital the entrepreneurs in the various focus groups stressed the importance of fast transport connections on the macro-level (by road, public transport and air) and of modern infrastructure with rural character on the micro-level. This evokes the image of rural mobility being strongly multifunctional and reflecting different visions on the economic development of rural areas. As such, following characteristics of rural mobility are expressed: small-scale mobility and landscape quality of infrastructure are required for development of tourism, recreation and regional branding. For successful industry and services development, alternatively, modern infrastructure and industrial lands are required. New emerging technologies, finally, have specific requirements towards spatial development (eg. occupation of mountainous areas for wind-energy parks or locations for manure-processing plants).

Natural capital

The most important natural capital assets are related with vegetal and animal production, landscape quality and the presence of wind- & water-power for renewable energy production. The only driver which can be labelled exogenous is climate change. This phenomenon was perceived having a direct impact in the Mediterranean regions Vale do Sousa, Andalucía and Corse where drought and forest fires pose a direct threat to rural economy.

Social capital

Social capital assets are perceived of great relevance for each of the focus groups. Moreover it is primarily associated with endogenous drivers. Throughout the focus groups, an image of rural social cohesion is drawn with following: informal ties with a face-to-face character and strong solidarity are important for business development. In general it is perceived that these ties lead to an intensive exchange of information and reliance on informal commercial networks. Furthermore it is associated with strong competition. This calls up an image of social rural cohesion being strongly related with the family character of many companies. On the one hand, the family character is perceived to be an important driver of entrepreneurship and associated with dynamism, engagement and flexibility. Furthermore, it is perceived that the family-character strengthens the typical image of rural life, which may be valorised in agro-food production and tourism. On the other hand, perceived drawbacks associated with family business development are a tendency to rely on internal knowledge primarily and an aversion for renewal and change. The family character is important beyond the farm. It is also perceived important for food industry and private services sector. It is argued that the social ties with agricultural sector and its associations support the growth of the food industry. In private service sector commercial activities take place along the lines of personal informal social networks. In public sector the density of social networks is negatively evaluated as it hampers transparency and leads to favouritism. The perceived importance of rural social cohesion may have two explanations: on the one hand local entrepreneurs who are embedded in endogenous networks may set up a successful business. On the other hand external entrepreneurs may take maximum benefit from local social dynamics. To confirm a positive relation between endogenous rural networks and performance and innovation the latter has to be at least partially true. During the focus groups no examples of exogenous ties were mentioned, except for the importance of social structures

(see Table 4. Perceived important endogenous and exogenous structures and -processes and beyond).

Financial capital

The last asset concerns the importance of financial capital. Within the rural economy, bank loans are the main financial asset. Thereby it can be questioned whether the decision to issue a loan is made independently by the local bank office and consequently whether it can be considered an endogenous driver. Respondents perceive that the banking sector is willing to issue loans if the entrepreneur can present a sound business plan, which is often not the case. Exogenous financial capital is considered of vital importance both for traditional and innovative activities. Thereby public support and private investors are distinguished. Public support is primarily associated with farm-based activities such as agro-food production, rural tourism and small-scale energy production. In the case of larger investments and technology intensive activities such as renewable energy production and environmental technologies, the amount of capital required can only be provided by large exogenous investors.

Table 4. Perceived important endogenous and exogenous structures and -processes

	Endogenous drivers <i>Important drivers</i>	Exogenous drivers <i>Important drivers</i>
Structures	Local government: ² Authority ² Effectiveness Public associations Regional formal networks	Sector federations, chambers of commerce EU programmes
Processes	Local market Regional branding initiatives	External & global market ² Market development ² Retail pressure ² Consumer interest in locally produced food Seasonality of tourist market Legislation ² Quality assurance ² Food safety ² Legal framework new products: energy, tourism ² Land use planning ² Agriculture Communication of support to rural areas

Structures

Endogenous structures are related with local government and a range of rural public associations and networks. Throughout the focus groups, a negative perception of local government is noted, focussing on two elements. First, the depopulation and economic recession in some regions leads to decreasing tax revenues and poor financial assets for policy-making. Second, a low effectiveness of local policy is perceived and explained by bureaucracy, favouritism and physical characteristics (isolated communities and long distances). Contrasting, EU programmes are perceived as having a strong impact on renewal in rural regions. The description of public associations and formal networks is complementary to the descriptions of social capital assets. However, while informal ties are strongly endogenous-driven, formal networks are perceived to establish contacts with exogenous drivers. This was indicated to be of great importance for rural tourism, where these networks are required to attract tourists to the region. The networks and associations referred to are sector federations, chambers of commerce and agricultural associations. In Vale do Sousa respondents faced a time of recession. An interesting statement was that during recession formal networks fail as entrepreneurs fall back on a more individualistic orientation.

Processes

Three processes have been identified as important drivers of rural economic development. First of all, consumer preferences are perceived as an important driver, referring to the tourist/consumer visiting the region and buying its products. As such, this is essentially an exogenous consumer, while currently it is indicated that consumers originate from the vicinity of the company. However, addressing new consumers is perceived critical for further growth. Second, related with exogenous consumers, economic globalisation is perceived as having a profound influence. Essentially, globalisation is perceived as a threat for traditional, lagging industries and an opportunity for new emerging activities. The first case holds true for the furniture- and textile industry in Vale do Sousa, construction sector in Kaunas and for the porcelain production in Limoges. Respondents explain how these sectors are threatened by more cost-efficient production in other countries. This is partly due to a lack of product quality and innovation within the industry. New emerging activities with good prospects on the international market are innovations in the food industry and specific examples such as laser technology (Limousin) and biotechnology (East-Flanders).

Third, the legal framework is perceived to be a powerful driver of rural activities and innovation. New legislations such as the food law and agricultural legislations create new opportunities (e.g. for funding and marketing) but are also perceived as limiting factors. Further, the adaptability of the legal framework to new emerging activities is crucial for innovation in rural areas, e.g. respondents indicate difficulties to obtain licences for agro-tourism or permits for renewable energy production. Further, land use planning is perceived to be an important instrument for enhancing the economic performance of rural regions on the one hand and for preventing particular risks (forest fires, depopulation) on the other. In this respect, different focus group discussions reveal conflicts between agriculture and ecology, increased fire risks, deterioration of the landscape attractiveness for tourists, the location quality for renewable energy production and environmental infrastructures.

The analysis reveals that rural economic actors perceive both endogenous and exogenous drivers as important. Furthermore, particular assets, structures and processes are characterised as strongly endogenous-driven while others are exogenous-driven. This is in line with the perspectives in literature which stress the interplay between local and external forces in development processes (Lowe et al., 1999, Murdoch, 2000, van der Ploeg and Renting, 2000). However, perceiving the importance of endogenous and exogenous drivers is not sufficient for successful business development. The critical factor is the capability to anticipate on these drivers to develop successful products. These capabilities are situated in the human capital in the rural region and influenced by the social capital, which structures the exchange of knowledge and information. In the focus groups, the importance of human and social capital is stressed, and a number of critical issues are raised.

Along the focus groups rural human and social capital are described in a similar, dual way. On the one hand, rural economy is positively stimulated by a distinctive type of entrepreneurship which is associated with strong expertise in agro-food production and tacit knowledge, strong engagement and flexibility. This entrepreneurship relies on the family character and 'rural' social cohesion consisting of informal links as efficient media for knowledge-exchange and commerce. On the other hand, this entrepreneurship was also associated with major perceived weaknesses: the strong reliance on internal knowledge and exchange through closed networks and, corresponding, the weak appeal for external, specialised knowledge. As such, these particular characteristics of social and human capital are perceived to hamper the integration of exogenous drivers in rural business. Furthermore, some of the important exogenous drivers which

were perceived insufficient by the respondents (e.g. the lack of venture capital, the lack and complexity of public incentives) may partially be explained by the lacking external orientation to take benefit of them.

5. Formulating hypotheses and conclusions

The analysis provides vital insights about the role of- and relation between endogenous and exogenous drivers. As no earlier research results are available about the attitude of entrepreneurs towards endogenous and exogenous drivers, this paper aims at developing a number of hypotheses leading to a better understanding of the ways in which rural entrepreneurs can reconcile endogenous and exogenous drivers. These hypotheses should be tested and quantified in further research.

Hypothesis 1. Companies with both well performing endogenous and exogenous networks are more innovative than firms only performing well on one of both types. The analysis offers a description of rural business development being strongly driven by endogenous relations embedded in strong social cohesion and family businesses. Alternatively it is argued that innovation relies on exogenous knowledge, for which endogenous relations are less performing. The first hypothesis investigates to which extent it actually holds true that endogenous and exogenous relations are positively correlated when developed complementary. Answering this hypothesis involves measuring the correlation between endogenous and exogenous networks (respectively) and innovation capacity of the company and analysing the occurrence of different combinations of endogenous and exogenous networks in relation with the innovation capacity.

Hypothesis 2. External knowledge is acquired more effectively through endogenous networks than exogenous networks, depending of the type of knowledge. Focus group results indicate that endogenous and exogenous relations are both useful resources for the company, but they have a distinct use as they serve the acquisition of different types of knowledge. This hypothesis investigates the specialisation of endogenous and exogenous network relations. While endogenous relations serve commercial arrangements, tacit knowledge and agro-food knowledge, exogenous relations are indicated to be suited for acquiring specialised technological knowledge and market intelligence. This findings should be further analysed with a more systematic and quantitative approach. Thereby a typology of different types of knowledge is established and it should analysed to which extent endogenous and exogenous networks are more effective for exchanging each of the types.

Hypothesis 3. Firms combining endogenous networking with external market orientation are more innovative. The respondents in the focus groups perceived the capability of companies to combine local assets with an orientation on external consumer and –market being a critical factor for success. Obviously, exogenous networks are best suited to obtain information about external consumers and –markets. However, the question rises how an external market orientation is related to endogenous networks. Thereby it should be analysed whether endogenous networks are complementary – or even add value to external market orientation.

Hypothesis 4. The absence of specific exogenous-driven assets is related to the failure of emerging activities in rural areas. The participants in the focus groups perceived that some potential businesses are not developing successfully as rural entrepreneurs do not have access to particular exogenous-driven assets. In this respect, a number of items were suggested throughout the analysis: large-scale investors are required for rural entrepreneurs to initiate renewable energy production on large scale, manufacturing and high-tech services require scientific and technological knowledge which is often not found inside the region, long-distance transport of goods and people (consumers) is a precondition for entering markets. A more profound insight is required in how the lack of exogenous drivers affects the failure of particular activities. Thereby it should also be analysed to which extent this failure is explained by the presence of these exo-

genous drivers or by behaviours and attitudes on behalf of the rural business. In particular, new emerging activities in the field of renewable energy and environmental products and services are promising fields of research to tackle this hypothesis

On top of these hypotheses to be investigated further, the analysis already resulted in a number of clear implications for rural development and for research. First of all, in our sample of managers and experts in 9 rural EU regions it is indicated that low importance attached to exogenous drivers is not the explanation for the lacking competitiveness and innovative capacity of rural business. On the contrary, even in the isolated regions in the sample, such as Corse and North Great Plain, these drivers are clearly perceived important. What is suggested to be lacking, however, are the social bridging relations for exchange of information and resources which enable to connect rural entrepreneurs with these exogenous drivers, in particular with external specialised knowledge, capital providers and public support mechanisms. Second, rural social cohesion is evaluated ambivalently: rural development should aim at valorising its potential in exchanging tacit knowledge, while making it more susceptible for external, specialised knowledge. Third, except for social connections between endo- and exogenous also the physical connections are crucial. Thereby the aim should be to combine fast accessibility of the region with reinforcement of typical 'rural' mobility which constitutes the attractiveness of the countryside for tourists and regional branding.

6. References

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